On the Web at http://www.asa.org
November 21, 1999

The Antarctic Sun

Published during the austral summer at McMurdo Station, Antarctica, for the United States Antarctic Program

A rough transition

Ivan the Terra Bus had a terrible day last Sunday, when its back wheels sunk into the softened sea-ice transition in front of McMurdo Station. After passengers piled off, a bulldozer and a grader pulled it free. Photo by Bruce Smith.

Bugging out

Fighting fruit flies in MacTown

By Josh Landis
The Antarctic Sun

Life on the Ice is a challenge for any creature, but for the last several years some tiny visitors to MacTown have managed to make their home in an unlikely place. The recreation department's beer and beverage warehouse has become fruit fly central.

Stowaways in a shipment of fresh produce, the insects ended up in Building 121 when the normal place for keeping freshies was full. What began as a temporary stay for food ended up a permanent home for the flies. They found an ample supply of food in the spillage from damaged soda cans and spilled beer—sugar-based goo that's inevitable in any beverage warehouse. Exterminating the bugs has, so far, proved elusive.

"It's been quite an adventure," said Jim Thate, McMurdo Station's safety engineer.

In the U.S. it would be relatively easy to get rid of the flies. The building would be emptied, scrubbed down and sprayed with insecticide.

That's not an option here for a number of reasons, including the fact that there's

See "Flies"—Page 7

Dan Naber checks a homemade trap for fruit flies. He found none. Photo by Josh Landis.

Esprit de 'core'

Teamwork takes Cape Roberts Project to new depths

By Jeff Inglis
The Antarctic Sun

It's the deepest bedrock hole in Antarctica. When the drilling at Cape Roberts stopped for the season on Thursday the hole was 3,084 feet deep—more than 650 feet farther than the previous record.

The two drillers, Malcolm MacDonald and Frank Tansey, took turns being the most important men in the Cape Roberts Project: the men who made sure the core kept coming up out of the hole and into the hands of climate researchers.

The drillers, though, couldn't do anything without a lot of help of all kinds. The 40-person support and science team at Cape Roberts works around the clock, which makes for some odd situations.

"It seems a bit strange to see people in here having a beer at 8:30 in the morning, but it's their night time," said Colleen Clarke, who runs the camp during the day.

Pat Cooper, the drill site manager, has been working in Antarctica since the early 1980s.

"The 'Antarctic factor' down here has a lot of influence on our drilling," Cooper said.

See "Drill"—Page 2

"Drill"—from Page 1

Among the challenges this year was an April storm, which broke out some of the sea ice near where the drill site was planned to go. In August, a team flew down to check out the area and set up the camp.

"We didn't really know for sure what was happening until we got down here at Winfly," Cooper said.

But things looked good, and they decided to drill this year. Now the project involves over 60 researchers and support staff.

"It's a mix of technology and science objectives," said Peter Barrett, a member of the project's management team.

A 60-ton drill rig sits on the sea ice, supported by the strength of the 8-foot-thick ice and under-ice balloons, which give an additional 11 tons of lift.

Malcolm MacDonald runs the drill at Cape Roberts. The team reached a record depth this week. Photo by Jeff Inglis.

A 5-inch pipe, called the sea riser, provides the conduit in which the drill passes through the 980-foot-deep sea water. It must be freestanding and self-supporting to work properly. Suspending it from the sea ice only forces the ice to support more weight.

"It has to be totally independent of the systems up here," Cooper said.

But it is impossible to stand a 980-foot-long 5-inch pipe on its end without help from above. The pipe is sunk 30 feet into the sea floor and is supported at the middle and the top by air bladders which pull up on the pipe to maintain the pipe's rigidity and prevent it from bending or buckling too much.

They also have to deal with the movement of the sea ice itself. Under current conditions, the ice can move nearly 60 feet in any one direction before the angle of the drilling equipment will prevent it from working properly.

"To date we have moved off 6 meters (20 feet) from where we spotted in," Cooper said.

The project has had the same drill crew for three years, which has made things easier every year, according to science coordinator Peter Webb.

"We've had amazing continuity," Cooper said. "We're a bit of a family, really, the old Cape Roberts team."

When the core comes out of the hole, it begins a journey which will move it faster and further than ever before in its 40-million-year history.

It is removed from the core pipe and goes to the lab at the drill site for preliminary examination.

The core is examined, scanned, tested for physical properties, and split into an archive half, stored safely for the future, and a working half, from which samples will be taken at Crary Lab.

The working half is scanned again before the core goes on the helicopter to the camp and Crary. At $10,000 per yard of core, it's worth a little extra time to photograph and scan everything in case of a helicopter accident or other disaster.

Some samples of the core are extracted at the drill site lab, to be used to determine more about the characteristics of the rocks being drilled, as well as to attempt to approximate an age for the rock layer.

The research is not just on the core itself, though. Some researchers are using the availability of a deep hole through many layers of rock to study the rock in situ.

Christian Buecker is one of these scientists. He does what is called "down-hole logging," sending instruments down the hole to collect data about the rock around the hole, at intervals of a tenth of an inch.

The logging process takes a long time; 12 instruments run one at a time, at a speed of between three and 33 feet per minute, through about 1,150 feet of hole at a stretch. At the end of the last logging run, Buecker had been awake for 44 of the previous 50 hours.

"We are looking for the physical and chemical properties," Buecker said.

The data gathered helps them understand the core better, as well as the surrounding rock.

"It partly confirms our information and gives us new information about the structure," Buecker said.

Among other things, Buecker has learned that the temperature at 2,500 feet down the hole (below the sea floor) is 68 F. It increases as they get closer to the center of the Earth.

But 3,084 feet is as close as the project will get to the Earth's center. But in terms of both science and technology, this is not the end.

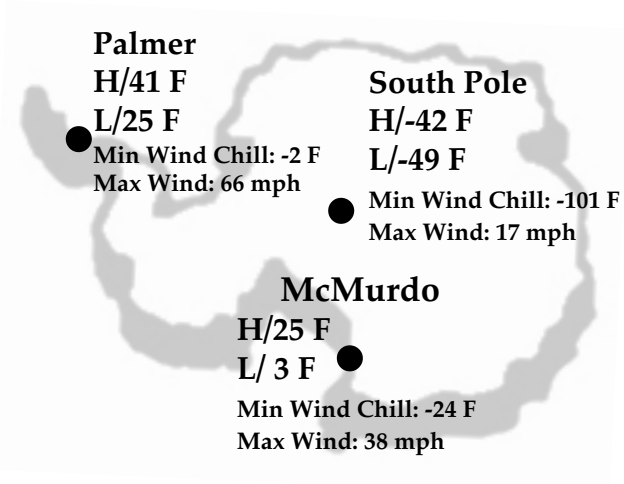
Camp manager Jim Cowrie has put in a proposal to the member countries of the Cape Roberts Project to set up a consortium of Antarctic drillers and researchers who use drilling as a method of gathering data.

Barrett is also making an effort to expand beyond just this three-year project. He hopes eventually to be able to drill through the center of the ice sheet, perhaps at Vostok, and into the sediment below, to see what was happening in the center of Antarctica.

But even this work, in which the margins of the ice sheet are being studied, has been fruitful.

"It's advanced the technology and advanced the science," Barrett said. "We actually think this is fun."

Weather this Week



'Amundsen' and 'Scott' to reach second South Pole

NASA's Deep Space 2 microprobes, due to smash into the surface of Mars near the planet's south pole on December 3, have been named Amundsen and Scott in honor of the first explorers to reach the South Pole of Earth.

The main purpose of NASA's miniature probes is technical, not scientific. They are flight-testing advanced technology that could be used by future planetary surface microlanders.

Constructed to survive an abrupt impact at 400 mph with the layered terrain common in the south polar region of Mars, the two Deep Space 2 probes also carry sensors to search for the presence of frozen water about three feet below the surface, as a secondary goal.

"Deep Space 2 joins Mars Polar Lander as the first missions to venture to the south pole of Mars, so it's only fitting to name the microprobes after the two explorers who first set foot on Earth's South Pole," said Deep Space 2 project manager Sarah Gavit. "Like Amundsen and Scott, Deep Space 2 will have to survive great odds, including not only braving the elements but also crashing into the terrain with unbelievable force."

The Deep Space 2 probes are piggybacking on NASA's Mars Polar Lander spacecraft, which was launched on January 3. Each probe has an entry system consisting of a basketball-sized aeroshell with a grapefruit-sized probe inside.

Released from the cruise stage of the Mars Polar Lander on Dec. 3 before it enters the atmosphere of Mars, the probes will dive toward the surface with no braking system beyond their cone-shaped exterior surface. Unlike any spacecraft before them, the probes must endure impact forces up to 60,000 times the force of Earth's gravity as they hit the surface.

Upon impact, the aeroshell will shatter and the forebody of each probe will bury itself up to three feet underground, while the aftbody remains on the surface to transmit data back to Earth through NASA's Mars Global Surveyor spacecraft.

If successful, Deep Space 2 will demonstrate innovative approaches to entering a planet's atmosphere, surviving a crash-like impact and penetrating below a planet's surface.

A helicopter lifts off from the Cape Roberts camp on its way to the drill site with the morning work crew on board. Photo by Jeff Inglis.

Check out the Sun websites of the week:

http://www.amnh.org/exhibitions/shackleton/
The American Museum of Natural History's exhibit about the voyage of Shackleton's Endurance.

http://www.pbs.org/nova/shackleton/
The PBS show NOVA did a special on Shackleton.

http://www.mnc.net/norway/roald.html
A long list of links about Roald Amundsen.

http://www.south-pole.com/p0000107.htm
A chronicle of Byrd's expeditions to Antarctica.

The Antarctic Sun, part of the United States Antarctic Program, is funded by the National Science Foundation. Opinions and conclusions expressed in the Sun are not necessarily those of the Foundation.
Use: Reproduction and distribution are encouraged with acknowledgment of source and author.
Publisher: Valerie Carroll, Antarctic Support Associates.
Editors: Jeff Inglis
Josh Landis
Aaron Spitzer
Contributions are welcome. Contact the Sun at sun_news@mcmurdo.gov. In McMurdo, visit our office in Building 155 or dial 2407.
Web address: http://www.asa.org

Speaking of Science...

The fine science of Deception

By Paige Jennings
Special to the Sun

In marine science, there are few more unusual laboratories than Port Foster, a sunken volcanic caldera on Deception Island north of Palmer Station.

It was here that marine biologist Ken Smith and his researchers arrived earlier this month to begin conducting their research.

The volcano last erupted in 1970. Believed to have first been sighted in 1820, the Port Foster caldera was opened to the ocean and flooded when a prior eruption caused a small portion of the southeastern wall to give way.

The narrow opening, called Neptune's Bellows, allows adequate ship access to the sheltered basin—approximately five miles long, two miles wide, and 500 feet deep.

On the shores of a small bay just inside the bellows are the weathered relics of a once-thriving British whaling station and research station. Dilapidated wooden and metal buildings, rusting fuel tanks, machinery, and even the skeleton of an airplane dot the shore.

In the shallow water off the beach, sun-bleached whale bones contrast starkly with the black volcanic sand. Between 1911 and 1941, this bay served as a protected port for the slaughtering and processing of whales.

Today, in the middle of the wild Southern Ocean, Port Foster provides a protected study environment, safe from high seas and icebergs.

Ken Smith, a professor at Scripps Institution of Oceanography at the University of California at San Diego, has instrumented the basin to study how the abundance and distribution of marine organisms varies with seasonal ice cover. He is especially interested in pelagic communities of large zooplankton and small larval fishes, and benthic communities of creatures such as brittle stars, sea urchins and other organisms thriving on the ocean bottom.

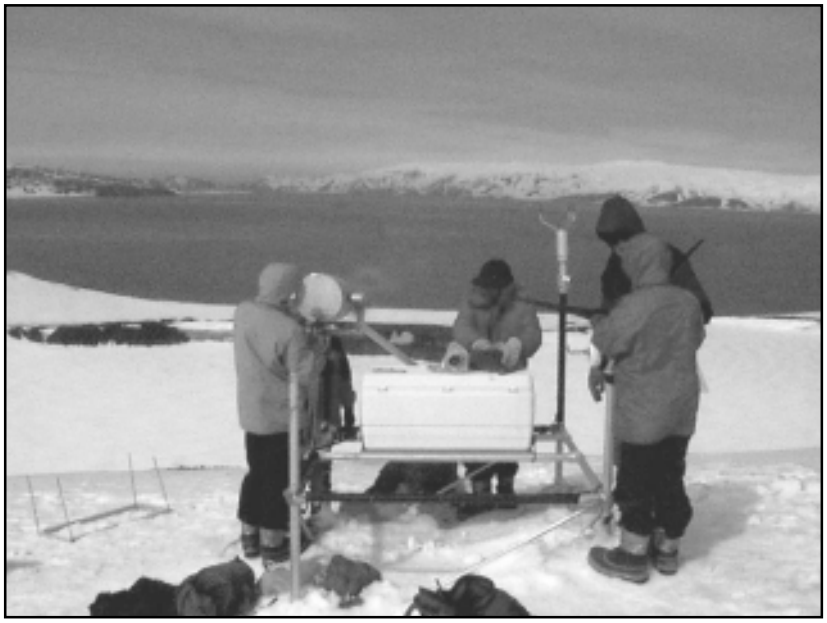
According to Smith, "Our research constitutes the first long-term study of the effects of seasonal ice cover on both pelagic and benthic communities over a complete annual cycle. Results from these studies should provide a valuable database for the evaluation of pelagic and benthic community responses to seasonal variability in the Southern Ocean."

Last February, Smith's team made its first cruise here to install most of the underwater instrumentation needed for the yearlong study. High on a ridge at the head of the bay, they also installed a terrestrial station complete with a digital camera, turbine generator, anemometer and thermistor. The camera, which was positioned to view the entire caldera through its wide-angle lens, was programmed to click off a shot each day at noon. The images will be used to monitor ice cover during the year.

A few days after arriving at Port Foster I joined Smith and his team on a trek through the snow to the terrestrial station.

We arrived at the 125-meter elevation to find that the station had incurred some damage, probably from incredibly high winds that frequently batter the island. Some of the damage was repaired, and the camera was taken back to the ship to have its data downloaded. Images were captured of the bay that showed dramatic changes in weather, sea state and snow cover, illustrating how rapidly and drastically conditions can change in this part of the world.

Fortunately, the weather during this spring cruise has been relatively mild, allowing for safe work on deck and shore. Throughout the cruise, the Scripps team serviced existing equipment and deployed new instruments. One of the largest to be installed was a vertically profiling pump sampler. The enormous instrument, conceived by Smith, will move up and down through the water column to collect macrozooplankton and micronekton. Depending on the abundance and distribution of organisms gathered, Smith will end up with an indication of how the biomass varied throughout the time of day and time of year.



From the terrestrial station where they are reinstalling the digital camera, Ken Smith and his team have an incredible view of Port Foster and the surrounding terrain. Photo by Paige Jennings.

As with all fieldwork, especially as remote as the Southern Ocean, scientists have a short amount of time to accomplish goals for which they have spent months and years planning. With the assistance of the ASA deck personnel and the Edison Chouest crew, Smith's team has successfully completed ERUPT 2. In another week, they'll fly home and start planning for ERUPT 3, 4, and 5.

Paige Jennings is a writer and photographer with the Scripps Institution of Oceanography at University of California, San Diego.

Casting a wide net for tiny particles

By Aaron Spitzer
The Antarctic Sun

Across a broad swath of ice outside Amundsen-Scott South Pole Station, a team of researchers is weaving a web to catch one of the most elusive objects in the universe.

The project is AMANDA, and the prey is the high-energy neutrino.

"Neutrinos are the harbinger particles of some of the most violent processes taking place in the universe," says Bob Morse, the principal investigator of AMANDA.

A physics professor with the University of Wisconsin, Morse is at the Pole this season to oversee a significant expansion of AMANDA—the Antarctic Muon and Neutrino Detector Array.

By casting his net wider, Morse hopes to capture more neutrinos and trace back their trails to the cataclysmic celestial events from which they originated.

Curiously, while the other telescopes at the South Pole Station's observatory point up into the southern sky, AMANDA essentially looks down, through the Earth, into the Northern Hemisphere.

That's because AMANDA uses the deep, clear ice below the South Pole as a kind of gigantic lens, to better spy neutrinos passing through the planet on their journey from the far corners of the universe.

Begun nearly a decade ago, AMANDA currently consists of 13 fiber optic "strings," each descending more than a mile into the ice cap. Spaced every thirty or forty feet along the string are neutrino-detecting photomultiplier bulbs, each about the size of a basketball.

Six more strings—each bearing 42 detectors—are set to be installed in the ice this season.

According to Morse, of the billions of neutrinos that constantly bombard the Earth, one occasionally strikes an atomic nucleus and spawns a muon. "That upward-coming muon is what we're keying in on."

Because muons travel faster in ice than does light, they push a wave of photons in front of them—much like the bow of a moving boat pushes a wave of water in front of it, explained Morse.

It is this wave of blue light that the photomultiplier tubes are designed to detect. "If many tubes say we've been hit within a millionth of a second, then we pay attention," Morse said.

Drillers from the Polar Ice Coring Office use hot water hydraulics to bore holes more than a mile deep. Photo courtesy of Paul Bellrichard.

That's when the sleuthing begins. Each day brings about eight million potential hits for the AMANDA researchers, which they whittle down to around eight candidates—what they call "the police line-up."

Of those, Morse said, "We probably pull out a neutrino every couple days."

But the work isn't over there.

By figuring the path that the neutrino took through AMANDA's web of photomultipliers, the researchers can backtrack through billions of miles of space, to determine the particle's approximate point of origin.

"You're able to look out to the very edge of the universe—out to the very beginning of time," Morse said.

What they are looking for are hot spots-sources of high cosmic energy such as black holes, supernovas and even single points in space emitting as much energy as whole galaxies.

Neutrinos, said Morse, "are messages about very violent phenomena." By learning to read those messages, he and his researchers may unravel secrets about the formation and nature of the universe.

The infrastructure needed to accomplish this feat is tremendous. Above ground, AMANDA has overtaken an entire room of the Pole's Martin A. Pomerantz Observatory. In a warren of cables and powerful computers, incoming data is sifted 24-hours-a-day in a number-crunching quest for the elusive particles.

The part of AMANDA below the ice is even more immense. Simply installing the six new strings this season will require several thousand pounds of cable and fiber optic line, plus hundreds of photomultiplier bulbs—adding up to about $3 million of hardware.

And laying the lines will itself be an impressive endeavor. Set to begin December 1 and conclude in mid-January, the drilling will be done by a 15-member team from the Polar Ice Coring Office, working in three continuous shifts.

They will use heated water to bore six perfectly straight holes, two feet wide and more than a mile deep. Each hole will require the burning of 7,000 gallons of fuel.

Remarkably, though, AMANDA is only a building block in a much bigger neutrino net that Morse and his team envision building.

In a proposal recently submitted to the National Science Foundation, the researchers sketched out the idea of Ice Cube: a square kilometer of the polar plateau interwoven with neutrino detectors.

In the hunt for evasive high-energy particles, size matters. "The secret here is just to look at as much ice as you can," Morse said. "There's no such thing as too big a neutrino detector."

Station and vessel updates

ASA Denver
By Ron Koger

ASA's request to federal claims court for a temporary restraining order to keep Raytheon Polar Services from beginning phase-in activities was heard by the court last Friday in Washington, D.C.

The federal judge is expected to announce his decision this Wednesday.

R/V Laurence M. Gould
By Phil Sacks

The R/V Laurence M. Gould is back at the dock in Punta Arenas after a busy and successful science cruise. It took two stops at Cape Shirreff to find a weather window appropriate for zodiac operations, but on our second try we were able to land all researchers and their cargo.

The Gould then steamed to Deception Island for 10 busy days of science supporting Dr. Ken Smith's work in Port Foster. We were able to accomplish all of Dr. Smith's objectives including multiple deployments and retrievals of free vehicles, 1 meter and 10 meter MOCNESS tows, CTDs, otter trawls, shallow-water work from zodiacs, and servicing his terrestrial station.

After Deception, the Gould returned to Palmer briefly to pick up re-deploying staff and retro cargo. The weather on the northbound Drake crossing was favorable except for strong headwinds and seas on the final day, running north along the Argentine coast of Tierra del Fuego.

The ship's crew and ASA staff are now busy loading cargo and preparing for the next cruise, LMG99-10, which begins in two days. ASA staff sailing on this cruise includes Phil Sacks, Beth McAndrews, Trent Sanamo, Marion Moyher and Ken Schwartz.

South Pole Station
By Tracy Sheeley

The summer season is in full swing at the South Pole, and our population is nearing 200. Most of the mainbody staff has deployed to Pole, and science groups are beginning to arrive. A few winterers are still present assisting in transitional training and activities.

The South Pole hosted our first distinguished visitor on November 9. Col. Matt Musial, who serves as the liaison between the Air National Guard and Air Mobility Command, toured the station in the company of station manager Ed Blain.

Bad weather at Patriot Hills has delayed the arrival of French expeditioner Laurence de la Ferriere. She plans to ski solo from the Pole to Dome C to Dumont D'Urville. De la Ferriere last visited the Pole when she was the first French woman to ski solo to the Pole during the summer season of 1996-97.

Excavation is almost complete for the base of the new power plant arch to be constructed this summer. Crews will begin this construction next week.

Palmer Station
By Robert Farrell

The R/V Laurence M. Gould returned to Palmer Station on October 30, bringing researchers and supplies. The station and ship's crews worked together to complete the port call in four hours, allowing the ship to depart for Deception Island ahead of schedule.

This week was an exciting one for the Palmer science community. The weeks of patient optimism paid off as a Sunday night storm brought gusts up to 50 knots and carried away much of the ice that has kept the station landlocked for nearly a month. Zodiacs were launched and the scientists headed out into Arthur Harbor and Hero Inlet to collect water samples and krill. Members of BP-013-O (Fraser) eagerly sped to Torgerson and Litchfield Islands to pay their first visit to the gathering Adelie penguins. Along the way they spotted leopard seals, elephant seals and minke whales.

Faces on HIGHWAY 1

With Thanksgiving Day coming up, what are you thankful for?

"That me and my family are down here."
Matt Truman
Fire department

"The brighter, nicer, warmer weather this time year."
Michael Baclawski
The Store

"I'm thankful that I have my beautiful, lovely sister down here."
Kim Fabré
Hairstylist

"I'm thankful for Andy and wood."
Sherri Fabré
Carp shop

Jessica Manuel, Jess Barr and Cicely Wingate scrub, sweep and spray the floor of Building 121. Years of beer and soda spillage have provided ample nourishment for stowaway fruit flies. Photo by Josh Landis.

"Flies"—from Page 1

nowhere to put the drinks where they won't freeze, and using noxious sprays would raise environmental concerns.

"We've been reluctant to use fumigation and pesticides," said Harry Mahar, the safety and health officer for the NSF's Office of Polar Programs. "We've taken a green approach."

Earlier this year the Antarctic exterminators tried a tactic using something McMurdo has in ready supply: cold temperatures. Thate and recreation supervisor Liz Evenson took turns staying up all night, dropping the temperature of the warehouse below the freezing point, then turning the heat back on as the beer and soda were about to be frozen. They hoped it would get cold enough to kill the fruit fly eggs, which had been laid in the porous, wooden floorboards.

The cold didn't do the trick, so they moved on to a clean-and-destroy approach.

The latest plan of attack involved white jumpsuit-clad GAs, who invaded the occupied territory with disinfectant and high-pressure hoses. They pulled up all the metal floor panels, soaked the wood underneath with a diluted bleach solution, and sprayed it all clean.

"The GA's really did a marvelous job. They were very extensive," said Thate. It's been about a week since they finished, and so far there have been no insect sightings. "But we'll have to wait and see if it worked," added Thate.

Now the key is to keep the warehouse as clean as possible. "If we see any spillage, we break down the whole palate and clean it up," said Evenson. Without any syrup residue, the insects' food supply will be gone and they will die off.

In the quest to quash the bugs, the exterminators even solicited the help of entomologists in New Zealand and Washington, D.C. They first determined that the insects didn't pose any threats to humans, then worked on figuring out the best way to kill them in this environment.

The battle with the bugs has been long-fought, and it remains to be seen if it's over.

As much of a pest as the flies have been, some people will be sad to see them go. "Winter-over bands liked them," said Thate, referring to the people who used the practice room in Building 121. "They thought they were pretty cool."

Only in Antarctica, where life is turned upside-down in more ways than one, would bugs be beloved.

"It's been nice to have some life-form around," said Thate. "It'll be sad to see them go, but they must."

Cold Hard Queries

In recent days, several people have stopped by the Sun's office and posed intriguing Antarctic trivia questions. Here are the answers we've found:

Is there lightning in Antarctica?

Jeff Prucinsky of Mac Weather reports, "I do not believe that there has ever been a recorded case of lightning in the Antarctic."

The reason is that lightning requires clouds that are tall enough to have large areas of positive and negative charge. Because Antarctica is so flat and white, there is little convective activity, and no chance for clouds to form high enough, Prucinsky said. With no tall clouds, there is no lightning.

How did Amundsen and Scott know when they had reached the South Pole?

Both expeditions used a navigational instrument called a theodolite (the-AHD-oh-lite), which measures the elevation of the sun above the horizon, to map the track of its orbit. From the path of the sun across the sky, Amundsen's and Scott's parties were able to determine their latitude. Longitude was of no concern, since longitude is meaningless at the poles.

As well, Scott knew he was at the Pole because he found a Norwegian flag planted there.

Why is a Jamesway called a Jamesway?

This is a tough one. Though we've been unable to pin down an answer, we've heard several theories, including that the building is named after a person named James Butler Way, or after a person or corporation called Jamesway.

If you can shed additional light on these ideas, or know of other theories, please contact us at the Sun.

Our Antarctic Week

Sunday
Cape Roberts open house—1-4 p.m., Crary Lab
Jurassic dinosaurs from the Trans-Antarctic mountains-Sunday Science Lecture, 8:30 p.m., Galley

Monday
Geology around McMurdo—8:30 p.m., Galley
Burger Bar delivery—6-8 p.m., (call x2413, $5 minimum)

Tuesday
Swing dance lessons—6:30-8 p.m., Gym

Wednesday
Bingo, guest callers: Housing—8 p.m., Gallagher's

Thursday
Thanksgiving!

Friday
MEC party—8 p.m., "Studio 58" at MEC

Saturday
Swing dance—8-10 p.m., Gym
Open mike night—8:30 p.m., Coffee House

Sunday
Turkey Trot fun run (3 miles)—noon, Chapel

If you have an item for the weekly calendar, e-mail us at sun_news@mcmurdo.gov, call 2407, or drop by our office in Building 155.

Heralded explorer dead at 91

Sir Vivian Fuchs, one of the most renowned Antarctic explorers since the Heroic Age, died November 11th at the age of 91.

Fuchs was the British leader of the 1957-58 Commonwealth Trans-Antarctic expedition, which made the first surface crossing of the continent.

Born on the Isle of Wight in 1908, Fuchs studied geology at Cambridge University and afterward participated in geologic expeditions to Greenland and East Africa. Following his service in the British Army in World War II he became the field commander for the Falkland Island Dependencies Service and made his first visit to Antarctica.

Sir Vivian Fuchs, 1908-1999

It was there, during a blizzard on Anderson Island in 1949, that he resolved to attempt a cross-continental traverse—the first since the failed expedition of Ernest Shackleton in 1914.

Using a train of Sno-Cats and tractors, Fuchs and his team left the Weddell Sea on November 24, 1957, headed for the South Pole. Rugged terrain and inclement conditions forced them to abandon three of their vehicles, but they arrived at the Pole on January 19, 1958.

There, they were met by New Zealand mountaineer Sir Edmund Hillary, who had laid caches for Fuchs from the Ross Sea to the Pole.

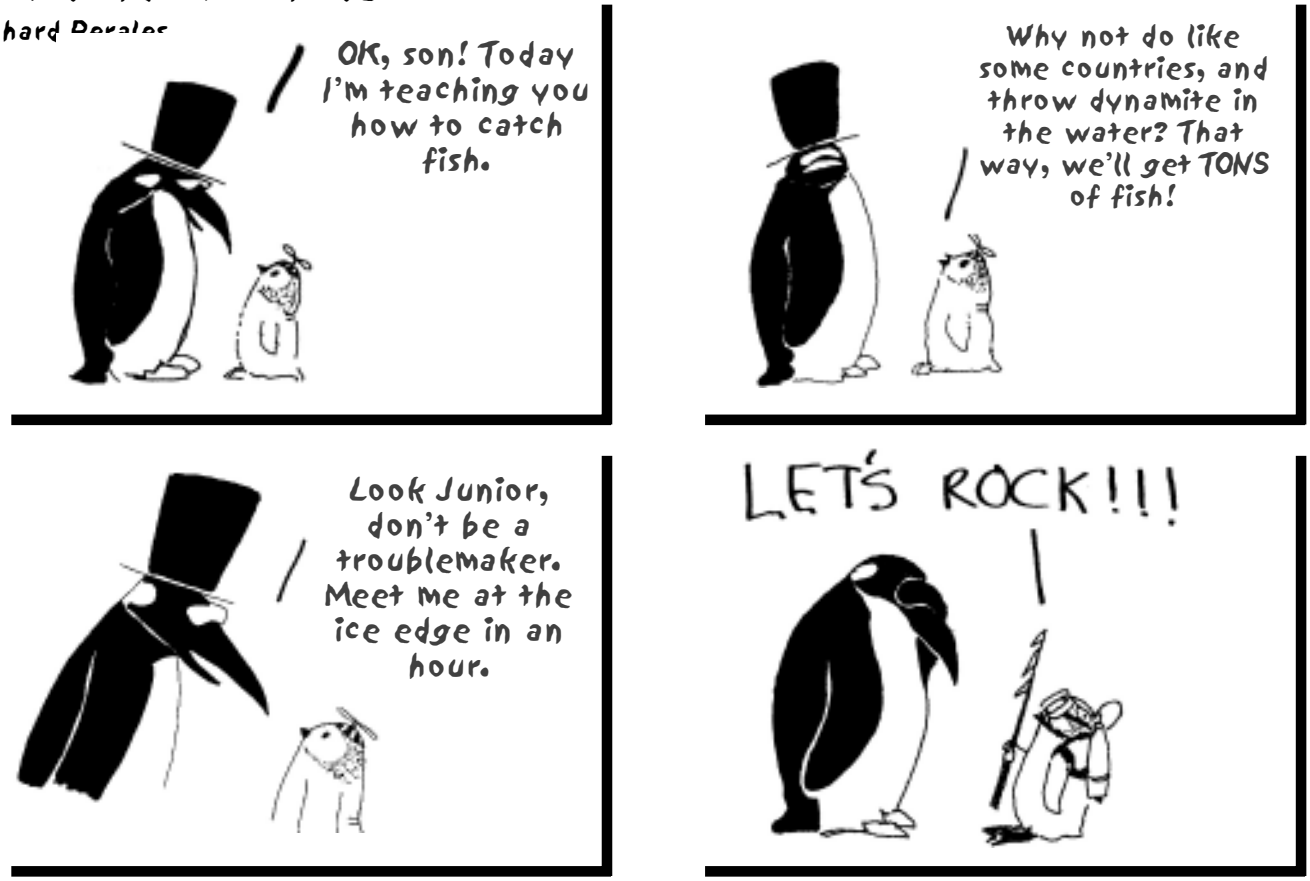
The team then forged across the polar plateau east of the Transantarctic Mountains, descended the Skelton Glacier and, 99 days after they set out, arrived at Scott Base on March 2, having covered more than 2,000 miles of the Antarctic.

Following the expedition, Fuchs was knighted and became the head of the British Antarctic Survey, a position he held until his retirement in 1975.

He died at his home in Cambridge, England.

Ross Island Chronicles

by Richard Perales



LIFE AT ICE U.

By Jennifer Jabs
Special to the Sun

McMurdo resembles college living in more ways than one

According to the U.S. Antarctic Program participant guide, "personal comfort in Antarctica is important." It isn't kidding.

Entertainment and recreation opportunities are abundant here at McMurdo. For being such a harsh environment, McMurdo is a land of comfort. (Scott and other explorers to this area would never believe this statement.)

For those of you who have not lived on a university campus, life in MacTown is similar (and even better) in many ways. Instead of being students, though, we (members of the support staff) are the "maintenance workers." Even so, we enjoy all the campus benefits of students.

We have a "cafeteria" that serves free meals (bonus: there are four meals a day). We live in dorms of varying levels of comfort (bonus: free laundry and detergent). There is a "campus" store (souvenirs included), a library (bonus: no due dates or even returns on paperbacks). There is a wide selection of sports (though most of them are indoors), a gym, aerobics classes and even a climbing wall (How many universities have that?).

Surrounded by nearly all the comforts of home, a McMurdo resident relaxes in the luxury of her lounge. Photo by Jennifer Jabs.

If you're not in the mood to work out, there are bars (bonus: they're on campus) clubs, arts, and a greenhouse (who would believe there is one in Antarctica?).

We're also treated to science lectures, films (bonus: they are free, along with free video rentals), TV and VCR lounges, computers (with the same complaints as on university campuses that there are not enough), recreation equipment, a radio station, free heat, water, electricity, and even free "stuff" compliments of Skua Central. That's not to mention all sorts of support departments like health, housing, finance, recreation, and more.

Similar to university campuses, people at McMurdo come from a variety of backgrounds. The biggest difference from traditional universities is that the age of people here varies a lot more.

When you first meet someone at McMurdo the typical conversation is, "Where are you from? What do you do? How many years have you been here? How did you hear about this place and why did you decide to come?" Many of the same questions are asked when people meet at universities.

When distinguished visitors (DVs) come to visit, the "red carpet" is rolled out in much the same way as parents' or alumni weekend at universities (even though we are all DVs on some level). When DVs visit McMurdo buildings are cleaned up, special meals are prepared and transportation and recreation opportunities are provided that many of the "masses" do not regularly experience.

The similarities continue.

For a lot of university students, the priority is not studying. Similarly, some McMurdo employees' priorities do not include working. Their behavior here is similar to that of 18- and 19-year-olds. The gossip, drinking, cliques and "relationships" are just as prolific here as on campuses of young people who are away from home for the first time.

It is interesting, though, that the average age at McMurdo is 14 years older than at most universities.

Getting back to personal comfort, the amenities provided at McMurdo make life in this harsh world much easier. There are none of the stresses of home that many of us left. No one can call us from the "outside world" (though this may be a stress for some people), there is no junk mail, no solicitors, few interruptions (though some people would like more!), no utility bills, no cleaning house (for most), no traffic, no commute to work (for most), no grocery shopping, no cooking (for most).

We do not need to be concerned with day-to-day survival. Even trails are marked to remove the hazards of crevasses. Life at McMurdo is extremely externally stress-free.

A striking difference between McMurdo and a university is that as employees at McMurdo we do not pay for this opportunity (except with our time, which is the ultimate expense). We actually get paid and even get a travel expense. It's like a full-ride scholarship with stipend and travel fund—what a grand opportunity! We are living for free on a land that only a few will ever see, and getting paid to have these experiences. What more could we ask for? We are so fortunate—not to mention comfortable!

Jennifer Jabs is an ASA employee who works at McMurdo Station.

PROFILE

McMurdo's father figure

By Aaron Spitzer
The Antarctic Sun

With his wide, cherubic smile and soft-spoken manner, one would never guess the large role Father John Coleman has played in the life of modern MacTown.

For 16 years the affable, white-haired Kiwi priest has been coming to the Ice, serving as the Catholic chaplain to the United States Antarctic Program.

Coleman spends about a month each year in Antarctica, attending to the spiritual and psychological life of McMurdo's Catholics and, in many cases, non-Catholics. The rest of the time he returns to his parish in his native Christchurch.

Seated in a brightly-lit alcove of the Chapel of the Snows on a recent weekday morning, Coleman reflected enthusiastically on the spiritual significance of Antarctica.

With its starkness and isolation, the Ice is a place that inspires self-examination and self-awareness, he said. "You come down here and in some ways you're new settlers. You come to see yourself in a completely new world."

And that new world casts a new light back on the people who inhabit it. Visitors to Antarctica often end up looking at themselves through a "psychological telescope," Coleman said, focusing on their values and their goals.

For that reason, being in Antarctica is a privilege, he said. "We're lucky people."

Father John Coleman, though a native New Zealander, has spent 16 seasons ministering to participants in the U.S. Antarctic Program. Photo by Aaron Spitzer.

But he also knows the Ice exerts stresses on people that they may not have experienced in the North. Relationships, particularly, are strained—whether between couples on the Ice or those trying to maintain long-distance relationships with someone back home.

Providing relationship counseling is one of Coleman's major duties on the Ice.

Antarctica has definitely been good to the father. "If I didn't have Antarctica I don't know what I'd do," he said. "I have to have a focus in life that's bigger than the local community. A parish probably never would have satisfied me."

The father's associations with Antarctica came early. According to Coleman, "My first parish priest in 1958 was the Operation Deep Freeze chaplain," ministering to famous men the likes of Adm. George Dufek, the first person to stand at the South Pole after Scott's party.

But it would be more than 25 years before Coleman's dream of coming to Antarctica was realized. "It was a latent seed that didn't come to fruition until 1985," he said.

During the interim, Coleman had an entire career in New Zealand radio and television. Shortly after he was ordained in 1957, the father was tapped by his bishop to provide new blood for Catholic radio programming in Christchurch.

That stint led to an education in scriptwriting and radio drama. Then, with the coming of television to New Zealand in 1961, Coleman transitioned into that medium.

He eventually ended up writing what he characterized as "obliquely religious" TV programming, including a show that was broadcast nationwide—thrusting him into the national spotlight.

Eventually Coleman became the director of religious programming for TV New Zealand. He also was appointed to the Vatican's Council for Social Communications, a duty which regularly took him to Rome.

But when computer technology came into broadcasting in the early 1980s, Coleman decided it was his time to gracefully bow out of the television business in New Zealand. Though offered various other high-powered positions, "I ended up back in the parish, wanting to be with real people again," Coleman said.

Shortly thereafter, in 1985, the chaplain for Operation Deep Freeze passed away, and Coleman took over the job.

In the last 16 years he's seen a lot of change take place on the Ice. Back in the mid-80s, when McMurdo was mostly military, chaplains received the same deference as officers. He was given smart salutes as he strolled MacTown's muddy streets. "It was a bit of a novelty," Coleman said.

But then, as now, Coleman found that his role was in ways an informal one. He transcended religious boundaries, he said, and tended to the spiritual needs of those of all denominations.

"We're not just about God," Coleman said of the spiritual leaders in McMurdo. "We're about the needs of people. You can't look after the spirit if you're not looking after the body and the mind."