The Antarctican Society

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"BY AND FOR ALL ANTARCTICANS"
Post Office Box 325, Port Clyde, Maine 04855
www.antarctican.org
www.facebook.com/antarcticansociety

ANCHORS AWAY (AND AWEIGH)

The Society's web site and newsletter observe and celebrate present and past events. And they – at least virtually – bring us together. But there's nothing like a gathering. On the next page, our Treasurer asks us to Port Clyde, Maine, for a July 2016 gathering – and coastal delights of the season in the USA's most northeastern state.

If you like his suggestion, let Paul know. Write or call him (see TREASURER to the left). If a threshold is passed, planning will start! We'll let you know more next issue. See you in lobster city.

Mid-Summer in Maine. Mid-Winter on the Ice. Both can be special for an Antarctican. So also can be the first time one arrives in the Antarctic, or the last time one leaves. Will Silva, who has wintered at Palmer and South Pole as station physician, shares such a moment in this issue. "Little actually happens; the horizon becomes internal," he says of a winter at Pole. Enjoy Will's essay. And consider sharing your Antarctic moment in a future issue.

People who work in the Antarctic tend to be overqualified for their jobs and to have energy and drive to match. Two examples appear in this issue. Tom Henderson, the Society's webmaster – as if that weren't enough – has produced films with Antarctic themes and describes a new one here. Bill Spindler is the Antarctic veteran behind southpolestation.com.

More than half this issue was written by people other than me. I'd like nothing better than to see the newsletter contain yet more different authors – bringing different voices, different experiences to our members.

A distinguished voice has newly assumed the mantle of our society's Honorary President. I've had the privilege of knowing Robert H. Rutford since he headed NSF's polar office in the 1970s. Welcome, Bob, to this new role!

Guy Guthridge

A 2016 gathering in Port Clyde, Maine?

by Paul Dalrymple

Another Mid-Winter Day passed last month. Always good to see one come, always good to see one go. In olden times the Washington segment of our society used to gather for a midsummer picnic basically put on by the large number of thirty U.S. Geological Survey Antarctican Society members who used to work in the Antarctic.

Those Washington-area picnics died with time. In the last decade, however, ancient and honorable Antarcticans have gathered several times for three days or so each at the coastal Maine abode of our treasurer. The first one or two had a hard core of about twenty-five or thirty IGYers; later ones grew to about a hundred and twenty-five, including offspring of Antarcticans.

Should we meet again? Those old timers who repeatedly showed up seemed to enjoy themselves. Right now we would love to entice more of the crowd from the 1980s, the 1990s, and this century to join in.

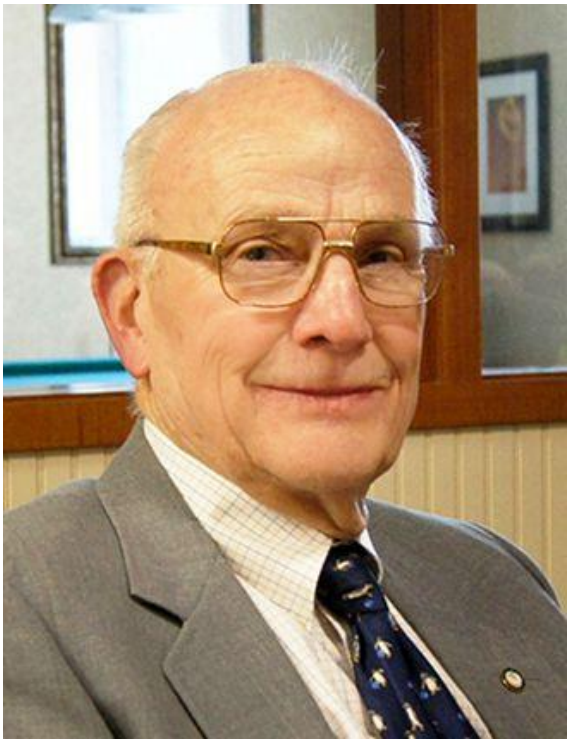
Where do we meet? About half way up the coast of Maine, in a small lobster town of Port Clyde, population several hundred. We rent a tent for a seafood dinner, featuring hot-boiled lobsters. We turn a two-car garage into a lecture hall, and several of our members present talks about their halcyon days on the ice. It is low-key, with some attendees having taken up residence in nearby hotels, some in b&bs or vacation rentals of which plenty are nearby, and some in their own tents sprinkled around the area. For the events themselves, there are no charges up front, just a bucket or two on site for donations to help defray the cost.

If this idea sounds interesting, something you might enjoy participating in, and you want to hear more about a gathering in mid-July 2016, let us know. We will put more in the October newsletter.

For more about the last gathering, see the October 2014 newsletter, page 2, and Jim Mastro's article in the January 2015 issue.

Robert H. Rutford is Society's fourth Honorary President

by John Splettstoesser



Dr. Robert H. Rutford

We are pleased to introduce Robert H. Rutford as Honorary President of the Antarctican Society. He follows our previous Honorary Presidents Paul Daniels, Ruth Siple, and Charles Swithinbank.

Bob's distinguished career in science, government, and academia includes Antarctic field research since 1959. More recently, he was president of the University of Texas at Dallas for 12 years before returning to the faculty to teach geology until retiring in 2008. He now is President

Emeritus, and Excellence in Education Professor of Geosciences Emeritus.

A graduate of the University of Minnesota, Bob has been involved in polar research since 1955 when as a Lieutenant in the U.S. Army he spent a year in Greenland testing and operating over-the-snow heavy equipment, some of which was used during the 1957-58 International Geophysical Year.

After a first experience in Antarctica as a graduate student in 1959, he returned in 1960-61 as deputy leader of a University of Minnesota team working on the geology of the newly discovered Jones Mountains. In 1963-64 he headed field research that led to his doctoral dissertation regarding glacial geology and geomorphology of the Ellsworth Mountains. In the late 1960s he was on the Eights Coast of West Antarctica for additional study.

In the early 1970s Bob moved to the University of Nebraska - Lincoln to lead the Ross Ice Shelf Project researching the glaciology of the Ross Ice Shelf, then moved to Washington, D.C., where from April 1975 to July 1977 he headed the Office of Polar Programs, National Science Foundation.

Bob returned to academia as vice chancellor for research and graduate studies at the University of Nebraska - Lincoln. His Antarctic research continued as a member of the multinational Ellsworth Mountains Expedition, 1979-80.

The National Academy of Sciences in 1986 named him U.S. Delegate to the Scientific Committee on Antarctic Research (SCAR). He held that position until 2006, was vice president in 2000, president in 2002-2006, and past president until 2008. From 1976 to 2000 he was an advisor to the U.S. Department of State on Antarctic Treaty matters.

Bob was honored with the University of Minnesota's Outstanding Achievement Award in 1993 and entered on the university's Alumni Wall of Honor. He was awarded a D.Sc. honorary degree from St. Petersburg State Technical University, Russia, in 1994, the Commemorative Medal from the Polish Academy of Sciences in 2004, and the Distinguished Service Award from the U.S. National Science Foundation in 1977. Mount Rutford (Antarctica's seventh highest) and Rutford Ice Stream are in or near the Ellsworth Mountains.

Bob has lectured on tourist ships visiting the Falkland Islands, South Georgia, and the Antarctic Peninsula.

Whether a person is born a leader or becomes one can be debated, but either way Bob was one early. I was on the Jones Mountains expedition in 1960-61. Bob led the way, drawing upon his experience in Greenland and that prior season in Antarctica, his strength as a natural athlete, and a contagious sense of humor. Several of us worked following seasons in Antarctica on various projects; the lessons learned in 1960-61 provided a basis for knowing the meaning of leadership.

The Last Time
South Pole Station, 2014 – 2015

by Will Silva

My days grow short as shadows lengthen. A month since summer solstice, my balaclava and extra long johns go on before a nightly ski. The wind is cold, -20^{o}F at 12 knots from grid northeast. The warm (-8^{o}F, 4 knots) bright days of summer are over.

I first came here in the summer of my years. A friend had asked as he walked me to my car, "Will, how old are you?" "Forty-four." Charlie clucked, "Right on schedule." Indeed, my velvet midlife crisis was an escape from the crazy world of American medicine early in the HMO revolution. I had grinned as I chucked a Land's End catalog into the recycle bin: this is not my uniform any longer.

I step outside into the brightness – full sun at 7:00 pm, diamond dust in the air.

Maybe see some halos tonight. Skis on, over a berm and up a Cat track alongside the new elevated station, I ski onto the surface by the geographic Pole marker that we placed New Year's Day. The Dome used to be right about there.

Home from my last tour in June 2008, I walked along the beach north of the West Point light. I was sure then I was done with Antarctica, even done working, but the financial meltdown that autumn proved me wrong. Back to work, Antarctica far from my mind . . . well, maybe not that far. In Ketchikan, in the ER picking up a new admission late at night, I thought about how on the Ice, even on-call 24 x 7, I rarely was called out after hours.

I ski past the flags at the Ceremonial Pole, those of the dozen nations that first signed the Antarctic Treaty in 1959. Like a hockey player tapping his goalie's pads before the game, I tap a ski pole gently against the Australian pole. It bears a plaque, memory of a friend who died here in 2000. "Rodney Marks, friend, musician, scientist, 1968-2000."

Early in the season the sastrugi had been choppy; I picked my way along powder paths, smooth, wind-accreted mounds between the frozen waves. By midsummer the surface was smoother. Some nights, ice crystals refracted rainbow colors as though a giant had cast gems. With a Canadian bush pilot for the first time since we'd met in 1997, I asked how he decides whether he can land his ski Twin Otter at field sites. Moment of silence. Henry shook his head. After 10,000 hours flying in Antarctica, you get a feeling for it. I recall a picture of him sitting on a piece of the airplane on the snow, a wrecked Otter behind him. In 1999, he had caught a ski on a take-off run. Good judgment is the result of experience. . . .

The idea to return came two summers ago, visiting Ice friends at a reunion on Lopez Island. Several were getting ready to deploy. I wanted to see how the community had evolved, 5 years after the new station was completed. The population is down from a peak of 260 working 3 shifts around the clock during the construction years to 150 mostly on one shift now. I like the change: it's calmer, quieter. I know people's names, at least contract workers here all summer. Grantees come and go. I enjoy the company of the "geezers" and the energy of the kids. I do a little medicine, go to the mat to get a few through their medical qualifications. Today, folks about to winter returned from a week's R&R in McMurdo. Without thinking I greeted a few with, "Welcome home." I'm sad to be leaving, but don't want to stay. I like the community and team loyalty. This can be a very funny utopia.

This tour caps my medical career. Antarctica had a large role. It was a second career; a new lease on life. Fitting, then, that this should be the end. Many veterans I know are gone. The corporate and HR stuff is deeper. Ironically, folks I've known since my first tour, ones who then had already been in the Program a decade or more, now are at the helm.

A few evenings ago I thought of how you never know when will be the last time for something: last time visiting friends, last time I saw my parents, last time climbing with one partner or another, a lover's last kiss. It's the time of life when there will be more of those.

This was my last ski at South Pole, though I didn't know it at the time. I came back to find the new winter doc and physician's assistant laboring over a very sick man. He would do better at sea level, we decided. I flew with him down to McMurdo the next morning. The patient did well, and I got my first ride on a DC-3 – the Basler turboprop conversion.

Sudden, but not a bad end.

"Nuisance flooding" tipping point

In years past, glaciologists and others used a picture showing the Statue of Liberty up to her armpit in seawater (a rise of 213 feet as thought at the time) if all Antarctic ice were to melt. Over the years, as West Antarctica became the main suspect for nearer term sea rise (then 26 feet or so if all of it were to melt), an image of a flooded south Florida came into favor. The pictures were (and are) dramatic, and they brought attention and, probably, funding to the discipline.

These days, drama enough (related story, page 6) comes in a new projection that the tipping point for U.S. coastal nuisance flooding – a foot or two – may come by 2050.

In a 2015 paper, "From the extreme to the mean: acceleration and tipping points of coastal inundation from sea level rise" (in AGU's open journal *Earth's Future*), NOAA's William V. Sweet and Joseph Park say a *tipping point* arrives when increasingly severe tidal flooding increasingly compromises public works or coastal habitats. Thirty days a year is their threshold, and they project numerous cities on U.S. coasts will get there over the next several decades. By the end of the century, nearly all the locations in the study may face minor floods every day – maybe not catastrophic, states a 15 May *EOS* news article about the paper, "but they still can be damaging and costly."

More intimidating is this sentence by Sweet and Park: "At very high thresholds, such as those of the 100-year event experienced during hurricane strikes, RSLR [relative sea level rise] has and will continue to nonlinearly compress recurrence probabilities in the future because smaller storm surges will increasingly impact fixed elevations."

That's happened. Scott Kulp of Climate Central, a research outfit in Princeton, New Jersey, calculates that sea level rise over the 20th century caused more than $2-billion in *additional* damage in New York City alone during the October 2012 Hurricane Sandy. He says we therefore can attribute at least part of Sandy's damage to climate change.

Remember the old days, when Antarctic scientists yearned, mostly in vain, for folks to see the relevance of their research to everyday lives? Dig out that old picture of the Statue of Liberty.

38th Treaty Consultative Meeting concludes in Bulgaria

Bulgaria's Ministry of Foreign Affairs and its Antarctic Institute hosted the 38th Antarctic Treaty Consultative Meeting 1-10 June in the capitol city, Sofia. The nation's President, Rosen Plevneliev, opened the discussions, noting that Bulgaria acceded to the treaty in 1978 and became consultative in 1998. "I am proud Bulgaria is among the small number of countries in Southeast Europe" with a research station in the Antarctic, he said.

More than 400 participated from the treaty's 52 member nations and the (overlapping) 37 Protocol for Environmental Protection parties, along with observers.

The focus was on understanding global climate change, promoting research, and "consolidating the culture of international collaboration," according to a post-meeting communiqué by the host. Management and operational challenges on the agenda included work on a multiyear strategic plan. Delegates worked on a strategy for environmentally managed tourism and non-governmental activities.

The treaty's Committee on Environmental Protection (CEP), which also met in Sofia during the period, discussed making science more accessible via the

Antarctic Environments Portal (https://www.environments.aq/); better understanding and addressing implications of climate change for protection of the Antarctic environment; and reviewing guidelines for environmental impact assessment. Parties approved 18 Measures updating management plans for protected areas within Antarctica. The U.S. representative to the CEP, Society stalwart Polly Penhale, was elected for a second term as Vice-Chair of the CEP.

The Antarctic Environments Portal mentioned above is worth a look. It has peer-reviewed information that's "factual, free of jargon, with no recommendations." An emerging-issues section lets researchers post new ideas. An interactive and searchable map displays topography, place names, environmental information, and biogeographic regions. David Walton, a long-time Antarctic hand, is interim editor. Antarctica New Zealand manages the site. The delegates held a full day's workshop on education and outreach.

As usual for consultative meetings, the final report with recommendations and other information will be on the secretariat's site (http://www.ats.aq/index_e.htm) before the next meeting, scheduled for Santiago, Chile, 6-15 June 2016. Parties agreed to hold a special, one-day symposium at the Santiago meeting to celebrate and take stock of Antarctic environmental protection on the occasion of the 25th anniversary of the Environmental Protocol to the Antarctic Treaty.

Your editor visits two Washingtons, D.C.

America's two largest science organizations recently partnered to use polar research in promoting geosciences to political Washington, D.C.

"Living at the Extremes" was the title of two events AGU and AAAS sponsored 15 and 16 June. Robin E. Bell (Lamont-Doherty Earth Observatory) and Brendan P. Kelly (Monterey Bay Aquarium), who have worked extensively in polar regions, were the featured scientists at both. Robin, drawing on her study of characteristics and dynamics of Antarctic land ice, focused on the unprecedented declines in West Antarctica. Observations of increased glacier speed, reduced elevation, and reduced mass, drawn from three independent techniques, have convinced researchers the losses are real and are unprecedented in the instrument era.

The events – one in the American Association for the Advancement of Science (AAAS) auditorium at its headquarters downtown, the other in a hearing room at the Dirksen Senate Office Building on Capitol Hill – drew hundreds each. Both had free refreshments; the AAAS one had free wine and beer, too. The first was in the evening; the second, mid-afternoon.

Your editor was born in Washington, grew up in a suburb, lives there still. The place has pulled itself into two. When the District recently lost its bid to host the 2024 summer Olympics, organizers said "the city's bad reputation damaged its proposal." Associated with Congress, it polls worse than traffic jams and cockroaches, says the 14 June *Washington Post*.

AAAS and the American Geophysical Union (AGU) represent the other Washington – people who take pride in their work and want it to be helpful. Exceptions exist on both sides, of course. Rush D. Holt, now AAAS's CEO, moderating the first event, had been a teacher and a scientist and had represented New Jersey's 12th Congressional district for 16 years. Responing to a question about why the USA is behind in responding to the challenge that Antarctica's ice loss is sending, he said that a "concerted campaign of disinformation" stalling action about climate change is "costly and deadly." Sustained applause followed.

Next day, Kathryn Sullivan, former astronaut and now administrator of NOAA, talked about the connection between polar events and hurricanes off the U.S. east coast, drought in the west, tornados in the middle. We need "environmental intelligence," she said. "We need fundamental research and sustained observations." She referred to science's "evil twin," which attempts to discredit climate science the way the tobacco industry tried to discredit science demonstrating smoking is harmful. Her message for scientists was, "Stand up for the integrity of your profession. Make sure people know where the real science is."

Two Senators joined the group. Senator Bill Nelson of Florida remarked that Florida needs to pay attention to coming change. "Geoscience," he said, "informs life as we know it." Senator Sheldon Whitehouse, Rhode Island, said it does not take a rocket scientist to put a thermometer in the water and see that the ocean off his state has warmed in the last half century.

What comes from events such as these? A questioner from the audience at the AAAS event asked what she might say to a friend who does not want to believe what Antarctica is telling us. Robin Bell suggested looking at the facts and summarized the main point of the presentation she had just delivered. West Antarctic ice is speeding its flow into the sea. It is getting thinner. What's left weighs less.

Then, she said, the friend has to make up her mind.

Ice Eagles, a coming new film

by Tom Henderson

Much of what has been accomplished by the United States in Antarctica would not have been possible without aviation. The story of the men, women, and aircraft that have met the challenge of the most hostile environment on the planet will be documented in my new film, *Ice Eagles: An Account of American Aviation in Antarctica*. This is my fifth film with an Antarctic theme and by far the most ambitious, covering from Admiral Byrd's first expedition in 1928-30 to the present day. I began researching and interviewing for the film in 2014 and will continue this phase through the end of 2015. I expect to release *Ice Eagles* in mid-2016.

By the end of the year, I will have interviewed over 60 pilots, air crew, maintenance specialists, builders, coordinators, scientists and others with a connection to Antarctic aviation. I have interviewed persons from every American expedition starting with the 1939-41 United States Antarctic Service Expedition (USASE). Notable interviewees include the last surviving member of USASE, BMC Robert R. Johnson USN (Ret.), Robert Dodson who was a member of the Ronne Antarctic Research Expedition in 1946-48, and two members of the crew of R4D *Que Sera Sera* that made the first landing at the geographic South Pole, pilot LCDR Conrad "Gus" Shinn USN (Ret.) and plane captain CPO John P. Strider USN (Ret.).

I have accumulated a massive amount of archival film, photos, and documents from national repositories such as the National Archives, the Byrd Polar Archives, and the National Naval Aviation Museum and complemented this material with numerous personal films, photos, and documents contributed by individuals interested in seeing this story told. A great deal of this personal material has not been publicly seen.

The local PBS television station in Albany, New York, has sent a letter of interest in broadcasting a version of this film when it is completed. Otherwise, it will be available through my business website, www.gwillow.com, where anyone can find more information on the film and follow its progress.

I am grateful to all of the people whom I have interviewed and corresponded with for the making of this film. Almost without exception, they have been open and sharing. The greatest joy for me in making *Ice Eagles* has been getting to know so many good people.

History of an Antarctic historical website

by Bill Spindler

Like many folks who spent time in the Antarctic in the pre-digital-photo era, I came away from my 1976-77 summer-winter at the South Pole with a collection of slides that mostly gathered dust for a long time. Until 1999, when I was contacted by Tadashi Yogi, one of my fellow winterers who was attempting to locate the rest of our 21-man winter team for a proposed reunion on Midwinters' Day 2000.

Before leaving Pole, we created and printed out an address list (these are now called "dinner lists" based on the premise that Antarctic folks might want a place to eat and sleep while traveling about the world). It turned out that I was the only one of us whose address/phone number from that list still worked. It was my parents' place in a suburb of Cleveland, Ohio.

So I helped him search out the rest of our winter group (we'd called ourselves the "Pole Souls") using the Internet search engines of the time. Meanwhile, I decided to dust off the photos from our winter, to share at our reunion . . . or . . . then I got the idea that I might want to put them up on a website. So I started laboriously scanning some of the slides using an HP scanner with a triangular mirror device that you put the slide under, and some old software to attempt to despeckle them and clean up the colors. As I started putting the diary of our winter together, I got the idea to add a historical station timeline. Of course the photo sizes were kept small, as the Internet at the time (including mine) was mostly dialup. Plus (then as now) I was attempting to make the site visible to people at Pole; they have always had an even slower internet access than I.

I had a bunch of old files of articles, *Polar Times* and *Antarctic Journals*, newspaper clippings, reference books, and other information collected by my parents and myself. And I'd actually previously created a sort of "timeline" while working at Pole during the summers in the late 1980s. The facilities engineer I was working with gave me access to the station files, and in addition to seeing what projects might need to happen, I created a "facilities timeline," which I'd shared with the other people on station. That became the original basis for the website timeline. But then, I soon decided that I needed to include information about the station winterers. My first goals were to identify how many people wintered each year, and the identity of the station manager or officer in charge. Then I thought that perhaps I could acquire the actual winter photos and the names of the winterers.

At first the website was hosted on a free area provided by the Delphi.com site, but in April 2000 I decided to acquire a real site: "southpolestation.com." This was back when domain names such as this were available free for the asking (as was palmerstation.com a few years later). Much more recently (a few months ago) it cost me $750 to acquire mcmurdostation.com, although I haven't had time to do much with it yet except put up a home page.

One of the early things I had to deal with was how to *create* a website. At the time (and still today) many many sites/programs/apps will let one create website pages quickly by what-you-see-is-what-you-get drag-and-drop interfaces. I tried a few of them and quickly discovered they were worthless. They'd create a nice-looking page, but it would be full of bloated

unintelligible code and impossible to update. So I quickly learned that the only way to do things was to write the HTML myself using notepad (or more recently textedit). For example, just today I updated some pages I'd originally created more than 10 years ago.

The site has continued to grow, helped in part by my two winters at Pole in 2005 and 2008 during which I documented all of the extant winter photos and helped get more of them sent down to be hung in the main hallway. And I've also been helped by the many ice friends past and present who have shared information, photos, blogs, and links.

Perhaps the greatest success was the creation of a spreadsheet listing all of the South Pole winterers. I must confess I didn't put it together; friend BK Grant developed the original spreadsheet. The spreadsheet is not available publicly (you can ask me for the page/password) but I've used it to develop a public page covering the winter statistics: http://www.southpolestation.com/-trivia/wo.html.

My site http://www.palmerstation.-com also includes a historical timeline with winter photos and lists. I'm working on a spreadsheet list of Palmer Station winterers—a bit more difficult because ships can call there almost year-round, making "winter" less well defined than the Pole one with its 8½-month period of physical isolation from the outside world.

Bela Csejtey (1934-2012), a rare Hungarian in Antarctica

by Art Ford

"My name is Bela! Bela Csejtey!" (*pr*. Shay'tay) loudly in broken English ended my doze one late October afternoon in 1962 waiting for the O Club bar to open. The door crashed ajar, and two bulging orange duffle bags and blowing snow flew past into McMurdo's crammed transients' hut, *Vermin Villa.* With that, I had just met my first Hungarian, now my new double-decker bunkmate while awaiting an R4D flight to Byrd Station for "eastern Horlicks" fieldwork (today's Thiel Mountains). Hungarians were rare amongst USARPs, and maybe Bela was the first.

The Club opened and — dinner forgotten — I listened to tales of a WW-II childhood under Nazis and American bombers, followed by life under Soviet occupation of Cold War years. My First Hungarian Rule learned was *Never Challenge a Hungarian to Beer Drinking*. Nazi patrols and Allied bombs had to be avoided while growing up in wartime Budapest, with subrosa "underground" early schooling by parish fathers and nuns. Postwar schooling under Soviet occupation was just as challenging. Bela's father, as an officer in Hungary's anticommunist underground army during 1950s revolutionary uprisings, was sought by Soviet troops, and the family barely avoided Soviet tanks in escaping to freedom in Austria and then USA in 1956 — prematurely ending Bela's training in geology at Eotvos Scientific University of Budapest.

Bela adapted quickly and by 1957 worked on California oil rigs before entering Princeton University, completing his PhD in 1962. He then joined Prof. Fiorenzo Ugolini (Rutgers University) studying soil formation under polar conditions of the McMurdo Dry Valleys. After a few days exchanging tales Bela headed west to the Dry Valleys and I eastward to Byrd Station.

Tracks recrossed in 1969 in Menlo Park, California, both of us now members of the USGS Alaskan Geology Branch. I heard "the rest of Bela's Antarctic story." His short Rutgers field season studying polar pedogenic processes with Fio Ugolini in Lower Wright Valley was made even shorter by another close call mirroring his wartime Budapest days. Their helicopter resupply

flight had terminated in a crash virtually on their tent, after which Bela and Fio were awarded citations by Rear Admiral David Tyree, Commanding Officer, for the pilot's rescue.

Bela's geological reports and maps earned a distinguished career in central and arctic Alaska, for which his iconoclastic views on tectonic development were legendary. Following both our 1995 USGS retirements we joined forces for work on the Denali Fault System.

A return to Gondwana by ISAES

by Art Ford

Mid-July of this year sees ISAES-XII, the 12th International Symposium on Antarctic Earth Sciences, in Goa, India, under auspices of SCAR, the Scientific Committee on Antarctic Research. SCAR's international symposia in various sciences, usually about every 4 years, track research progress.

"Gondwana?" That "Land of the Gonds," ancient warriors of central India, also is the name of a hypothetical former continent containing characteristic but long extinct fossil trees and reptiles on all southern continents. ISAES-XII occurs in the heart of old Gondwana. It's a nirvana for visiting paleontologists and paleo-glaciologists: before the age of dinosaurs, great ice sheets once covered that now tropical region.

SCAR earth scientists last met on a Gondwana continent in 1982 (ISAES-IV, Adelaide, South Australia). By then continental mobility by seafloor spreading from mid-ocean-ridge volcanic activity generally was accepted. This *sea change* in the geological paradigm was occurring at the time of ISAES-II (1970, Oslo), when the idea of continental drift was transforming into the theory of plate tectonics, and few still held notions of continental fixity. This progress is inferable from tables of contents and indexes in the succession of ISAES proceedings volumes.

The Cape Town meeting of 1963 — "SCAR-Geology 1" (we may as well label it ISAES-I) — was a learning experience for most geologists from the north. Geology had not been part of 1957-58 IGY research, but that omission was being rectified quickly, and close geological similarities with other southern lands were being noticed.

South Africans thus invited those northern hemisphere rejecters of drifting continents to see how that famous Paleozoic to Mesozoic-age sequence of sedimentary rocks called the Beacon Supergroup and its Gondwana fossils of the Transantarctic and Ellsworth mountains matched so well with South Africa's Karoo sequence of rocks. The best explanation? Movements apart along continental splits, namely continental drift.

Attending were geologists of most of the then 12 Antarctic Treaty signatories, with notable exception of Russians. Perhaps

the USSR was boycotting South Africa's apartheid; perhaps it was intolerant of South Africa's extreme anti-communist policies. Northerners had long considered South Africa a hotbed of "continental drifters" or "drifter crackpots" (notably A.L. Du Toit and his book *Our Wandering Continents*, 1937), a prejudice soon to reverse owing much to fieldwork in the Transantarctic and Ellsworth mountains. The Afrikaners particularly wanted the northern skeptics to see for themselves the varied, close matches in rock types and rock sequences showing the same histories of now widely separated lands. Dr. F. Truter, Director, South African Geological Survey, did that by leading a remarkable country-wide field excursion. Drift skeptics became convinced, eventually even evangelical, upon seeing the Karoo's sandstones and coals and the mighty Drakensburg escarpment of basalts and related igneous rocks of Natal province — all so much alike the Beacon Supergroup and Ferrar igneous rocks of the McMurdo Dry Valleys! Continental mobility is now viewed as virtually a fact, after the finding of the plate tectonics mechanism.

Those seminal 1963 meetings were held at beautiful Cape Town University amidst lush gardens and lawns under the craggy, towering sandstone cliffs of Table Mountain — whose southern relatives make up some of Antarctica's highest peaks. We'd seen apartheid's "Nie Blank" (Whites Only) signs everywhere along our travels, but none of us took notice of a little island just off Cape Town's shore — Robben Island, where political prisoner Nelson Mandela was held for 18 years' hard labor before eventual apartheid ending by De Klerk's 1989 revoking of the Population Registration Act. Mandela, along with America's 1964 Civil Rights Act following riots in Birmingham, marks another paradigm change, a societal one even more profound than our geological one of continental mobility and plate tectonics over those early SCAR years.