

The Antarctican Society

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MOVES: NSF INTO ALEXANDRIA, VA.; CHINA INTO ANTARCTICA

Most of my career was with the National Science Foundation, which funds 12,000 science projects a year; a hundred or so are performed in Antarctica. When I started in 1970, the Federal agency was two blocks from the White House. In 1992 NSF moved across the Potomac River to new quarters in Arlington, Virginia. I retired some years back; the agency moved again this year, to Alexandria, Virginia, where I happen to live.

On walks, I admit to a stir when passing the new building. The NSF assignment is "to promote the progress of science; to advance the National health, prosperity, and welfare." What noble goals. NSF values its Antarctic responsibility, and the organization's "At a Glance" description on its website uses a photograph of Antarctic ice coring as the one image illustrating field work it supports.

Antarctica fits the NSF mission. "Freedom of scientific investigation in Antarctica and cooperation toward that end . . . shall continue," states the Antarctic Treaty, which the United States did so much to help bring into being. In 1959, when the treaty got going, we Americans were one of just twelve Antarctic nations. Now, quadruple that are involved, and their capabilities have ramped up. NSF-funded Antarctic science remains preeminent, but the research has become truly collaborative internationally, and results the other treaty nations are achieving are hugely significant.

China in particular is showing large ambitions in Antarctica. It's worth our considering what the future may hold. This issue (see page 2) gives more than passing attention to a new book, *China as a Polar Great Power*, a serious attempt by a highly qualified scholar to examine the possibilities.

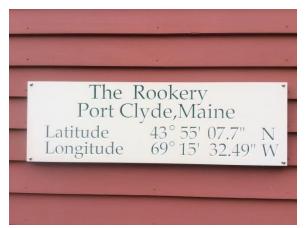


The new National Science Foundation building in Alexandria, Virginia

20-22 July 2018: Antarctic Gathering in Port Clyde, Maine

We said this in the April and July issues. Here's a reminder:

Another Antarctic Gathering will take place at Paul Dalrymple's house in Port Clyde, Maine, Friday-Sunday, 20-22 July 2018.



The 2018 Antarctic Gathering will be here!

The format will follow that of the 2016 event, which attracted 114 Society members and guests: Friday evening meal of fish chowder; Saturday Garage Theater presentations; Sunday gala lobster brunch.

Society members, family, and friends are encouraged to come. Here's what to do: (1) Tell Treasurer Paul Dalrymple or newsletter editor Guy Guthridge you're thinking of coming; see our emails on the front page. (2) You're welcome to tent in Paul's yard.

If you want to stay in a nearby hotel or cottage, reserve soon.

While you are at the Gathering, donations to cover the cost of food, etc., will be enthusiastically accepted.

China as a Polar Great Power

by Guy Guthridge

Is China playing fair as it expands its presence in Antarctica? Taking the global perspective, the 23 September 2017 *Economist* notes China's monumental industrialization and sees concern that the world will be dominated by an entity that can be illegal, intense, or unfair or all three. The cover story argues that China is in process of joining the world commercial, military, and scientific ecosystems and is becoming one of their custodians. A second China cover story three weeks later says Xi Jinping "now has more clout than Donald Trump."

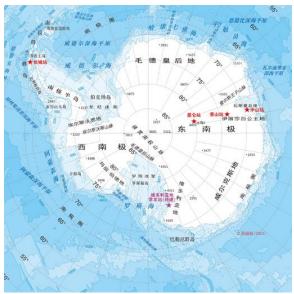
Anne-Marie Brady, a specialist in Chinese and polar politics based at the University of Canterbury in Christchurch, New Zealand, addresses Arctic and Antarctic aspects of the China phenomenon in a new book, *China as a Polar Great Power* (280 pp, Cambridge University Press, 2017). "In the past ten years," she writes, "as part of its overall expanding global foreign policy, China has become a leading polar player with wide-ranging and complex interests in both the Arctic and the Antarctic."

My first encounter with Professor Brady did not go well. Her 2013 lecture at Georgetown University was weak on identifying sources and suggested, I thought, China hopes to run roughshod over the Antarctic Treaty. (China acceded in 1983, achieved consultative status in 1985, and has performed basic research in the region since.) In an email, I objected to her assertion that the Treaty excludes most nations, noting that its 53 parties represent two-thirds of the world's population and four-fifths of its

economy and that nations applying for entry and performing research are admitted.

Times change. A lecture she gave on 18 September 2017 at the Woodrow Wilson International Center for Scholars in Washington, D.C., "Facing the new geopolitics: China as a polar great power," erased my initial negative impression and then some.

Professor Brady is fluent in Mandarin. In addition to her polar focus, she writes about China's propaganda system and management of foreigners in the country. China does not have a formal document outlining a strategy for the polar regions, but she found specialist websites and classified material where policies are discussed freely, as are plans for an overarching and possibly public strategy focused on security, resources, and strategic science.



China's five Antarctic base sites

The government, according to two leading Chinese polar scholars, is working to "create an international image of China as a peaceful and cooperative state." Her book, she says in the introduction, breaks ground to describe China's polar interests and their implications for global governance. It places China's polar activities and policies "where they belong, in China's evolving maritime policy (haiyang zhengce)."

China, Professor Brady writes, now has more money than any other polar state to spend on new infrastructure such as bases, planes, and icebreakers. In the last ten years it has doubled its number of bases in Antarctica and has circumnavigated the continent twice. A 2012 report (in Chinese) states that "in preparation for the future contention over Antarctic resources and sovereignty, China must increase its substantive presence in Antarctica so as to establish the necessary physical foundations for China's Antarctic rights, Antarctic governance rights, and the future opening up of resources."

The Antarctic infrastructure upgrade is under way. Great Wall, the first station, was set up on King George Island in 1984, and beds now are being made available to partner states, in particular Thailand to help it join the Antarctic Treaty. Zhongshan, in East Antarctica near Russia's Progress II, was set up in 1989; the wintering station has an ice airfield.

Kunlun, at Dome A, is the first station in the interior. China calls Dome A one of Antarctica's "scientifically and politically strategic" sites, the others being the geographic pole, the geomagnetic pole, and Dome C. The four sites are "occupied" or "held" by the United States, Russia, France, and China, all four having space and missile programs that "require polar satellites and polar receiving stations." Opened in 2009, the station isn't used much yet; it is an "empty fort" (kongcheng ji) advertising China's polar strength and preventing occupation by another nation.

Taishan, set up in 2014, is inland from Zhongshan on the route to Kunlun and also to the Grove Mountains, where China has a field camp. Taishan is summer only, has an area of 1,000 square meters (more than 10,000 square feet), is a handsome above-grade steel structure, and has an ice runway.



Taishan Station, East Antarctica, under construction

"Victoria Land Permanent Base" is the working name of the fifth station, to be occupied year-round. China announced its intention for the station in 2013 after a team selected Inexpressible Island in Terra Nova Bay. The Ross Sea area will be "one of the hottest locations in Antarctica," the head of the Chinese Arctic and Antarctic Administration told reporters. The senior glaciologist said "resource exploration and climatic studies" will be the main tasks. The Treaty-required CEE, or Comprehensive Environmental Evaluation (2014), though, highlights climate change research, space science, and remote sensing.

Jumping ahead of Treaty approval, in January 2015 the icebreaker *Xue Long* delivered 10 tons of material, set up prefabricated accommodations, and built a wharf. In January 2016 eight scientists surveyed and mapped the island, and they set up an automatic weather station. After more work onsite in February 2017, China confirmed it to be the preferred site for the new base.

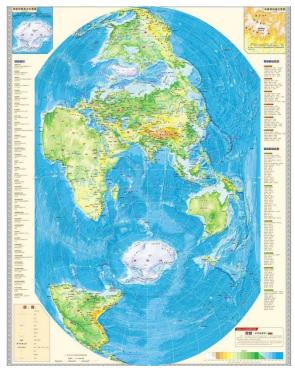
U.S. and N.Z. officials objected to the initial CEE, saying the proposed base is not needed for science. But the Chinese government has approved funding, and the base will be completed within 5 years. At 5,500 square meters it will be China's largest Antarctic station (80 summer personnel, 30 winter) and a thousand square meters bigger than nearby South Korea's Jang Bogo station, also on Terra Nova Bay.

Professor Brady points to advantages of the new station for all parties active in the

Ross Sea. The Chinese station will have an airfield, and its state-of-the-art logistics will add to the region's search-and-rescue ability. China could join the existing U.S.-N.Z.-Italy-South Korea air and sea logistics pool.

The Chinese-government document authorizing the growing Antarctic budget says the existing and new Antarctic infrastructure will enhance the nation's "political, economic, diplomatic, and military" interests on the Ice.

The book (and the Chinese government) take the long view of history's take on the rise and fall of great powers. For China, Professor Brady states, the deep seabed, outer space, and the Arctic and Antarctic are the "new" New World, rich in resources and opportunities and ripe for exploitation. China incorporates new ideas and breaks with old ways of thinking, as demonstrated, she says, by the People's Liberation Army's adoption of Hao Xiaoguang's extraordinary vertical world map that is the cover illustration of her book.



Has Xiaoguang's vertical world map

In a 2014 speech in Hobart, Chinese president Xi Jinping said China soon would

be "joining the ranks of the polar great powers." That point seems the tone of Professor Brady's book, but her points are thoughtful, thorough, and extensively referenced.

And she examines not just China's recent Antarctic presence, but also, by reflection, other nations' positions in the region. "States that are able to dominate militarily at the two poles are truly powerful, controlling key choke points into strategic regions," she writes. "Currently only the United States, with its strong military presence in both the Arctic and the Antarctic, has this capability. Yet massive pressure on the U.S. budget since the 2008 global financial crisis, which has capped spending on polar-related infrastructure and science, means that U.S. polar capacity is steadily slipping backwards."

Remembering the growth of U.S. and other programs in Antarctica during and after the International Geophysical Year, a generation from now maybe China's own version of Larry Gould or Bert Crary will inspire young scientists to break out their bunny boots, pull on their parkas, and head south.

Discovering Antarctica 1820-2020

by Nicholas R. Bell

Mystic Seaport, the preeminent maritime museum in the United States, sits on 17 acres of waterfront along the Mystic River in southeastern Connecticut, a hub for enthusiasts for maritime history and our nation's enduring connection to the sea.

Few people are aware, but the village of Mystic isn't incorporated – rather, it is made up of parts of the towns of Groton and Stonington. Many more readers of this newsletter, however, will grasp the significance of the latter: not more than three miles from the museum is the home of Nathaniel B. Palmer, the clipper ship captain who in his heady youth steered the 47-foot sloop *Hero* from a modest Stonington berth down

to the South Shetlands in fall 1820. Then, when he encountered stiff competition for seals, he pushed yet farther, sighting the Antarctic Peninsula in November. It remains remarkable that after centuries of inquiry and decades of actual effort by James Cook and others to determine the prize at the bottom of the world, three nations should discover the existence of earth's final continent within a single calendar year.

2020 marks the bicentennial of this series of events. Mystic Seaport is embarking on a major exhibition project that will capitalize on the occasion to draw attention to the history of Antarctica's discovery, the many facets of life there, the role the continent has played in modern science, and its lasting role in shaping the human imagination over 200 years.

Palmer's story is only a thread of this saga, but it is one that allows Mystic Seaport an entry point into a network of topics and histories expanding far beyond the traditional scope of this museum. While we are not yet Antarctic experts, we can provide a platform for public dialogue about the value of all we know about Antarctica, and how that knowledge affects both the continent and our lives here at home.

For that reason, we invited more than two dozen specialists from across the disciplinary spectrum to convene at Mystic Seaport in June 2017 to discuss what the scope of this exhibition project should be and how we go about interpreting this massive body of knowledge for a general audience. Antarctic luminaries as diverse as Henry Pollack, Tim Jarvis, Joan Boothe, Guy Guthridge, Elizabeth Leane, Bob Headland, and experts of all stripes attended, both in person and via videoconference.

It was an exhilarating experience for our staff, none of whom have set foot on those most southern of shores, to witness a room brimming with firsthand Antarctic experience - the coming together of friends new and old to dissect the questions of how and why we must bring the spirit of Antarctica to the continental United States.



Thompson Exhibition Building at Mystic Seaport

Three years out from opening, the exhibition itself remains loosely defined as we continue to gather information and materials to consider as we seek the best means to convey this story. We know we must tell the story of discovery. Equally, we must share the impact of climate change on Antarctica, and teach how the continent serves as a laboratory for the earth at large.

Many other stories will work their way into the project as it develops. Because we remain new to the Antarctic community we still have much to learn, and we seek your help. I encourage any reader with ideas for topics within Antarctic history, science, or the humanities, potential resources — collections, archives, etc. — as well as advice on potential funding sources to contact me at nicholas.bell@mysticseaport.org.

This project will be strongest through your involvement as a community. We look forward to welcoming Antarctican Society members to Mystic Seaport in 2020!

Nicholas Bell is senior vice president for curatorial affairs, Mystic Seaport: The Museum of America and the Sea.

SCAR Medal nominations sought

Every other year SCAR (the Scientific Committee on Antarctic Research) awards medals to reward "those who

exemplify the best of the Antarctic community and serve as models for the next generation." In 2018 three will be awarded: one for excellence in Antarctic research, one for international coordination, and one for education and communication. The deadline for nominations is 14 February 2018.

October 2017



The SCAR Medal

Our Honorary Chairman, Robert H. Rutford, received the medal for international scientific coordination in 2010. Paul Mayewski (University of Maine) received the 2006 medal for excellence in scientific research. Other U.S. recipients have included John Priscu (Montana State, subglacial microbiology) in 2012 and Robert Dunbar (Stanford) in 2016 for advancing knowledge of environmental change in Antarctica and the Southern Ocean.

See the <u>call for nominations</u> at https://www.scar.org/general-scar-news/2018-medals-open/

Antarctic volcanic eruptions and Southern Hemisphere deglaciation

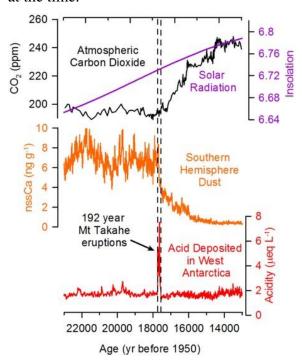
Eruptions for 192 years from the Mount Takahe volcano in West Antarctica 17,700 years ago coincided with accelerated deglaciation, widespread climate change, and rising greenhouse gases throughout the

Southern Hemisphere.



Mount Takahe today

Evidence of those changes is found at numerous Southern Hemisphere sites and in different paleoclimate archives. What prompted the changes was unexplained until analysis of the WAIS Divide ice core by Joseph R. McConnell and colleagues at the Desert Research Institute in Reno showed spikes in acid deposited in West Antarctica at the time.



"We postulate that these halogenrich eruptions created a stratospheric ozone hole over Antarctica that, analogous to the modern ozone hole, led to large-scale changes in atmospheric circulation and hydroclimate throughout the Southern Hemisphere," McConnell said. "Although the climate system already was primed for the switch, we argue that these changes initiated the shift from a largely glacial to a largely interglacial climate state. The probability that this was just a coincidence is negligible."

The WAIS Divide ice core, 3,405 meters deep, documents 68,000 years of climate and atmospheric constituents. No other record like the 192-year event was found anywhere else in the core.

The fallout from Mount Takahe extended at least 2,800 kilometers and likely reached southern South America.

<u>Proceedings of the National Academy of Sciences</u> published the findings in September. The paper is online free.

Animations

Nowadays, just about anything you might imagine can be made into an animation, authentic in terms of the data presented and sometimes yielding an insight you might not otherwise have had. Here are a few I've encountered. I'll bet you have favorites of your own. Let us know.

Winds of the world. In a lecture called "Antarctic Ice" during my cruise ship days, I preceded the following animation with a cartoon showing Hadley cells, which send atmospheric moisture poleward: moisture that cools, and, on reaching Antarctica, precipitates to become – ice! But cartoons are – cartoons. The lecture's next slide was an animation by NASA's Goddard Scientific Visualization Studio of real global data over 2 years showing surface and upper level winds. If ever you wanted a visualization of the Roaring Forties, Furious Fifties, and Screaming Sixties, this is it.

https://svs.gsfc.nasa.gov/30017 Scroll down to "Surface winds." **Real sizes on a Mercator map.** We all know: Greenland isn't *that* big. And the way a Mercator projection shows Antarctica? Forget it.

Have a look at "How the world map looks wildly different than you think." The 6-minute video saves "shy Antarctica" until last. But even that boring old rectangle Wyoming isn't really the size it looks.

https://www.youtube.com/watch?v=l
PNrtjboISg&feature=youtu.be

The Antarctica Series. New York Times reporters visited the Antarctic last season to write features for the newspaper. They also put together four virtual-reality films. You have to download an app and otherwise surrender to the digital domain, and for all that you may wonder what's new in the sense of gained knowledge. But here's a modern glimpse of how mainstream media are portraying the Antarctic:

https://www.nytimes.com/interactive/2017/climate/antarctica-virtual-reality.html

A Year on Ice. This speeded up depiction of McMurdo and elsewhere on the Ice is famous now and has been in movie theaters. If you haven't seen it, it's worth the effort to do so. Buy the dvd, produced by Anthony Powell, or just look at the trailer. Watching the ship unload is worth it all!

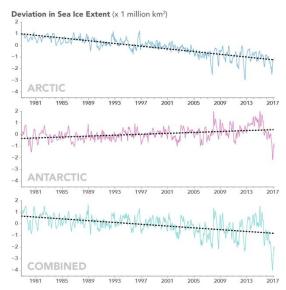
http://frozensouth.weebly.com

Society newsletters publicly online

Webmaster Tom Henderson informs us that a link on the Society's website under About Us is titled Public Newsletters. This part of the website contains the newsletter archive in the same manner it has always been for members, with the exception of the last 2 years. That is to say, now anyone – member or nonmember – can see those newsletters. For members, the full archive, including the most recent 2 years, is under Members > Newsletters.

This change satisfies a Board of Directors resolution made during their 2016 meeting.

Sea ice low after decades of advance



Monthly deviations and overall trends in polar sea ice as measured by satellites

After decades of gradual increase in area of about 0.9 percent per decade, Antarctica's minimum area of sea ice during the 2016-2017 summer was far smaller than in any other season. In a 22 March statement, NASA said this year's record low annual sea ice minimum of 815,000 square miles (2.11 million square kilometers) was 71,000 square miles (184,000 square kilometers) lower than the previous lowest minimum extent in the satellite record, which occurred in 1997.

Antarctic sea ice saw an early maximum extent in 2016, followed by a very rapid loss of ice starting in early September. Since November, daily Antarctic sea ice extent was continuously at its lowest levels in the satellite record. The ice loss slowed in February.

This year's record low happened just 2 years after several monthly record high sea ice extents in Antarctica and decades of moderate sea ice growth.

"There's a lot of year-to-year variability in both Arctic and Antarctic sea ice, but overall, until last year, the trends in the Antarctic for every single month were toward more sea ice," said Claire Parkinson, a senior sea ice researcher at Goddard. "Last year was stunningly different, with prominent sea ice decreases in the Antarctic. To think that now the Antarctic sea ice extent is actually reaching a record minimum, that's definitely of interest."

Sailing to Antarctica shakes you up

It's official now. In comparison with sailing in calm water, whole-body vibration exposure increased by 21 times in rough open water and up to 11 times during ice passage of SA *Agulhas*, the research and supply ship that supports the South African National Antarctic Program.

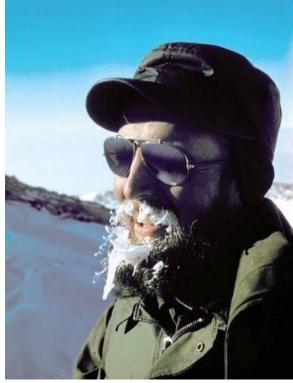
A. Bekker and others performed the study and published their findings in the June 2017 issue of *Cold Regions Science* and *Technology*. While an international association has established standards to ensure the safety of crew aboard steel ships in ice-infested waters, they don't yet have guidelines for the allowable limits for vibration exposure.

The authors attribute this lack to the absence of scientifically reported field research on vibration condition in human environments when ships break through ice. Occupants on the studied voyage were exposed to perceivable vibration for most of it, and some vibrations were at levels considered "not comfortable."

Charles R. Bentley, 1929-2017

Charles Raymond Bentley, who spent 60 years advancing understanding of Antarctic ice, died 19 August 2017. He was, Richard Alley of Penn State told the *New York Times*, "the absolute polar scientist, going where nobody else had gone and measuring what nobody else had measured.

Concern about rapid sea-level rise from icesheet collapse grew out of his early discoveries, and many of the tools to answer the big questions come from his research since then."



Dr. Charles R. Bentley

Charlie, a long-time member of the Antarctican Society, did field research in Antarctica from 1957 to 2009, making more than 15 trips there to map structure and physical properties of the ice sheet and probe the continent beneath.

"Professor Bentley's scientific exploits," writes William Grimes in the 25 August *Times*, "combined the derring-do of the great polar explorers with the painstaking work of measurement and calibration."

Charlie was enormously productive. He was an author on 157 cold-regions papers published during 53 years from 1958 until 2011 (when the NSF-funded Cold Regions Bibliography Project ended) and sole or first author of 72 of them. Of the 157, 126 were Antarctic. Eighty-eight were journal articles; the rest were monographs,

conference papers, technical reports, or online. A 23 August obituary on the University of Wisconsin web site states that he wrote more than 200 papers in total.

The National Science Foundation awarded 18 grants totaling \$4.8-million for Charlie's Antarctic research between 1976 (NSF records "may be less complete" for prior years) and 2001; the grants ranged from 1.5 to 5 years' duration, averaging 3.2. In the 1970s and '80s NSF awarded an additional three grants for ice studies in Greenland. Beginning in 2000, Charlie ran two cooperative agreements and one contract totaling \$37-million that NSF awarded to the University of Wisconsin for ice coring and drilling services to the glaciology community.



Bentley (center) during the International Geophysical Year

Charlie was a doctoral candidate in geophysics at Columbia University when he signed up for the International Geophysical Year in Antarctica. Soon after he got back (in 1961) he joined the University of Wisconsin, where his career in research and teaching continued until his retirement from the geosciences department in 2000. From then until 2013 he headed the NSF-funded Ice Drilling Design and Operations contract at the university's space science and engineering center.

For decades, his work was curiosity-driven science. "We didn't really understand back 50 years ago the connections between the polar regions and the rest of the world,"

he told *The Antarctic Sun* in 2007. "They seemed isolated and remote, and of interest as part of the earth; but it took quite a while to learn how closely related they are to the rest of the world."



Professor Bentley inspecting the barrel of an ice drill at the University of Wisconsin at Madison

Charles R. Bentley was born in Rochester, New York, on 23 December 1929. His father was a lawyer, and his mother was the granddaughter of a founder of Vacuum Oil, which later merged with Standard Oil.

Charlie graduated from Phillips
Academy in Andover, Massachusetts, then
earned a physics degree from Yale in 1950.
He was going to study law, but changed his
mind after a summer on a research ship in
the Atlantic led by oceanographer Maurice
Ewing of Columbia University. After enrolling in Columbia to study geophysics, he
spent two years on the Greenland ice sheet
developing a seismic method to measure ice
depth. He defended his dissertation at the
end of 1956, but the degree was not awarded
until 1959 because he had forgotten to pay
the \$50 fee before heading for Antarctica.

Charles R. Bentley was a member of the National Academy of Sciences' Polar Research Board for 20 years and chaired it from 1981 to 1985. Awards include the Bellingshausen-Lazarev Medal in 1971 from the Soviet Academy of Sciences and the Seligman Crystal from the International Glaciological Society in 1990. He was an elected fellow of the American Association for the Advancement of Science, the American Geophysical Union, and the Arctic Institute of North America.

Bentley Subglacial Trench (maximum depth 2,540 meters) in West Antarctica, named by the U.S. Advisory Committee on Antarctic Names in 1961, commemorates Charlie's leadership of the 1957-1958 seismic traverse that discovered the feature and recorded its depth, which airborne radioecho sounding confirmed a decade later. Mount Bentley (4,245 meters) in the Sentinel Range was discovered by the Marie Byrd Land Traverse, which Charlie led.



Charlie (left) with colleagues at Port Clyde, Maine in 2014

Margaret Lanyon, 1931-2017

Margaret Clare Lanyon, a New Zealand citizen who devoted 36 continuous years of exemplary service to the United States Antarctic Program advance head-quarters in Christchurch, New Zealand, died on 31 July 2017 of a heart attack.

Starting in 1962 as secretary to the NSF Representative, New Zealand, Ms. Lanyon moved into roles of increasing scope and authority. She quickly became administrative assistant to the officer in charge of the Naval Support Force Antarctica, Detachment Christchurch, then, in 1972, administrative assistant to the NSF Representative

New Zealand. Promotion to NSF contractor representative New Zealand followed in 1974; her employer became NSF Antarctic contractor Holmes & Narver. When the contract changed in 1980, she continued in the same position with the new firm, ITT Antarctic Services. By 1999 under yet another NSF contractor (Antarctic Support Associates), she was responsible for managing all the N.Z. tasks that NSF assigned to the firm.



Margaret Lanyon at NSF Christchurch, NZ

Margaret was born on 5 November 1931. She retired in April 1999 and in September that year was awarded the National Science Foundation's Distinguished Public Service Award. "Few people are given the opportunity of spending a lifetime doing a job they love," she wrote at the time. "I was lucky and would not trade any of it."

During the time of her Antarctica career, NSF's Antarctic research nearly tripled, and its complexity grew manyfold as science became increasingly complex, international cooperation intensified, conservation and waste management practices improved, and standards of efficiency and economy were raised. "These needs expanded the requirements for interaction and cooperation with New Zealand research organizations, government agencies, commercial purveyors of goods and services, and international forwarders," reads the NSF award citation. "Ms. Lanyon was at the

forefront of NSF's relations with these organizations."



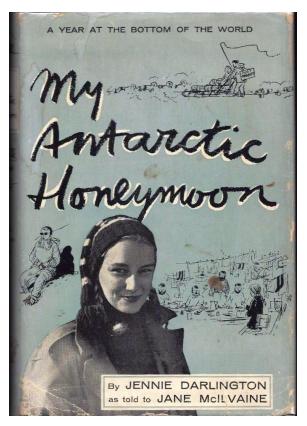
Margaret at home

Margaret, as U.S. travelers to
Antarctica during the period know well, is
an icon of the U.S. Antarctic Program. She
represented to thousands of Americans her
own and her country's high standards of
friendliness, integrity, and achievement. An
office colleague wrote, "This wonderful,
dignified, articulate, and compassionate
woman contributed so much to the scientific
fraternity, contractor, and many participants
during her years with the Antarctic program.
I consider myself to have been extremely
fortunate to have worked under her stewardship and blessed to have had her friendship."

Jennie Darlington, 1924-2017

Jennie Darlington, part of the (U.S.) Ronne Antarctic Research Expedition of 1947-1948, died 30 August 2017 of heart failure at her farm near Marshall, Virginia, at 93.

Mrs. Darlington describes the journey in *My Antarctic Honeymoon* (Doubleday, 1956). She and the expedition leader's wife, Edith "Jackie" Ronne, were the first women to spend a full year on the Ice.



Mrs. Darlington joined the expedition after it started. Her husband Harry Darlington was chief pilot, but she was scheduled to leave the expedition ship in Chile. There, she and Jackie Ronne were asked by the expedition leader, Finn Ronne, to continue to Antarctica. In the draft of a new book about the expedition that Mrs. Darlington was working on at the time of her death, writes the *Fauquier* (Virginia) *Times* in an obituary, she starts with this: "Women should not go to Antarctica." – Harry Darlington. "I went." – Jennie Darlington.

"The presence of women on the team proved to be a blessing during times of unusual stress," said expedition teammate (and Antarctican Society member) Robert H. T. "Bob" Dodson, after learning of her death.

The expedition, which was mainly privately financed and consisted of just 23 people, carried out one of the most extensive programs up to that time of aerial photography coupled with concurrent establish-

ment of ground control for mapping. To extend the range of the photographic plane, a second one with extra fuel "leapfrogged" ahead. Operating from its base on Stonington Island just west of the Antarctic Peninsula, the expedition explored one of the largest remaining gaps in the coastline hitherto not seen. Cooperation with a British party nearby considerably extended ground surveys of the Peninsula's east coast.

"Afterwards, people used to ask me, 'Was it cold?' Yes. 'Were there polar bears?' No. 'My God, what if you had gotten pregnant?' I did." Mrs. Darlington kept the secret in a small group that included the expedition doctor. She worried as summer didn't thaw much ice and their ship might be stuck in the ice for another year. Two U.S. icebreakers working nearby freed the ship, and her daughter was born the next summer in Virginia. Jennie never returned to Antarctica.



Jennie Darlington at home in 2016

Jennie Darlington was born 25 January 1924 at St. Agnes hospital in Baltimore. Educated at Miss Shoemakers School, she earned her pilot's license by the age of 20. After her marriage to Harry Darlington and their expedition to Antarctica, she and Harry settled on Chilly Bleak Farm near Marshall, Virginia, and raised angus cattle. Harry died in 1996.

She is survived by her daughter Cynthia Darlington Beyer of Marshall,

Virginia, and her son Harry "Skipper" Darlington IV, who resides on the farm.

In addition to the *Fauquier Times*, the *Washington Post* has an obituary of Mrs. Darlington in its 11 September 2017 edition.

Ken Waldron obituary correction

by Billy-Ace Penguin Baker

I recently finished reading the July newsletter. I read it from cover to cover, enjoy it, and sometimes learn something new about Antarctica. The obituary for Ken Waldron has a mistake. Ken was not the historian for the Old Antarctic Explorers Association (OAEA). I am the historian and have been since day one of the OAEA. Ken was a life member of the OAEA, and I think he may have been the historian for the Antarctic Deep Freeze Association.

The OAEA is a tax-exempt organization with more than 1,700 members worldwide. We hold reunions every two years on the even numbered years. More information can be found at https://oaea.net.

Billy-Ace Penguin Baker is the OAEA Life Director.

Other deaths

Felicity D. 'Flash' Davidson, 1954–2017. For 10 years Felicity was the smiling face behind the counter at Good Impressions print shop in Rockland, Maine, the company that prints our Society's newsletters. In her too-short life she showed horses, caught fly balls, skied and lived in Utah, worked 10 years for a bank, had a son and grandchildren, and was Lobster Festival Sea Princess.

Felicity was part of the Dirty Herb Gang of Harley Davidson motorcycle enthusiasts and died suddenly 16 July as the result of a crash. "Please laugh after your tears, and remember me with a smile," she once wrote.

Richard T. Crane, M.D., 1951-2015, the wintering physician at McMurdo Station in 1980, returned in later years to join the Antarctic Search for Meteorites.

As an Eagle Scout he had made a 56-day, 1,000-mile canoe trip in the Canadian Arctic with three friends.

After a University of Michigan B.S. in 1973, Dr. Crane graduated from Indiana School of Medicine in 1978. Following an internship at the Portsmouth, Virginia, Naval Hospital, he fulfilled a lifelong dream with the Antarctic trips.

Dr. Crane founded the Western Wisconsin Ear, Nose, and Throat Center in Eau Claire, which became a thriving practice. He was a philatelist and an amateur astronomer and geologist, and he collected historic expedition literature.