CHAPTER 6:

Living and Working at US Antarctic Program Facilities

A heavy equipment operator drills a hole in the sea ice near Ross Island, while a scientist observes.

photo by Peter Rejcek

The United States operates three year-round stations in Antarctica, two research vessels, and numerous summer seasonal field camps. This chapter discusses safety, health, and training considerations and then gives an overview of each facility, describing the key administrators, guidelines on waste management, and provides information about communications and mail service.

SAFETY

US Antarctic Program goals are to protect your safety and health through proactive management.

Required training. Since much of your work in Antarctica will not be unique to that region, you are expected to use work practices that are consistent with US occupational safety and health standards. For situations that present unusual or unique hazards because of Antarctica's extreme environment, you will be provided specific instruction (for example, how to act on sea ice or around airplanes).

Injuries are preventable. Injuries are caused by the unsafe actions of people and the existence of unsafe conditions. Most injuries are no mere chance occurrences, but represent a failure of safety systems. Following proper safety procedures and maintaining safe conditions will reduce injuries.

Everyone is responsible for preventing injuries. Safety and health performance are equal in importance to productivity, quality and cost. The safest way is always the best way. Everyone is accountable for the safety performance practices of participants and for the maintenance of safe, healthy work conditions under his/her responsibility.

All operating exposures can be safeguarded. Sources of hazards shall be controlled

through careful planning, appropriate work procedures, training, inspections, and the proper use of protective equipment and clothing.

Safety is a condition of participation. Each USAP participant must accept responsibility for his/her personal safety and health, as well as that of fellow participants. Everyone is to conduct themselves in a safe manner, and follow policies, rules, procedures and work practices. Supervisors shall assure compliance with these safety requirements by the people they supervise.

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4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

The US Antarctic Program operates in one of the most challenging environments on earth. The harsh climate and remoteness of Antarctica have represented serious safety and health hazards since the start of human activity there. Yet, recent injuries and illnesses are seldom related to extreme environmental conditions. Common injuries include sprains and strains.

The National Science Foundation's goal is for each participant to enjoy a safe, healthful, and productive Antarctic experience. Everyone will be afforded the same high level of protection from health and safety hazards. Your observance of safety rules and practices at work and during recreational activities is critical to maintaining a safe environment for yourself and your fellow US Antarctic Program participants. By reporting unsafe conditions to your supervisor or NSF management, you can help reduce the risk to all.

Thank you for your efforts in support of the US Antarctic Program's mission of scientific research and discovery.

Michael A. Montopoli, M.D., MPH; Head
Office of Polar Environment, Health and Safety
Office of Polar Programs

Risk Management. Safe operations in unique environments often require more than simply complying with established rules. Everyone must routinely evaluate and continually reevaluate the risks associated with each task or operation. Participants must refuse to proceed until unacceptable risks are controlled or eliminated. Risk is frequently defined as the combination of the probability an adverse event will occur and the severity of the consequences if it does occur. For example, it is likely (high probability) that a person would suffer serious or fatal hypothermia (severe consequences) if caught far afield in extreme conditions without proper clothing or equipment. Therefore, taking a snowmobile to a distant site without ECW clothing and other appropriate equipment would be a high risk undertaking. This doesn't mean that distant sites cannot be visited; it just means the risks must be reduced to an acceptable level. The risks in this example might be controlled by taking proper gear and rescheduling the trip if especially harsh weather is forecast. Keep in mind that for emergencies in the Antarctic environment, it may take hours or days before help arrives. Also, one must not only consider the risk to one's self, but also the risks potentially imposed on rescuers and other response personnel. High-risk operations and activities are not acceptable unless a deliberate assessment of both risks and benefits has been conducted and approved by appropriate authorities.

People are the keys to safe operations. Safety awareness and a mindset that controls risks are not instinctive; they must be developed through training, motivation and cooperation. With the commitment and diligence of every participant, operations can be free of unacceptable risks.

All participants in the line of authority are responsible and accountable for:

- Evaluating the risks associated with every activity and refraining from performing high-risk operations.
- Preventing others from performing high-risk operations.
- Controlling high risks associated with essential tasks so that they can be performed with little risk of injury, illness or loss of property.
- Providing, using and enforcing the use of necessary personal protective equipment.
- Properly maintaining tools and equipment.
- Assigning participants only to tasks they are physically and mentally capable of performing.
- Taking immediate steps to correct any violation of safety rules observed or reported to them.

- Ensuring that subordinates understand the work to be carried out, the risks and hazards that might be encountered, and the proper procedures for doing work safely.
- Ensuring that subordinates understand that compliance with safety procedures and requirements is an essential part of their duties, and that willful violations are subject to disciplinary action.

Incident reporting. Any participant involved in or witnessing an accident or incident must report it to their supervisor or manager as soon as possible (no matter how minor). Accident or incidents may include injuries, spills, near misses, or unsafe conditions. Incident investigations must be completed within 72 hours of occurrence. Access to the RPSC Incident Reporting forms is through https://shield.usap.gov or through the EH&S web page referenced above.

Fire Safety

Fire is a serious threat to life in Antarctica. Shelter is critical to our survival, and because of the dry and windy conditions, fires start easily and spread rapidly in Antarctica.

Most fires are caused by carelessness, poor housekeeping, or faulty electrical or mechanical operations. If precautions are taken to eliminate dangers in these areas, the threat of a disastrous fire can be greatly reduced.

All participants need to understand and obey fire prevention rules, become familiar with their surroundings, respond rapidly to any alarms, know and follow evacuation and muster plans, know how to locate and operate extinguishers, and understand how and where to report a fire.

Safety

The five most common injuries are...

- Sprains/Strains
- Contusions (bruises)
- Lacerations (cuts)
- Fractures
- Eye damage

If you do have an injury…

- Get immediate medical attention.
- Never hesitate or delay going to Medical for treatment.
- Report it promptly.
- You could be penalized for not reporting an injury or a near-miss incident.
- Reporting and analyzing accidents is the best way we can prevent future incidents.
- Accidents or injuries caused by failure to follow safe work practices, procedures, or training could result in disciplinary action.

If you have people working for you…

- You are responsible for fostering a safe work place.
- You must ensure your employees are properly trained, work safely, maintain safe conditions, and are aware.
- In the event of an injury or incident, you must complete an injury or incident investigation report, and take corrective action.
- The report must be filed the day of the injury.

Field Safety Training (Survival School)

The US Antarctic Program continually strives to improve safety. Part of this effort consists of field safety training which has several objectives:

1. To provide basic training in cold weather survival skills. Topics covered include cold weather camping, use of ECW, hypothermia and frostbite, snowcraft, mountaineering, working on sea ice, and other areas.
2. To enable field teams to use the actual equipment they will be using in the field. An opportunity for the project teams to set up and demonstrate the proper use of tents, stoves, radios, etc., pays obvious dividends.
3. To provide an opportunity for field team members to work together as a unit, perhaps for the first time, before going into the field. This is an excellent opportunity for the field team leader, as well as the individuals on the team, to learn the strengths and weaknesses of the team members.

Generally, anyone who may require overnight stays away from a station must complete training appropriate to his or her expected exposure, previous training, and experience. Some courses are tailored to the needs of each group. For example: instructions for parties spending their time in the Dry Valleys, groups working on sea ice, and groups traveling long distances by snowmobile.

The courses are not intended to develop advanced field skills (mountaineering, or traversing crevasse fields, for example) in the inexperienced person. Rather, they familiarize proficient people with specific situations they might encounter in the Antarctic. Leaders of remote field projects should select team members with wilderness survival skills and at least one safety guide to oversee activities.

Due to the nature of the instruction, there is some risk of injury. The instructors have full responsibility for conducting the program safely. Please follow their directions. People who enter the training area to observe are

also the responsibility of the course instructors; failure to respond to directions given by course instructors will result in being asked to leave.

The *Field Manual for the US Antarctic Program* located at www.usap.gov under the Travel and Deployment link provides information on field party preparation, safety training, transport safety, radio usage, weather, shelters, sea ice, glacier travel, rescue, etc. At least one copy is provided to each field science team.

HEALTH

Antarctica's extreme environment and relative isolation challenge human health and wellness. **A medical clinic and physician are available at all three research stations.** Health is a 24-hour-a-day consideration; it involves occupational and non-occupational issues, both physical and mental. Emergencies risk not only the victim, but also others such as medical personnel and flight crews who provide treatment and evacuation. This expenditure of money, manpower, and equipment resources diminishes the ability to perform the program's principal mission of scientific research.

To help minimize risk, the program requires the advance medical screening described in Chapter 2. Certain medical conditions can present unexpected risks under antarctic conditions, where each participant must be capable of physical activity wearing bulky cold weather gear while being exposed to low temperatures and high altitudes, possibly under survival conditions.

Common colds. Although the 'crud' waylays many travelers, it isn't true that exposure to cold temperature causes upper respiratory infections or colds. They are caused by a host of viruses spread by droplets. Covering your mouth when you cough/sneeze, not sharing cups and eating utensils, and washing your hands after coughing or sneezing will reduce exposure.

Colds usually last from seven to ten days with or without treatment. The best care is rest, adequate nutrition, and increased fluid intake.

Antarctica is a polar desert and very dry. In such a dry environment large amounts of fluid are lost via your skin and lungs, and the mucous membranes lining your nose and mouth become dry and no longer protect you against viruses. Increase your fluid intake according to your location and your level of physical activity. Caffeine and alcohol will increase fluid loss, so avoid consuming large amounts of beverages/foods containing alcohol and caffeine, particularly if you are dehydrated. Chocolate and many soft drinks contain caffeine.

Sunburn. Snow or ice reflects 85% of ultraviolet radiation. Overestimate the protection necessary and carry a sunscreen with an SPF number of 15 or greater that includes both UVA and UVB protection. Reapply frequently according to package directions.

Altitude sickness. Some of the field camps and Amundsen-Scott South Pole Station are at physiological elevations above 3,000 meters (10,000 ft). The flight from McMurdo doesn't allow time to acclimate en route. If you are assigned to these areas, you should check with your doctor to see if living at the high altitudes will affect any preexisting medical problem. A medicine called acetazolamide will be available at the McMurdo clinic. Treatment should begin 24 hours before leaving for the high altitude. This medicine is contraindicated for those allergic to sulfa medications. The signs of altitude sickness are shortness of breath that is not relieved promptly by resting, headache, dizziness, and difficulty sleeping. They can be minimized by avoiding strenuous activities the first two days, increasing fluid intake, stopping or limiting smoking, and avoiding alcohol and caffeine. Altitude sickness can occur as late as five days after reaching altitude, and occasionally, can progress to a serious medical condition requiring evacuation to a lower altitude. Anyone developing symptoms should see the local medical provider.

Snow-blindness. Caused by exposure of the eyes to excessive light, at levels typical in Antarctica, this condition can be serious, painful, and disabling. You prevent snow-blindness by wearing 100% UV protective sunglasses. Snow goggles are issued to those who need them. Everyone in Antarctica must have sunglasses that protect the eyes from ultraviolet radiation.

Some 'dark' glasses do not block UV. They do more harm than good because the iris widens to admit more light. Sunglasses are especially important on windy days to protect against volcanic ash particles in the eyes. For more information refer to Chapter 3: What and How to Pack.

Female considerations. Many women living in Antarctica experience a variety of changes in their menstrual cycles. It is thought that this occurrence may be due to the changing daylight cycles and to the close proximity of other women.

Smoking. In addition to the well-known health hazards, smoking greatly increases your chance of dehydration. Smoking is prohibited in all indoor areas except those designated specifically as smoking areas. Smoking outside is allowed except in fueling and hazardous areas. Put cigarette butts in appropriate containers—not on the ground.

RECREATION AND PERSONAL CONDUCT

A wide range of recreational opportunities are available while working for the US Antarctic Program. McMurdo has the largest range of organized activities due to its size and location, while Pole and Palmer stations have more spontaneously organized events. Station specific information is provided later in this chapter. Off-station activities such as hiking may be pursued in accordance with safety rules issued at the stations. Residents are encouraged to use the recreational facilities and activities.

Because of the nature of Antarctica, certain restrictions are required to ensure safety. Many operational procedures may impinge on what may appear to be excellent forms of recreation. For example, restrictions forbid a Sunday stroll through the pressure ridges near Scott Base to see the seals, walks on unflagged snow or ice fields, or local mountain climbing. Accidents have happened. Different people perceive risk and hazards in different ways; heed the wisdom of those who have gone before you, and follow the safety procedures that have evolved. Antarctica is as cold, and as indifferent to one's presence, as it was when Robert F. Scott was there.

The work equipment you are issued is for authorized activities. Due to the nature of the field equipment you have access to, you may be tempted to engage in unauthorized overnight camping trips, skidoo races, or Sunday drives to the ice runway. You are authorized to use the US government equipment issued to you only to accomplish your approved program.

The guidelines and operational procedures that govern your conduct while in Antarctica vary considerably at different locations and with changing conditions, particularly weather. Familiarize yourself with local knowledge at your station or camp, and follow local rules. It is impossible to write rules to cover all circumstances, and you are expected to regulate your own activities to avoid injury to yourself and hazards to others who might have to attempt rescue. Antarctica—every part of it—can suddenly and unexpectedly become a very dangerous place.

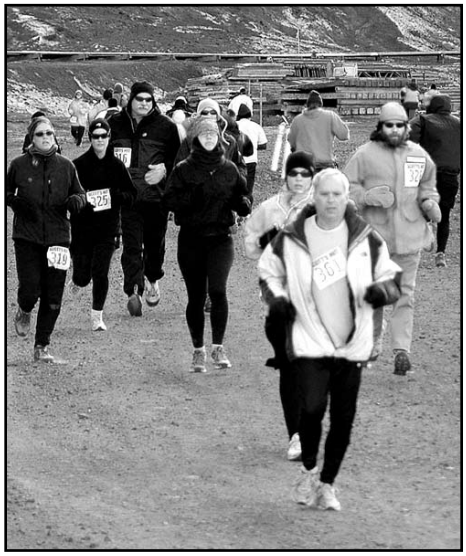


photo by Peter Rejcek

Participants run a race at McMurdo Station.

Attendance of an **Outdoor Safety Training Session** is required by McMurdo residents before they are allowed to recreate off-station. This 45-minute discussion covers rules and guidelines for safe travel and explains the check-out process.

Safety briefings are provided at Pole and Palmer. Additional training is required at Palmer for boating.

Alcohol & Drugs

A limited amount of alcohol is available for purchase at the three stations. Alcohol is not available on the ships.

Even during off-duty hours, events may require swift, intelligent action. The ability of a person to deal effectively with a mishap is reduced if he or she is intoxicated. The NSF will not tolerate abuse of alcohol or unauthorized use of controlled substances.

With reasonable cause, testing for alcohol may be conducted while an employee is in active working status. Disciplinary action, up to and including termination,

may occur if a person is determined to have any amount of alcohol in their system while on the job.

Existing grants are subject to revocation in the event of substance abuse.

Persons under the influence of alcohol or other controlled substances will not be allowed to board program aircraft or ships.

US Criminal Jurisdiction

Public Law 98-473, the Comprehensive Crime Control Act of 1984 (Part H, chapter XII; 18 USC 7), extends Special Maritime and Territorial Jurisdiction to cover offenses committed by or against US nationals in areas not under the jurisdiction of other states. Since, in accordance with provisions of the Antarctic Treaty, the US does not recognize territorial claims in Antarctica, this law establishes that persons **can be prosecuted** in a federal court for violation of US criminal law in Antarctica.

WASTE MANAGEMENT AND ENERGY CONSERVATION

The antarctic environment requires us to pay close attention to aspects of life easily overlooked at home. Services we typically take for granted – abundant electrical power, plentiful potable water, ample food, convenient transportation, and timely and easy waste disposal – are scarce and expensive in Antarctica. Their conservation and efficient management are imperative if the United States is to continue to support broad-based science programs in Antarctica. For that reason, and because of our commitment to preserving Antarctica for future research and discovery, the United States Antarctic Program requires that participants carefully think about what they bring, use, or throw away in Antarctica. Regulations governing waste management under the Antarctic Conservation Act specifically require that we change the way we think about trash.

Waste management is more stringent in Antarctica than in the US. Upon arrival in Antarctica, everyone is required to attend a briefing regarding the waste management program, as all personnel will be required to sort their own trash. Marked receptacles are located in work centers and housing areas for separating solid waste (i.e., cardboard, mixed paper, wood) and potentially hazardous wastes (i.e., dry-cell batteries, aerosol cans).

Given that neither climate nor the remoteness of the southern polar region are naturally conducive to human life and work, everything needed to support scientific research in Antarctica must be shipped or flown in. The US Antarctic Program waste management practices follow the same principle in reverse: All the program's refuse – except waste water – is removed from the continent for proper disposal. What comes in must eventually go out.

The intent is to diminish the environmental impact of a sizeable human presence on a continent where cold, dry conditions tend to preserve things rather than degrade them. In addition, we must be efficient and cost effective in the allocation of resources necessary to handle waste generated in Antarctica in order to further the US Antarctic Program's primary Antarctic mission: support of research. Like most waste reduction efforts in communities at home, the US Antarctic Program operates according to the tenets of reduce, reuse, and recycle.

Energy conservation. Energy moves, powers, melts, heats, and lights the US Antarctic Program, and it is a significant operational cost. Therefore, participants are encouraged to do as much as possible to conserve energy while working in Antarctica. The more we can do to conserve energy the more

Simple Ways to Conserve Energy

- Run only full loads of laundry.
- Keep doors and windows closed.
- Do not adjust thermostats; contact the Work Order Desk if adjustments are needed.
- Use natural light whenever possible.
- Turn off lights when not in use.
- Unplug TV/VCR when not in use.
- Plug-in vehicle rather than leave it running.

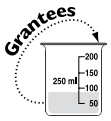
the NSF can do to support science. Summer residents at the South Pole are restricted to two, two-minute showers and one load of laundry per week. Although there are no such restrictions for personnel at McMurdo and Palmer stations, everyone is expected to make efforts to conserve energy.

COMMUNICATIONS

Communications within Antarctica, and between Antarctica and other parts of the world, are a vital and integral part of research and support in Antarctica. The primary use of communications is to support official requirements of the US Antarctic Program, including both science and operations. However, there are opportunities for personal use of communications on a "not to interfere" basis.

A small **computer** center is available 24 hours a day at all three stations for public use. The standard operating system is Windows XP. Personnel are not allowed to download or install software without prior approval. Some of the computers are set up for digital camera downloading and photo manipulation. Memory card readers are available on a few computers. Some public use computers have CD burners, but it is the responsibility of the participant to provide their own CDs.

Internet and e-mail are available at all three stations. Non-grantees will be assigned a US Antarctic Program e-mail address upon arrival at their destination station. You will be able to access your personal e-mail account (e.g., Hotmail, Yahoo) while in Antarctica. E-mail and its attachments cannot exceed 5 MB. Business and science attachments in excess of 5 MB can be SFTP'd (Secure File Transfer Protocol) with the assistance of the Information Technology (IT) personnel.



Grantees at McMurdo will **not** be assigned a US Antarctic Program e-mail address unless one is either requested in your SIP or once you have arrived on station. If a local account is not requested, all local mail will be forwarded to the e-mail address specified in your SIP. Both Macs and PCs are available (in the Crary Lab at McMurdo Station), as is a scanner, a color printer and an E-size plotter. Grantees are reminded to bring any special cable connections for digital cameras in addition to driver software. Grantees will be allocated blank CDs and DVDs as specified in their Research Support Plan.

Computer Screening and Standards. All agency, grantee and personally owned laptop and workstation computers (hence referred to as "computers") must undergo and pass a security screening check administered by US Antarctic Program IT staff prior to connecting to and accessing US Antarctic Program network (wired and wireless) resources.

For McMurdo Station and South Pole Station participants, Information Technology will screen computers prior to arrival in Antarctica.

For Palmer Station and research vessel participants, computers will be screened at the station and on the vessels, respectively.

All computers must have, and will be checked for:

- Up-to-date antivirus software that is configured to receive current antivirus definition (DAT) files on a regular basis. These computers must also undergo a full virus scan. This process is necessary to protect the network from computer viruses and other potentially harmful elements.
- Operating systems must have the most current software patches installed from the vendor. This is to reduce vulnerabilities from virus or security attacks.

You can assist us in expediting this process by ensuring the following:

- Have an administrative user ID and password for all computers that you bring to Antarctica.
- Provide your own network adaptors (e.g., a network interface card and all device drivers).
- Don't have peer-to-peer software (such as Kazaa) installed.

Computers are judged on a pass/fail standard. In the case of a fail, the grantee is responsible for resolving the matter.

Every effort must be made to bring grantee laptops/desktops up to current virus-protection standards. Antivirus software will *not* be provided, though the latest antivirus signatures and patches will be if required.

In formulating your plans for research or working in Antarctica, please be aware of the following list of IT-related directives:

- When connected to the USAP network, do not activate personal firewalls until the firewall is registered with PC technicians.
- E-mail attachments over 10 MB are restricted according to the station's or vessel's limitations in bandwidth. Contact your POC for more information.
- You will be using a federal government computer system and should be aware that you should have no expectation of privacy when using NSF-provided computers, accessing the Internet or using electronic mail systems.
- Files maintained in NSF computers, including electronic mail files, may be reviewed by NSF officials who have a legitimate reason to do so when authorized by the director, deputy director or by the inspector general.

For additional IT-related issues, contact your POC.

Information Security Awareness Program. On an annual basis, all participants must indicate their acknowledgement of the Information Security Awareness Program and the *USAP Enterprise Rules of Behavior*, which outlines accepted and prohibited uses of USAP resources. They are available at www.usap.gov.

Participants will receive Information Security Awareness materials with their deployment packets in the mail. Please read the material carefully, sign the *NSF Acknowledgement of Information Security Policies* form, and return the form with your deployment paperwork. Awareness training is a prerequisite for gaining permission to use NSF/USAP information systems and services.

Telephones. US Antarctic stations and ships access commercial and government satellites for transmission of data and voice. This service is available for business and private use, although official communications have priority. The satellite systems are very reliable, but service outages do occur. A calling card (e.g., MCI, Sprint) is needed to place personal calls from all three stations in Antarctica. South Pole residents can place personal phone calls during satellite connectivity, currently at 11 hours per day.

Time zones. Different countries have different time periods for observing Daylight Savings Time, so time differences between your home in the US and at the station where you are living will vary throughout the year.

South Pole and McMurdo stations operate on the same time as New Zealand, which is 16-18 hours ahead of the United States. If it is Tuesday afternoon in the US, it will be Wednesday morning at those stations.

Palmer Station operates on the same time zone as Punta Arenas, Chile, which is usually the same time as New York City, or one or two hours later, depending on the time of year.

Several web sites provide easy time zone guidelines. One example is: www.timeanddate.com

Field-party communications. Each station and ship uses hand-held and/or vehicle-mounted VHF radios for local communications. The observance of radio etiquette is necessary to ensure efficient and available radio communications. Keep messages short and professional. For more information on proper radio etiquette, contact the communications group for your station.

Before leaving for a lengthy field deployment or even for a day, you must inform the communications center of your intentions. Frequencies and call signs are assigned, and daily check-in procedures are arranged. To

Computer Usage at All Stations and Camps

Prohibited

- Distributing or copying of copyrighted material (DVDs, MP3s)
- Peer-to-Peer applications
- Downloading pornographic, sexist, racist, or other offensive material
- Network gaming
- Personal servers (e-mail, ftp, web, etc.)
- Unauthorized wireless access points

Acceptable

- Mission-specific activities
- Reasonable e-mail and Internet browsing
- Reasonable Instant Messaging
- Reasonable personal business (online banking, shopping, etc.)

Do Not Mail

- Chemicals, explosives, flammable materials
- Biological materials
- Intoxicating liquor
- Odor-producing materials
- Sharp instruments
- Drugs
- Articles for resale
- Firearms
- Ammunition
- Fireworks

avoid unnecessary search and rescue missions, every effort must be made to adhere to the established daily check-in. Immediately on returning from the field, inform the communications center that the party has returned safely.

Postal services. US domestic postal rates and regulations apply to all Army and Air Force Post Office (APO) mail to New Zealand and McMurdo and South Pole stations. There is no APO service to Palmer Station and the research vessels. More specific postal information is **detailed later in this chapter**. While postage stamps can be purchased at all three stations, participants should bring a supply of stamps with them.

All NSF- and RPSC-sponsored participants are granted use of the APO in Christchurch for 10 days on arrival in New Zealand from the US and again for 10 days on return to Christchurch from McMurdo Station. The Christchurch APO accepts N.Z. cash (not US), travelers checks and personal checks.

You cannot order items via the Internet from Antarctica for courier delivery (i.e., FedEx) to the APO. The APO will not accept such deliveries. Alternatively, you can send mail and parcels through the New Zealand postal system at the international postage rate.

Mail is received in Christchurch, New Zealand, seven days a week. Letter mail is transported from Christchurch to Antarctica on all available southbound flights. Letter mail service varies, generally taking 5 to 14 days, but sometimes longer depending on the time of year. Letter mail always takes priority over package mail, both to and from Antarctica. Packages have the lowest priority of all cargo being transported to Antarctica, resulting in a delivery time of up to six weeks. Please do not send perishable foods.

Packages destined for summer participants at McMurdo or South Pole should be mailed after Labor Day, or they will be returned. Mail that misses summer participants is either forwarded (if a directory card has been given to the McMurdo post office), or returned to the sender.

There is no mail service to McMurdo or South Pole stations during the winter. If you are wintering at these stations, advise friends and relatives that most parcels mailed after 1 February will not be received in Christchurch in time to be forwarded to you. Mail not received in time for forwarding to Antarctica before the winter isolation begins will be held for you until the next summer season.

The most cost-effective way to mail a parcel weighing more than 10 lbs. to Antarctica is parcel post. If you have a parcel that contains only videos, books or CDs, it can be sent special fourth class 'media rate,' which is the lowest cost. Do not use 'packing' and instead use clothing or something similarly useful and non-polluting to cushion the objects being mailed.

Do not rely on mail service for critical business. While mail services are provided and are fairly reliable, the timing for delivery is always subject to weather, transportation options, cargo space, forwarding and your movement between locations.

Marketing of clothing or other finished articles, printed or manufactured outside of Antarctica, requiring shipment or transportation to Antarctica is prohibited. **Usage of an APO address to mail articles for resale is not permitted.** This prohibition is based on federal law outlining the usage of the APO address.

The Postal Service prosecutes people who mail items improperly. The Postal Service states,

"full responsibility rests with the mailer for any violation of law under Title 18, United States Code 1716, which may result from placing these items in the mail."

Remember, all mail going to McMurdo, South Pole and surrounding field camps is subject to customs, agricultural and drug inspections as it passes through Christchurch.

The **Do Not Mail** box on the previous page lists prohibited items. For a complete listing of prohibited/restricted items, ask your local post office to show you a copy of Publication 52, Acceptance of Hazardous, Restricted, or Perishable Matter, or go to: www.usps.com and conduct a search for Publication 52.

Mail to/from New Zealand. If you are corresponding with New Zealand residents, have them use this address to avoid the unnecessary time and expense of having the letter go to the United States:

[Participant's Name]
McMurdo Station
APO
Private Bag 4747
Christchurch, New Zealand

This address is a courtesy and must not be used for ordering large quantities of personal goods. All mail must comply with USPS regulation (i.e., no alcohol). The Christchurch postmaster reserves the right to refuse goods deemed excessive.

NOTE: Goods must go through the New Zealand post system. Items delivered by any other agency (i.e., FedEx, UPS) will be refused. If you are in any doubt, seek advice from the postmaster in McMurdo or Christchurch before posting mail.

Philatelic mail. Philatelists (stamp collectors) are interested in receiving mail from Antarctica, and the NSF has a procedure (below) to support philately at a level not to interfere with the science mission.

Postal Service Depends on:

- Location
- Time of year
- Weather
- Available transportation

While in Antarctica, you may receive unsolicited philatelic mail from collectors. The Foundation discourages this unauthorized philatelic activity, and you will be entirely within your rights in declining to respond to such unsolicited requests. Please discard the material in the appropriate recycling container.

If you receive large amounts of unsolicited philatelic mail, bring it to the attention of the station manager or the NSF representative.

Philatelists may obtain a maximum of two covers (self-addressed stamped envelopes) a year by writing to the postal clerks (addresses below) at the three year-round US Antarctic stations.

1. No more than two covers per person per station per year.
2. Covers will be processed for personal (that is, non-commercial) use of individuals only.
3. US correspondents use domestic first-class postage for the APO addresses (below) and international first-class or air mail postage for the Palmer Station address.
4. Non-US correspondents use international first-class or airmail postage.

Philatelic Mail Clerk
McMurdo Station, Antarctica
PSC 469
APO AP 96599-1035
Philatelic Mail Clerk

Palmer Station, Antarctica
c/o AGUNSA
Deposito Franco Antartico
P.O. Box 60-D
Punta Arenas, Chile

Amundsen-Scott South Pole Station, Antarctica
PSC 468 Box 400
APO AP 96598
Philatelic Mail Clerk

photo by Mark Sabbatini

The McMurdo Station post office.

Covers are not processed if these guidelines are not followed. Philatelic mail is processed and returned to senders as soon as possible, but the processing is in addition to regular duties of station personnel. Some processing is done during the austral winter, when antarctic stations are isolated, resulting in year-long (or longer) delays in mailing covers back to the collectors.

Hold in New Zealand. If you wish to have mail held for you in Christchurch, you must be either currently on station in Antarctica, within 90 days of arrival on station, or plan to redeploy within 10 days of the mail arrival. Your name will be checked against the computer database to verify your deployment dates. Please advise your correspondents to use this address:

[Participant's Name]
[Specify the Antarctic Station]
c/o Private Bag 4747
Christchurch Airport
Christchurch 8140
New Zealand
HOLD IN CHRISTCHURCH

All mail passing through Christchurch will be subject to MAF/Customs inspection. This includes duty on goods or mail being held in Christchurch. ■