

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

U.S. Antarctic Program participants carry their bags to the station upon arriving to the South Pole.



photo by Mike Lucibella

There will be several stops on your journey to Antarctica. Various transportation providers (U.S., 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 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 (AOD) to Christchurch, New Zealand, or Punta Arenas, Chile, on commercial carriers. It is important to review the airline's baggage limitations and fees prior to departure. Baggage allowances on flights from Christchurch to McMurdo differ from the commercial allowance.

At the time this book went to press, the baggage allowances were **two bags, 23 kg/50 lbs each**, plus your carry-on for all participants.

Each airline carrier has differing rules for both carry-on and checked baggage, so it is in your best interest to review the airline's website to ensure there are no surprises at check-in. Updates regarding travel are posted on the airline carrier's website and should be consulted before departure.

Flights from Christchurch to McMurdo Station

All personnel have the same luggage weight allowances flying from New Zealand to McMurdo Station. **A maximum of 39 kg/85 lbs for your luggage**, plus 7 kg/15 lbs for carry-on, is allowed for this leg of your journey.

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 certain items on the flight. The rest of the issued clothing (about 3 kg/7 lb) will be considered part of your checked baggage.

Grantee and Technical Event Excess Baggage

Grantees and Technical Event personnel must fill out form **TL-FRM-0094** for excess baggage. **The program does not reimburse costs.**

Personal Baggage Insurance

Baggage insurance is provided if ASC purchases your airline tickets. If a claim needs to be processed, it is your responsibility to contact the airlines and complete the required paperwork. Do notify ASC Travel and keep them posted on the situation. Loss protection is limited and supplemental **personal property insurance is recommended.**

Loss protection is only provided 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.

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 the allowed weight 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 (envelopes) take priority over any personal packages. It is recommended that packages be mailed from the U.S. no later than October 15. Do not place medications in package mail.

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 (e.g., FedEx) to you in Antarctica. The Christchurch APO nor USAP offices will accept such deliveries.**

The APO cannot be used to support any type of commercial activity. It is illegal for you to ship items to Antarctica for resale.

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

There is an APO located at the USAP facilities in Christchurch. Participants will have APO privileges for ten days upon their arrival in Christchurch. This benefit provides a tremendous cost savings if you need to mail boxes to the United States from New Zealand. Any mail received by the APO after the valid 10-day period will be returned to sender. The post office will have a list of eligible participants

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 clinic doctor is not your primary care physician and cannot refill your 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. Participants are responsible for complying with all U.S. and international laws when exporting and importing personal medications. Please seek guidance from the U.S. Food and Drug Administration, www.fda.gov/drugs/default.htm, and the U.S. Drug Enforcement Administration, www.justice.gov/dea/index.shtml, to determine whether your specific medication is controlled and may require special export or import authorizations.

New Zealand custom laws only allow for three months of prescription medications (e.g. thyroid medication) and one month of controlled prescription medications (e.g. codeine) to be hand-carried through New Zealand.

New Zealand law requires the following for transport of controlled drugs into the country:

- You must declare the controlled drugs on your passenger arrival card.
- You cannot have more than one month's supply of the controlled drug with you. If you have more, you will need a license from the Ministry of Health to import
- You must prove to Customs that the drug
 - o is required for treating your medical condition
 - o has been lawfully supplied to you in the country of origin - a letter from your doctor or a valid label on the container with your name and the quantity and strength of the drugs would be sufficient

All medications must be in properly labeled pharmacy containers. 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 will be deployed for a longer period of time, your medications should be mailed through the APO by your doctor or pharmacy in small priority mail envelopes to ensure their timely arrival. Medicines should never be packed inside a larger box containing other items as the box may not make it to Antarctica; whereas a small envelope, considered flat mail, likely will. Medicines destined for summer participants should be mailed after Labor Day, or they will be returned.

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.

In an emergency, contact chc-couriernotifications@usap.gov with details of your situation.

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.

Carry a copy of each prescription provided by your personal physician.

WHAT TO PACK

Below is a brief narrative and list of some items you may want to consider 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 point of contact (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.**

You should bring your own supply of over-the-counter medications. 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, batteries, snacks, and soda, and is meant to supplement items you should bring with you. Your supervisor or team leader can give you a good idea of what items are stocked in the store at the station where you will be working.

Toiletries. 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 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.

Vitamin D3. Recent research strongly suggests that maintaining an adequate level of vitamin D in the blood can reduce the frequency and severity of respiratory infections. See page 58 for more information.

Indoor clothing choices are up to you. You bring your own regular indoor clothing, including underwear, socks, shirts, pants and shoes. No dry cleaning services are 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 point of contact, the length of stay in Antarctica and the type of work you will be doing.

Outdoor clothing (hiking boots, cold-weather gear, etc.). If you are experienced in 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 (check the Velcro®). A lightweight windbreak jacket is useful in McMurdo during the austral summer. **You must bring your own**

Packing Suggestions

CLOTHING ITEMS:

Boots and shoes; work, hiking, insulated as needed for your work
 Glasses; eye and sun, extra pair, prescription
 Gym clothes/shoes
 Jacket; warm windbreaker
 Neck gaiter
 Pajamas/robe
 Pants/jeans
 Shirts; light wool or fleece, long-sleeve (machine washable)
 Slippers for indoor wear
 Sock liners; polypropylene or Merino wool to wick moisture away from foot
 Socks; heavy to wear outdoor with boots; Merino wool or nylon
 Sunglasses
 Swimsuit (for sauna)
 Towel and washcloth
 Long underwear; thermal top/bottom; both base and mid-weight layers; polypropylene or Merino wool or silk
 Underwear; regular
 Flip flops for shower

MISCELLANEOUS:

Alarm clock
 Batteries, rechargeable/charger
 Camera/camera batteries
 Coffee mug
 Day pack
 Hair dryer
 Hobby, craft items (small)
 Laundry bag
 Lip balm
 Lock, combination or key
 Memory sticks or external hard drive
 MP3 player/extra earbuds
 Musical instrument/spare parts
 Prescription medications
 Skis; skate/cross country
 Plastic food containers with lids to hold left-over food in your dorm room mini-refrigerator
 Toiletry articles; toothpaste, dental floss, comb, razor, shave cream, deodorant, soap and skin lotion for dry skin, tampons, a carrying case
 Vitamins
 Water bottles

Station Store

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

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

long underwear and heavy socks to wear with outdoor boots. It is highly recommended to bring three pairs of heavy socks and sock liners, and at least two sets of lightweight and mid-weight long underwear. Polypropylene/Merino wool or silk are excellent at wicking away moisture and holding heat next to your body. Contact your POC to get a recommendation of how much to bring based on your job and location.

Sheets. The U.S. 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 in the laundry room in each dorm and is also sold in the station store. The research vessels also provide laundry detergent and facilities.

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. As in the United States, the U.S. stations use 110-volt power supply systems. No converters or adaptors are needed.

Power in Argentina, Chile and New Zealand uses 230-volt, 50 hertz, power supply systems. In order to use U.S.-purchased appliances, such as hair dryers and razors, you will need to bring your own power converter and plug adapter (laptops and iPods have a built-in converter, but you will still need a plug adaptor for the wall socket).

The research vessels have both 220- and 110-volt power.

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 U.S. 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*.

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. Consider wrap-around temple frames, 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.

Water bottle. Bring at least one water bottle that can be carried with you throughout the day. Antarctica is a desert, and staying well hydrated is critical. Water bottles may be available in the station store, but are in limited supply.

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 Antarctica. 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 (e.g., skis, musical instruments). While musical instruments and recreational equipment is available to be checked out at the three stations, variety and availability is different at each facility. You may wish to send your own recreational gear depending on your length of stay. Your POC can give you specific information. Be sure all recreational gear is clean prior to packing.

Smartphone, iPod. An all-in-one device is useful as it can serve as an alarm clock, provide music, be a camera, etc. **You will NOT have cell phone service in Antarctica**, but you can use the device to listen to music and take pictures. WiFi is only available in limited areas to the scientific community and is not available to the general population, so do not plan to rely on a device that needs wifi. Don't forget the cable to plug into the wall and an extra set of ear buds.

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 you are representing the United States and the NSF and that your appearance (and conduct) will be noted. Avoid inappropriate conduct during travel.

New Zealand and Chile. 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.

Antarctic clothing. You will be issued ECW clothing as you pass through Christchurch 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 (e.g., hard hats, goggles) upon arrival at your work site.

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. You will stay warmer if you wear several thin layers than if you wear one thick layer.

The clothing issued to you is U.S. 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 U.S. 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.

NOTE: Understand that while the U.S. Antarctic Program will provide you with what you need for outdoor clothing, participants must bring their own long underwear, heavy socks, etc., to wear. If you will be wintering, you will want to pack additional items. Ask your POC for more information.

WHAT NOT TO PACK

Personal comfort in Antarctica is important. So is environmental protection. When choosing items to make your stay more comfortable, buy and take items with you 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.

Plants, seeds and animals. The Antarctic Treaty, which all participants must adhere to, prohibits the importation of any seeds (including chia seeds), plants (except food plants under controlled conditions for use in the greenhouse), or animals (including insects) 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. When leaving the continent, 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. In addition, you may not collect any of these items while working on the continent without a permit.

Don't pack a pest when you pack bags for Antarctica! Make sure all the gear and clothing you bring to Antarctica are clean to prevent non-native species from hitching a ride to the Ice. This includes biologically viable organisms in food and personal care products/supplements – do not pack “SCOBY” (symbiotic culture of bacteria and yeast) used to make kombucha, probiotics, spirulina, yogurt cultures or similar biologically active products.

Microbeads, tiny plastic particles in bath and beauty products, are now a banned substance in Antarctica. Do not pack any personal care products containing microbeads; they cannot be contained by wastewater treatment and will be discharged to the ocean environment, resulting in plastic pollution. Microbeads can absorb toxins and be ingested by marine organisms.

Similarly, the **antibacterial/antimicrobial agent triclosan** is currently under review. The USAP no longer purchases soaps and personal care products with triclosan, and we recommend participants not bring them to Antarctica. Triclosan is not removed during wastewater treatment and accumulates in the tissues of marine organisms, resulting in concerns about toxicity.

Please read the *Don't Pack a Pest* online brochure at: www.usap.gov/usapgov/travelAndDeployment/documents/PackaPest_brochure_Final.pdf

Hazardous and toxic substances are prohibited.

Polystyrene packing materials such as peanuts, chips and beads are prohibited, as they can easily blow away, posing a threat to wildlife. Cushion your packed items with clothing.

Try to avoid using **aerosols** such as hair spray, pressurized containers of deodorant and shaving cream. These items become hazardous waste because of their ingredients or because they are pressurized.

Disposable batteries such as mercury, alkaline and lithium cells are discouraged. Consider buying rechargeables and a charger.

Unmanned aerial vehicles, drones or remotely piloted aircraft in Antarctica by U.S. Antarctic Program personnel is prohibited without specific authorization from the National Science Foundation.

Magazines, catalogs, newspapers and junk mail are also discouraged. Do not have your mail forwarded to your Antarctic address, as it increases the amount of waste that must be removed from the continent.

Eliminate as many **plastic and throwaway containers** as possible. This will help reduce the volume of solid waste disposal in Antarctica. Repackage products into containers you are more apt to take home with you, or use Ziplock® bags that can be used repeatedly during your stay. Be sure to keep prescription labels with your repackaged items.

Use the backpacker's rule – if you pack it in, you pack it out.

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 U.S. 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. Any device that could be used to **heat cooking oil** is not allowed as splattered oil poses a fire danger. And no open flames such as **candles** are allowed.

BAGGAGE ORGANIZATION

Your personal belongings and ECW clothing will be transported from Christchurch to McMurdo as checked baggage on a cargo pallet. You will be allowed a carry-on bag, which must not exceed 61x38x23 centimeters (24x15x9 inches). All luggage 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. Include your assigned Antarctic station, the initials "USAP," "ASC" or event number, and return address.

Any **Do Not Freeze (DNF)** equipment should not be included in your checked or hand-carry baggage. Use the U.S. 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 United States 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 U.S. 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 U.S. 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.

U.S. 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. 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

Upon redeployment from Antarctica to Christchurch, it is also possible to store items within the CDC. This is to allow participants the opportunity to take personal vacations prior to final redeployment, but this storage is limited to 60 days.

The New Zealand Ministry of Primary Industries (MPI) is now assessing a fee (average \$7NZ) to clean/fumigate items (e.g., dirty hiking boots, tent poles) left in Christchurch while you are in Antarctica. These items will remain in MPI custody at the U.S. Post Office in Christchurch until arrangement has been made to pay the fee.

In Chile

Limited short-term secure storage space is available at the Punta Arenas warehouse 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. Contact the Peninsula Logistics manager or supervisor if you have questions regarding the storage of any personal items in Punta Arenas. Coordinate with Damco officials upon arrival in Punta Arenas to have items stored. ■