

FEBRUARY 7, 1998
Last of the Season

The Antarctic Sun



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

Winter Camps Thrive 43 Stations and 18 Nations on Ice

story by Brenda Joyce

Forty-three stations from eighteen nations will winter-over this season but less than 1,200 people will be 'on the ice' after February ends.

McMurdo's metropolis of 170 residents will outnumber the combined population of all six Argentinian winter stations.

Typically, less than 20 people per base will keep the lights on around the continent.

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INSIDE

Explorers Outpost *Discovery Hut is the most historically significant building on the continent.*

Adventure Destination *More than 10,000 shipborne visitors are expected to visit Antarctica during the 1997-98 austral summer*

Angela's First Stripe *In the Navy just one year, Angela Wash's career has been launched from McMurdo's ice runway.*

Legacy of the IGY *The IGY's successful and cooperative science is universally credited with paving the way to the Antarctic Treaty.*

One That Got Away *The demise of the first fish ever caught within the Antarctic circle is as unlikely as the notion of a house cat living at the South Pole.*

Good For Anything *Being a GA is a bit like being a Navy Seal: you've got to be ready to do anything and go anywhere at any time.*

Profile *Serendipity, palms and a longing for adventure have guided Brenda Joyce on a life adventure Shackleton himself would have been proud of.*

Into the Long Night Summer Staff say Goodbye Resupply Vessel Arrives

story and photo by Alexander Colhoun

From his roost inside the 'Tower of Power', a converted air traffic control facility, Jackie Samuel monitors a flow of activity that makes a beehive seem like a retirement home. Cranes lower one steel container after another off the decks of the *M/V Greenwave* as Navy cargo handlers move from perch to perch, unstrapping and dechaining the 20-foot long steel boxes.

Inside the tower the radio squawks, telephones ring and instructions are given to drivers and handlers across the station. This controlled chaos means one thing: resupply.

Sugar and flour, steel plates and rubber tires, electric switches and medical bandages—everything a town needs to survive—all arrived in McMurdo on the 508 foot long *M/V Greenwave* on Friday.

Laden with 600 steel containers, the ship's arrival marks the end of a resupply effort that began eight months ago in Denver, Colorado.

"We have four people who do nothing but expedite," said Dave Trujillo, Antarctic Support Associates (ASA) purchasing manager. "They're on the phones all day, talking to vendors and making sure people get what they need."

From July to October the team of buyers go on a shopping spree, racking up a tab close



Bunny boots and extreme cold weather gear in hand, Than Pulsifer makes his way to the airporter bus bound for Pegasus Airfield. Pulsifer is one of several hundred summer employees that will be making their way home in the next three weeks.

to 12 million dollars in the process of purchasing over 30,000 separate items, many of which must be custom made.

Living and working in an extreme environment requires extreme equipment. Supplying South Pole station is particularly challenging as the temperatures there frequently drop to fifty and sixty degrees below zero.

"Our suppliers come in proudly claiming their machines can work at 30 below," said Trujillo. "We smile and tell them the South Pole is negative 30 on the warmest day. We need equipment that can manage 100 below. That requires heated hydraulic fluid and special seals."

In addition, all equipment bound for the South Pole must break down to fit inside an LC-130 Hercules aircraft for transportation to

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Winter On Ice

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Peninsula stations are closely grouped and in frequent contact. Nine different nations cluster on King George Island and often collaborate on projects.

Peru, Brazil, Chile and Argentina, aided by research vessels, center much of their work on the abundant marine life near South America.

South Korea, China, India and Japan established bases during the '80's and '90's. Japans own "heroic age" pioneer, Nobu Shirase, explored The Bay of Whales in King Edward VII Land in 1911—the same year Amundsen reached the Pole.

With only 70 people in the summer and 20 in the winter, Poland's Arctowski Station is perhaps the most international base. Cooperative studies are carried out with 11 nations including Bulgaria, Peru, Spain and Belgium.

European bases circle the entire continent and fan out to the sub-Antarctic islands claimed in the days of early exploration.

Australia's modern communications keep their three continental stations in touch with each other and their web pages keep the world in touch with them.

Only 12 Kiwis, neighbors to McMurdo Station, will remain at New Zealand's Scott Base while France's Dumont d'Urville will have less than 20 winter-overs. Italy's Terra Nova Bay will close on February 28th.

SANAE4, the current South African Station, was completed in 1996/7 after SANAE3, built in 1980, was crushed under 25 meters of snow. A party of 20 completed last season near the Fimbul Ice Shelf.

Some stations have it easier than others. Two extremes are the British Halley and Rothera Research Stations. Rothera's supplies can be easily dis-

charged from a wharf at the southern tip of Adelaide Island while Halley is built on the floating Brunt Ice Shelf in the Weddell Sea. Supplies are landed by ship on the ice edge and then towed by SnoCats on sledges to the base, some 12km away. Easily the most isolated of the UK stations, Halley can only be visited twice a year by ship.

No base, however, endures more than Vostok. It has experienced the coldest recorded temperature on earth (-128.6°F) and is located at the geomagnetic South Pole at the center of the East Antarctic ice sheet. The Russian scientists also suffer from financial problems inherited by their country from the former Soviet Union.

In 1996 the *R/V Nathaniel B. Palmer* broke through June's pack ice to bring tons of food and supplies to 38 Russians marooned at Vostok when their supply ship was turned around for mechanical and financial problems. The scientists were stranded and surface vehicles had to haul food from Mirny, their resupply point, 500 miles away.

While the days of map-making explorations are over, it is unlikely that the heroic age will ever really end on the seventh continent. *

CORRECTION:

In a story written by Bill McCormick ("Field Camp Christmas," January 10, 1988) we incorrectly started his story with a Black Island locator. McCormick's Pyramid Fuel-Cashe Camp adventure took place at edge of the Koettlitz Glacier which sits between the Royal Society Range and Mount Discovery.

REUNION:

The Old Meet The New

Personnel of Deepfreeze I&II will hold their annual reunion in Denver, Colorado, May 6-10, 1998.

Meet the legends and hear the stories of both military and civilian personnel who built the first stations, spent the first winters and were the first to set foot at the Geographic South Pole after Captain Scott.

For more information contact: Charlie Bevilacqua, 81 Orchard Peach Road, Burlington, MA 01803-3230; or leave a message on: (781) 933-4525.



Sun Site:

<http://www.antarctica.org/southpole/antarctica.html>

Catch up with the Belgian unsupported transantarctic expedition team.



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Editor: Alexander Colhoun

Publisher: Valerie Carroll, ASA

Contributions are welcome. Contact The Sun at sun_news.asa@asa.org. In McMurdo, visit our office in Building 155 or dial 2407.

Web address: <http://www.asa.org>



photo by Susie Brown

As the sun sinks lower onto the horizon, Antarctic workers know that winter is on its way.

Explorers Outpost

by Ted Dettmar

On January 17th, 1912, Robert Falcon Scott and four companions reached the South Pole, starving, frostbitten and beaten to the Pole by a month by Roald Amundsen. Scott remained only long enough at the Pole to pen his immortal words "Great God, this is an awful place." He then began the desperate and ultimately vain struggle to return to his jumping off point, a small building at the tip of Hut Point, the Discovery Hut.

Small and unobtrusive by McMurdo standards, the Discovery Hut is in fact the most historically significant building on the continent. Four separate British Antarctic expeditions utilized the hut for purposes as varying as storage, entertainment, science experiments and shelter. And each expedition endured a crisis where reaching Hut Point became a matter of life or death.

Robert F. Scott began the British quest for the Pole in 1902 when he arrived at Hut Point aboard the *Discovery*.

Originally designed to withstand the heat of the Australian outback, the well-ventilated jarrah wood hut was assembled during the second week of February. Quickly discovering that the hut's small coal stove was entirely inadequate for heating the dank, drafty building, Scott opted to berth his men aboard the *Discovery*. That winter, the men produced "A Ticket to Leave" in the newly dubbed Royal Terror Theatre. Temperatures inside the hut during the performance hovered around -6° Fahrenheit.

Scott made his first journey toward the Pole in the Spring of 1902, taking with him Edward Wilson and a young Merchant Navy lieutenant, Ernest Shackleton. They reached 82 degrees South when scurvy overtook the party. Shackleton, in particular, suffered and at times had to be almost dragged on skis behind the party's sled. It was a ragged trio that struggled onto Hut Point February 3rd, 1903. Despite his quick recovery, Scott sent Shackleton home due to injuries, and in the process created a fierce rival.

Shackleton returned to the area in 1907

aboard the *Nimrod*, determined to reach the South Pole and show up his former leader. He made his base at Cape Royds but used the Discovery Hut as a forward supply depot. Having lost an entire sled full of food in a Beardmore Glacier crevasse, Shackleton and three men got to within 97 miles of the Pole.

The return journey was an epic fight against starvation. Dr. Eric Marshall collapsed and had to be dragged on the sled by the three other remaining men. While still 40 miles from Hut Point and with the *Nimrod* ordered to leave within a day, Shackleton left one man to care for Marshall and took another, Frank Wild, on a forced march to catch the ship. With almost no food and no sleep, Shackleton and Wild arrived at Hut Point just in time to signal the departing ship. They burned portions of two of Scott's smaller huts to signal

occupants. Sixteen men shared the cramped quarters until enough sea ice formed to allow a return to Cape Evans. Despite the less than ideal conditions one man wrote, "those Hut Point days would prove some of the happiest in my life. Just enough to eat and keep us warm, no more - no frills nor trimmings: there is many a worse and more elaborate life."

Scott did not make it back from the Pole, perishing 140 miles south of Hut Point. But another party of three men, the last men to see him alive, almost didn't make it back either. Coming down with scurvy on their return journey, Lt. Teddy Evans had to be dragged on a sled by his companions, William Lashley and Thomas Crean. Thirty-six miles from Hut Point and with Evans near death, Crean took off on a solo journey to get help at the Discovery Hut. Walking across



Standing amidst rusted cans, rags and yards of rope, Kendra Milanette soaks in the atmosphere of Discovery Hut while reading from the self-guide tour book. "It's the only place with a different smell beside the Galley," said Milanette. "It has the scent of history."

photo by Alexander Colhoun

the *Nimrod*. He returned to England a hero, having lost not a single man.

Scott returned to the fray in 1910. Thick pack ice prevented him from constructing another building at Hut Point, so he settled for Cape Evans.

An inspection of the Discovery Hut found it full of snow and ice, partly due to its less than weather tight construction and partly due to a broken window left by Shackleton. While eleven men laid depots on the ice shelf for the next year's Pole attempt, two men remained behind to shovel out the Hut (perhaps the first use of general assistants on the continent). From March through April, the hut saw its greatest number of

heavily crevassed terrain for 18 straight hours, Crean reached Hut Point on February 19th. Dog teams retrieved Evans and Lashley and Crean. The later two received the Albert Medal for heroism. Evans became a naval hero and Vice-Admiral in World War I.

The last men to occupy the Hut had the most difficult and tragic tale of all. Tasked with the job of laying depots across the Ice shelf for Shackleton's Trans-Antarctic Expedition, almost nothing went right for these men. While in the early stages of unloading stores at Cape Evans, their ship, the *Aurora*, broke its anchor lines and drifted out to sea. With little food or clothing and

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Bypass the Winter Blues

story by Dr. John Nicoletti

The crowds are gone, summer staff have departed and the sun sets for the final time of the season. Now what? This change may initially be met with a sense of relief, but can give way to more negative physical and psychological reactions.

Humans require a balance of both light and dark in order to flourish. When we are exposed to prolonged periods of either lightness or darkness, the body's circadian rhythms become out of whack or desynchronized.

In other words, the body becomes confused and does not know when it should activate, deactivate, sleep, eat, or repair itself. This disruption may lead to depression, irritability, apathy, insomnia, excessive sleeping or a variety of other psychological or physiological problems.

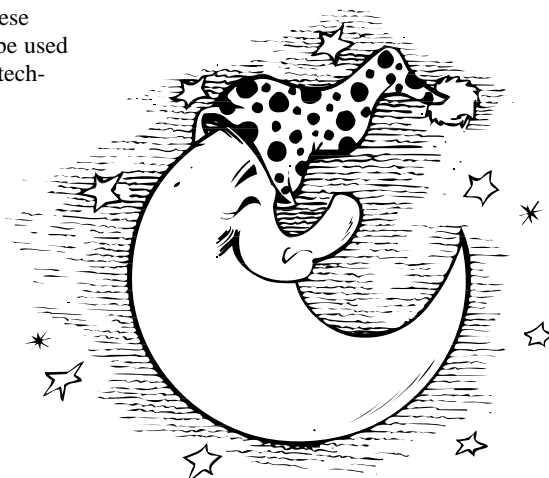
These problems can become worse when combined with isolation, extreme cold weather, and trying to co-exist with a small group of people.

In order to prevent or minimize these symptoms the following pointers can be used along with your own personal coping techniques:

- ✓ Settle Your Personal Affairs and Responsibilities— Try to gain closure in financial and personal areas of your life before the base closes.
- ✓ Structure Your Sleeping, Eating and Waking Time— The body requires predictability in the areas of physical needs. Develop a routine.
- ✓ Exercise, Exercise, Exercise— Physical activity is the great stress manager and anti-depressant.
- ✓ Don't Overuse Alcohol— Alcohol can alleviate stress and elevate moods, but it can

have a rebound effect and drop you further into a negative emotional mood.

- ✓ Prevent Boredom— Try different activities, interests and hobbies. Don't get in a rut except for sleeping and eating times.
- ✓ Set Personal Goals— The mind and body does best when it is challenged.
- ✓ Don't Oversleep— Try to not get more than a maximum of eight or nine hours of sleep per night. If you sleep more than nine hours on a regular basis, you may become more depressed and tired.
- ✓ Stay In Touch With The Outside World— We need to have anchor points
- ✓ Develop 'On Ice' Support Systems— There is no replacement for a good friend or confidant. Don't be afraid to share your feelings with someone you trust. Venting has been shown to counteract depression as well as help our immune system.
- ✓ Journal— When you can't find anyone to talk with or don't feel comfortable sharing your feelings with another person, write them out. Journaling is a good opportunity to express yourself in an uncensored manner without a fear of repercussion.
- ✓ When The 'Winter Blues' or depression starts to overtake you, push yourself— Depression chemicals are 'downers' they make us feel like not doing anything, including getting out of bed. You must force yourself to do activities even though it does not sound fun or it feels like it requires too much energy. Fake it til' you make it.
- ✓ Set Up Celebrations— Give yourself something to look forward to.
- ✓ Ask For Help— When you have tried getting better on your own, but nothing seems to work, Reach Out. There is a lot of talent at McMurdo, take advantage of it. *



Did You Know ...

by Brenda Joyce

1997 was the 100th anniversary of modern man wintering over in Antarctica. One hundred years ago Count Adrien De Gerlach of Belgium sailed into the Bellinghousen Sea with an eclectic crew that included the Norwegian Roald Amundsen (his first taste of Antarctica) and an American Dr. Frederick Cook. The ship *Belgica* was frozen into the ice and the crew spent the winter, breaking free of the ice in late summer. Dr. Cook's account of the voyage and the scientific observations taken inspired both Scott and Shackleton. His book *Through the First Antarctica Night* accompanied both explorers on their heroic journeys. *Thanks to Joe Stermer*

The shape of an iceberg is usually an indication of its age. A large Antarctic Iceberg may weigh 400 million tons and rise ten stories above the surface of the water. A berg of this size would contain enough freshwater to supply a city of three million people for a year. In 1987 an iceberg broke from the Ross Ice Shelf that was 86 x 22 nautical miles—approximately the size of the state of Delaware.

The largest glacier in the world is the Lambert Glacier in the vicinity of the Prince Charles Mountain; measuring approximately 25 miles wide and 250 miles long.

When Antarctica freezes in the winter the ice cover doubles the area of the continent, extending it to approximately 30 million square miles. Even in summer, almost the entire continent is covered by ice with an average thickness of almost a mile.

There is about eight times more ice in the Antarctic than in the Arctic region. Antarctica's year-round snow cover reflects nearly 80 percent of the incoming radiation into the atmosphere. Heat is simply not retained in Antarctica to the degree it is in the Arctic.

Scott's old ship, the *Discovery*, made thirteen successive summer cruises in the Southern Ocean to investigate the biology and oceanography of the region.

No land vertebrates can survive Antarctica's harsh conditions. The continent's largest permanent inhabitant is a 1/2 inch long midge, a tiny two-winged fly.

“In the spirit of the great Antarctic explorers—Amundsen, Shackleton, and Scott—we’ll virtually circumnavigate the continent ...in just 22 days ...on eight spacious decks with a piano bar, casino, nightclub, three boutiques, and two restaurants.” So begins the Orient Lines *Marco Polo* brochure. The 22,080 ton *Marco Polo* liner is just one cruise ship operated by 23 tour companies that have taken advantage of Antarctica’s frontier status. They offer exploratory cruises to the great white wilderness to customers with several thousand dollars to spare.

More than 7,300 people traveled to Antarctica on commercially-organized vessels in 1996-97, and more than 10,000 shipborne visitors are expected during the 1997-98 austral summer. According to the International Association of Antarctic Tour Operators (IAATO) statistics, most of the tour vessels carry between 36 and 180 passengers and sail from South America for the Antarctic Peninsula. Other vessels, such as the *Marco Polo* that is expected in McMurdo Sound on February 1, carry well over the recommended number of visitors and are therefore denied admission into the association. The *Marco Polo* will carry 450 passengers, 20 expedition staff, and 346 crew members.

With 14 cruise ships touring the popular Antarctic Peninsula on 104 cruises last season, and 91 cruises planned during the current austral summer, that could add up to a significant impact. “Scientists don’t yet know what the impact will be of a large number going ashore,” said Nadene Kennedy, NSF Polar Coordination Specialist, “but the companies are sensitive to the locations they choose.”

The International Association of Antarctic Tour Operators (IAATO) manages site visits with criteria such as frequency of last visitation, presence of flying birds, vegetation cover, and science being conducted at the site. Operating within the parameters of the Antarctic Treaty, IAATO members also safeguard against introduction of alien species to Antarctica by boot-washing before and after each landing, and tour vessels do not discharge ballast water in Antarctica that is taken on north of the Antarctic convergence.

Antarctic tour operators also require that staff on the vessels have previous Antarctic experience. Given this, plus the opportunity to sail with Sir Edmund and Lady Hillary, as on the current *Marco Polo* tour, expeditioners pay a pretty penny for the journey. A three-week

Adventure Destination: Antarctica!

story by Susie Brown



photo by Alexander Colhoun
Visitors from the *Khlebnikov* (in the distance), a tourist ship sailing out of Hobart, Australia, make their way into McMurdo’s ice pier. All 113 passengers toured the station and nearly half of the group climbed Observation Hill for a birds-eye view.

cruise on the *Kapitan Khlebnikov* from Tasmania that includes food, accommodations, and helo and Zodiac excursions from the ship runs from U.S. \$9,500-\$16,000 per person. The *Khlebnikov* is a working icebreaker designed for use in the seas of northern Siberia and is staffed by Russian officers and crew. Oddly, the collapse of the Soviet Union has directly led to the increase in tourists coming to Antarctica because they have leased their ice-breaking ships to Western companies for hard currency.

“Before the Russian vessels became available, the one or two vessels operating cruises to the Antarctic Peninsula and requesting tours around Palmer Station were nice diversions for the workers who hadn’t seen new faces in several months,” said Kennedy. However, in the mid 80’s when cruises increased and passenger numbers grew to 6,000 per year the visits to Palmer started to disrupt the scientific research. In response, NSF began to limit the on-station tours. “The tour operators understand that we’re not down here to support the tourists,” she said.

The relationship between tour operators and science programs has become beneficial for both parties. The cruise ships also provide logistic and scientific support to Antarctic pro-

grams by transporting equipment and scientists to various stations. “The tourists thrive on the interaction with both the scientists and the station personnel,” she said.

Although visitors to McMurdo from the 113-passenger *Khlebnikov* will get to interact with volunteer on-station tour guides and other personnel, those on the larger *Marco Polo* will receive tours only from their staff via an NSF script and directional arrows. “Although we comply with the government policy of non-support, we recognize the PR value of giving them a brief glimpse of what we do in the U.S. program,” said Kennedy.

Like the minimal help requested by Adventures Network International (ANI) during the hapless South Pole skydiving expedition that chartered an ANI flight for their jump, the tour operators have a self-sufficiency plan for emergency situations. However, if an accident were to occur near an Antarctic program base, a station would undoubtedly get involved. “We’d be morally as well as legally obligated under international maritime laws to render assistance,” said search and rescue team leader Steve Dunbar.

Kennedy foresees a continued rise in Antarctic expeditions. Qantas Airlines reintroduced flights over the icy continent in 1994 after a 15-year hiatus fol-

lowing the 1979 Air New Zealand DC-10 crash into Mt. Erebus that killed all 257 people on board. The overflights, typically offering four hours of viewing glacial landscapes and costing up to \$2100, have quickly become very popular with weekly flights out of Australia.

In an effort to make their passengers feel as if they are the only ones out there in the desolate landscape, Kennedy said expedition leaders on vessels have to coordinate their itineraries very closely. “There are almost no days in the austral summer when a cruise ship isn’t in the peninsula,” she said. There were 12 visits to Palmer Station last year, and McMurdo Station could see 3-4 tourist ships before the end of February.

Flights over Antarctica, cruise ship tourists and growing numbers of new age explorers are the hallmarks of a burgeoning travel industry. The same qualities that captured the curiosity of Heroic Age explorers will continue to capture the imagination of intrepid travelers for years to come. The difference is accessibility and thus numbers, and therefore it is the obligation of those who explore the Antarctic today to preserve what they came to see. *



UPDATES

FROM ANTARCTIC STATIONS AND SHIPS

McMurdo Station

by Stan Wisneski

The cargo vessel *Greenwave* arrived on 6 February. The total amount on the vessel is 11.1 million pounds of cargo, 3.3 million pounds for the new South Pole station. The entire community is involved in the offload operation in some manner. There are also 62 NAVCHAPS and 19 New Zealand Stevedores on site to assist with the actual movement of milvans and breakbulk offload and onload.

The *Greenwave* operation is the last major event of the summer season. When the ship departs the priority is to get all the summer folks off station and let the winter crew take the reins. This season in McMurdo there will be 170 winter overs on site, 161 of which will be ASA personnel. This will be the first winter ever with no military presence at McMurdo.

The summer season is rapidly coming to an end and what a season it has been. We've endured exceptionally poor weather, delays to projects and camp openings and still managed to have an extremely successful season. All USAP organizations worked hard to make this season successful. I wish nothing but the best to the winter personnel and safe travels for all summer personnel.

South Pole Station

by David Fischer

South Pole is preparing for various station closing activities, including developing lists of those personnel who will remain beyond 14 February to assist in the Operational Closing Activities, and working with science groups to determine closing schedules and to confirm cargo retrograde plans.

Last week, PICO finished the last of the three AMANDA holes for the season, and AMANDA deployed their detectors. CARA continues to set up their experiments, notably the newly-installed VIPER, for winter operations.

We're still making progress on the South Pole construction projects. On the new arch, we have installed the penetration rings and the upwind passageway, and continue to install footers, and to prefabricate the arch rings. On the old garage arch, the reinstallation of the fueling system is complete, and the reinstallation of the arch lighting and fire alarms continues. The move of Summer Camp is now complete.

Palmer Station

by Ron Nugent

On January 26th the *R/V Laurence M. Gould* (LMG) arrived for its first port call on Palmer Station. On the morning of the ship's arrival, two large icebergs threatened to close off the entrance to Hero Inlet, but Captain Warren was able to maneuver around the bergs and dock the ship with ease.

Once the LMG was tied to the pier, five milvans and a large amount of break bulk cargo was off-loaded. After the station cargo was secured, the Long Term Ecological Research (LTER) grantees descended on the vessel and began to set up their equipment for a seventeen day research cruise. Now we are stocking the shelves with cargo and looking forward to the next *Gould* port call and the end of the LTER cruise on 13 February.

R/V Nathaniel B. Palmer

by Dawn Scarborough

The first objective of the NBP98-1 cruise (Anderson S-083), the survey of the continental shelf offshore of North Victoria Land, was completed January 9 and was very successful. Multibeam readings, deep tow side-scan sonar records, and sediment cores have provided important data for this research project. The entire science and ASA contingent enjoyed an afternoon off with a short excursion to the tip of Cape Adere to explore the penguin rookery and visit the remains of an old hut built in 1912.

R/V Laurence M. Gould

by Dawn Scarborough

The maiden voyage of the *R/V Laurence M. Gould* departed from Punta Arenas, Chile on January 22 and enjoyed favorable weather conditions across the Drake Passage and all the way into Hero Inlet, Anvers Island for the scheduled two-day port call at Palmer Station. Despite the presence of several large icebergs between the vessel and the Palmer Station dock, the LMG was positioned into the dock without incident. Cargo and personnel transfers were smooth and efficient. On January 28 the vessel departed for the Long Term Environmental Research (LTER) NBP98-01 cruise. Initial impressions from all aboard are that the LMG is a fine research vessel, comfortable and user-friendly. The spacious deck and fantail, well-designed shipboard laboratories, new portable radioisotope vans and the enclosed CTD staging hanger are sure to be appreciated by all who work aboard this new Antarctic research vessel.

R/V Roger Revelle

by Dawn Scarborough

The *REVELLE* is currently supporting the JGOFS II Survey cruise. This project is one of 44 projects in the U.S. JGOFS Southern Ocean Program and is concerned with the effect of iron on the productivity of the upper layers of the ocean. As part of this study, the investigators will make systematic measurements of trace metal distributions in the Ross Sea. Plans are for the *REVELLE* to transit to Lyttelton, New Zealand, for port call in preparation for the next JGOFS cruise to begin February 8. The Science Cruise Coordinator and his logistics assistant will travel to Lyttelton to assist with port call.

R/V Abel-J

by Dawn Scarborough

Plans are for the the *ABEL-J* to go off-charter February 7, 1998 after successfully completing her duties as research and transport vessel for the Antarctic Research Program. She has proved to be sea-worthy in the extreme Antarctic weather conditions and adapted well to the demands of sailing as a research vessel.

Christchurch, NZ

by Brian Stone

Things in Christchurch are rapidly gearing up for the big push of personnel redeploying off the ice in the next couple of weeks. There have been some changes in the CDC area since October. The US Navy has finished the installation of the Operation Deepfreeze memorial, including some recent landscaping. The plan is to dedicate the memorial at the NASU decommissioning ceremony on the 20th of this month.

The *M/V Greenwave* port call went well and the ship sailed on time despite problems encountered with the starboard crane on hatch one. The most difficult load was the 60,000 lb fuel tank for Scott Base.

ASA, Denver

by Ron Koger

At the request of NSF, ASA agreed to become the single Antarctic Conservation Act permit holder for all of USAP beginning March 1 (1998). The permit establishes what hazardous materials may be used in Antarctica and defines the manner in which they will be used. It also establishes the amounts and types of wastes that will be generated, how wastes will be managed, and where they will ultimately be disposed. By becoming the single permit holder, ASA, helps streamline the permitting process but also takes on additional responsibility to ensure that other USAP participants abide by permit conditions. Eric Juergens ASA's Director of Safety Environment and Health is coordinating the implementation of this change.

National Science Foundation

by Guy Guthridge

The summer deserves a look back. With 172 research projects, the U.S. Antarctic Program broke the record for size, again. Some say what's new? McMurdo's weather was more remarkable. Others highlight the new *Laurence M. Gould*, or the six Senators' visit, or Congress's resolve to rebuild South Pole. High on any list are the Naval Antarctic Support Unit, Christchurch, and the Naval Support Force, Antarctica, which will be disestablished at the end of the season. The Navy's Antarctic role is distinguished. In 1839-1840 it proved Antarctica is a continent, and the argument is strong that without Naval actions in the 1940s and 1950s America would not be the country occupying the South Pole today. Antarctic Development Squadron 6 (VXE-6), United States Navy, will be back next season and will be essential to the U.S. Antarctic Program until 1999. *

Resupply Vessel ...cont. from page 1

the station. This constraint led ASA to purchase Mantis Cranes for the South Pole modernization project. Mantis is the only crane manufacturer with models that break down into sections that could be flown to the South Pole. "Consequences down here are extreme," said Trujillo. "You just can't go to a hardware store and pick something up if you mess up."

To avoid problems, some larger structures, such as the 200-foot long garage arch that was constructed at South Pole this season, are test-erected in Ventura, California, 25 miles North of Port Hueneme. "If something is wrong with what we have purchased, wham, we face-plant that thing and get it fixed," said Trujillo of the Ventura operation. "Sending something like that back across the entire planet would be ludicrous. If these test-erectations prevent even one such error, the cost of the entire test operation has paid for itself one hundred times over."

Once new equipment and material reaches Port Hueneme, Jackie Samuel takes over. "We receive and document the arrival of all materi-

als," said Samuel. "And then we move it, pack it and load it on the ship."

According to Samuel, his worst enemy is time.

"Seventy-five percent of the cargo arrives after October 15th and 40 percent of that comes after December 15th," said Samuel. None of which leaves him much time to get everything packed and properly stowed. "Our last items arrived 36 hours before the Greenwave arrived," he said. "Now that's cutting it tight."

Fortunately for Samuel, the captain of the Greenwave, Peter Stalkus, is a veteran of this resupply effort, having piloted the route 13 times. "Stalkus understands our constraints and what needs to get done for all this to work," said Samuel.

Yet another central ingredient to the resupply effort is the arrival of Navy Cargo-Handling personnel in McMurdo. Better known as NAVCHAPS, this hearty crew travels the globe, loading and unloading vessels under Navy command— such is the case with the Greenwave which is owned by The Central Gulf Coast Line, but leased to the Military Sea

Lift Command.

Samuel, the NAVCHAPS, Stalkus and ASA workers will waste no time unloading the Greenwave. Within hours of its arrival at the McMurdo ice pier, cranes will be operating in full swing as cargo handlers detach chains and move containers.

At a cost of \$32,000 per day to lease the Greenwave (mostly fuel costs), it's no wonder Samuel and his team chose to move fast. Working 24-hours a day with two 12-hour shifts, Samuel hopes to have the ship unloaded and re-loaded with retrograde and waste in seven days.

Any way you slice it, however, the journey is a long one. "The entire voyage will last 74 days," said Derrold Burnett, ASA's Manager of USAP Logistics. After leaving McMurdo the ship will head for Lyttleton, New Zealand, then Gray's Harbor, Washington and finally back to Port Hueneme where the process comes to an end.

"It's a lot like supplying the space shuttle for a mission," said Trujillo, "But here we're supplying a continent." *

Polar Plunge 1998



photo by Alexander Colhoun

Brandon Holton takes a naked plunge into the Frigid McMurdo Sound just off Scott Base. "It was phenomenally cold," said Holton, "My toes froze together like a big webbed foot."

Points of Interest . . .

The daily population of McMurdo averaged approximately 950 people. Roughly 3,000 different people came through during this season, which breaks down as follows:

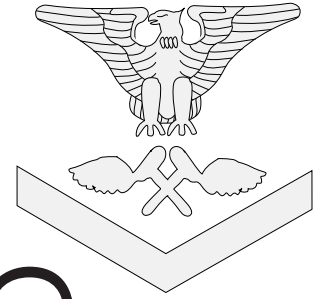
- 365 ANG
- 329 ANZ
- 877 ASA
- 3 French
- 103 Italians
- 46 NASU
- 52 NAVCHAPS
- 77 Spawar
- 611 NSF and sponsored
- 45 NSFA
- 22 NZDE
- 12 Russians
- 11 USAF
- 516 VXE-6 (Skewed due to transiting of flight crews)

As of this printing McMurdo Medical staff has treated:

- 642 Cases of the Crud
- 98 Stitches sewn
- 97 Sprains
- 33 Fractures



Angela's First Stripe



a photo story by Alexander Colhoun



Sitting in the cockpit of an LC-130, Petty Officer Wash inspects fuel gauges, one of many responsibilities of a lineman.

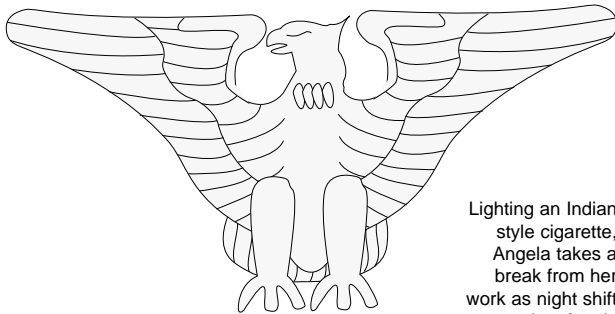
Every so often a recruit comes unassumingly into the Navy only to find themselves stepping on an express elevator through the ranks. Such is the case of Angela Wash who joined the Navy only 18 months ago as an undesignated airman.

Today she is a Third Class Petty Officer.

"She's very good. She's on a fast track," said Chief Petty Officer Flynn, her supervisor. "She could achieve a lot in a short period of time if she keeps going." Those on the Naval 'fast track' face a myriad of opportunities, most of which depend on the desire and effort put forth by the person. If Wash's first year is any indication, the sky is the limit.

The bulk of her work is delivered from the heavens above in the form of LC-130 ski-equipped Hercules aircraft. As Naval lineman, Wash has a variety of responsibilities. Among them are guiding pilots into fueling stations and into stopping positions. She also monitors fuel systems and basic

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Lighting an Indian style cigarette, Angela takes a break from her work as night shift supervisor for six linemen.

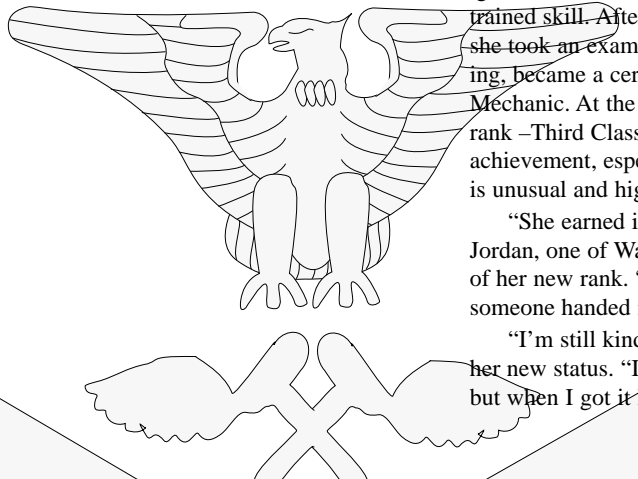




Angela points out a maintenance concern to an airman on a Navy LC-130. Having just left the airmans ranks, she know how it feels to receive instructions. "Being an airman is tough," said Wash. "you're at the bottom of the totem pole. 'Go here, go there, do this, do that.' You constantly work your butt off to get recognized. It can be stressful."



Wash strides into the main Williams Field maintenance facility with confidence –not intimidated by the scene of hard working military men and women inside. "Ever since I was five years old I wanted to be in uniform," says Wash, which may explain her resolve. "This is my dream."



Resting at home in her dorm, Wash reflects on living far away from her home. "I'm very close with my family," she said. "It's hard being so far away. You never know when you're going to see them again."



Angela

...cont. from page 8

structural mechanics of the aircraft. It can be dangerous work, but it gives Wash a thrill.

"It's a rush because I have total control of the aircraft," says Wash of directing planes as they taxi across an ice runway. "Without me. They can't move the plane."

That's heady work for this 24 year-old Chicago native, but it doesn't seem to go to her head. If anything the work comes to her with uncommon ease, augmented perhaps by a long military tradition

Angela's grandfather and father both served in the Navy, and with a lifelong desire to be in uniform, it was only a matter of time before she joined one of the services.

The Navy was her choice.

A sprightly 114 pounds and barely five feet five inches tall, Wash's size belies a bear-sized devotion to the Navy and her job as a lineman. None of which has gone unnoticed by her peers nor her superior officers.

Angela came into the Navy with an undesignated status, meaning she had no specially trained skill. After studying for most of a year she took an exam to 'make grade', and in passing, became a certified Aviation Structural Mechanic. At the same time she made a new rank –Third Class Petty Officer. This combined achievement, especially in such a short period, is unusual and highly regarded.

"She earned it," said Airman Masada Jordan, one of Wash's co-workers and friends, of her new rank. "She didn't get it because someone handed it to her, she worked for it."

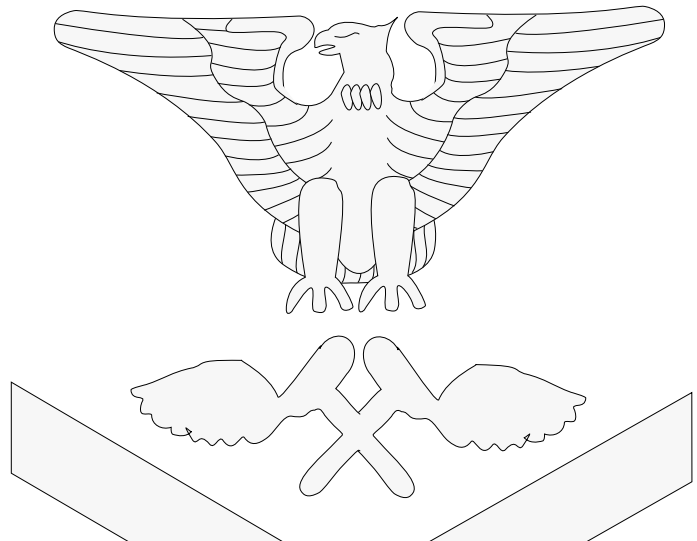
"I'm still kind of shocked," said Wash of her new status. "I studied hard, I worked hard, but when I got it I was really surprised. I

...cont. on page 10

After twelve straight days of work, Wash enjoys a Saturday night party with friends. "I love to go out and socialize, to be with my friends and relax. We talk about music, dinners, games. I just like to unwind." But military life carries a burden as well. "I try to stay out of trouble," said Wash. "That's the hard part in the Navy. Sometime I wish I could just go out as a civilian."



Relaxing in the line shack, Wash kicks back and chats with a friend. As a lineman the work varies with each day. Some days are wildly busy, others slow, but in Antarctica, there are always environmental concerns.



Angela

...cont. from page 9

thought they were playing a joke on me." In reality, several of her co-workers had purchased Angela's 'crow' (the petty officer pin that rests on her lapel) the day she took the exam.

Since her arrival in Antarctica Wash has risen to the occasion of her new responsibilities, taking over as night-check supervisor of the line division where she directs six linemen. "I bet you won't find another night-check supervisor without five years of experience," said Lt. Jim Greene, the line division officer. "She's done a fine job and exceeded expectations."

If all of this sounds a bit overwhelming, it probably is. Wash admits the pressure is on to perform, but she tries to keep it all in perspective. "Right now I'm focusing on making second (class petty officer) and taking college courses," said Wash. "And one day I might like to be an officer. They do a lot of work, but I don't mind."

Watching Wash work as she directs her team, as she maneuvers planes taxiing to fuel pits, and as she walks through her maintenance checks it's not hard to believe she's living a dream, and that her first stripe is one of many to come. *



Keeping a close eye on her co-workers as they guide a plane to stop, Wash reflects on Antarctic life. "This is such a beautiful place," she said. "It's just a great opportunity to live and work where most people will never be."

Feedback

An Editorial by Erick Chiang
NSF Senior U.S. Representative

So, how's the food? Opinions vary, and the responses that I received from my flier asking for opinions about the food in McMurdo, were no different. I wasn't at all surprised that some thought the food just fine, while others felt quite the opposite. But virtually all praised the hard work of the food services staff that provides meals four times a day, seven days a week.

The comments were constructive and thoughtful. That is appreciated because we can use those kinds of comments to make improvements where needed. I answered each of the respondents, noting where I was in agreement, and where I was in disagreement. I will try to summarize what I learned and some strategies for further improvement of the services that are provided.

Weather was the biggest culprit, delaying flights and backing up people and cargo in Christchurch. As a result, in trying to catch up, we bumped the freshies. This contributed to the frustration of the cooks and the community. In the future, we will place a higher priority on freshies. Should the problem of space on aircraft arise, and we will include a portion of them in the order.

What was cooked and how it was cooked was next in line. Let me separate the 'what' from the 'how'. The what focused on the overabundance of chicken. I have yet to understand how that came about. But there it is, and is no doubt no surprise to *Sun* readers. Of course chicken happens to be one of my favorites but nevertheless, I can understand how it might get tiresome.



A collection of chefs and galley workers gather for a group photo. Feeding nearly 1,000 people per day is hard work, but galley workers still maintain a sense of humor.

The real message is how the inventory is managed, and that is a subject for further review.

The how dealt with issues of nutrition, quality and preparation. Each appears to have suffered in the opinion of the commentators because of the length of time the foods have been kept in storage. The food passed inspection this year, so no worries in that regard about what has been served. But certainly taste, and perhaps texture suffered from the time in the freezer.

While the nutritional value may have also suffered from time in storage, the food value remains good and McMurdo residents stay reasonably healthy. The staff continues to work hard in preparing good meals, and their product is likely to improve with the more routine addition of

freshies, and with more varied products. I am particularly pleased that the years of effort to increase the variety of vegetarian dishes has taken effect.

We will continue to work on the inventory, to increase its accuracy, and to upgrade the products. ASA is developing a menu planner that will have more flexibility, and will evolve as we move away from the current inventory. There were several suggestions to return to the menu planning/suggestion committee that was active several years ago. That seems worthwhile doing, and ASA will reconstitute that committee next season.

Other things that will be pursued by ASA include:

- The identification of products that are not acceptable, although still edible, and schedule them for retro and disposal.
- The identification of basic ingredients and quantities of foods required for the population and community demands and order them in the resupply.
- Changes to the fixed menu planner for more flexibility.
- Review the ordering system and reduce the stock levels to reduce the time product stays in inventory.

This inquiry has certainly reconfirmed my belief that food is a major ingredient in good morale. To achieve that, we must continually review how we provide that service to the community. *

-- EDITORIALS --

If America's President, the Commander in Chief of the US military, survives his cartoonage, surely VXE-6 can as well. If we can't laugh at ourselves, who can we laugh at? We welcome your thoughts at the The Antarctic Sun.

I, as well as my co-workers found the cartoon about southbound flights rather offensive. Many of us, as well as our Christchurch shipmates spend countless hours outside working on these aircraft trying very hard to keep them in the best condition possible. The picture showing people watching a football game while (I am assuming that the reference to Commander

was referring to Cdr. Warlick) our commanding officer was "explaining" what was being done was disrespectful to him and to those of us who maintain the same aircraft that take us home every year.

AD3 Richard Gunder, VXE-6

To whom it may concern: To the best of my knowledge, the first black to winter at South Pole Station was RM2 Henri "Henry" Miles and that was in 1968-69. I was the leading Chief and Miles was in my crew.

*James W. Wallace, UTC USN Ret. OAE
W/O 64-65, 68-69 Pole Station,
and 72-73, 74-75 McMurdo Station*

WEATHER

by George Howard, MAC Weather
McMurdo Station, Antarctica

Summer's Weather at a Glance

As the end of the austral summer draws near, it's a good time to reflect on this season's rather unusual weather.

The biggest difference between this season and its recent predecessors was a persistent storm track positioned well south of where it would normally reside. This guided more storms closer to, and over, McMurdo Station.

Early in the season, this southerly storm track pulled warmer and moister-than-normal air from over the Southern ocean into our area. (See temperatures for October and November.) The relatively warm moist air, in high contrast to the still frigid air to our south, spawned storms with high winds and frequent blowing snow. While temperatures may have been warmer than normal, windchill temperatures and visibility plummeted. McMurdo was routinely plunged into CONDITION II (for visibility less than 1/4 mile) and occasionally into CONDITION I (for visibility less than 100 feet).

High and low temperatures in McMurdo hovered near normal values for December and January. Even so, McMurdo still suffered the cloudier-than-normal skies and occasional heavy snowfalls of frequent storms. One storm, spanning December 12th and 13th, dropped 20 inches of snow in town. The 14 inches that fell on the 13th broke the record for 24-hour snowfall during the month of December. The previous record had been 8 inches, set in 1969.

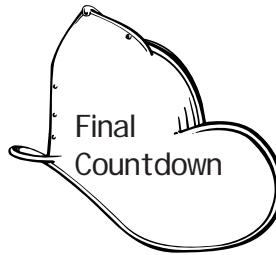
It's difficult to predict precisely how February's weather will pan out. There is, however, at least one ray of sunshine ...the chances of weather being poor enough to significantly delay our northbound flights are pretty slim.

	OCT	NOV	DEC	JAN
AVERAGE HIGH				
Temp. (F) This Year	13	26	30	31
Normal Average				
High Temp. (F)	4	20	30	31
This Year's				
Departure From Normal	+9	+6	0	0
AVERAGE LOW				
Temp. (F) This Year	2	17	22	21
Normal Average				
Low Temp. (F)	-9	9	21	22
This Year's				
Departure From Normal	+11	+8	+1	-1



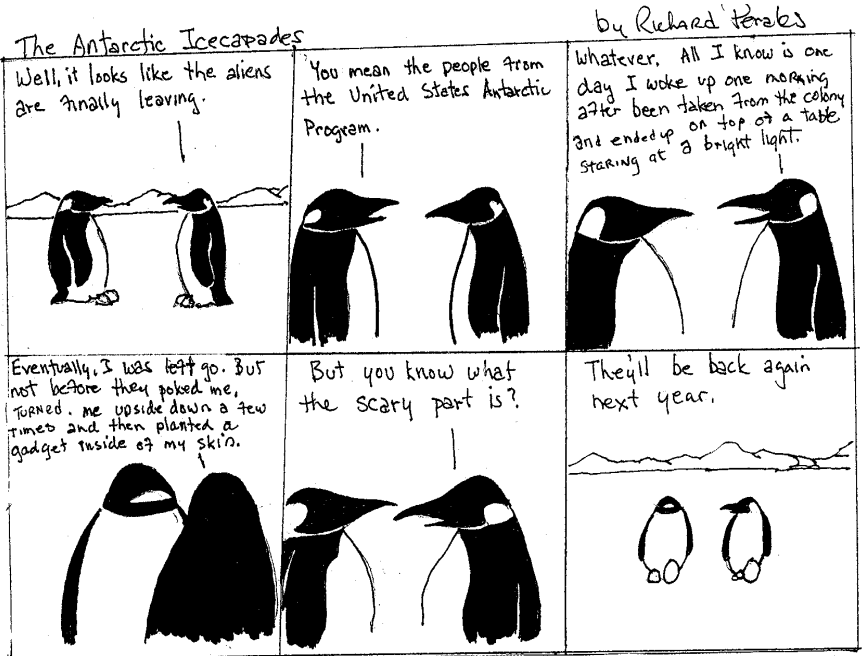
photo by Alexander Colhoun

More than 650 McMurdo residents took advantage of three separate 'morale' cruises through McMurdo Sound last week. Most spectators braved cold winds on the decks to soak in the views.



The firehouse would like to congratulate everyone on a safe season!. There will be a lot of activity in the next few weeks as the resupply vessel arrives and people pack to leave:

- * keep your eyes open for traffic - the patterns will change as a result of vessel activities.
- * don't block doors and walk-ways with boxes and clutter.
- * keep electrical appliances unplugged.



Civilian soldiers. Citizen airmen. These terms, while seemingly contradictory, describe many military people currently serving in Operation DEEP FREEZE.

The terms, both on and off the ice, describe members of the Air National Guard. To break it down, the Air National Guard (ANG) and the Air Force Reserve are reserve components of the Air Force. The difference is the Air National Guard is assigned a state, whereas the reserves are federally managed.

The 109th Airlift Wing, a component of the New York Air National Guard (NYANG), based in Schenectady, New York, will be taking over the air operations in Antarctica. The main difference between individuals in the guard and those in active duty status is that reserve service is only part-time military work.

Most guardsmen serve one weekend a month and a minimum of 14 days a year on active duty. Aside from this mandatory active duty time, they lead separate lives that often have no association with the military.

So, just who are these reservists? According to Air Force Capt. Steven M. Fukino, 109th Airlift Wing Antarctic transition coordinator, there are a wide range of people holding down a wide range of occupations. There are janitors, lawyers, medical personnel and even corporate executive officers.

Senior Master Sgt. Walt Brooks, who acted as the senior non-commissioned officer at McMurdo Station during his active duty period, is a traditional Guardsman. He joined the Guard in 1981, while still working at a New York State correctional facility as a deputy superintendent for security.

Recently retired from the correctional facility after a 31-year career, Brooks has begun an altogether different career, one very close to his heart. "My role is now house husband," he said beaming. "I'm now assisting my wife in the management of our home and young daughter."

Brooks is also taking advantage of his newfound spare time. "Thirty-one years is enough," he said. "I wanted to go on and have some time to do the things I wanted to do. I bought new golf clubs and a bike."

Patriotism played a role in Brooks joining the Guard. "Having been in the Air Force I kind of missed the military way of life," Brooks said. "You have an opportunity to serve your country. In the Guard, you have the opportunity to serve the state and community."

Another traditional guardsman from New York who just completed his active duty time

Yes Victoria, I Do Have Two Careers

story and photo by Chief Jacqueline Kiel



Senior Master Sgt. Eugene Kaufmann (left) discusses work with Senior Master Sgt. Walt Brooks.

on the ice is Staff Sgt. Anthony Morabito, a veteran of 18 years with the Guard. Currently he serves as a personnel specialist for the 109th, a far cry from his work in the civilian world.

Since 1981 Morabito has been a manager of a pet grooming shop and boarding kennel. His work with the Guard gives him a change of pace. "I enjoy it," Morabito said. "It gives me a break from the everyday routine."

Morabito joined the Guard at a friend's suggestion. "A friend of the family was a Lieutenant Colonel for one of the units," Morabito said. "He sort of talked me into it. He talked about the benefits." Benefits sometimes includes travel to exotic places. Besides Antarctica, Morabito has been to Panama and Greenland.

Lt. Col. Richard M. Saburro, Operations officer for the Air National Guard Christchurch Detachment, entered the guard in 1977, having served as an active duty C-141 pilot with the Air Force between 1970 and 1975.

Saburro's love of science and flying, led him to pursue two career paths. "I had a

MILITARY NEWS:

strong interest to continue flying and the Air National Guard offered the opportunity to do both," he said. "I could fly in the Guard while pursuing an engineering and technical career."

Joining the Guard about the same time he became a trainee in the manufacturing management program at General Electric, Saburro began qualifying in LC-130Ds as an Arctic co-pilot. He concurrently advanced in both careers, eventually leaving GE for work in advanced technology working for New York State.

When the full-time active duty position opened up with Operation DEEP FREEZE Saburro jumped at the chance. "I saw this as a great opportunity to take a new direction in my life, pursue my love of flying and at the same time science," he said.

The New York Air National Guard is filled with pilots, aircrew and support personnel who make the operation run smoothly. But a closer look at the people who are doing the work reveals a truly diverse group of individuals who are able to juggle two very different careers, and do it successfully. *

The Legacy of the IGY

December 31, 1958 was the last day of the 18-month International Geophysical Year. Throughout the world, IGY researchers were writing their papers and packing instruments away.

Except in Antarctica.

Months earlier the National Science Foundation had told Congress of "strong and compelling" scientific reasons to continue beyond the IGY and not lose "desirable continuity of scientific observations." NSF said stations had been built at effort and expense, and other nations including the Soviet Union were preparing a post-IGY "coordinated plan of studies."

Congress approved, and the Executive Branch agreed that NSF should coordinate the science. The Department of Defense, remaining in charge of operations, set up a group under Paul A. Siple, South Pole's first science leader, "to develop mutually agreeable plans for cooperative efforts in the Antarctic." The National Academy of Sciences, which had funded IGY science using NSF money, at NSF's request set up an advisory Committee for Antarctic Research (now the Polar Research Board) and appointed Laurence M. Gould to chair it.

President Eisenhower on May 3, 1958, said "the United States is dedicated to the principle

last in a five-part series by Guy G. Guthridge
Manager, Antarctic Information
National Science Foundation, Polar Programs

Forty years ago, 60,000 scientists from 66 nations took part in what has been called the greatest peacetime activity in man's history—the International Geophysical Year, from July 1, 1957 to December 31, 1958. One of the IGY's most prominent achievements was the opening of Antarctica to modern science.



IGY+40

that the vast uninhabited wastes of Antarctica shall be used only for peaceful purposes" and invited the 10 other IGY Antarctic countries and South Africa to "seek an effective joint means of achieving this objective." After negotiations lasting more than a year, representatives of the 12 nations sat down in Washington, D.C., on October 15, 1959. On December 9 they signed a document they called the Antarctic Treaty.

An uproar ensued in the U.S. Senate. "I rise in opposition to the ratification of this treaty" echoed in the chambers. The U.S.S.R. had signed it and couldn't be trusted, the United States had failed to take possession of territory despite "solid claims to some 80 percent of the Antarctic," we would forfeit future economic potential, and nuclear explosions were banned. "We are trading what I would call a horse for a rabbit," one Senator said, "to get the concessions the treaty would grant in the way of international amity and accord."

On August 11, 1960, the Senate ratified the treaty, voting 66 to 21, eight more than the two-thirds majority needed. The treaty entered into force on June 23, 1961, after the last of the 12 signing nations deposited its ratification with the Department of State.

The IGY's successful and cooperative sci-

ence is universally credited with paving the way to the Antarctic Treaty. Larry Gould wrote in 1978 that, "important as the scientific results of the IGY antarctic and global programs were, in the long run it may be the human and social results which will prove to have been the most important." It was, he wrote, "Antarctica, coldest of all the continents, that witnessed the first thawing of the cold war."

A *New York Times* editorial in 1969 said the Antarctic Treaty helped to create foundations of mutual confidence on which great diplomatic landmarks were based, notably the test ban treaty of 1963, the space compact of 1967, and the nuclear nonproliferation pact of 1968. Later thinkers saw Antarctic Treaty influence on the 1979 Moon treaty and the 1982 Law of the Sea convention.

Stephen J. Pyne, author of the acclaimed *The Ice, A Journey to Antarctica*, said the IGY started the third great age of discovery—the earlier ones being geography and natural history—because it undertook a geophysical inventory of the solar system beginning with planet Earth.

As people look increasingly beyond their borders for solutions to concerns from economics to environment, the antarctic IGY is eerily visionary. Professor Gould told Congress in 1960 that

"For many, many years to come the most important export of Antarctica is going to be its scientific data." This season's projects—examining topics ranging from the origin of the universe to the fate of the ice sheet—are an ongoing celebration of the IGY as scientists and support personnel commence the fifth continuous decade of research in Antarctica. *

In a scene surely enjoyed by many IGY researchers and military personnel, two Emperor Penguins bask in the Antarctic sun as Mount Erebus looms in the distance.



photo by Erick Baker

One That Got Away

by Billy-Ace Penguin Baker

During the 1839 expedition to locate the South Magnetic Pole two ships of the expedition, *Erebus* and *Terror*, under the leadership of Sir James Clark Ross, were operating in what is now known as the Ross Sea. On February 20th, 1842 a small fish either jumped from the water, or was thrown up by wave action, and was stuck to the bow of the *Terror*.

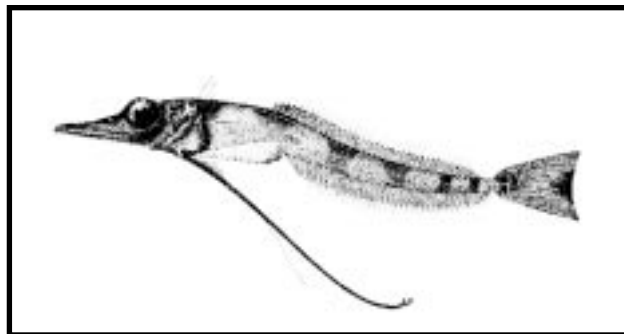
Some sailors who were on a working party tasked with the never ending chore of chipping accumulated ice from the ship superstructure discovered the fish. The fish was carefully removed from the bow and was given to the John Robertson, the ship's surgeon and also a naturalist.

Since this was the first fish that had ever been caught within the Antarctic Circle, Dr. Robertson carefully carried it to his cabin. He then made a rough sketch [see attachment] of the fish, which was still frozen, noting its characteristics, colors and markings.

He then put the fish in a small pan to thaw. The fish measured a little over six inches in length and one inch in diameter. The doctor intended to examine the fish in more detail after it had thawed.

Following the examination it was his plan to preserve the rare specimen in alcohol. But, before any of this could be done it was reported that the ship's cat had crept into the Doctor's cabin and devoured the fish.

The doctor named the fish *Pagetodes*, a Greek word which means "frozen solid". After another year of exploration the ships set sail back to England and the Doctor turned his notes about the fish, and the other specimens which he had collected, over to the ship's botanist. His collection did not include any other species of fish that had been caught at latitudes within the Antarctic Circle.



This sketch, made by Dr. John Robertson in 1839, shows what is believed to have been the first fish ever caught in Antarctic waters. Named 'Pagetodes', the fish was later eaten by the ship's cat.

Before the *Erebus* and *Terror* expedition at least eight other explorers had sailed south of 66° 30'S. The first to cross the circle was Captain James Cook in 1773.

None of these intrepid and observant explorers mentioned even one sighting of a single fish. Not only that, none of the explorers who came after the *Erebus* and *Terror* expeditions made any such reports.

In 1874, several ships including the famous *Challenger*, crossed over the Antarctic Circle. Others that came after the *Erebus* and

Terror included the *Jason*, *Hertha* and the *Antarctic*. As before, none of these ships reported any mention of fish.

Then, in 1897, Lt. Adrien de Gerlache of the Belgian Navy launched his *Belgica* expedition. After reaching the Antarctic Circle the *Belgica* became frozen in and drifted with the pack ice. During the summer months the crew chopped holes in the ice for the purpose of sounding the depths and for lowering nets for gathering scientific specimens. There were four scientists aboard the *Belgica* and they had hopes that the nets would bring up something more than sand and pebbles.

On May 17, 1898, almost 56 years after a ship's cat had dined on the first recorded Antarctic fish specimen, the nets were lowered to a depth of 1,500 feet and when they were brought up they were found to contain a variety of specimens that excited the scientists. These included a starfish, a sponge, a brittle star, several types of shellfish and a solitary small fish.

All the specimens were preserved in alcohol and stowed away for future delivery to the Royal Museum in Brussels, Belgium. The *Belgica* remained frozen in the ice for the winter and the following spring the ice was so thick that it was feared that they would never get out of the ice. Before they did get out, one man died and two went insane. Finally, after the crew worked for six months sawing the ice with small saws a channel was cut, and the ship was released.

Upon returning to Europe the specimens were sent to the Brussels Museum.

It was there that an ichthyologist, Louis Dollo, examined the tiny fish which was caught on the 18th of May. After an exhaustive examination and review of Dr. Robertson's notes, he gave it the scientific name of *Cryodraco antarcticus*, and declared it to be the rarest of cat foods - *Pagetodes*.

The story, *Antarctic Discovery! Of Barbs and Antifreeze*, in the December 27 issue of *The Antarctic Sun* reminded Billy-Ace Penguin Baker of this fish story. Baker is an old Antarctic veteran who served with VXE-6 64-65, 68-69 Pole Station, and 72-73, 74-75 at McMurdo Station.

Sources:
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McMurtoon



Davidson © 1-30-98

All In The Timing

story by Alexander Colhoun
photos by David Martin

The holiday season had come and gone, leaving only an eight day work week ahead to make up for lost time. When at last the ninth day arrived, Brett Wilson found himself standing in a bone-chilling lumber yard with wind-driven snow pelting him in the face. So much for a day off. Sorting through piles of used lumber with Ukey Santos, Doug Fink and Brent Stuntzner, the group cobbled together enough wood to build seat-risers for a show with, as yet, no actors and no set. Their efforts were not in vain.

For three days last week the McMurdo Playhouse came alive with a spirit of community, humor and spirit that in many ways defines the triumphant will of McMurdo workers this season. Sold-out crowds packed the dilapidated steel garage to watch 31 performers put on four one act plays by playwright David Ives.

In a summer season wrought with late winter storms, canceled flights, stalled science projects and precious few sunny days, the cast and crew of 'All in the Timing', directed by Brett Wilson, proved once again

Eighteen members of the chorus stripped down to bunny boots and government issued 'yazoo' caps for the show.



Brett Wilson, seen here as Charlie Petrossian in 'Mere Mortals' was the inspiration behind McMurdo's production of 'All in the Timing.'



the tenacity and resolve of Antarctic workers to make the most of a difficult situation.

Four months ago Brett Wilson faced his own dilemma. "My mantra was: 'I'm outta' here'," said Wilson. "It was very sobering to discover that I was going to work inside when the Antarctic landscape was so close yet inaccessible. After a lot of thought I realized maybe the gig was up, wave the white flag and bow out gracefully." Fortunately he didn't.

Enter Norbert Wu, an Artist and Writer's grantee and underwater photographer. Seizing the opportunity to get out of town, Wilson offered to assist Wu and his team as a divers' assistant. "He [Wu] was a great outlet because he got me out there," said Wilson. "We'd talk about Norb's adventures and have hysterical laughs. It helped me tremendously."

When Wu departed McMurdo in December, however, Wilson found himself back in the same rut wondering where to direct his prolific energy. Inspiration hit when Wilson, a night janitor, found himself strolling through the Playhouse in late December. "I thought to myself, 'This place has potential'" said Wilson. The rest is history.

In a matter of days Wilson had collected scripts over the computer from community theater friends in Charlottesville, Virginia. A casting call met with a solid turnout, but unfortunately, Antarctic life had other plans. Day by day he lost actors to new work

...cont. on page 18



Dave Breitenfeld, left, Chris Barney, center, and Shelly Prosize, see, hear and speak no evil in 'Words, Words, Words.'

COMMENTARY

Armed Forces Television: Where do they get this stuff?

by Robert Zimmerman

By way of introduction, let me say that I do not watch Armed Forces Television very often. The editors at *The Antarctic Sun* felt that an avid viewer might be a little too close to this important and emotionally charged issue to bring you the level of journalism you deserve.

Though undoubtedly more thought must go into the weekly television line-up, the random spread of programs suggests that they were arranged using a very expensive computer or a dart-and-blindfold type system.

According to the McMurdo TV schedule, Dr. Quinn, Medicine Woman aired four times last week; Star Trek: Deep Space Nine blocked up a full hour a stunning fifteen times; last week alone we were presented with no fewer than five hours of professional wrestling.

During coffee breaks we can take in such "Saturday morning" favorites as Captain Planet, The Power Rangers, Goosebumps, and Tailspin. If we stretch out our break we can catch Saved By The Bell, Space Cases, or the ever informative Nickelodeon News.

Can this be? In search of answers, I spoke with ASA's Chuck Kramer. With over ten years of experience in television production, Chuck is our main man in the TV studio, an informal title he shares with co-worker John Booth. Together these two run McMurdo's Armed Forces Radio and Television Service (AFRTS) broadcasting studio, which holds over \$500,000 dollars worth of Navy owned equipment, namely a \$200 VCR, a screwdriver, and, inexplicably, a toilet seat.

In truth the studio looks like NASA Mission Control in Houston, TX. There are more TVs than a Billy Idol video and enough programmable VCRs to keep your old man baffled well into his seventies.

Nestled between the video production gear and the tele-conferencing station, Chuck cleared up some things for me.

Clearly a limiting factor in McMurdo's programming is that we only receive three channels from satellite feed (it is, after all, a harsh continent). Channel 2 airs the Armed Forces Network (AFN); channel 11, News and

Sports; and channel 13, Spectrum, an informational and family oriented format.

Yes, we have a movie channel too, but I'm talking TV here. For the purpose of this article I will also ignore

channel 11 because news is news and sports is sports and both are equally harmless in moderation.

The programs we receive are chosen by the AFRTS Broadcast Center at March Air Force Base in Riverside, CA. We see a mixture of syndicated sit-coms, dramas, TV movies, and live sports.

While popular television shows can cost stateside network affiliates up to \$150,000 per episode, these programs have been given to AFRTS for a fraction of the price, in some cases no more than the cost of the cassettes. Obviously some shows are cheaper than others.

With such unpopular sit-coms as The Nanny, Weird Science, Boy Meets World, Roco's Modern Life, Boston Commons, and Caroline In The City aired, in some cases, twice a day, surely there is room in the schedule for McMurdo's favorite program: Seinfeld.

"We got it earlier in the year" Chuck assures me. However unlike network TV, AFN and Spectrum change their programming every thirteen weeks rather than re-run each season's episodes.

We also lost The Simpsons and Friends which, shows that, according to my roommate, are "the two most popular shows in the free world ...and they're not on." Shelly Procise has a more positive outlook: "I think it's great that the TV stinks, that way we don't want to watch it."

Because of the cost of copyright permission AFRTS is the only option for television here at McMurdo. Working within the system, Chuck and John have done what they can to make the

line-up more appealing to McMurdo residents. "Now when you get off of work, instead of Rug Rats and Ren and Stimpy, you can watch David Letterman or CNN."

In addition, the most educational and socially beneficial program broadcast, Sesame Street, remains buried in a three a.m. time slot.

One thing Chuck has no control over is the AFRTS commercials. It is illegal for the government to sell air time like network stations, however they have to put something in the twenty minutes per hour taken up by advertisers in the states. According to Chuck, "in live broadcasts there's actually a guy in California with his finger on a button cuing the AFRTS commercials as you watch."

"A lot of time and energy goes into those commercials," claims Chuck. When I ask if anyone ever thought about just airing the test pattern instead, he only shakes his head.

Note: Since this article went to press the AFN, presumably in response to rumors of this scathing editorial, have restored Seinfeld to its Thursday evening time slot. *



"As the summer closes I've been asked to make a brief statement..."



Scott's Hut Race 1998

photo by Reese Coffin

A misunderstanding on the course route sent Knut Hill (center with number five on jersey), the South Pole's runner, down the wrong road. Ahead of the pack by a solid 20 seconds when he made the wrong turn, and with only a half-mile to go, runners gave Hill the 'official' victory for this season's four-mile Scott's Hut Race.

All in the Timing ...cont. from page 16

assignments: one to Siple Dome camp, another to South Pole station, and yet another to a permanent duty change. "At that point I reached for my Zantac," said Wilson with a plaintive smile.

Meanwhile, the Playhouse began a magical transformation. Piece by piece, load by load, McMurdo's cluttered attic was emptied of leftover gear. The structure soon took the appearance of a construction site as risers were built and lights assembled. Working from scratch, Russel Bixby, a computer technician, constructed an overhead light system to rival a Broadway show, replete with faders, gels and a light board to control it all.

Each day new elements were added: a massive orange and white parachute was draped from the ceiling, painted tarps were strung from taut metal wires to make a backdrop and a rug was laid on center stage. The once dismal sheet metal arch began to take on a lived-in feeling.

None of this would matter if the four plays failed to inspire. Every night actors filled the theater with practice after practice after practice and, in what seemed to be an instant, opening night had arrived.

With a decade of community theater experience to draw upon, Wilson left nothing to chance. In the same week his plan was hatched. Wilson had gathered a small cadre of unwitting McMurdo workers in the recesses of the waste facility above town. There, he convinced ten grown men to strip naked (except for a red-yazoo cap— standard

issue— strapped to their groin) and whistle a tune to start the show.

True to expectation, the crowd cheered with delight as the chorus swayed left and right singing and whistling on opening night. The chorus, however, was only a prelude to the real talent of the show.

The night started with quirky laughs in the 'Sure Thing,' a comedy of dating romance and moved to a spirited performance of 'Words, Words, Words' about three monkeys writing the Hamlet. Next came 'The Philadelphia', a dated (fresh), boring (funny) and ordinary (unique) way of ordering food in a Philadelphia restaurant (order what you don't want and you'll get what you do); and closing with 'Mere Mortals', a tale told by construction workers over lunch.

The real tale of last week's theatrical program, however, wasn't the acting or directing; it wasn't the stage manager's hard work or the band's melodies; it wasn't the carpenters skilled work or the warm reception by National Science Foundation managers. It was, however, the signature of a community in harmony.

Without any intention to do so, the performance mirrors the tenacity of Antarctic workers across the continent. 'All in the Timing' ushered in the spirit of the heroic age, a spirit that Scott and Amundsen and their men who lived and worked here just 100 years ago knew all too well: with cooperation and high spirits, anything is possible. *

Hut History

...cont. from page 3

no sledding equipment, the 10 marooned men scrounged around the three existing huts to cobble together enough material to lay the depots. Six men began the depot journey from Hut Point, leaving four men at Cape Evans. Once again, scurvy set in, killing the Rev. Arnold Spencer-Smith and nearly killing two others, Mackintosh and Hayward. The five weary survivors returned to the Discovery Hut, again full of snow and with no food for the men. The three relatively healthy men killed seals for fuel and food and nursed Hayward and Mackintosh back to health.

With fully half the hut uninhabitable, the men remained in a small area around the blubber stove. Their clothing saturated with grease, their faces and hair blackened with soot, the men survived solely on seal meat for five months. Hayward and Mackintosh, once again mobile but by no means fully recovered, wrote the final chapter to the tragic tale. Much to the dismay of the other three, the duo set out for Cape Evans on very thin sea ice. Shortly after their departure, a storm blew in and carried away the ice. The men were never seen again. Ernest Shackleton rescued his Ross Sea party in 1917. Forty years passed before another human set foot on Ross Island.

Eighty six years to the day after Scott reached the Pole, four members of the Antarctic Heritage Trust completed a renovation of the Hut that returned it to a state most closely resembling the time of Scott's last occupation. The Trust, dedicated to keeping alive the continent's rich history of exploration, was formed in April 1987 by individuals concerned with the effects of time and weather on the continent's historic artifacts. Based in New Zealand, the Trust sends work parties down every year to repair damage to the huts and employ new preservation methods to the artifacts within and around them.

From the outside, the Discovery Hut doesn't look like much. But stepping inside takes the visitor back in time to a wholly different era of Antarctic living. The first thing a visitor notices is the pungent smell of old hay and seal meat. Crates and boxes of biscuits, canned meat, flour, sugar and cocoa are piled haphazardly. Deep cuts on the floor came from cutting up seals and from the stamping of pony hooves. Penguin skeletons and mutton carcasses adorn the meat storage room, which later expeditions used as a privy. A tarp, originally off the *Discovery*, divides the hut. Around the stove, the soot-grimed wall and ceiling provide mute testimony to the difficulties of cooking, heating and lighting with blubber. The walls themselves, under good light, reveal graffiti, the signatures of the men who lived here.

Modern technology means there will never be another Heroic Age. But preserving the relics of that age will give the rest of us an idea of the human capacity for adaptability and survival. *

Perspectives

Good For Anything

story by Sue Deyoe
photos by Alexander Colhoun

“How do you feel about shoveling?” That was how the interview started.

“You won’t make much money and you’ll be working long hours,” said a plain-spoken, honest Barb Propst, my future boss. Maybe that’s why I said yes. I was hired as a general assistant, a GA. The job description is as simple as the name: GAs assist anyone who needs an extra set of hands. Baring that, our main job is shoveling snow.

Every day holds new adventures in store as our team of 10 GAs trudge to our morning meeting with Barb, our protector, advisor and supervisor, who gives us our assignments.

I never had a typical week, yet as I reflect on one set of journal entries, a single theme prevails: hard work.

Monday morning I reported to work in the galley freezer where I climbed up staircases of boxed frozen foods to dig out various meats, vegetables and pastries. To warm up, we stepped outside for a break.

Tuesday morning I worked in the carpenter’s shop constructing ice core trays, 950 to be exact, for scientists at Siple Dome. Then off to the metal yard where we struggled with large pieces of metal duct and other materials dropped at random.

Wednesday I went to Willy Field where I shoveled out a building all day –only to have it blow back in the next.

Thursday morning I made navigational aids for the runway, attaching orange woven plastic to metal pipe. In the afternoon I found



Marin Kuizen, a GA, takes inventory in the carpenters shop tool room.

with a stack of green flags attached to bamboo poles and headed off to re-flag the route to Silver City. Back in time for lunch, I returned to the freezer for the afternoon.

That’s just one week. Over the season GAs have mended Herman Nelson hoses; worked as cargo handlers; chopped urine filled ice from under Jameways; constructed Jamesways and Polarhavens; made sling loads for helicopters; cooked, steam cleaned and changed lightbulbs; cleaned fuel spills; walked fuel hose lines; rolled, reeled and repaired hoses; moved fish huts; installed and removed shelves and insulation; moved metal of all weights and sizes; pushed, pulled and lifted tons of material; and of course, shoveled enough snow to blanket Denver, Colorado.

Being a GA is a bit like being a Navy Seal: you’ve got to be ready to do anything and go anywhere at any time. We never knew from day to day what we were doing so we had to be prepared.

My ever-present orange bag contains an extra pair of socks, a Leatherman tool, safety glasses, goggles, mittens, extra gloves, bunny boots, pee funnel (a woman’s option), sunscreen, lip balm, wind pants, a wool hat, a big black marker, a small black marker, a book, chocolate, a water bottle and a bagel.

Just as my orange bag is filled with survival trinkets, GAs themselves are filled with a diverse array of experiences. Amongst our crew we have corporate managers, a trail crew leader, counselors, park rangers, and an advertising executive. Most have college degrees, but it’s not a qualification. To be a GA all you really need is thick skin, patience, a great sense of humor, a strong back, strong arms and a shoveling license. Would I do it again? Sure, but next time I’m bringing a snowblower. *



Mark Perry, left, a galley worker, and Greg Lehman, a GA, unload frozen foods in the McMurdo refrigerated storage unit. “I like climbing around on all the crates,” said Lehman, “but some boxes weigh 80 pounds –that’s a lot of heavy lifting.”

myself under building 204, laying on the ground, my face and arm wedged between water hoses and the floor of the building whacking away at ice surrounding the pipe.

Friday it was snowing again which meant I would probably be shoveling all day. First I worked on the galley steps, then returned to Gallagher’s Bar, on to Southern Exposure and then to the Coffee House.

Saturday arrived and it was a beautiful day. I jumped in a Spryte (a tracked vehicle)

Profile

Have Spirit, Will Travel

story by Chief Jacqueline Kiel

Lack of money didn't stop her. Growing up in a poor section of town didn't stop her. Cancer didn't stop her. That's because Brenda Joyce is unstoppable.

Brenda is one woman who can honestly say she is living her dreams. Those dreams are to get out and see the world, a feat she has continuously accomplished.

Over the years Brenda's escapades have taken her to almost all corners of the earth. She has lived in America, Europe, India and Antarctica, and traveled to many other places. Among other things, she has been a book dealer, legal secretary, meat packer, palmist and cocktail waitress.

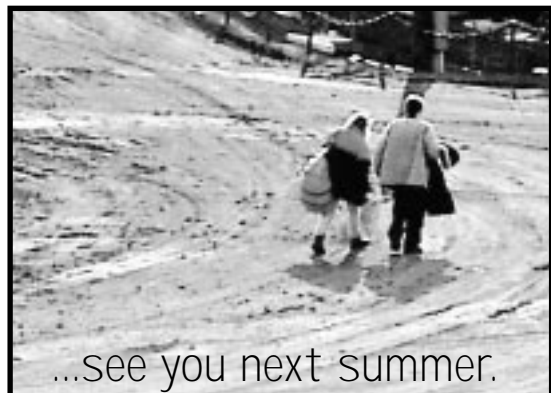
This from someone who was told she had just five years to live in 1978. "That was one of the reasons I spent every dime I had," Brenda said.

Completely healthy and full of life, Brenda now works vigorously as an administrative coordinator for the National Science Foundation at McMurdo Station. The first to fill this position over the entire summer season, Brenda has made it her job to set up a smooth-running program complete with checklists for various functions.

Born on a farm outside of Hopkinsville, Kentucky, Brenda, 57, is the antithesis of the rest of her family who are firmly planted in the United States.

"I started saving my babysitting money when I was nine to go to Europe," Brenda said. "I went when I was 19."

This first trip took place during the summer, between her sophomore and junior years of college. She had been signed up to go to school at the Sorbonne in Paris. "That's how I got my par-



Tending plants in the McMurdo greenhouse is one of Brenda Joyce's favorite McMurdo pastimes. "The smells here are wonderful," said Joyce with a smile.

ents to let me go," she explained.

Fate, however, had a different plan for Brenda. When she got on the ship to go to Paris, she met a woman and her daughter who purchased a Volkswagen bug to travel across Europe. They invited Brenda to go with them. At the time Brenda thought to herself, "Do I need any more schooling?" Her answer was no.

Thus began Brenda's travels in Europe. "They really taught me how to find the cheap hotels," she said emphatically. "I saw a hell of a lot of Europe for free."

Brenda never did go to school in Paris. Returning to the U.S. she continued school at Long Beach State College, in California, where she won a scholarship for Careerist of the Year. However, the money was never used for school.

"True to form, I cashed it in and went to Japan," she said laughing, her green eyes beaming. "I used all of my money to go around the Pacific." Traveling for a year and a half, she visited places like Japan, Hong Kong, Indonesia, and Australia.

Brenda has actually spent about a third of her life living and working outside the United States. She did, however, stay in one place for over nine years, sort of. She was working in Alaska, at Prudhoe Bay. While there, she worked either one week on, one week off, or two weeks on, two weeks off. Regardless of her schedule, it afforded her the opportunity to travel.

"I commuted to Europe and Hong Kong," Brenda said. "I was able to take every single dime and spend it on flying someplace. I still came out of there with a ten-year retirement."

A tall, slender woman with short salt and pepper gray hair and glasses, Brenda has a look of efficiency written all over her. This look is well suited to the job she sometimes holds in San

Francisco, that of a legal secretary, a job she has always been able to fall back on.

Brenda's hobbies tie in closely with her travels. As a youngster, she became interested in palmistry. While going through one of her books, she recognized that she had the mark of a wanderer in the palm of her hand.

"I wanted it to be true because it was not happening in my family," she explained. "I was absolutely desperate not to live the way I saw everyone around me living. Nobody had any expectations. Nobody was going anywhere. I was told that's the way it was. That's what I could expect." Brenda's mind-set was, "Not if I can help it."

Many years later, and after learning astrology and physiognomy (character through the features), she met a man practicing palmistry in Hong Kong who taught her a Chinese palmistry method. She worked as a professional palmist for three years, practicing in Australia, England and Holland.

Brenda stresses the importance of distinction between palm reading and psychic events. "It is hand analysis," she stated. "A prediction is a psychic event rather than something that is available in a palm. Analysis is a characteristic reading." Still very much into the art of palmistry, Brenda occasionally attends schools and events on the subject.

Besides her work as a palmist, Brenda has also been an antiquarian book dealer. "I was just doing it at night and on the weekends," she explained. "I had just about 50 items, just the stuff that was sitting under my bed."

With the travel bug still in her blood, Brenda shows no sign of stopping. Her plans are to visit Tonga and Amsterdam after she leaves the ice. She also plans to go one day to the one continent she has never stepped foot on. "South America," Brenda exclaimed. "I'm going to go there when I'm old," she added, laughing. *