

# The Antarctic Sun

OCTOBER 18, 1997  
Every Two Weeks



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

## A Season of Change

by Dwight D. Fisher  
National Science Foundation Representative,  
Antarctica

You and I are in the midst of a transition that significantly affects the way the United States Antarctic Program conducts business. In 1993, with Congress mandating a smaller military, U.S. Navy officials decided they could no longer afford the personnel required for Operation Deep Freeze –the Department of Defense’s portion of the program. As a result, the National Science Foundation has been working with the Navy and the Department of Defense to accommodate this change.

Science has relied on the Navy since Lt. Charles Wilkes proved Antarctica was a continent in the 1840’s. In the 1930’s Admiral Richard E. Byrd made Little America a household name, and the Navy’s 1947-1948 effort, Operation

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## Winter Storm Slams McMurdo



photo by Alexander Colhoun

Windblown snow hurtled through McMurdo in gusts of more than 70 miles per hour last week, making even the shortest trips across town an adventure. More information on page 8.

### INSIDE

**A Season of Change** –Dwight Fisher highlights major transition in the USAP for the 1997-98 summer season.

**First Edition** –Look no further for the latest Antarctic Information. With a new name, a new staff and a fresh new look, *The Antarctic Sun* is on the beat for you.

**Sick Bay No More** –New faces and a new outlook inside McMurdo’s medical clinic.

**Updates** –Station and Ship updates from across the continent and around the globe.

**Perspectives** –FNGs: Krill of the Antarctic Workforce.

**Profile** –Better than a Brock of Ice: From cliff diving in the Virgin Islands to cargo loading on Antarctic ice runways, Sunny Brock has an unquenchable thirst for adventure.

## Cape Roberts Project: Coring Back in Time

by Alexander Colhoun

The steady beat of helicopter blades churning through McMurdo’s crisp sea air heralds the arrival of sediment cores scientists have anticipated for close to ten years.

As the helo engines wind down and the blades come to a rest, a scientist descends on the chopper with the same concern an emergency room surgeon might have for an injured patient. With great care, an insulated box filled with freshly drilled sediment cores is removed from the helicopter and transported to the the Cray Lab for analysis.

Obviously these are no ordinary columns of compressed dirt. They are the first core samples of this type to be removed from beneath

sea ice and 200 meters of frigid ocean water in the Ross Sea, 87 miles North of Scott Base, off the Victoria Land coast at Cape Roberts.

Using these cores as a gypsy does a crystal ball, scientists hope to unveil secrets of global climactic changes that have been locked in the earth’s crust for up to 100 million years.

“It’s time travel, like opening a history book to look at Antarctic climate in the distant past,” said chief project scientist Peter Barrett. “We hope to core back to the time of dinosaurs in search of physical evidence, like striated stones, which are characteristic of debris carried under glaciers.”

In addition, researchers will study the rift-

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## Season of Change

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Highjump, remains the largest Antarctic expedition ever.

Operation Deep Freeze, begun by the Navy and continuing to this day, saw the construction of seven stations for the International Geophysical Year in 1955, definitively putting science on the Antarctic map.

Naval support to Antarctic researchers, funded by the National Science Foundation, has continued unabated, although most services have moved to private contractors. Despite these changes, the Navy continues to provide critical support to the Antarctic program in the form of LC-130 flights and the annual arrival of both a fuel tanker and a cargo ship under Navy command.

While the transition of many Navy functions to contractors has been carried out over several years, the turnover of the Naval Support Force Antarctica (NSFA) will be completed this season. The NSFA will be decommissioned in April 1998, and the Air National Guard will assume the role of Commander, Operation Deep Freeze. In April 1999, VXE-6 will also be decommissioned bringing an end to the United States Navy's long and decorated history of opening the Antarctic to exploration and science.

On October 1, Antarctic Support Associates took over medical, dental, and chaplain services in McMurdo while SPAWAR Systems Center based in Charleston, South Carolina took over air traffic control, meteorology, and ground electronics maintenance. These transitions appear to have been successful due to hard work by all parties concerned.

Truly this is a season of change.

Sometime in the fifties, chief scientist Albert P. Cray made a construction suggestion to Admiral George Dufek, then Commander of the Naval Support Force Antarctica. "Doctor," the Admiral replied, "Don't tell me how to build my stations and I won't tell you how to do your science."

Those days are gone. Collaboration and planning by all parties are vital to the continued success of this program. This season we will have 185 research projects on the conti-

nent and at sea around Antarctica. While not the biggest expedition ever—I doubt we can match the Navy on that—it is the most science ever. Our challenge is to provide this science, as the public demands, for less cost.

Transition from the Navy is not our only challenge this season. The Siple Dome camp with 90 people will be complex and bigger than South Pole Station was just a few years ago.

South Pole station is set to begin major renovations and an ambitious astrophysics project will get underway. The Laurence M. Gould, an ice-strengthened replacement ship for the retired Polar Duke, will be delivered at mid-season. This delivery will be later than planned and will make life and research a bit more tenuous for those at Palmer Station.

The Nathaniel B. Palmer, our research icebreaker, and the Roger Revelle will examine the vast but poorly measured exchange of carbon between the atmosphere and the southern ocean.

While scientists study exchanges of carbon, members of the United States Antarctic program are forced to confront different kinds of exchanges—those between people. And



photo by Alexander Colhoun

Ground crews maintain a hot air duct running into an Airforce C-141. This warm air heats the lading gear to prevent it from freezing during the McMurdo layover.

while most of us usually work better without change, Antarctic veterans will tell you that life here is about daily change. From the weather, which transforms itself in the blink of an eye, to ice conditions that swing with mother nature's whim, the Antarctic continent is defined by uncertainty.

I realize change is difficult for an organization. Old ideas are challenged, newcomers struggle to grasp long-followed procedures, and the patience of busy people can be strained. That said, I ask each of you to help make this year's transitions as seamless as possible by assisting newcomers and keeping an open mind to the ideas and procedures they bring to the United States Antarctic program.

It is my prediction, based on years of Antarctic experience, that together we'll pull off yet another successful season. \*

## Dwight Fisher

With more than a decade of Antarctic experience under his belt, Dwight Fisher is eminently qualified to serve as the nations' senior representative in Antarctica. Over the last 15 years he has held leadership roles in both the military and civilian components of the U.S. Antarctic Program.

A career naval officer, Fisher started his association with Antarctica in 1982 with Antarctic Development Squadron Six of the U.S. Navy, and finished three years later as Commanding Officer.

He returned to the program in 1987 and served two years as Commander of the Naval Support Force Antarctica. After serving as the Department of Defense liaison officer to the National Science Foundation for another three years—a job devoted to assuring effective military support of Antarctic

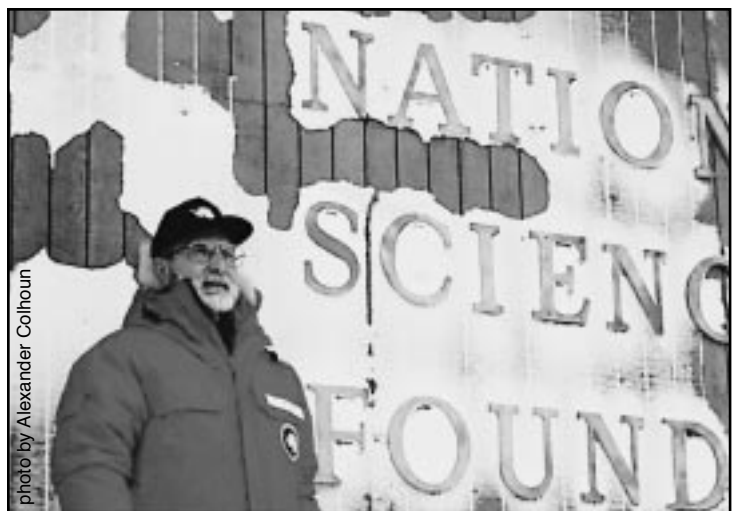


photo by Alexander Colhoun

research, Captain Fisher retired in 1992, having completed 26 years of active duty in the Navy.

As a civilian, Mr. Fisher assumed his present position with the National Science Foundation as the Deputy Head of Polar Research Support in the Office of Polar Programs, which funds and manages the U.S. Antarctic Program as well as the Foundation's Arctic Research Program.

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.

Editor: Alexander Colhoun

Publisher: Valerie Carroll, ASA.

Contributions are welcome. Contact The Sun at [sun\\_news.asa@asa.com](mailto:sun_news.asa@asa.com). In McMurdo, visit our office in Building 155 or dial 2407.

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



# The First Edition

Welcome to the premier issue of *The Antarctic Sun*. As you read through our first issue you are certain to notice a theme: change. Along with many other facets of the U.S. Antarctic Program, the newspaper has also transitioned.

In seasons past *The Antarctica Sun Times* was managed and published by the Public Affairs staff of Naval Support Force Antarctica. This season responsibility for the paper has moved to the civilian contractor, Antarctic Support Associates.

It's an exciting challenge and we are confident that, with the help of talented program participants, we can provide a dynamic and informative paper.

Our target audience is all participants of the U.S. Antarctic Program. Our goals are to increase the sense of community at all stations and ships; to disseminate information on science projects; to communicate goals and events; to build participants knowledge as they become ambassadors of the program; and to have fun in the process.

We will be publishing the paper every other week during the austral summer,

October to February –when the sun shines in Antarctica. While there are no shortage of great ideas out there, we are just a bit short on people power and time. Eventually, however, we hope to move to a weekly edition.

A printable (PDF) version of this paper will be available on the world wide web (<http://www.asa.org>) and accessible to the general public anywhere in the world.

With a new paper, a new name and a new design comes a new editor: Alexander 'Sandy' Colhoun. We are fortunate to have this skilled and enthusiastic journalist. Sandy graduated with distinction from Colby College and is finishing a master's at the highly regarded Graduate School of Journalism, University of Missouri. Sandy lived and worked in Tokyo for two years and traveled as a photojournalist throughout China, Tibet, Nepal, India and Vietnam. He has written for *The Denver Post* and several magazines including *Climbing*, *Sierra*, *Baltimore*, *Pulp*, and other publications. He recently left the *Columbia*



Alexander 'Sandy' Colhoun, journalist

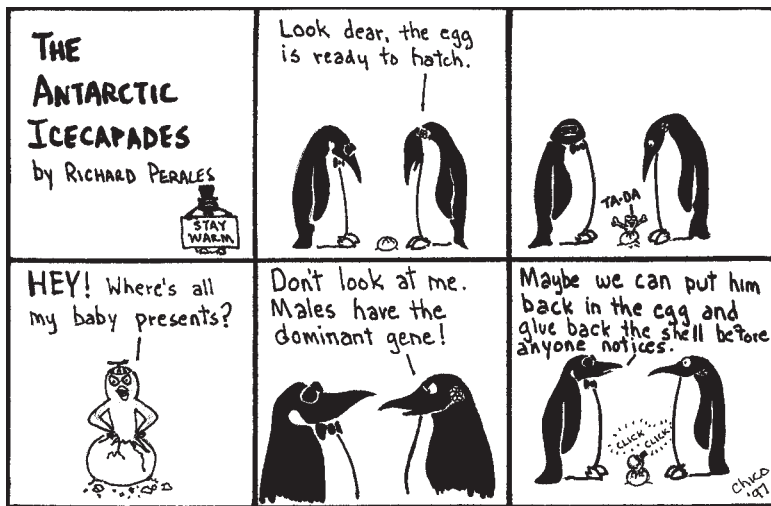
*Missourian* to work on *The Antarctic Sun*.

In general, Sandy will serve as editor and I will serve as publisher. We hope that many of you will add 'writer' to your current title and volunteer to work on the paper.

Contributions and ideas are encouraged and should be emailed to [Sun\\_News.asa@asa.org](mailto:Sun_News.asa@asa.org).

Hope you enjoy!

Valerie Carroll  
 Publisher, The Antarctic Sun,  
 Public Affairs, ASA



## YOU

### make the waste program work

Please assure your waste is sorted, bagged and deposited into the appropriate waste category.

Everyone is required to attend a Waste Orientation Meeting. If you didn't see the video in Denver then plan to attend a McMurdo session. Meetings will be held at the 2nd floor of the Crary Lab on Tuesdays, Thursdays and Saturdays at 8:00 a.m.


### Reduce • Re-Use • Recycle

call 2528 or 2740 with questions

Thanks,

Your Waste Management Crew





## Chapel of the Snows

**Sundays:**  
 Catholic Service 9:30 AM  
 Protestant Service 11:00 AM

**Wednesdays:**  
 Prayer and Praise at 7:30 PM.

### McMurdo Recreation

**Gallaghers** - Country Music Night on Thursdays (Bring music).  
 Tue-Fri 7-11pm, Sat 7pm -1am, Sun 4-10pm.

**Day Bar** open on TUE & THU 8am -11am AND SAT 8-12am

**Southern Exposure** - Bingo & Karaoke on alternating Weds.  
 TUE-FRI 7-11pm, SAT 7pm -1am, SUN 4-10pm.

**Coffee House** -watch the scroll for Acoustic Nights.  
 TUE-FRI 7-10pm, SAT 7-12pm, SUN 3-9pm.

**Bowling Alley** - Sat 7-9pm, Sun 2-5pm.

**Ceramics** - THU & FRI 6:30-8:30pm, SUN 2-5pm.

**Gear Rental** - Skis, Bikes, CDs Musical Instruments, climbing shoes. Call 2443.

Treat people as though they were what they ought to be, and you help them become what they are capable of being.

—Goethe

# Sick Bay No More: hospital goes civilian

story and photo by Alexander Colhoun

The dentist's chair looks out over the Transantarctic Mountains. The back room stores a decompression chamber for ice divers overcome with the bends. Clearly the McMurdo Hospital is no ordinary medical facility.

For the most part, however, the hospital here cares for one thing: the McMurdo crud, a cold that leaves residents with noses running like the Nile, coughs an Antarctic explorers would be proud of and a fever that could warm the Cray Lab freezer unit.

In days gone by symptoms of a cold like this called for a visit to sick bay, even if all you wanted was a few aspirin and a bottle of cough syrup.

Times have changed.

Today, most of these over the counter items are available in McMurdo's own store, the *Aurora Storealis*. This is just one of many transitions this summer as responsibility for McMurdo's medical services changes hands



Dr. Mark Sears, McMurdo's resident physician, talks with Ingrid Crowl in the McMurdo Hospital. "Dr. Sears was just as personable as my family doctor and he's really smart," said Crowl of her recent visit to the now privatized medical clinic.

from the Navy to Antarctic Support Associates. "It used to be that McMurdo's hospital was more of a sick bay, modeled after a Navy ship at sea," said Eric Jurgens, ASA's director of Safety, Environment and Health. "Our goal is to create a clinic analogous to your local doctor's office, a place with a neighborhood walk-in feeling."

One of the biggest changes will be the availability of the doctor who will see any patient that wants his input. In addition, the hospital hopes to create a more informal atmosphere, with magazines, books and even condoms in the waiting room.

Clearly, however, there is more to McMurdo's medical services than fevers and coughs. Hope for the best but prepare for the worst. It's a motto residents of Antarctica live by. Antarctic isolation, even in summer conditions, is often compared to life on another planet. Unexpected storms can prevent emergency transport from accessing McMurdo for days at a time, even in summer.

Consequently, medical services are prepared for the worst. At 3 a.m. last week Nola Chandler's pager jumped to life with a screeching chirp. "A voice in the night told me to call the firehouse," said Chandler, a registered nurse from Montana. "I almost had a heart attack myself when I heard the beeper go off, but I was out the door in just a few minutes."

Hustling down McMurdo's silent streets, Chandler joined a team of medical experts who, like Minutemen, stand ready to serve the residents of McMurdo and the continent at a moments notice.

Chandler is one of eight new ASA employees hired to run the McMurdo Hospital. The others include a doctor, a physical therapist, a dentist, a nurse practitioner, an X-ray technician, a lab technician and a trained clinical counselor.

"All of these new people will help us create a facility

that is an extension of the family doctor," said Jurgens. "From yearly physicals to a nutritional guidance program and even counseling, this will be a new clinic."

Fortunately, the patient Nola Chandler was called to help treat walked away from the hospital just two hours later. "Emergency preparedness is the big thing," said Dr. Mark Sears, McMurdo's resident physician and emergency room veteran. "It is a major concern of the Navy and remains one of the civilian medical department."

And while it is comforting to know that evacuation to Christchurch is usually only hours away, McMurdo Hospital and its new staff are ready for anything—even the McMurdo crud. \*

## Did You Know...

### McMurdo was named after...

The McMurdo Sound was discovered by Capt. James Clark Ross in February 1841 and named for Lt. Archibald McMurdo of the *Terror*.

### The coldest July on record...

The average temperature for July 1997 was  $-66.0C/-86.8F$ . This established July 1997 as the coldest July on record, breaking the old record of  $-64.3C/-83.7F$  set in July 1965. It also established July, 1997 as the second coldest calendar month ever at South Pole Station. Only August, 1987 was colder, with an average monthly temperature of  $-67.2C/-90.0F$ .

### South Pole Station...

Roald Amundsen and Robert Scott's expedition to the South Pole was in 1911 and 1912. The Pole was not visited again until 31 October 1956 when a ski-equipped R-4D plane landed carrying Admiral George Dufek and other U.S. Navy personnel.

**Approximately 90% of the world's fresh water...** is locked up in the polar icecap which covers all but about two percent of Antarctica. This represents an enormous volume of water. If the ice were to melt it would raise the level of the world's oceans by between 160-200 feet.

### Halloween...

is just around the corner. Have you skua'd a costume yet?

**Cape Roberts** *cont. from page 1*

ing, or upheavals, of the Antarctic continent to better understand the formation of the Transantarctic Mountains and the Ross Sea itself.

While the Cape Roberts project focuses exclusively on science, one aspect of the effort has more to do with goodwill than Gondwanaland—the super continent that Antarctica broke away from 180 million years ago. With six nations participating: Australia, Germany, Great Britain, Italy, New Zealand and the United States, it stands to become a model for international participation in collaborative scientific research.

“It is a melting pot of the science world,” said Scott Borg, the National Science Foundation science representative in Antarctica, who first came here as a student in 1978. “Cape Roberts is a little step toward a world society where national boundaries mean less and less.”

According to Borg, Cape Roberts represents one of the largest collaborative geological projects ever undertaken in Antarctica. This cooperation is driven in part by the extraordinary costs of operating in Antarctica. The logistics budget alone for the Cape Roberts project is in excess of four million dollars over the project’s five-year life span.

“It is a watershed in terms of the way nations have worked together in Antarctica,” said Borg. “Nations have pooled resources,



photo by Greg Leibert

The Cape Roberts Project drilling rig sits on 1.5 meters of ice, just one-tenth of a meter more than the minimum required to support the five-ton platform.

people, and money to allow this project to move forward.”

Moving forward hasn’t always been easy. “Getting scientists to agree is like herding cats,” said Borg with a chuckle. “We have 46 scientists directly involved in the project—that’s a lot of people to work with.”

Another major challenge came by way of Mother Nature. The project was initially scheduled to kick-off in 1996, but insufficient sea ice at the drill site last summer forced a year’s delay.

The drilling camp, built frugally with used railroad shipping containers, requires a minimum 1.5 meters of sea ice to support its five tons of weight. To the relief of many scientists, measurements this year surpass the minimum, if barely, by one-tenth of a meter, giving them the green light to move forward, but quickly.

The operating period for the Cape Roberts Project is mercilessly thin, dangling in the seasonal margin between spring and the summer weakening of sea ice, a period of

roughly 45 days. In order to maximize the return on their investment, scientists will maintain a non-stop, 24-hour drilling schedule, with two twelve-hour shifts per day.

The goal is to remove roughly 50 meters of strata per day which will be flown back to McMurdo Station each night. Ultimately, two separate holes will be drilled in the first year, resulting in close to 1,000 meters of cored sediment for analysis.

In order for all this to happen, the International Steering Committee for the project, an oversight board,

***“It’s time travel, like opening a history book to look at Antarctic climate in the distant past,”***

has compiled an impressive line-up of more than 75 scientists and staffers. “This is not a bunch of rookies,” exclaimed Peter Webb, the United States representative of the project. “We have some of the most experienced drillers and scientists in the world, and the world is watching us as we work.”

Removing slender cores, some of which are no thicker than your average garden hose, from below 200 meters of sea is just the beginning of challenges faced by this dream team of workers and scientists.

Once the core has been removed it must be catalogued, oriented as it was originally found in the earth, then cut in two semi-circular



photo by Greg Leibert

Workers at the Cape Roberts Project set casing inside the drilling rig.

# UPDATES from Antarctic stations and ships

## FOCUS:

### Christchurch, New Zealand

by Brian Stone

The action here in Christchurch has been nonstop since the beginning of the season. Although we've had the usual flight delays for weather and other reasons, things have been progressing along well. So far this season a total of 681 passengers have transited through the Christchurch terminal on their way to the ice, and we're gearing up for the next wave of personnel associated with the opening of South Pole Station later this month. Over a half-million pounds of supplies and personnel have been airlifted to McMurdo Station this season.

Most returning USAP participants flying to the ice this year have probably noticed some changes in the check-in procedures at the Passenger Reception Center. This past summer NASU Terminal Operations redesigned the check-in to be more "passenger friendly", and they've tried to make the check-in more like those for a normal international flight. This year passengers are invited to check in at their leisure between specific times, and passengers who check in early are being encouraged to use the extra time to eat breakfast or relax before the flight. It's all part of the NSF's plan to make traveling in the USAP a more pleasant experience for everyone.

In the area of international participation, personnel from the Italian Antarctic Program

have been passing through on their way to Terra Nova Bay, and in the next couple of weeks we're expecting to see their Italian Air Force C-130 arrive, ready to begin flights to their station.

This week we've seen some research vessel activity at Port Lyttleton. The R/V ROGER REVELLE, operated by Scripps Institute of Oceanography in La Jolla, California, has been in port loading up for the first of its JGOFS cruises. Roughly 150,000 pounds of cargo was loaded aboard for the Spring Survey I cruise which will depart from Lyttleton on 20 October and will return on 24 November.

Later this month the R/V NATHANIEL B. PALMER will arrive at Port Lyttleton for its Process Study IV cruise in the Ross Sea region from 5 November to 16 December.

### South Pole Station

by David Fischer

Twenty-eight winter-over personnel saw sunrise last month and are busy preparing the station for the upcoming summer season. Temperatures are warming, averaging -63F last week, with winds averaging 13 mph. A record wind speed was set on 27 September with 36 mph. On 28 October the first contingent of the summer crew will arrive to open the station that has been isolated since February. The station will reach a new population record of 185 people during this summer season, during which work on the garage arch will mark the beginning of the eight-year South Pole Station Modernization effort.

November (approximately 1,200) when field camps and South Pole Station opens. Overall, temperatures have been warm this season with overcast skies, but the winds have recently changed, and we are now experiencing -30F to -40F wind chills. Currently the focus of the station is getting everyone into a room and settled in for the busy season ahead. Work centers are training and orienting their crews and some science groups have already hit the field.

month. A number of fish huts have been placed at different locations on the sea ice for scientists who are diving in local waters.

### ASA, Denver

by Ron Koger

Dr. Jay April, ASA's Assistant Project Director for Management Systems, has been appointed Project Manager for phase-in of the R/V LAURENCE M. GOULD. He will coordinate and integrate all of ASA's tasks, including science support computing equipment, and a schedule to ready the vessel for its first science mission in early January 1998.

ASA is awaiting Contracting Officer approval for adding 3,400 square feet of space to Denver Headquarters. The expansion will support engineering growth for the South Pole Redevelopment Project.

### National Science Foundation,

Office of Polar Programs, Arlington, Virginia

by Guy Guthridge

Dr. John B. Hunt became acting director of the Office of Polar Programs on 8 September, replacing Dr. Cornelius W. Sullivan, who returned to the University of Southern California 1 August after directing OPP for four years.

Dr. Hunt most recently had been the Foundation's acting assistant director for mathematical and physical sciences. Before joining the Foundation in 1983, he was professor of chemistry at the Catholic University of America, where he had been on the faculty since 1962. He received his Ph.D. in inorganic chemistry from the University of Chicago in 1962. The Foundation plans to conduct a search for a director to follow Dr. Hunt's tenure. \*

### Palmer Station

by Ron Nugent

The R/V NATHANIEL B. PALMER arrived at Palmer Station on 30 September for the second time in two weeks. Because the sea ice was not stable enough to support over-ice movement, cargo and passengers were transported in small boats from Hero Inlet. Thirteen persons arrived on station, and the majority of the winter staff departed. We presently have a population of 36. Fifteen grantees represent five individual science events. The remaining sea ice has broken up and we have open water with some loose pack ice and icebergs. The scientists are using Zodiac inflatable boats. The next ship is due on 14 November.

### Research Ships

by Rhonda Kelly

The R/V NATHANIEL B. PALMER is poised to begin a transit from Punta Arenas, Chile to Lyttleton, New Zealand on 9 October. This transit follows on the heels of two successful Palmer Station resupply shuttles by the NBP. The COPA field camp was successfully re-established by the staff of the NBP during the second shuttle. In Louisiana, at North American Shipyard, the R/V LAURENCE M. GOULD is scheduled to be christened on 9 October during the ARVOC meeting. Early December has been projected as the sailing date for the new LMG.

### Field Support

by Jill Ferris

Helicopter Operations started on 16 October after the PHI pilots attended Field Safety Training. The first flights of the season have been to deliver cargo and science personnel to Cape Roberts to place personnel at Marble Point (the helicopter gas station for Dry Valley Operations), and to place repeaters in the field to support radio and computer communications in the Dry Valley and local McMurdo field sites. Science Construction personnel have been busy preparing Jamesways and other portable structures for field camps which will open later this

### McMurdo Station

by Stan Wisneski

The station opened on 30 September with a cargo flight and 1 October brought the first passengers. The population has been steadily climbing (700 now) and will continue until early

## Snow Jobs, Ben Mann



...and to think I was actually concerned about the isolation here.

## Your Turn—

Your questions and comments are welcome here. We'll publish responses in each issue. Contact us at [Sun\\_News.asa@asa.org](mailto:Sun_News.asa@asa.org)

### “Why do we have to report to the CDC so early?”

For a large flight the CDC reporting time for USAP participants will be three hours and fifteen minutes prior to the scheduled aircraft takeoff. Passengers departing on a 9AM flight from Christchurch will usually be asked to report to CDC at 5:45AM. However, for flights with fewer passengers the reporting and check-in time may be reduced because it doesn't take as long for people to dress and weigh in.

To put things into more familiar terms, most commercial airlines require passengers to check in a minimum of two hours prior to an international over-water flight. This two-hour window is used to ensure the ground support personnel and aircraft load planners have sufficient time to prepare the aircraft for long-distance flight. Comparatively, passengers in the USAP are asked to report roughly one hour and fifteen minutes earlier than they would for a commercial international flight.

Brian Stone  
Manager, Terminal Operations Manager, ASA  
Christchurch, New Zealand

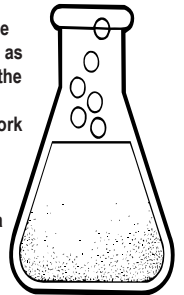
### Needed: Winter-Overs

Here's an opportunity to participate in world-class, cutting edge science! S008, the Polar T3 project, is seeking 16 volunteers to act as subjects to document changes that occur in people who remain in the Antarctic environment for long periods.

Measurements will include changes in metabolism, physical work efficiency, muscle tissue, mood, memory and thyroid activity.

Each participant will rest and ride a cycle once a month while oxygen consumption measurements and computer tests are taken. Additionally, this month, January and August, subjects will spend a night in the medical clinic for kinetics studies.

Contact: Kathleen Reedy at the McMurdo Hospital at 2959 or email [S008.McMurdo@McMurdo.gov](mailto:S008.McMurdo@McMurdo.gov).



## MILITARY NEWS:

### Navy News...

Provided by Chief Jaqueline Kiel

The roles and responsibilities of the U.S. Navy in the National Science Foundation's United States Antarctic Program (USAP) have been greatly reduced this season.

While the Navy still serves as the executive agent for the Department of Defense's (DoD) logistical support role to USAP, the Navy's mission on the continent has been reduced by more than half. Support roles once performed by U.S. Naval Support Force, Antarctica (NSFA) personnel have now been taken over by civilian contractors, according to Cmdr. Chuck Young, Deputy Commander, NSFA.

“Certainly, all of our functional areas are gone,” Young said. “We have been trimmed down to primarily a command and control role.” NSFA will have a maximum of about ten people at McMurdo Station at any time during the season. Last year that number was closer to 80.

VXE-6 had a total of 417 people last year, manning Point

Mugu, Christchurch, New Zealand and McMurdo Station during the summer. This year they have only 310 people.

The number of aircraft operated by VXE-6 this year has been reduced as well, according to Lt. Hans Hartwig, maintenance material control officer. “Last year we had six aircraft,” Hartwig said. “This year we have five, and we're going to be down to three for the last season.”

The transition was planned over a three-year period to avoid any negative impact on the program. This ensures an overlap, and thus safety in operations and a complete transfer of knowledge.

According to Young, last season the New York Air National Guard (NYANG) augmented VXE-6 flight operations. This season VXE-6 and NYANG are expected to split the flight missions, which are defined by the number of flight hours. During the 1998/99 season VXE-6 will augment the NYANG.

Young expects operations this season to be safe and smooth.

“The plan for this season is to continue the transition so it remains transparent from the outside looking in,” Young said. “Also, we expect to leave the program on a high note.”

### News from the 109th...

...stay-tuned to next edition.

## Cape Roberts

-cont. from page 5

halves down its length. One half of the core will be used as the working sample, to be sliced, divided and exhaustively studied on the ice and beyond. When analyses are completed, this half will travel to the Alfred Wegener Institute in Bremerhaven, Germany to be archived. The second half will travel to Florida State University in Tallahassee where it will be curated by the Antarctic Core Storage Facility.

So much for logistics, the real question remains: what is the purpose of all this science? Webb hopes to make Antarctic contributions to global model databases in areas ranging from global warming to the variance of sea levels across the planet. In other words he explained, without Antarctic data, representing one quarter of the world as a whole, no world models can be complete.

Webb also hopes the project will fill in massive gaps of time in our understanding of



photo by Alexander P. Colthoun

Dr. Terry Wilson, Jack Hawkins and Robin Abbott discuss the logistics of helicopter travel to and from the Cape Roberts Projects.

Antarctic glacial history. To date researchers have collected similar rock samples dating back 40 million years. With luck at Cape Roberts they hope to push the clock even further. "We're going to push the dateline of

our current knowledge back 60 million years," said Webb. "This is more than double the time period we have dated in these rocks until today."

For Terry Wilson, a geologist from Ohio State whose work has taken her to remote corners of the earth from Patagonia to Zambia, drilling under the sea is the only way she will ever study rocks of this age. "There is no way to do the same thing on land," explained Wilson. "These rocks simply don't crop up anywhere in the Transantarctic Mountains or in the East Antarctic."

Scientists like Wilson who have put their blood, sweat and bunny boots into this project will be rewarded with the best access to core samples back at McMurdo's Cray Lab and throughout the following year.

Even so, scientists realize that demand for use of the cores will be high. To get findings out fast, the project is taking yet another exploratory step: scientists will assemble their preliminary findings in McMurdo, before departing the ice.

Basing their effort on the highly successful shipboard publishing effort initiated by the National Science Foundation's Deep Sea Drilling Project—a world roving sea drilling platform, Cape Roberts scientists will be required to pull together their early findings in a document to be completed before the year is finished. To that end, a graphic artist and a science editor have joined the Cape Roberts team to produce this document. Ultimately these results will be published in Italy.

With a bit of luck in the coming weeks, close to a decade of work will begin to bear fruit as scientists catch their first glimpses of life in Antarctica nearly 100 million years ago. "This is the discovery phase of science here," said Terry Wilson. "So little is known. It's just a great opportunity." \*

## Winter Storm

-from page 1

Winter-overs no longer have sole bragging rights when it comes to harrowing Herbie stories. If you were wandering around Mactown between Saturday night and Monday morning, you had a chance to experience visibilities of no more than a couple hundred feet in blowing snow, driven by winds as high as 71 miles per hour! Typically reserved for the fall and winter months, storms of this type bring ground-hugging clouds, howling winds, visibilities measured in feet rather than miles, and potentially life-threatening windchill temperatures. Our weekend storm, with windchill temperatures between -35F and -40F, lacked only the bone-chilling cold of a true Herbie.

Have you been wondering how cold it was this winter? Are you trying to figure out whether or not the winter-overs are exaggerating? Well, here are the facts:

	Average Temp.e (deg F)	Normal Average Temp. (deg F)	Departure from Normal (deg F)
April	-17	-4	-13
May	-7	-8	+1
June	-16	-13	-3
July	-16	-13	-3
August	-19	-16	-3
September	-9	-11	+2

So, for fall and winter combined, temperatures averaged 3 degrees below normal—a notable difference.

by George Howard, MAC Weather  
McMurdo Station, Antarctica

## Weathering The Conditions:

### Normal Condition 3

Wind is less than 48 knots, wind chill is less severe than -75°F, and visibility is greater than 1/4 mile. Movement outside McMurdo must comply with restrictions identified in the outdoor recreational travel lecture.

### Severe Condition 2

Wind gusts 48 to 55 knots for a minute or more or wind chill is lower than -100°F for 1 minute or visibility is less than 100 feet for 1 minute. Foot travel at McMurdo is restricted to the central station and should be in pairs. Farther travel must be work related and in a vehicle. Only essential outdoor work may be done within the station complex.

### Severe Condition 1

Winds greater than 55 knots sustained for 1 minute or more or wind chill lower than -100°F for 1 minute or visibility less than 100 feet sustained for 1 minute. Outdoor travel at McMurdo is prohibited.

*These concepts are from a seven-page memo, Safe Travel Policy for McMurdo Station, by the Senior U.S. Representative, Antarctica. Procedures of ships and other stations may differ.*



# Perspectives

## FNGs: Krill of the Antarctic Workforce

By Frosty Wooldridge

"I came to Antarctica to get away from my children," said Cindy Frazee, a San Luis Obispo business owner, as she landed on the ice. "They're out of the house, so I can enjoy my life now."

Genelle Parrott, a soft-spoken Seattle native, is here for different reasons. "I came for spiritual enlightenment, penguins and to learn from the scientists," Parrott explained as she checked in at the housing department. In her free time she reads Emerson.

Frazee and Parrott are FNGs. The letters strike amusement into the hearts of veteran ice people. FNG means 'Fabulous New Guy' on the ice.

For the past two weeks, C-141 transports have flown over McMurdo Sound with human cargo: FNG's. They come from all walks of life, states, ages, sexes, colors, religions and political persuasions. They're easy to spot by their expectant eyes and bunny

boots that seem awkward as they walk on a frozen continent—the same place that held Amundsen, Scott, Shackleton and

Byrd captive for so many years.

But even if veterans may scoff at FNGs, these tyros fill the most important mission at Antarctic bases. Like krill, they are the lifeblood of operations that support scientific studies.

Each FNG fits into the system whether it be galley cook, dishwasher, housekeeper, transporter, cargo handler or hundreds of other jobs. FNGs bring needed talent, ideals, and creativity—all important to the US effort in Antarctica.

"How many people get to come to Antarctica?" asked Jennifer Moe, a tall young woman with sparkly eyes, as she deplaned in subzero temperatures and howling winds. "After being hit in the face with this ice-axe cold, I might have to rethink my decision."

For FNGs like Moe, Antarctica means adventure, escape, or the fulfillment of a dream. They're not much different from veter-



photo by Alexander Colhoun

On the ice at last, new McMurdo residents make their way to the Terra Bus for a ride into town.

ans who winter and summer at McMurdo, Palmer or South Pole. FNGs come with expectations similar to those of the great adventurers.

"Great God. This is an awful place," Scott said when he reached the pole in January, 1912. The FNGs experience today is not as terrible. With showers, toilets, heated rooms, plenty of grub in the galley and bunny boots good to minus 100, life isn't so bad.

Even if indolent winds bite through parkas like a driven nail, a FNG doesn't care because he is on a personal quest. When they arrive, be sure to welcome them and make them feel at home. For the summer season, they are as vital to McMurdo as the krill are to ocean animals, and one day soon, FNGs will be veterans. \*

fīn'jē

### Aurora Storealis

	Hours	
Sunday	11-2	
Monday	closed	
Tuesday	7-8:30	11:30-1 5:30-7:30
Wednesday	11:30-1	5:30-7:30
Thursday	7-8:30	11:30-1 5:30-7:30
Friday	11:30-1	5:30-7:30
Saturday	4:30-8:30	5:30-7:30

### TV and Radio Line-up

- CH 2 American Forces Network: sitcoms, soaps, drama, game shows and movies
  - CH 3 Transportation Updates from ATO
  - CH 5 McMurdo Station Information Scroll
  - CH 6 Weather updates
  - CH 8 Local Movie Channel
  - CH 10 News and Sports, CNN, ABC, NBC, CBS
  - CH 13 The Spectrum Channel, a variety of programs.
- FM Radio: 104.4 Local DJ's, 93.8 Country



photo by Alexander Colhoun

Jeff Scanniello, an OAE, adjusts an auto level as he surveys the ice runway before a C-141 lands.

# Profile

## Better than a Brock of ice

by Alexander P. Colhoun

With a sleek pair of gold rimmed sunglasses wrapped around her face, a black headset strapped across her blond hair and a slender foam covered microphone curling across her lips, Sunny Brock commands the presence of a general on McMurdo's ice runway.

Standing by for the arrival of an Air Force C-141 transport, Brock follows radio traffic and chats casually with members of her team. She is the assistant cargo supervisor for McMurdo station, and as such, commands a small army of heavy machinery and personnel in charge of air freight in and out of the station.

Born in Jackson, Mississippi, Brock, now 29, is the daughter of a gold dealer, which may be the foundations of her adventurous nature. The last of eight children she grew up in the countryside with chickens, dogs, ducks and goats all roaming happily about. It was a carefree childhood, much of which she spent outdoors.

A self-described goody twoshoes and a homecoming queen, it was her brother's influence that opened the door to her life as a sound-technician roadie. "I was waiting tables, listening to this band," recalls Brock. "The drums were ringing really bad, so I told



Sunny Brock keeps tabs on her cargo team as she awaits the arrival of an Airforce C-141.

the guys to tighten the drum head. I knew that because my brother was a drummer."

One thing led to another and before long, Brock was offered a job with a band. "So I decided to quit college and join the band. My parents were not pleased," says Brock with a mischievous grin.

Three years later, on a concert stop in the Virgin Islands, Brock found herself teetering atop a cliff, 92 feet above booming ocean swells. "I stood there for an hour crying," said Brock. "Finally I said screw it and dove in." Arching her back in less than perfect form, she hooked her body into the water, popping a disc in her back.

A slipped disc became Brock's ticket to paradise. Unable to lift heavy boxes, an important part of her job with the band, Brock decided to make the Virgin Islands her temporary home.

In the true spirit of a traveling vagabond, she progressed through a litany of odd jobs, beginning with Peaches and Strawberry — native Cockatoos. "People would pay me to have their photo taken with the birds," said Brock. "I lasted about a week on that job."

Before long she landed work as a 'barker', hustling tourists into island tour buses, all on a fat commission. Meanwhile she waited tables and filled in at Animal Crackers, a toy store filled with huge stuffed animals.

It was a hobo's existence, but she persisted for a year.

Finally, a year later, Brock pushed off yet again, this time bound for Colorado river country and the outdoor life that has come to define her character. It wasn't long however, before she became restless again, and this time found herself en route to Antarctica to work as a general assistant for Antarctic Support Associates.

Enter Ray Smith, a 6'5" New Zealander sporting a Fu Man Chu mustache and wily blue-green eyes. The two met on Brock's first visit to the ice and were engaged on Halloween night three years later.

This partnership gives them strength to keep coming back to the ice. "If I wasn't with Sunny, neither of us would be here," said Ray. "We keep each other going. Without each other we just wouldn't come down."

Over the last five years (including one winter) Brock has steadily risen through the cargo ranks to her current position, one she earned through hard won respect from men and women who value work ethic above all. "She listens well and works hard," explained Mike Hush, her co-worker, as he braced himself against bone chilling winds on the ice runway.

In 1997 Brock and her new husband took a break from Antarctic runways and traveled to Tennessee where they joined her family to watch a major NASCAR road racing event. There, Brock explained, she strapped on another set of black headphones, to follow the race from the driver's perspective — a commanding position she is all too familiar with. \*



Dwarfed by wheels of the Terra bus, Brock takes a moment to answer a question posed by the driver.