



# The Antarctic Society

VOLUME 12-13

MAY

NO. 3

## PRESIDENT

Charles Lagerbom  
16 Peacedale Dr.  
Northport, ME 04849  
[icechip@bluestreakme.com](mailto:icechip@bluestreakme.com)

## VICE PRESIDENT

Dr. Anthony J. Gow  
117 Poverty Lane  
Lebanon, NH 03766  
[petprotector@comcast.net](mailto:petprotector@comcast.net)

## TREASURER

Paul C. Dalrymple  
Box 325  
Port Clyde, ME 04855  
Phone: (207) 372-6523  
[pcdal@roadrunner.com](mailto:pcdal@roadrunner.com)

## SECRETARY

John F. Spletstoesser  
433 Fifth St. Apt. 316  
Waconia, MN 55387  
[splets@embarqmail.com](mailto:splets@embarqmail.com)

## WEBMASTER

Thomas Henderson  
520 Normanskill Place  
Slingerlands, NY 12159  
[webmaster@antarctican.org](mailto:webmaster@antarctican.org)

## BOARD OF DIRECTORS

Dr. George A. Doumani  
Robert B. Flint, Jr.  
Dr. Arthur B. Ford  
Guy G. Guthridge  
Diana Logan  
Jerry Marty  
Tony K. Meunier  
Dr. Polly A. Penhale  
Dr. Charles Swithinbank

*"BY AND FOR ALL ANTARCTICANS"*

## Honorary President: Dr. Charles Swithinbank

P.O. Box 325, Port Clyde ME 04855

[WWW.ANTARCTICAN.ORG](http://WWW.ANTARCTICAN.ORG)

## CONTENTS

WEBSITE UPDATE .....	cover	ROSS SEA BIGGEST SANCTUARY .....	7
MEMBERSHIP .....	cover	HIGHEST ICE MELT .....	7
BRASH ICE .....	2	EXCESS ICE NOT SO GREAT.....	8
NSF RESPONSE .....	3	POLAR MEDICAL LIFT .....	8
NEW POLAR CENTER .....	5	BOOK REVIEW: ANTARCTICA .....	8
DIANA WALL RECOGNIZED .....	6	AUSTIN HOGAN .....	9

**WEBSITE UPDATE** (Tom Henderson) The biggest news pertaining to the website is that Society members can now pay dues and purchase Society items directly on the website using PayPal. PayPal is one of the leading online payment handling companies. The Society pays PayPal a small fee per transaction, but we feel it is worthwhile to offer this as a convenience to our members.

Dues may now be paid on either the About Us page or on the Membership Renewal page under the Membership tab. The new Society Store page under Members offers the Newsletter Archive CD and the Antarctica Calling 3-DVD set for purchase by credit or debit card. More items will be added to the Society Store in the future.

Look for two new films under Pack Ice within the next couple of months. Both were sponsored by NSF in the 1970's and 1980's to highlight scientific activity in Antarctica during that period. You might recognize a few science veterans such as George Denton and Art Devries in the early stages of their careers. These are professionally made films, and are well worth a look

As always, I welcome any comments or suggestions pertaining to the website.

**MEMBERSHIP.** We now have a total of 332 members, 116 of whom now get their Newsletters via electronic means. Recruiting members is one tough job, most of whom come by word of mouth from you members. So if you enjoy the Newsletters and being a member of our Society, please spread the word among your Antarctic friends. In the last eight months, we have only picked up nine new members.

The Ruth Siple Book Fund has remained a popular charity, and we have picked up over \$300 in the past four months. We have sold four of the Amundsen-Scott Medallions, three have bought Dr. Ed's ANTARCTICA CALLING, and two have bought Tom's CDs of Newsletters. Those of you who renew for multiple years sure help us who do the bookkeeping. Roughly 50% have paid through next year. Right now we have fifty-five delinquent members who have not paid for the current year. If you are one of them – a notice will be included with this issue- please pay up. We DO NOT have a staff, this being primarily a one person operation.

Our treasury is quite healthy, so we don't beg for money, just ask you folks to pay your annual membership fees. And when we sell anything, such as the calendars, there is hardly any mark up at all. But recently we got stuck for several hundred dollars by one of our older members who refused to pay for thirty calendars which he had ordered from us. So all is not always roses.

**BRASH ICE.** On 20 March, George Lowe, world famous mountaineer, who led Ed Hillary and Tensing Norgay to the final footsteps of Mt. Everest, succumbed as the last surviving member of that most iconic expedition. Travel writer Jan Morris described George as “a gentleman in the old sense –very kind, very forceful, thoughtful, and also a true adventurer, an unusual combination.” But I want to hark back to January 19<sup>th</sup>, 1958, when George dropped in at the South Pole with Bunny Fuchs and his Commonwealth Trans-Antarctic Expedition. It was my most exciting day ever in Antarctica, so allow me to repeat some of the images which I was privileged to witness and live when the Crossing Party was at our station. My memories of today of what happened fifty-five years ago are as clear as if they had happened yesterday.

Early on the morning of the 19<sup>th</sup>, Ed Hillary and I climbed up the ladder into the aurora dome to see if we could see Fuchs’ party coming into camp. Note that Sir Edmund had been long enough in camp to be recognized as just plain Ed. And it was Ed’s first ascent of the day, a few feet above 9,000’! Soon we saw images on the horizon, images which kept disappearing, only to reappear. Hitherto I thought the surface at the South Pole was perfectly flat, but it turned out there was a series of valleys and hills!

The camp turned out en masse to go outside of the station to meet Fuchs’ party. There was a galaxy of press there awaiting their arrival, and there was the American admiral on the ice who most of us could not tolerate. So they came, one by one, and among the leaders was George Lowe in Wrack and Ruin, a weasel with Donald Duck on its radiator capsule. And who is driving with a big grin on his face but George, wearing a large white Panama-style hat which he had bought in Madera. Wrack and Ruin was George’s code name, as each member of the expedition had a code name in case the press pirated any outgoing messages. Besides George’s weasel, there were four Tucker snow cats and two dog teams. Ken Blaiklock, who had logged more miles behind

dogs than any Antarctic in history, surrendered his team to one of our meteorologists, Art Jorjensen, who then drove his team on into camp. Everyone was trying to get a picture of Fuchs and Hillary together, as after all, this was the first EVER meeting of the two Crossing Party leaders at the South Pole. Somewhere up above, the Boss had to be eating his heart out. Once in camp, it was finally time for Fuchs’ party to have a home cooked meal. Our Navy chef had prepared a large special arrival cake honoring the Trans-Antarctic Expedition, but, alas, the final product showed Antarctica spelled incorrectly!

I was most anxious to talk to all members of Fuchs’ party, as once upon a time I was married to a British subject. As I had a tape recorder, I more or less interviewed all members of the expeditions, in a format of “Letters to Gina.” [Note: these interviews are on our website]. Although never a mountaineer, I had once worked at the Mt. Washington, N.H. Meteorological Observatory, and I had seen back in the States at the Exeter Theatre in Boston (a block from the 2013 disastrous Marathon bombing) the great documentary THE CONQUEST OF EVEREST shot by George Lowe. When Hillary and Lowe got back to London from the Everest Expedition, they went to J. Arthur Rank to see what they would pay them for their film footage. The answer was a thousand pounds, which, they naturally rejected, deciding to produce their own film, which as nearly all of you know won out that year as the Best Documentary Film. And it had real stiff competition from The Crowning of the Queen and a Walt Disney film, The Living Desert. George told me that they used about one in seven feet shot on the expedition, although about 99% on that shot on Everest. George told me that he had never used a camera before, and said that all he did was set the camera on his ice axe and shoot!

Their last evening in camp, we played some auction bridge. George was my partner, and our opponents were Ralph Lenton and Ken Blaiklock. Ralph had already wintered over

eight times, the most of any person at the time, and Ken held the record at the time for most miles driving dog teams, 5000 miles. Lowe and I were thoroughly trounced in three rubbers in what I still think were major upsets. It was not the last I saw of these folks, as later on I was best man when Ralph Lenton got married to a Canadian lady in NYC. Then when Ralph died a fortnight ago, I got a call from his widow Helen asking if I could find out if Ralph could be buried at the South Pole. I told her that Peter Wilkniss was a friend of mine, that I would see what could be done. Well Peter said "Sure." And it turned out that Anthony Lenton, one of their sons, working for the Antarctic contractor, took his father's ashes back to the South Pole. Did I ever see Lowe gain? As a matter of fact, I did, when George and Mary were going to Berwick, Nova Scotia, to visit Helen Lenton several years ago, they stopped here at my home in Port Clyde to visit with me. And as for Blaiklock, he is still alive and evidently doing very well. Until very recent years, Ken has been continuing to go back to the ice with the British Antarctic Survey.

Gone are the days. GOD BLESS 'EM

**NSF RESPONDS TO THE 2012 REVIEW OF FUTURE WORK IN ANTARCTICA** (Guy G. Guthridge ) The Society's November, 2013 newsletter summarizes a report titled *More and Better Science in Antarctica Through Increased Logistical Effectiveness* that a blue ribbon panel headed by Norm Augustine issued last July. In March, 2013 the National Science Foundation put out a response to the report's recommendations. See <http://www.nsf.gov/dir/index.jsp?org=OPP> for both the response and the original report. Here's a rundown of the NSF response.

1. Stations. NSF agrees that the three year-round U.S. Antarctic stations – McMurdo, South Pole, and Palmer – should continue and that no alternative exists to McMurdo as an operational hub for much of the U.S. Antarctic Program.

2. Polar ocean fleet. NSF is working with other agencies to figure out the government-wide need for icebreaking. The Coast Guard has asked Congress for first funding of a new polar class of icebreakers, and it is repairing the icebreaker *Polar Star* (built in the 1970s) to cut the annual McMurdo channel this coming season and for the next 7 to 10 years. A 2012 science-needs assessment has led to a lease-buy analysis now being done regarding a research icebreaker. A "roadmap" for international sharing of resupply in the Antarctic Peninsula area is to come later this year.
3. Logistics and transportation. NSF will add robotic technology to the McMurdo-Pole resupply traverses, and it hopes to up the number from two to four per season by fiscal 2016, saving \$2-million a year. The improvement also should benefit traverse-based research. With DoD, NSF is studying the panel's recommendation to reduce the operational LC-130 fleet from 10 to 6 and to compact a snow runway at South Pole so wheeled airplanes can land there. A complication is that higher surface air temperatures at McMurdo's Pegasus wheeled runway have limited operations in December and January in the last three seasons; wheeled flights between New Zealand and Pole would require Pegasus as a waypoint.
4. McMurdo and Palmer facilities. Facilities at both stations are aging, and the panel states that upgrades would reduce costs and increase effectiveness. NSF is finishing a master plan for McMurdo that addresses most of the recommended large investments. Fire suppression at all stations will be studied in fiscal 2014. A Palmer systems study was released in 2010; NSF has improved boating facilities there and will replace the pier when it gets the money.

5. USAP capital budget. The panel says NSF should set up a capital plan and budget to handle the cost of big repairs and replacements. NSF agrees and now has a long-range investment plan to give a view of outlays and inflows over a rolling 5-year period.
  6. Science support costs. The panel wants NSF to strengthen review (before authorizing specific Antarctic research) of all the costs of supporting research instruments, observing systems, and projects. NSF agrees. With the Antarctic support contractor and an expert, it is developing a model to better predict cost impacts. It will expand pre-deployment testing of new technologies. It has rewritten proposal instructions to require best practices in project management and simplicity and reliability of instruments. And a new employee, the Antarctic Research and Logistics Integration Program Manager, will make sure plans are in place before an award is approved. Starting in fiscal 2014, NSF will spend \$4-million a year on science instruments that reduce the human footprint in the Antarctic.
  7. Communications. In another way to get better science with reduced footprint, the panel wants NSF to modernize communications in Antarctica and the Southern Ocean. NSF now can provide high bandwidth to all field sites, although not continuously. Filtering and compression are used for the data-intensive projects. NSF finds that, for the foreseeable future, cost-effective solutions will use satellites retired from other uses.
  8. Energy efficiency. The panel points out that energy efficiencies and renewable energy technologies will reduce costs. NSF notes significant strides. It used 30 percent less fuel at South Pole during the 2012-2013 season. On Ross Island, NSF and Antarctica New Zealand hope modernized infrastructure will reduce demand enough that the existing 1-megawatt wind turbine system will be enough to power most of McMurdo and Scott Base. This year the Antarctic support contractor expects to finish a study of using U.S. Antarctic Program wastes to heat station buildings.
  9. International cooperation. The panel wants more international cooperation in both logistics and science. NSF already engages extensively with other national programs, and it is looking to expand arrangements in the Ross Sea and Antarctic Peninsula areas. It also will continue to work with international partners for data sharing to facilitate more efficient science.
  10. Antarctic policy. The panel recommends that existing documents and mechanisms governing Antarctic policy be reviewed and revised as appropriate. NSF notes that current directives – Presidential Memorandum 6646 and Presidential Decision Directive NSF-26 – provide the appropriate level of authority and guidance, and it says the Department of State at present sees no need to revise them.
- An NSF “Tiger Team” – senior leaders of the agency – developed these responses, and the National Science Board endorsed them. Of course, some of the panel’s suggestions will take money, and NSF will have to make its case to the White House and the Congress. Nevertheless, the NSF Director wrote that the panel’s report “could not have been more timely” and that it makes very clear the need for near- and long-term improvements.

**The Committee on “Future Science Opportunities in Antarctica and the Southern Ocean” members included:**  
 Warren M. Zapol, (Chair), Harvard Medical School and Massachusetts General Hospital, Boston, Massachusetts

Robin E. Bell, Lamont Doherty Earth Observatory, Palisades, New York  
David H. Bromwich, Ohio State University, Columbus, Ohio  
Thomas F. Budinger, University of California, Berkeley, California  
John E. Carlstrom, University of Chicago, Chicago, Illinois  
Rita R. Colwell, University of Maryland, College Park, Maryland  
Sarah B. Das, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts  
Hugh W. Ducklow, Marine Biological Laboratory, Woods Hole, Massachusetts  
Peter Huybers, Harvard University, Cambridge, Massachusetts  
John Leslie King, University of Michigan, Ann Arbor, Michigan  
Ramon E. Lopez, University of Texas, Arlington, Texas  
Olav Orheim, Research Council of Norway, Oslo, Norway  
Stanley B. Prusiner, University of California, San Francisco, California  
Marilyn Raphael, University of California, Los Angeles, California  
Peter Schlosser, Columbia University, Palisades, New York  
Lynne D. Talley, Scripps Institution of Oceanography, La Jolla, California  
Diana H. Wall, Colorado State University, Fort Collins, Colorado

**PENN STATE CELEBRATES ITS NEW POLAR CENTER.** One is always looking for a lead subject to jump start Brash Ice, and I think we have a most viable subject in the Penn State University and the Penn State Institutes of Energy and the Environment announcing the establishment of the Polar Center at Penn State. The Polar Center will foster creative, groundbreaking, and synergistic collaboration by catalyzing exchange among members with a unique breadth of expertise at Penn State representing the life, physical, and social sciences.

The Director of the Polar Center is Eric Post, Professor of Biology, whose expertise lies in the ecology of climate change in the arctic.

Well known to most of us is the Evan Pugh Professor of Geosciences, Richard Alley, whose accomplishments in glaciology, paleoclimatology, climate change, and glacial geology have made him an Antarctic scientist of international renown. Of particular interest to me is geographer Andrew Carleton, who is well versed in Antarctic meteorology and climatology, polar lows, sea ice, and southern ocean atmosphere circulation. The Polar Center has a professional staff of twenty-nine, with twelve men and women graduate students. Good bye Paterno!

The Polar Center was launched on the 6th of April, 2013 with a series of public lectures, beginning with a talk by Ian Sterling of the University of Alberta on polar bear and climate change. He was followed by poet and arctic traveler Elizabeth Bradfield. Then there was a demonstration of a submersible remotely operated vehicle used in sub-ice research and exploration by pilot Buzz Scott of Oceanswide.

Penn State is not exactly a newcomer to the Antarctic scene, as they have a rather long and distinguished record on the ice. The first was probably Bruce Lieske, meteorologist at Weather Central, Little America V, 1957. It was my pleasure to have wintered over with Bruce that year, although my presence may in part have led him to change professions, as he later became a man of the cloth. But one Penn State meteorologist, J. Murray Mitchell Jr. went on to become a most famous polar climatologist. I have known many, many wonderful persons in my life, but never have I known a nicer, kinder, more wonderful guy than Murray. He was a member of the Polar Research Board of the National Academy of Sciences from 1978-1982 and was a member of the Committee on Polar Region Climate Change from 1979 to 1984. He very well might have been the first Nittany Lion to ever set foot on the South Pole, as NSF sent him there as an early-on VIP.

**COLORADO STATE UNIVERSITY  
ANTARCTIC RESEARCHER AWARDED  
PRESTIGIOUS TYLER PRIZE FOR THE  
ENVIRONMENT.**

Diana Wall, a Colorado State University Distinguished Professor and pioneer in scientific understanding of the role of soil biodiversity in climate change, has been honored with The Tyler Prize for Environmental Achievement on the 40th anniversary of the award. The Tyler Prize is the premier international award for environmental science, environmental health and energy conferring great benefit upon mankind. Previous winners of the prize have included Jane Goodall, Thomas Lovejoy and Edward O. Wilson. Wall was nominated by Daniel Bush, a professor in the Department of Biology and vice provost for Faculty Affairs at CSU. As the winner of the Tyler Prize, Wall will receive a \$200,000 cash prize and a gold medal. The prize honors exceptional foresight and dedication in the environmental sciences – qualities that mirror the prescience of the prize’s founders, John and Alice Tyler, who established it while the environmental discussion was still in its infancy.

Wall, who is an influential figure among environmental scientific policymakers, actually studies some of the globe’s tiniest animals called nematodes, microscopic worms vital to soil nutrition and biodiversity. She has spent 24 seasons in Antarctica where the worms can be studied unhindered by plants and animal life. In 2005, Wall Valley in Antarctica was named for her achievements. Last summer, she and her colleagues wrote a Policy Forum article for Science outlining their concerns that Antarctica is experiencing dynamic human disturbances that have serious implications for the future health of this important ecosystem.

Wall served as a member of a working group of the President’s Council of Advisors on Science and Technology because her studies impact policies responding to threats to the nation’s ecosystems. She was one of only 12 people – and only four scientists – serving on the U.S. Antarctic Blue Ribbon Panel, which

was led by Norm Augustine, retired chairman and chief executive officer of Lockheed Martin Corp. In February 2012, Wall and other members of the team visited the Antarctic’s Palmer Station to help the panel evaluate the future of U.S. research in Antarctica. “I was face-to-face with climate change,” Wall said at the time. “We went to one island where there had been 15,000 pairs of Adelie penguins 30 years ago, and there are only 3,000 pairs now. It’s not only the adult penguins declining, but there are not as many chicks surviving.” “She was an invaluable contributor to the panel’s work because of her strong knowledge of the relevant science, hands-on experience, and real-world understanding of the art of the possible in policy circles...truly a rare and highly valuable combination,” Augustine said. “Our effort would have been much less effective without her input.”

“Diana’s research into the importance of soils and their nutrients is critical to our understanding of climate change, but equally as important is that students are learning from one of the top scientists in the world,” said Jan Neger, dean of the College of Natural Sciences. “She is highly deserving of this very prestigious honor.”

She is one of only 15 University Distinguished Professors at Colorado State, a designation reserved for faculty members who have changed the world around them with their accomplishments.

**About the Tyler Prize**

The Tyler Prize is awarded by the international Tyler Prize Executive Committee with the administrative support of the University of Southern California. It is one of the first international premier awards for environmental science, environmental health and energy. It was established by the late John and Alice Tyler in 1973 and has been awarded to 66 individuals and four organizations associated with world-class environmental accomplishments. Recipients encompass the spectrum of environmental concerns including environmental policy, health, air and water pollution, ecosystem disruption and loss of

biodiversity, and energy resources. For more information about the Tyler Prize, go to <http://www.usc.edu/dept/LAS/tylerprize/>.

### **ROSS SEA SET TO BECOME WORLD'S BIGGEST SANCTUARY** (Michael Field)

The United States and New Zealand have announced they are planning to create the world's largest marine protected area. The 4.9-million-square-kilometer Ross Sea MPA in Antarctica would be nine times the size of New Zealand. The plan has been announced in Washington by US Secretary of State John Kerry and the New Zealand ambassador to Washington, Mike Moore.

Kerry urged global safeguards. "When it comes to the Ross Sea and Antarctica, we're not going to wait for a crisis to take action" he said. Preserving the world's oceans "is not just an environmental issue, it's a security issue." The US, European Union and 23 other countries including New Zealand will decide in July whether to approve permanent protections for the Ross Sea and for a second area in East Antarctica, or to let large-scale industrial fishing continue. New Zealand is one of the main exploiters of the Ross Sea, taking about \$18 million a year in toothfish. Under the proposal, the toothfish fishery would continue in areas outside the MPA.

### **ICE MELT AT HIGHEST IN 1000 YEARS**

(Christchurch Press, 15 April 2013 forwarded by Margaret Lanyon)The melting of ice on the Antarctic Peninsula during the summer months is now at its highest level for 1000 years, according to research. Scientists have for the first time been able to demonstrate that increasing temperatures since the 1960s have caused 10 times more ice to melt than in medieval times. The finding is one of the most significant indications of the impact of climate change. The Antarctic Peninsula is a 1288-kilometre promontory that extends well north of the Antarctic Circle, from the continental land mass towards the tip of South America. Since the 1860s it has seen the most extreme global warming on Earth, with temperatures rising by about 2.5 degrees Celsius (five times

the global average) and the break-up of several large ice shelves that fringe the peninsula. While temperatures have been rising there since the 1400s, the new findings reveal that the levels of ice melt in that region have been "particularly sensitive" to warmer climates since the 1960s, with summer temperatures now reaching the critical 0C mark at times.

"What that means is that the Antarctic Peninsula has warmed to a level where even small increases in temperature can now lead to a big increase in summer ice melt," said Nerilie Abram, who led the joint research by the Australian National University and the British Antarctic Survey. Abram warned that the increased ice melts will further destabilize ice shelves and glaciers in the area and impact on rising sea levels. Seven ice shelves, floating masses of ice attached to the Antarctic coast, have broken away from the peninsula during the past 50 years because of higher temperatures. "Climate change in the Antarctic Peninsula is worrying because it seems to be happening quite quickly," Abram said. "How much melt is happening will affect how quickly sea levels will rise and that's why it's important for us to understand how much melt is happening, how unusual it is and how in the past the melt has changed when temperatures have changed."

In 2007, the United Nations intergovernmental panel on climate change (IPCC) projected that the global average sea level would rise by 28-43 centimeters by the end of the century. It later acknowledged that this might have been an underestimate. The latest research builds on an experiment conducted by British and French scientists in 2008 when they drilled a 364m-long ice core from James Ross Island near the northern tip of the peninsula. Visible layers in the ice core indicate periods when the summer snow melted and then refroze. By measuring the thickness of these layers and studying the atmospheric gases entombed in the ice, researchers were able to reconstruct the changes in temperature and the amount of ice melt going back 1000 years.

Last September, satellites saw more floating ice surrounding the continent than at any time in history. Two things appear to be causing this. First, warmer temperatures mean more snow falling on the sea (as warm air carries more moisture) and this in turn creates a stable layer of brackish water that freezes more easily. Second, the increased melting of land-based ice pours yet more cold fresh water into the upper layers of the ocean, making it more likely to freeze. Climate scientists say a key to understanding the future lies in getting an accurate record of what has happened in the past.

**EXCESS OF ICE MAY NOT BE SO NICE** (Paul Gorman) The ozone hole over the Antarctic could be to blame for changes in the breeding patterns of Ross Sea Adele penguins. United States ecologist David Ainley and Landcare Research, Lincoln ecologist Phil Lyver have been on the ice this summer studying the Ross Sea's smallest and most abundant penguins. Ainley, of HT Harvey and Associates in San Francisco, is the driving force behind efforts to make the Ross Sea a marine-protected area. In Christchurch yesterday, on his way home from the Antarctic, he said Adelie penguins were breeding later in their lives than in the past. Comprehensive surveying of the birds at three Ross Sea sites - Cape Royds, Cape Bird and Cape Crozier - over 16 summers had shown some of their vital dates were changing.

The first study of Adelie penguin demographics was in early 1959. "The average age of first breeding has increased from around 4 to 5 years old to 6 to 7 years. It's very interesting. My hypothesis is that it has to do with increasing amounts of sea ice in the Ross Sea region, which has been under way for the last 20 years or so because of the ozone hole."

More ice meant the penguins ended up drifting further away from their traditional breeding grounds, Ainley said. "During the winter, the birds are finding themselves further and further north, so in spring they have to get back south. "There's more ice, and ice is not

smooth, and penguins are hesitant to cross cracks or jump from one ice floe to the next, because of fear of leopard seals. So they can end up being delayed long enough that they miss out on that breeding season."

Despite that, the later first breeding did not seem to be having an impact on penguin numbers. "The Antarctic toothfish industry is removing a major competitor of the penguins - both feed mostly on the Antarctic silverfish - so it's getting easier to successfully raise chicks to a larger size. Ten years ago it had been incorrectly assumed that the Adelie penguin population would decline as the ice grew, Ainley said.

**WINDOW OF DAYLIGHT AIDS POLAR MEDICAL LIFT** (Deidre Mussen) A mercy mission to Antarctica has successfully evacuated an ill American to Christchurch despite flights stopping six weeks earlier for winter. The person became sick at the United States' McMurdo Station on Ross Island, a few kilometers from New Zealand's Scott Base. Last Saturday, a US Air Force C-17 Globemaster jet flew from a military base in Washington to Christchurch International Airport and headed south the next day to airlift the patient, returning to Christchurch last Monday night. It had a military medical team on board.

A spokesman for the National Science Foundation (NSF), which manages the US Antarctic Program, declined to comment on whether the patient was treated in Christchurch or returned to the United States. According to the US Antarctic Program's website, 143 staff were spending this winter at McMurdo Station. Normally, flights closed in early March. However, the spokesman said a brief window of daylight at McMurdo Station made the flight possible.

**BOOK REVIEW: ANTARCTICA**, Global Science from a Frozen Continent, edited by David W. H. Walton, published by the Cambridge University Press, 2013, ISBN 978-1-107-00392-7 (Hardback). From Amazon,



\$55.00. This book, authored by fourteen internationally renowned Antarctic scientists, is a must for all people who call themselves Antarcticans. It combines the best of science with chapters on the human aspects of living in Antarctica. Never has a book been published on Antarctica with such a complete coverage of colored photography.

The fourteen authors are the editor David Walton of the British Antarctic Survey who represented the international scientific Antarctic community at Antarctic Treaty Meetings for 14 years and was awarded the first SCAR medal for International Scientific Coordination ; Angelika Brandt of the University of Hamburg, a driving force in the International Census of Marine Life; John Cassano, University of Colorado, who uses autonomous observing system and computer models of the atmosphere to study the weather and climate of the polar regions; Peter Convey of the British Antarctic Survey, a terrestrial ecologist for the past 24 years; Eberhard Fahrback a physicist and physical oceanographer at Kiel University; Lou Lanzerotti, Distinguished Research Professor of Physics, New Jersey Institute of Technology, who has had extensive research experience in Antarctica and with spacecraft instruments, all concerned with studies of the Earth's space environment; Valere Masson-Delmotte, head of a research group at Laboratoire des Sciences du Climat et L'Environnement in France, analyzing ice cores, and has published over 120 papers and books on climate change; Stephen Nicol of the Australian Antarctic Division, a krill expert who became a Program Leader for Southern Ocean Ecosystem Studies; Olav Orheim, glaciologist who was Head of Antarctic Research at the Norwegian Polar Institute and is now Chair of the Board of several Norwegian institutions; Alan Rodger, an electronic engineer with the British Antarctic Survey who leads the interdisciplinary research program at BAS and provides advice to the government on climate change in the polar regions; Lou Sanson, Chief Executive of Antarctica New Zealand, who has been in

environmental management, with oversight of the New Zealand Subantarctic World Heritage Area; Brian Story, formerly of the British Antarctic Survey who is now at the University of Canterbury, developed research programmes on the geological evolution of Gondwana; Colin Summerhayes, Emeritus Associate at the Scott Polar Research Institute at Cambridge University who has lived in the UK, New Zealand, the USA, South Africa and worked in academia, government, and industry; Allan Weatherwax, Professor of Physics and Dean of the School of Science at Siena college in Loudonville, New York, directed ground based experiments in Antarctica, Canada, and Greenland that explores the Earth's upper atmosphere .

Don't let the above litany of the score card of the authors intimidate you, as actually when you get into reading the book it all comes out as not only reasonable but interesting. If I were to have only one book in my house on Antarctica, it would be this up-to-date compendium about the history, geology, biology, climate, human physiology, oceanography, and the space science. As Alan Cooper of Stanford wrote, "This is an excellent review of key multidisciplinary collaborative research and geopolitics in Antarctica involving more than 30 countries addressing global issues." Enough said. If wealthy, BUY.

**AUSTIN HOGAN CHECKS OUT.** Austin Hogan. A PhD Antarctic via Hokkaido University, worked extensively in Antarctica at the South Pole. He had a varied professional career although was best known as an engineer and geophysicist at the Cold Regions Research and Engineering Lab at Hanover, N.H. Once an editor of Atmospheric Research, he was a Fellow of the American Meteorological Society. Tony Gow remembers him as a person with a very keen sense of judgment in things scientific and that in retirement came back to CRREL at least once a week to learn of new research results of projects in which they were engaged.