

CHAPTER 3:**How and What to Pack**

USAP participants use a drill to determine the depth of the annual sea ice near McMurdo Station. Learning how to test ice thickness is required training for anyone driving across the annual sea ice.



photo by Elaine Hood

There will be several stops on your journey to Antarctica. Various transportation providers (US, foreign, vessel, military) have differing baggage allowances and restrictions. Please adhere to the limitations set forth by each carrier. In New Zealand or Chile, you will pick up extreme cold weather (ECW) clothing. You may require personal items for the various climates, work and activities. Planning and prioritizing are very important. Read this chapter carefully.

BAGGAGE ALLOWANCES**Commercial Carriers**

You will travel from your airport of departure to Christchurch, New Zealand, or Punta Arenas, Chile, on commercial carriers. Due to recent changes within the airline industry, it is important that you review the airline's baggage limitations prior to boarding your flights.

Baggage allowances on flights from Christchurch to McMurdo differ from the commercial allowance.

Each airline carrier has differing rules/regulations for both carry-on and checked baggage so it is in your best interest to review the airline's Web site to ensure no surprises at check-in.

Updates regarding travel are posted on the airline carrier's Web site and should be consulted before departure.

Flights from Christchurch to McMurdo Station

Summer Participants: up to 34 kg/75 lb of personal baggage.

Winter Participants: up to 66 kg/145 lb of personal baggage.

NOTE: Realize that the weight of the ECW gear issued to you in Christchurch will be counted as part of your baggage. The ECW clothing weighs about 10 kg/22 lb. You are required to wear (or have on your person) the following items on the flight:

DSG

The Deployment Specialists Group has the latest travel information posted online at www.usap.gov. If you can't find the answer there, give them a call at 1.800.688.8606, prompt #2.

Balaclava or knit hat
Mittens or gloves
Red parka or Carhartt

Bunny boots or FDH
Snow goggles
Wind pants or Carhartt overalls

The rest of the issued clothing (about 3 kg/7 lb) can be packed in your checked baggage.

Excess Baggage

Participants should check the Travel and Deployment section of the US Antarctic Program Web site at www.usap.gov for details on excess baggage. Excess baggage approval for both *to* and *from* Antarctica is required in advance of deployment. **The program will not reimburse costs unless they are pre-approved.**

Personal Baggage Insurance

Baggage insurance is provided if RPSC issues your airline tickets. If a claim needs to be processed, contact the DSG. Loss protection is limited and supplemental **personal property insurance is recommended.**

Loss protection is only provided for during commercial flight segments. Should a loss occur during transit to/from the airport, while in a hotel, during your stay in Antarctica, etc., it is the participant's responsibility to retain personal property insurance coverage.

Unwanted in Antarctica!

Use this list when packing and share it with those who may mail you packages.

PROHIBITED

Polystyrene packing. These beads, chips and peanuts pose a threat to wildlife.

House plants and non-sterile soil. Introduction of non-indigenous species (except food) is prohibited.

Hazardous and toxic substances. Many common consumer products are on this list.

DISCOURAGED

Aerosols. Pressurized containers of deodorant, hair spray and shaving cream. These items become hazardous waste because of their ingredients or because they are pressurized.

Non-reusable plastic containers, such as shampoo and lotion bottles. Take extras and empties back home with you.

Dry cell batteries such as mercury, alkaline and lithium cells. Buy rechargeables and a recharger. Try to select devices that use a common battery size.

Small appliances. If you must

bring them, mail or carry them out when you leave. Hot plates are not allowed.

Magazines, catalogs, newspapers and junk mail. The library has reading matter, and news and sports are available on TV (at McMurdo only) and the computer Internet. Do not forward your mail to Antarctica.

OTHER RECOMMENDATIONS
Buy biodegradable soaps and shampoos.

Buy pump sprays, sticks (deodorant) and tubes (shaving cream), not aerosol containers.

Repack your personal products. Camping outfitters sell various containers. Ziplock bags are good for aspirin, vitamins and prescription drugs (keep the labels).

Cushion items with clothing. Reuse boxes and packing you receive in the mail.

Take all your belongings with you when you leave.

Participate in the waste management recycling program.

Research Vessels and Palmer Station

There are no weight restrictions for personal baggage on the research vessels, although space is at a premium onboard.

Mailing Personal Packages

If you need to take more than 34 kg/75 lb of baggage to McMurdo or South Pole stations, you can mail boxes to yourself at the **Army and Air Force Post Office (APO)** address in Antarctica. The APO addresses are listed in Chapter 6. You should be aware, however, that NSF priorities dictate that all science cargo and flat mail take priority over any personal packages. Your personal packages may be substantially delayed.

Once you are in Antarctica, you can have mail sent to you. However, the APO in Christchurch will not accept packages for shipment unless they are received via the Postal Service. This means you cannot order items via the Internet from Antarctica for courier delivery (i.e., FedEx) to the APO. Neither the Post Office, nor USAP offices in Christchurch, will accept such deliveries.

The APO cannot be used to support any type of commercial activity.

Near the end of the season, many program participants realize that they've accumulated more than they will be allowed to have with them on their flight north. This excess must be sent in the mail. It is important to pay attention to announcements about mailing deadlines and procedures for mailing personal packages from Antarctica. The timelines and options differ according to the station and the time of year.

APO Privileges

Upon your arrival in Christchurch, the RPSC representative will give you a card that entitles you to use the APO facility. This benefit provides a tremendous cost savings if you need to mail boxes to the US from New Zealand. The card is good for only 10 days from your arrival in Christchurch. Any mail received by the APO after the valid 10-day period will be returned to sender.

APO service is **not available for Palmer Station** participants. See Chapter 6 for instructions on mailing boxes and flat mail to Palmer Station and the research vessels.

PERSONAL PRESCRIPTION MEDICATIONS

It is the responsibility of all participants to obtain a supply of their regular prescription medications to cover the time that they will be deployed. The station medical facility **cannot** refill prescription medication. Participants will not be allowed to winter-over unless they have enough of their regular medications to last through the winter season.

Participants working at McMurdo Station, South Pole Station or area field camps. The New Zealand custom laws only allow for three months of prescription medications and one month of controlled prescription medications to be hand carried through New Zealand. Therefore, if you will be deployed for a longer period of time, you must make arrangements for additional medication to be mailed to the station medical clinic through the APO mail system.

The medications will need to be in properly labeled pharmacy containers to be passed through the APO system. It is important that you hand carry the initial three months of medication (one month for controlled medications) in order to provide enough time for the mail to reach you in Antarctica. When you get your prescription medications filled, ask the pharmacist to put three months of medication (or one month of controlled medications) in one labeled container and the remainder in a separately labeled container. If you are not sure if your medication is controlled (Class II or III), ask the pharmacist when you get the prescription filled.

Mail the containers with the remainder of the medication to the medical clinic at the station where you will be deployed. Most health plans only allow one month of medication to be dispensed at a time. If you have difficulty in getting the amount that you need for your deployment, contact Human Resources at RPSC for assistance: 1.800.688.8606. They can coordinate with your health plan to help you obtain the sufficient quantity of your prescription to last your entire deployment.

Mail the medication to the APO address listed below. Packages destined for summer participants should be mailed after Labor Day or they will be returned. You can receive your medication at the medical clinic.

McMurdo Station:

Medical Clinic
McMurdo Station
PSC 469 Box 700
APO AP 96599-1035

South Pole Station:

Medical Clinic
South Pole Station
PSC 468 Box 400
APO AP 96598-1035

Remember that you will have to clear customs in New Zealand to re-enter the country on redeployment and the same restrictions on the quantity of medications will apply. If you have an excess amount on redeployment, mail the excess amount to yourself at home before leaving Antarctica.

Participants working at Palmer Station. Chilean customs laws do not restrict the amount of personal medications hand-carried through Chile and participants that are deploying through Chile can hand-carry the amount of medication that they need for the deployment.

If you have any questions about the procedure described above for transporting your prescription medications to Antarctica, contact the RPSC Medical Department at 1.800.688.8606, option 3 on the menu. **Carry a copy of each prescription provided by your personal physician.**

HOW TO PACK

Personal comfort in Antarctica is important. So is environmental protection. When choosing items to make your stay more comfortable, buy and take with you items that are as environmentally friendly as possible. Try to use biodegradable soaps and shampoos, which will have less impact on the local environment. You need not do without little luxuries in Antarctica as long as you take the time to select items with the least environmental impact and package them frugally.

Eliminate the use of aerosols. The propellants in some aerosols can deplete the ozone layer, and aerosol cans create a disposal problem. Find substitutes for aerosols such as roll-on deodorants, shaving creams in a tube, and other non-aerosol products.

Clean all items that may have soil, plant material or other organic material on them. Such items include backpacks, boots, pant cuffs, Velcro[®], polar fleece and other gear. If you are traveling between your departure from home and arrival on the Ice, be sure to clean your gear after your travels and before arriving in Antarctica. For more information, visit www.usap.gov/traveland-deployment/documents/packapest_brochure_final.pdf.

Eliminate as many plastic and throwaway containers as possible. This will help reduce the volume of solid waste disposal in Antarctica. Repackage products that come in throwaway containers into containers you are more apt to take home with you. If possible, use the backpacker's rule—pack it in, pack it out. Please cooperate with the established recycling program.

Share the “Unwanted in Antarctica” list with friends and family who may be mailing you packages.

WHAT TO PACK

Below is a brief narrative and list of some items you may be considering for your personal list of what to pack. The items listed are meant as a guide only, and should be adjusted to individual needs and preferences. Wintering personnel, for example, should increase the quantities, while official visitors and others who are scheduled for only a few days in Antarctica will require less. **Your POC can give you specific advice about what you might need depending on your length of stay and the antarctic facility at which you will reside.**

There may be some special or brand name products, such as vitamins, your favorite cold remedy, aspirin, and/or toiletries that you may require during your deployment. The station store at each facility carries a limited supply of toiletries, gift items, film, batteries, snacks, pop, etc. Your supervisor or team leader can give you a good idea of what items are stocked in the store at the station or ship where you will be working. Planning on purchasing items from the station store during your stay will help reduce the amount you have to pack in to Antarctica.

Toilet articles. Antarctica is very dry and it is recommended that you use hand lotion and lip balm. The station store carries a limited selection of these items along with other toiletries, so it is recommended participants bring their own lotions and soaps. There is no station store aboard the research ships.

Pain relievers such as aspirin and cold capsules (non-prescription) are usually available for purchase at station stores. Quantities and brand names are unpredictable, however, and it is suggested that you bring your preferred pain relievers to Antarctica. Also, if you re-pack them to conserve space, retain their original labels.

Indoor clothing choices are up to you. You bring your own regular indoor clothing, including underwear, socks, shirts and pants. Washable clothing is recommended, and dry cleaning is not available. The use of polyester double knit fabric is not recommended as it is not sufficiently warm. Base the quantity of clothing you bring on recommendations from your POC, the length of stay in Antarctica and the type of work you will be doing.

Special clothing (climbing boots, cold-weather gear, etc.). If you are experienced in antarctic or cold weather conditions, you may add your own cold weather gear for field use. Be sure these items are clean and free of soil or plant material before packing them. Some research grants include funding for additional clothing that is not part of the standard ECW clothing issue.

Wintering?

Consult your hiring POC in Denver to get packing suggestions related to your specific job.

Personal Items to Consider Taking

CLOTHING ITEMS:

Boots or shoes; work, climbing, hiking, insulated as needed for your work
 Glasses; eye and sun, extra pair, record of prescription
 Gym clothes and shoes for athletics
 Jacket; pile and windbreaker
 Neck gaiter
 Pajamas
 Pants/jeans
 Shirts; light wool or cotton flannel, long-sleeve (machine washable)
 Slippers or soft shoes for indoor wear
 Sock liners; polypropylene or Thermax
 Socks; heavy
 Sweaters; heavy and light
 Swimsuit (for sauna)
 Towel and washcloth
 Underwear, thermal top/bottom
 Underwear, regular
 Flip flops for shower

MISCELLANEOUS:

Alarm clock
 Batteries; rechargeable is best
 Camera/camera batteries
 Coffee mug
 Day pack
 Hair dryer
 Hobby, craft items (small)
 Holiday attire
 Laundry bag
 Lock, combination or key
 MP3 player/spare headphones
 Musical instrument/spare parts
 Prescription medications
 Sewing kit
 Skis; skate/cross country
 Sunglasses
 Plastic food containers with lids
 Toilet articles; sunblock, toothpaste, dental floss, comb, razor, shave cream, deodorant, cosmetics, soap and skin lotion for dry skin, tampons, a carrying case
 Vitamins
 Water bottle

Sheets. The US Antarctic Program supplies linens, pillows and blankets for the beds.

Laundry. Washing machines and dryers are conveniently located and are free to use. Laundry detergent is also provided free.

Layering. The temperature both inside buildings and outside can vary dramatically. The best way to manage these changes is by layering your clothing. This will allow you to shed or add layers quickly and easily. Several thin layers are more effective than one bulky layer.

Electric power. Power in Argentina, Chile and New Zealand is 230 volts, 50 hertz. Not all hotels in these countries have converters for US electrical appliances, which operate at 110-120 volts. Bring your own converters and plug adapters for appliances, such as hair dryers. Research vessels and US Coast Guard ships have both 220- and 110-volt power. US Antarctic stations use 110-volt systems.

Semi-formal attire such as a jacket/tie or a skirt/dress is suggested for special occasions. Thanksgiving and Christmas are celebrated with a more formal and special meal than the daily routine. Many participants choose to dress up a bit more for these events.

Feminine hygiene supplies are available at the station store. Brand selection is limited, but necessary supplies are normally available. Women may wish to bring items and brands they prefer.

Towels and washcloths. The US Antarctic Program does **not** provide towels and washcloths in Antarctica, although it does provide towels on the R/V *Laurence M. Gould* and R/V *Nathaniel B. Palmer*. Also, many hotels in New Zealand and South America do not provide washcloths. It is recommended that a small towel and washcloth be part of your hand carry.

Sunscreen. Carry and use a sunscreen with an SPF number of 15 or greater. Ensure that it provides both UVA and UVB coverage, and that the product expiration date does not occur during your stay. In summer, the sun is up 24 hours a day, and its reflection off snow and ice multiplies the potential for sunburn.

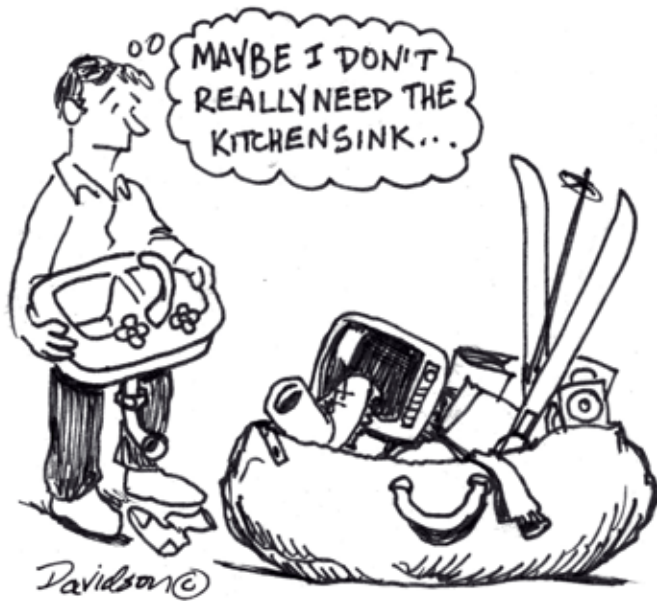
Sunglasses. Sunglasses or goggles are critical. Your ECW clothing issue will include ski-type UV protective goggles. Participants should bring two pairs of 100% UV protective sunglasses in case one pair is lost or damaged. Frames should be plastic rather than metal to avoid freezing to the skin. Consider wrap-around temples, side shields, nose guards or other features to protect from harsh sunlight and reflections off the snow. If you wear prescription glasses, you should also bring prescription sunglasses with the above recommended features. Eye protection is your responsibility.

RPSC Employees will be reimbursed up to \$175 for prescription sunglasses every other year.

Prescription eyeglasses and contact lenses. If you wear glasses, carry a record of your prescription to Antarctica. You should take a spare pair with you. The cost of eyewear replacement is your responsibility, and the means to obtain replacements is limited. It is also suggested that you carry contact lenses on your person to avoid possible damage from freezing.

Contact lenses have been found to work fine in the Antarctic. Lens cleaning supplies are available at the station store at McMurdo in limited quantities and brands. Regular saline and sensitive saline solutions for soft contact lenses are available. Heat type solution is not available.





You may wish to bring enough personally desired items to last your entire stay.

Recreation gear (skis, bikes, musical instruments, etc.). The variety and availability is different at each facility. You may wish to send your own recreational gear depending on the facility and your length of stay. Your POC can give you specific information. Be sure all recreational gear is clean prior to packing.

MP3/CD player. Participants are expected to bring their own music and players.

Attire en route. While dress may be informal en route to and in both New Zealand and South America, you are requested to remember that in your own way you are representing the United States, the NSF and your research institution, and that your appearance (and conduct) will be noted. Avoid inappropriate conduct during travel.

New Zealand. Weather conditions change rapidly. Cold temperatures and rain can be expected even during the spring and summer months. Lightweight rain gear, as well as a warm sweater or jacket, are recommended.

Chile. The climate in Chile is changeable and can be quite cold especially in Punta Arenas. Lightweight rain gear plus a warm sweater or jacket are recommended.

Antarctic clothing. You will be issued extreme cold weather (ECW) clothing as you pass through New Zealand or Punta Arenas. Special arrangements will be made if you are taking other routes to Antarctica. This clothing will include outer garments necessary for warmth and dryness, pile jackets and pants, gloves, thermal boots, and other items. Depending on your work, you may also be issued special safety gear (hard hats, gloves, goggles, etc.).

Proper clothing fit and functionality are important to achieve maximum protection. You should check each individual item to ensure that it fits correctly, that the zippers work, and quantities are correct. If you expect to gain weight while in Antarctica, which is common, select clothing that fits loosely.

The clothing issued to you is US government property. You are required to return it in New Zealand or South America during redeployment, even if you think it may be of no further use. You are responsible for maintenance of issued clothing in your possession. Some issued clothing, especially parkas, is subject to theft, and you should take care to prevent loss. Abnormal damages or unreported loss of clothing will result in your being billed for repair or replacement costs. Report immediately the theft of any US government property to the NSF representative or the station manager. It is illegal for you to mail government property from Antarctica. It is illegal for individuals to buy or sell government property, including clothing.

Strict regulations regarding required ECW attire on flights and cruises to and from Antarctica will be explained during clothing issue in Christchurch or Punta Arenas.

Station Store

Each station store normally carries the following items, with slight variations due to the remoteness and fluctuating supply and demand. Snacks, drinks, souvenirs and other items are also sold.

- Baby Oil
- Body Soap
- Combs
- Dental Floss
- Deodorants
- Eye Care Solution, Multi Purpose
- Eyeglass Repair Kits
- Facial Tissue
- Feminine Hygiene Pads
- Hair Brushes
- Hair Conditioners
- Lip Balms
- Lotions
- Mouth Wash
- Nail Clippers
- Powder, Talcum
- Sewing Kits
- Shampoo
- Shaving Cream (non-aerosol)
- Sunscreen SPF 30
- Tampons
- Toothbrushes
- Toothpaste
- Tweezers



photo by Elaine Hood

Each of the three stations' stores carries a limited supply of souvenirs and personal items. The McMurdo store, shown above, is the largest.

NOTE: Understand that while the US Antarctic Program will provide you with what you need for outdoor clothing, participants should bring their own long underwear, heavy socks, etc., to wear. Ask your POC for more information.

What Not To Pack

Plants, seeds, and animals. The Antarctic Treaty, which all participants must adhere to, prohibits the importation of any seeds, plants (except food plants under controlled conditions for use in the greenhouse), or animals to Antarctica. Be sure to clean your clothing prior to packing it so you can prevent inadvertently importing organic material. For example, be sure there are no seeds on Velcro[®], mud on boots or grass inside cuffs. It is prohibited to remove any materials such as wood, bone, eggshells, feathers, and plant or animal parts, unless specifically authorized by permit issued from the NSF.

Commercial or other business activities. You may not market or sell clothing or finished articles printed, manufactured, or assembled outside Antarctica. You may not import materials to finish and market such items locally. Federal law forbids the use of an APO address for the shipment of articles or materials used in private resale operations. The US Antarctic Program also prohibits use of government transportation for shipment of goods and materials for unauthorized personal business activities.

Hazardous materials. Explosive gases, flammables, oxidizers, poisons, radioactive material, corrosives and other hazardous materials may not be shipped as baggage, mail or hand-carry. See Chapter 4: Science Cargo.

Electric blankets and heaters are not allowed for safety and power reasons.

Baggage Organization and Labeling

Your personal belongings and ECW clothing will normally be carried from Christchurch to McMurdo in two orange bags issued to you as part of your ECW gear in Christchurch. You can also take your own suitcases or bags as long as the total weight of all bags combined does not exceed the established limits, or you have authorization in advance for excess baggage (see the beginning of this chapter). One of your orange bags, plus your additional suitcases/bags, will be placed in the hold cargo area of the airplane and will not be available during the flight.

Your second orange bag will be a carry-on bag, and should consist of some ECW clothing (see Chapter 5), and any items that you may want to use on your flight south, such as a camera, book, MP3 player or computer. Another small bag of your choice (i.e., day pack) should be identified as your 'boomerang bag' containing a change of street shoes/clothes, personal items and toiletries. In the event of a flight turn-around or cancellation after check-in, this bag will be returned to you for your next night's stay in Christchurch.

The size of your carry-on bag, which must not exceed 61x38x23 centimeters (24x15x9 inches), will be screened as you check in at the Antarctic Passenger Terminal.

Laptops are accepted as hand-carry, but it must fit into the hand-carry dimensions along with the rest of your hand-carry. You may not bring sharp objects aboard planes: if you are bringing a pocket knife, scissors, or other sharp objects, stow them in your checked baggage. As on commercial airlines, liquids, aerosols and gels are restricted to 3 oz. containers in carry-on luggage. To see current standards, visit www.tsa.gov. Your baggage will be screened using various detection sensors, including a drug detection



dog. The contents of your baggage may also be subject to additional visual inspection.

If you are traveling to Antarctica on a research vessel, the amount of baggage you will have access to can be very limited. You should pack the items you'll need for the five-day ocean journey in a small piece of luggage. Any baggage you store in the cargo area will be inaccessible during the journey.

Mark all your bags, including those you carry aboard, clearly with tags. Also place identification inside each bag. Do not lock your luggage as airline security may need access to it. Mark boxes with a stencilled or painted address. Include your assigned antarctic station, the initials "USAP," "RPSC" or event number, and return address. If you are using boxes previously shipped to Antarctica, please take special care to eliminate any old cargo markings or placards.

Any **Do Not Freeze (DNF)** equipment should not be included in your checked or hand-carry baggage. Use the US Antarctic Program cargo system to protect it from freezing (see Chapter 4: Cargo).

Other personal equipment. Personal baggage may also include delicate scientific instruments that must be hand-carried. You are responsible for handling personal baggage throughout the trip to and from Antarctica, unless it is checked as air cargo. If delicate instruments are to be moved as air cargo, clearly mark any handling requirements on the container. Handling personal baggage includes customs clearances in New Zealand, Chile, and the US when returning from Antarctica. Pack baggage securely in easily handled containers.

STORAGE AVAILABILITY

In New Zealand

There is a limited amount of storage space available at the US Antarctic Program Clothing Distribution Center (CDC) in Christchurch to leave items not needed in Antarctica. Some examples of items you might leave behind are summer clothing, business suits, street shoes, backpacking equipment, books that you have finished reading, and souvenirs acquired on the trip south to New Zealand.

This service is not provided solely for your personal benefit. It reduces the amount of materials airlifted to and from Antarctica, freeing capacity for timely movement of needed US Antarctic Program materials, possibly including yours.

There will not be much time to spend sorting through your baggage before checking in for your flight to McMurdo Station. Plan ahead and organize your baggage and any items for storage in advance.

US Antarctic Program participants who wish to use their personal dive equipment, bicycles, or camping gear while in New Zealand, may mail the items to themselves in care of the CDC. These items should not be mailed more than 60 days prior to your arrival in Christchurch. Items received after your departure to Antarctica will be held in the CDC warehouse secured baggage storage room until you redeploy from Antarctica. If you are no longer an active participant, the article(s) will be returned or forwarded, if a forwarding address is available. The address is as follows:

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

The New Zealand Ministry of Agriculture and Forestry (MAF) is now assessing a fee (average \$7NZ) to clean/fumigate items (i.e., dirty hiking boots, tent poles, etc.) left in Christchurch while you are in Antarctica. These items will remain in MAF custody at the US Post Office in Christchurch until arrangement has been made to pay the fee.



photo by Calee Allen

This dorm room inside the new Elevated Station at Amundsen-Scott South Pole Station has been personalized with simple and lightweight items such as cloth wall-hangings. Linens, pillows and blankets are provided for you.

In Chile

Limited secure storage space is available in Punta Arenas for participants to store items they do not want to take to Antarctica, such as clothing to be used after leaving Antarctica and science equipment used in multi-year projects. Coordinate with Agencias Universales S.A. (AGUNSA) officials upon arrival in Punta Arenas to have items stored. ■