



Packing and Shipping Instructions

TL-MAN-0002

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Risk Factor: 1

This document applies to the following locations:

ALX <input type="checkbox"/>	CHC <input checked="" type="checkbox"/>	DEN <input checked="" type="checkbox"/>	FLD <input checked="" type="checkbox"/>	LMG <input checked="" type="checkbox"/>	MCM <input checked="" type="checkbox"/>	NBP <input checked="" type="checkbox"/>	PAL <input checked="" type="checkbox"/>	PTH <input checked="" type="checkbox"/>	PUQ <input checked="" type="checkbox"/>	SPS <input checked="" type="checkbox"/>
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Version History

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Approved by:

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Aug 16, 2022

Signature

Printed Name

Date

Transportation and Logistics Manager

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Purpose

This manual contains instructions for packaging, marking, labeling, documenting, and shipping materials to all United States Antarctic Program (USAP) locations and research vessels. These instructions assist USAP participants in preparing and forwarding their supplies and equipment. Personal actions are the first of many in a long logistics pipeline. Improper documentation, inadequate packaging, labeling, or failure to meet the required delivery dates can all result in delay, which could jeopardize the accomplishment of planned work. Advanced planning is critical.

All shipping costs for processing and transport between the origin and Port Hueneme, CA, are borne by the principal investigator's (PI) grant. The USAP contractor pays for shipping costs between Antarctica and the Continental United States (CONUS). Exceeding the approved cargo weight allowances from the operational notice requires authorization from National Science Foundation (NSF).

The following are the typical methods for shipping to Antarctica, in order of most cost efficient:

- Resupply vessel from Port Hueneme, CA to New Zealand, McMurdo Station (VESSEL)
- Commercial Surface (COMSUR)
- Commercial Air (COMAIR)

Note Refer to *USAP Transportation Costs and Planning Factors* for additional planning information.

Authorities and Mandates

The prime contract *Management Manuals, Standard Operating Procedures, and Preventive Maintenance Manuals* (NSFDACS 1219442, Deliverable F006) expects procedural manuals of this kind to support all facilities and operations throughout the USAP. This manual meets that requirement.

Risk Factor

This manual is assigned a risk factor of 1.

Preparation and shipment of materials to Antarctica is a complex process. Failure to meet the packing and shipping requirements described in this document could result in significant cargo delays or cargo damage. Failure to meet packing and shipping requirements could also lead to US or foreign regulatory violations that affect research and station operations or budgets.

While shippers are responsible for meeting shipping requirements, failure to provide logistic support would be a specific contract non-compliance. Therefore, the content of this manual is in the highest risk category.

Note Other resources address the risks associated with these procedures. Refer to the *Port Hueneme Operations Manual* (TL-MAN-0001).

Scope

This document applies to all USAP participants sending cargo to or from Antarctica.

Responsibilities

The Antarctic Support Contract (ASC) provides for all USAP cargo services as needed, which may include the following:

- Direct support on station
- Leased facilities as a transportation hub
- Subcontracted freight forwarders to the point of final destination

USAP Cargo Supervisor

The USAP cargo supervisor is responsible for annually reviewing and updating this procedure. The USAP cargo supervisor may delegate specific actions but is ultimately responsible for science cargo operations and science cargo planning to support McMurdo Station. The USAP cargo supervisor must protect all temperature-sensitive science cargo (TSSC), including receipt and storage of TSSC, updating Maximo, and safeguard the transfer to the resupply vessel or transport aircraft, whether with USAP partners or other contractors.

Port Hueneme Operations Manager

The Port Hueneme operations manager is responsible for helping to define these procedures, following these procedures, providing input, and refining their practice. Activities at Port Hueneme Naval Base Ventura County (NBVC), while specific to that work center, must also meet the requirements explained here.

Designated Transportation and Logistics (T&L) Staff

Transportation and Logistics (T&L) staff members (designated by the T&L Manager) are responsible for coordinating cargo movement on marine resources and cargo to the vessel and ensuring that container placement on the resupply vessel is accurately recorded in the Maximo database.

Marine Project Coordinator

Within the Marine Area, the marine project coordinator (MPC) is responsible for following these procedures, both onboard and while supporting research vessel operations, whether in South America or CONUS (including Port Hueneme or anywhere else the MPC may be located).

Marine Laboratory Technician

Each science cruise has at least one designated marine laboratory technician (MLT) onboard, depending on the caseload and science planning for that cruise. The MLT is available to assist USAP participants and may be able to answer questions about cargo movement. The MLT is also responsible for stowing TSSC in retrograde from Palmer Station to port.

South Pole Station Logistics Supervisor

The South Pole logistics supervisor is responsible for these procedures at the South Pole Station and planning all South Pole's logistical support. All science cargo is coordinated in advance with the South Pole Logistics supervisor. The South Pole logistics supervisor is responsible for ensuring the procedures in this document are followed for the South Pole area.

Peninsula Logistics Manager

The peninsula logistics manager is responsible for reviewing these procedures for continuity of service. As the contract officer technical representative (COTR) for Damco, only the peninsula logistics manager can approve procedures or activities supported by the Damco contractor in Punta Arenas, Chile, which is the primary support for all peninsula-area activities. The peninsula logistics manager is responsible for ensuring these procedures are followed throughout the Peninsula area, Palmer Station, and the research vessels. The Peninsula Logistics manager is also responsible for completing the processes described in this document. As the point of contact (POC) for science sample shipments from Palmer Station and the peninsula area, the peninsula logistics manager oversees the retrograde movement of all TSSC. For further details, please refer to the *Peninsula Logistics Manual* (TL-MAN-0004) or *Shipping Retrograde Cargo* (TL-MAN-0010).

Damco

Continuing logistical support in South America is subcontracted through Damco Chile, which must meet the standards set in this procedure. Refer also to the *Peninsula Logistics Manual* (TL-MAN-0004) for more details on Peninsula operations.

USAP Participants

Everyone who sends cargo to or from Antarctica must follow the steps in this procedure.

Before Deployment

The operational notice for each science event outlines the support requirements approved by NSF for the project's duration. The annual requirements for shipping are specified in each support information package (SIP) for the science event. Make sure to review the operational notice before completing the SIP. While ASC technical events (T-Event) and NSF technical support events do not have operational notices, they must submit a SIP to outline their annual support requirements.

Equipment, supplies, and science samples are all shipped as cargo unless other arrangements are made in advance. Additionally, an ASC internal support information package (ISIP) is required to call out shipping requirements for ASC work centers (R-Event).

Port Hueneme, California

Port Hueneme Operations processes all USAP material going to or returning from Antarctica and enters all shipping information into Maximo.

Shipper's Security Endorsement

Federal Aviation Administration (FAA) regulations require the Port Hueneme operations manager to sign a *Shipper's Security Endorsement* for all commercial air shipments. The endorsement certifies shipments do not contain unauthorized explosives, incendiaries, or other destructive substances or items. The unauthorized shipment of hazardous materials via air carriers subjects the shipper to personal liability of \$50,000 and or up-to five years in jail. This penalty applies to the individual who certified the shipment for air transport along with the shipper's employer.

CAUTION All cargo is subject to inspection before entering the USAP transportation system. Finding undeclared hazardous materials will delay or prevent shipment.

Each container, even those with locking devices, arriving at the Port Hueneme Operations facility, is subject to inspection. Cargo will not be forwarded if it cannot be inspected. Materials found to be unacceptable for commercial air transportation will be diverted to commercial surface carriers and will take longer to reach their destination. Similar restrictions apply to retrograde shipment from Antarctica.

Hazardous Materials

Participants are responsible for declaring all hazardous materials shipped to Antarctica. All shipments must comply with domestic and international regulations governing packing, marking, labeling, and documenting hazardous materials. Failure to identify hazardous material violates United States law and holds penalties up to \$250,000 and 10 years in jail.

Participants must seek the services of professional shippers like Federal Express (FedEx), United Parcel Service (UPS), or Dalsey Hillblom Lynn (DHL) when shipping hazardous cargo to Port Hueneme. Using a professional shipper reduces the risk of harm to transportation personnel. It also helps prevent delays or refusals by ensuring materials are packed, marked, labeled, and documented in accordance with domestic and international regulations.

The Hazardous Cargo supervisor in Denver, Colorado, supervises the shipment of hazardous materials through the USAP transportation system referenced in *Intercontinental Shipment of Dangerous Goods* (TL-MAN-0017). Send questions concerning hazardous materials to USAP-Haz-Cargo-Questions@usap.gov.

Preparing Cargo for Shipment

This section provides information on restricted items, guidelines for packaging, marking, labeling, and documentation.

Vehicles, Machinery, and Parts via New Zealand

The transshipment of used vehicles, machinery, or parts through New Zealand is subject to strict biosecurity requirements. Anyone shipping such cargo through New Zealand must review and comply with the requirements detailed in the *Import Health Standard: Vehicles, Machinery and Parts* located here:

<https://www.mpi.govt.nz/dmsdocument/30224/direct>

Importing Technical Equipment to New Zealand

Participants traveling through New Zealand planning to hand-carry high-value technical equipment need to complete a New Zealand Customs Form. For more information, refer to the website at the following Internet address:

<https://www.customs.govt.nz/>

Note Copies of the New Zealand Customs Form are available from the ASC Travel department. Be sure to have the form completed before departure.

Make special note of the following related to the New Zealand Customs Form:

- The form is non-transferable. New Zealand requires the individual whose name appears on form to be the same person to clear the item through Customs.
 - If in possession of high-value technical equipment without customs forms, the individual (not the USAP) may be charged with import duties, fines, or the material may be seized.
- The individual deploying with the equipment is not required to accompany its return, as long as the form accompanies the goods.
- Employees and contractors who carry equipment from ASC Denver also need a *Hand-Carry Authorization Form* (TL-FRM-0053) in addition to New Zealand Customs Form. These are also non-transferable.
 - Return the equipment with the hand receipt to ASC Denver.
 - If the equipment will stay in Antarctica, notify property management on station by email so that they can transfer the equipment to station inventory.
 - Route the hand receipt to Property Admin for attachment to property records.

Note Laptop computers are *generally* exempt from this classification. Check with the ASC Travel department for information on individual deployments.

Packing Material

Proper packaging can help ensure a shipment arrives at its destination safely and on time. Containers must withstand contact with the sharp corners of other containers, crushing weights, and shocks sustained while in transit, in the warehouse, aboard ship, and at the stations. Use extra padding around the contents of the containers to cushion them against impact. Pack securely and fill any voids or extra space. It cannot be emphasized enough the need to pack for extremely rough handling and exposure to various weather conditions.

Avoid using materials that are not easily degradable. That includes most plastics, especially polystyrene cushioning materials (standard packing peanuts), or a silicone sponge.

CAUTION Polystyrene packing peanuts are banned under the *Antarctic Conservation Act*. Do not use polystyrene packing material.

Suitable alternatives are bubble wrap, shredded paper, corrugated cardboard, burlap, and packing tissue. Paper products are more easily recycled and, therefore, are more suitable for shipping material to Antarctica. Shipments can be delayed on entry to both New Zealand and Chile due to the condition of the packaging. Wooden packaging material (WPM), such as pallets, crates, and boxes, is often reused to return material to the United States, which has some strictest requirements.

Wood Packing Material, New Zealand

The New Zealand government has strict controls and diligent inspections for importing any wood products. They require clearance for imported timber and forest products, sometimes with quarantine restrictions. A certificate must accompany all shipments of lumber from the manufacturer stating the extent and level of any treatment process.

The Ministry of Primary Industries (MPI) conducts inspections to prevent accidentally introducing insects or fungi that could damage New Zealand forests and the timber industry. These inspections include all wooden and plywood packing cases, including crates, pallets, wood packing blocks, and dunnage. All wood products must be free of bark and visible signs of insects, worms, or fungi.

Wood products that cannot be verified as being free of contaminants will be stopped at the port of entry and dealt with as directed by an MPI inspector. USAP participants and their shipping agents should ensure all packing material conforms to the following New Zealand regulations:

1. Wood packaging must comply with the import requirements.
2. MPI will risk profile the whole shipment and select a subset for inspection.
3. Any untreated or uncertified wood packaging found will be refused entry, treated as required, or destroyed — regardless of whether pests are found.
4. A notice of non-compliance will be issued for any untreated or uncertified wood packaging.
5. Information from these non-compliances will feedback into the risk profiling system — meaning that importers who develop a history of non-compliance will be selected for inspection more frequently, further delaying cargo.

For more information, refer to the website at the following Internet address:

<https://www.mpi.govt.nz/import/forest-products/wood-packaging/>

Wood Packing Material, Chile

The government of Chile has strict controls on importing wood products.

USAP participants should be sure that all wooden crates used for shipping through Chile to Palmer Station and the Antarctic Peninsula area are in good condition without stains or signs of fungi. An agriculture stamp indicating the wood is free of contamination will help expedite clearance through Customs.

Wood Packing Material, United States

The following regulations have been put in place by the US Department of Agriculture (USDA) on all wood packing materials entering the United States. Please be aware that wood packaging materials used to ship cargo to Antarctic field sites must comply with these regulations to be returned to the United States, as repackaging material or recycled material — all material in retrograde movement from Antarctica.

Wooden packaging material like pallets, crates, and boxes entering the US must be treated or fumigated with methyl bromide and marked with the International Plant Protection Convention (IPPC) logo. The same requirements apply to regulate wood packing material arriving in the US. For more information, refer to the website at the following Internet address:

<https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/wood-packaging-material>

Wood packing materials destined for the US must comply with this statement:

The wood packaging materials used in this shipment comply with the International Standards for Phytosanitary Measures, Publication 15, 2018 (ISPM 15). The material used consists of processed wood material and solid sawn wood subjected to the approved heat treatment. Those packages that use heat-treated wood have been certified as being compliant with ISPM 15 and the Internal National Plant Protection Convention (IPPC) and are so marked by an approved and inspected agent (Number US-4522) of the American Lumber Standard Committee.

Containers

Pack reusable containers with hinged, clamped, or screw-fastened tops. Containers should be made to withstand hard contact, sharp corners, crushing weight, and shock sustained by rough handling in transit, in the warehouse, aboard ship, and on the station. Use sturdy material that is well fastened, securely braced, and reinforced.

CAUTION All participants must be aware of the very rough conditions during transport to Antarctica.

Some plastic containers may not be suitable for use in extreme cold, where they become brittle and may crack or break. In short, consider the environmental conditions of Antarctica when choosing a container.

Environmental Conditions

Insulated containers may be appropriate if they will eventually be used for retrograde material that must be kept frozen (KF) or keep chilled (KC).

Material is often exposed to excessive moisture and temperature extremes during storage and transportation. It is also common for condensation to build up inside boxes during shipment, especially retrograde cargo from South Pole Station to McMurdo Station or Palmer Station on vessels.

Primary shipment to Antarctica is on board ocean-going vessels that are subject to ocean conditions in transit, which cannot be predicted. Therefore, it is necessary to pack for extremely rough handling and various weather conditions.

Weight and Volume

Crates weighing over 100 pounds (lb.) must be palletized for safer cargo handling. Consider also the total volume of the box, and do not pack anything over 125 cubic feet (ft.) (5 x 5 x 5 ft.). Crates larger and heavier may restrict handling and cause materials to be delayed.

Small boxes may also pose a problem. They are challenging to account for in a cargo cache or the cargo hold of a ship. Avoid boxes smaller than 12 inches (in.) on aside. Many small boxes can be packed together and then shipped more readily.

Cargo aircraft only applies to any package exceeding the following sizes;

- Longer than 125 in. (10 ½ ft., or 3.2 meters [m])
- Wider than 96 in. (8 ft. or 2.4 m)
- Higher than 64 in. (5 ¼ ft. or 1.6 m)

Marking and Labeling

Mark all boxes and crates distinctively and visibly. Use a stencil or a permanent marker to make the markings bold and clear. Use consecutive numbers for more than one box in the same shipment; for example, "Box 1 of 4." Make sure the marking is impervious to water and weather. If boxes or crates are reused from previous seasons in Antarctica or other locations, completely remove any old labels, barcodes, and markings to prevent delays or misdirection.

Special Handling Instructions

All applicable special handling instructions must be marked on the outside of the container. Appropriate and bold labels or stencils provide cargo handlers with instructions. Common examples include but are not limited to the following:

- Do Not Freeze
- Do Not Xray
- Fragile
- Keep Dry
- Keep Upright
- Do Not Expose to Magnetic Field

Do Not Freeze

Some cargo cannot tolerate the extreme temperatures in Antarctica. Heated storage is limited in Antarctica so there are some restrictions.

The size restrictions on DNF cargo are as follows (L x W x H):

48 in. x 45 in. x 40 in. or 122 centimeters (cm) x 114 cm x 102 cm

This is roughly the size of a standard, tri-wall container used in the USAP airlift. More oversized DNF items may be shipped through the USAP transportation system, but only with significant business or science justification in writing in advance.

In addition to size restrictions, NSF has mandated that under no circumstances shall DNF cargo be mixed in the same box with non-DNF cargo. Heated storage is very limited in Antarctica, and mixing cargo may result in DNF material being stored outside. While that would not be a problem in Port Hueneme, it would be a significant failure at the South Pole.

DNF Cargo Handling Procedures

Southbound COMAIR

McMurdo Station

DNF cargo is turned over to the freight forwarder for commercial flights to New Zealand. On arrival at the Air Cargo Yard in Christchurch, New Zealand, cargo is palletized and transported via the USAP airlift. At McMurdo Station, DNF cargo is placed in a temperature-controlled warehouse until delivered to the grantee or ASC work center.

South Pole Station

DNF cargo is turned over to the freight forwarder for commercial flights to New Zealand. On arrival at the Air Cargo Yard in Christchurch, New Zealand, cargo is palletized and transported via the USAP Airlift through McMurdo Station. DNF cargo is placed in a temperature-controlled warehouse until manifested on a flight to South Pole Station. On arrival at the South Pole Station, DNF cargo is kept in a temperature-controlled area until turned over to the grantee or ASC work center. Peninsula Logistics

DNF cargo is shipped to Damco in Punta Arenas, Chile. On arrival, it is stored in a temperature-controlled warehouse environment until containerized for transport to Palmer Station, or until loaded as breakbulk cargo on the research and support vessel.

Note All DNF cargo for the Peninsula area is loaded on the vessel and stored in temperature-controlled areas on a lower deck.

Southbound COMSUR

Port Hueneme Operations loads all science-related DNF cargo in intermodal shipping containers and manifests them for a surface vessel to Christchurch, New Zealand, or Punta Arenas, Chile.

McMurdo Station

Ocean vessels are offloaded in Lyttelton, New Zealand, and trucked to Christchurch International Airport. DNF cargo is palletized at the Air Cargo Yard and transported via the USAP Airlift to McMurdo Station. On arrival at

McMurdo Station, DNF cargo is placed in a temperature-controlled warehouse until delivered to the grantee or ASC work center.

South Pole Station

Ocean vessels are offloaded in Lyttelton, New Zealand, and trucked to Christchurch International Airport. DNF cargo is palletized at the Air Cargo Yard and transported via the USAP Airlift to McMurdo Station. There, DNF cargo is placed in a temperature-controlled warehouse until manifested on a flight to South Pole Station. On arrival at the South Pole, DNF cargo is moved to a temperature-controlled area until turnover to the grantee or ASC work center.

Peninsula Logistics

For Peninsula Logistics, DNF cargo is shipped to Damco in Punta Arenas, Chile. On arrival, it is stored in a temperature-controlled warehouse until containerized for transport to Palmer Station, or until loaded as breakbulk cargo on the research and support vessel.

Resupply Vessel

Port Hueneme Operations loads all science-related DNF cargo into refrigerated containers set at four degrees Celsius (4°C) thirty-nine point two degrees Fahrenheit (39.2°F) to ensure temperature control in transit. If refrigerated containers are not available, DNF cargo is offloaded in Lyttelton, New Zealand, and trucked 12 miles to Christchurch for airlift to McMurdo Station.

After the resupply vessel is loaded, reports are generated by PTH Operations staffing to ensure that all DNF cargo is identified. Cargo disposition is determined based on the following criteria and distributed to the resupply vessel offload team for full situational awareness.

Criteria for determining DNF cargo disposition:

1. Size and scope of cargo.
2. DNF storage capacity on the station.
3. Number of refrigerated container power plug-ins on the resupply vessel, or stated an insufficient number of plug-ins to support DNF refrigerated containers.
4. Refrigerated container capacity at McMurdo Station.

Should one or more criteria restrict the transport of DNF cargo on the resupply vessel to McMurdo Station, that cargo is offloaded in Lyttelton, New Zealand and transported to McMurdo Station via USAP airlift. Upon arrival at McMurdo Station, DNF cargo is placed in a temperature-controlled environment until ready to be received by the grantee or work center.

Required Documentation

Provide Port Hueneme Operations with a copy of the shipping information by email PH-CargoOps@usap.gov. Send a bill of lading or an air waybill, and make sure that the information is clear and concise. Indicate the following:

- Delivering carrier

- Shipment number
- Piece count
- Date departed
- Scheduled delivery date
- Total weight
- Special handling instructions

A detailed packing list, *USAP Proforma/Invoice* (TL-FRM-0005), must be completed and emailed to PH-CargoOps@usap.gov.

Due to compliance regulations, the level of detail for the packing list has increased. Information on the contents must include a detailed description of the item, manufacturer part number, manufacturer and country of origin, US dollar amount (US\$) per item, and the total cost for all items. Please be specific to prevent delays. US Customs requires this information for exportation.

If information is missing or incomplete, cargo may be delayed until the information is obtained from the packing list.

- *USAP Proforma/Invoice* (TL-FRM-0005)
 - This template is used by USAP participants shipping cargo to or from Antarctica not traveling on the annual resupply vessel, on military aircraft back to CONUS, or if the final destination is New Zealand.

Note "Scientific Equipment, Office Supplies, Lab Supplies" are no longer an acceptable description for a packing list and will result in delays clearing Customs.

Shipping Dates

Advanced planning can help to reduce USAP transportation costs and ensure timely delivery to Antarctica.

Please note that the material cut-off schedule changes as the vessel schedules are adjusted. Please confirm the required material cut-off dates with the USAP Cargo Supervisor, South Pole Logistics manager, or Peninsula Logistics manager before shipping materials to Port Hueneme.

Commercial Air (COMAIR)

COMAIR shipments average a 29 day processing and transit time from Port Hueneme to McMurdo Station. South Pole Station may need an additional 32 days. Hazardous materials and oversized items could require 60 days or more.

Cargo not within certain size limits or designated cargo aircraft only (CAO) will move by truck from Auckland to Christchurch, adding four to five days to the transit time.

Commercial Surface (COMSUR)

COMSUR shipping is cargo on a commercial vessel other than the regular USAP contracted resupply vessel to McMurdo Station. Oversized material that is late but still required may be sent via COMSUR. Cargo and supplies going to the Peninsula Area and Palmer Station may be sent COMSUR at any time during the calendar year. It travels to

Punta Arenas, Chile, and is transferred to one of the research vessels for final transport to Palmer Station.

Note When shipping to the Peninsula Area, be sure to consult the schedule posted in the *Peninsula Logistics Schedule* (TL-FRM-0100).

Table 1 shows shipping times from Port Hueneme to various USAP destinations frequented. To ensure that oversized cargo arrives on time, plan, and schedule for COMSUR; however, any cargo can be subject to delays, including labor strikes, holidays in foreign countries, and Customs clearance.

Table 1: General Dates

Destination	Approximate time in transit
McMurdo Station	85 days
South Pole Station	98 days
Hazardous material and Oversize cargo to New Zealand (en route to McMurdo Station, South Pole, and Research Vessels)	96 days
Research Vessels (to New Zealand)	81 days
Southern ports (Chile) and Palmer Station	126 days
Hazardous material to Southern ports (Chile) and Palmer Station	141 days (4 ½ months)

Required Delivery Date (RDD), Peninsula Area

The required delivery date (RDD) for shipments bound for the Antarctic Peninsula area includes Palmer Station, field camps, and vessel operations.

Cut-off dates to meet the Peninsula area cruise schedule for the RV/IB *Nathaniel B. Palmer* (NBP) or the ARSV *Laurence M. Gould* (LMG) are located at the following address:

<https://masterlist.denver.usap.gov/MasterList/TL-FRM-0100.xlsx>

Meeting the RDD noted at these sites allows materials to be shipped by the preferred, most cost-effective means available. Materials that cannot meet the RDD will need to be sent via COMAIR. Shipping COMAIR is the most expensive method, and requires approval from NSF before shipping.

Oversized cargo shipments destined for Peninsula sites will be delayed a minimum of 14 days or more by the lack of scheduled cargo aircraft to Punta Arenas, labor strikes, special events, or national holidays in other countries. Oversized cargo must arrive in Port Hueneme on time for COMSUR transportation, based on published cut-off schedules. This is necessary to afford adequate planning and transportation for Damco delivery, in case there is no opportunity to fly the oversized cargo even part of the way. Any item that is CAO or oversized will be trucked from Santiago, Chile to Punta Arenas, which will take a minimum of 14 days.

Required Delivery Date, Continental Area

The required on site (ROS) date determines when the material is required at Port Hueneme is to arrive in Antarctica in time for the project.

Note Cargo may not meet its prescribed ROS date if the RDD is not met.

Table 2 shows the ROS dates and RDD for cargo shipments during the 2022-23 Summer season. Cargo that does not arrive within these prescribed guidelines may require COMAIR shipment and NSF approval.

Table 2: RDD Continental Area

McMurdo Required On Site Date (ROS)	McMurdo Julian Required On Site Date (ROS)	Required Delivery Date To PT Hueneme
August 20, 2022	2232	May 27, 2022
October 8, 2022	2281	July 15, 2022
October 15, 2022	2288	July 22, 2022
October 22, 2022	2295	July 29, 2022
October 29, 2022	2302	August 5, 2022
November 5, 2022	2309	August 12, 2022
November 12, 2022	2316	August 19, 2022
November 19, 2022	2323	August 26, 2022
November 26, 2022	2330	September 2, 2022
December 3, 2022	2337	September 9, 2022
December 10, 2022	2344	September 16, 2022
December 17, 2022	2351	September 23, 2022
December 24, 2022	2358	September 30, 2022
December 31, 2022	2365	October 7, 2022
January 7, 2023	3007	October 14, 2022
January 14, 2023	3014	October 21, 2022
January 21, 2023	3021	October 28, 2022
January 28, 2023	3028	November 4, 2022
February 4, 2023	3035	November 11, 2022
February 11, 2023	3042	November 18, 2022
February 18, 2023	3049	November 25, 2022

Resupply Vessel Shipments

There are instances when science equipment received at Port Hueneme Operations is loaded into intermodal shipping containers for shipment to Antarctica. Intermodal shipping reduces cargo handling, damages or loss, while improving security. The International Organization for Standardization (ISO) maintains container requirements, which were first based upon the original Department of Defense (DoD) standards.

Intermodal Transportation

Intermodal transportation is a common method of freight shipping which incorporates two or more means of transportation without handling freight between modes. USAP participants loading intermodal shipping containers must notify the Port Hueneme Operations manager in advance to receive specific instructions.

If the container includes Do Not Freeze (DNF) cargo for the project, the shipper is required to use a refrigerated container. If a powered refrigerated container is not available, DNF cargo must be shipped separately. DNF cargo might be shipped via COMAIR or COMSUR.

Port Hueneme Operations visually verifies the contents of each container for seaworthiness, to include the proper blocking and bracing of cargo for transport. This inspection is documented and reported to the grantee and to ASC management. In addition, hazardous materials must be shipped separately and must include a safety data sheet (SDS) with the packing list.

The following military specification (MILSPEC) certification guidelines describe the requirements for certifying an intermodal container for maritime transportation to Antarctica.

- *Standard Practice for Military Packaging* (MIL-STD-2073-1D);
<http://www.chassis-plans.com/PDF/MIL-STD-2073-1D.pdf>

Fumigation Requirements for New Zealand and Australia

Due to the possible infestation and protection from the Brown Marmorated Stink Bug, all commercial surface shipments must be fumigated 120 hours before departure from California. This requirement is in effect for all cargo shipped between September 1 and April 30 each year.

There are two fumigants used, Methyl Bromide, which leaves no residue and Sulfuryl Fluoride, which is often requested if the shipment contains delicate electronic equipment. If shipping food, please pack these articles separately to avoid possible contamination from the fumigants.

Shipping to Port Hueneme

The NSF and ASC have instituted shipping procedures to reduce or eliminate delays in shipping materials to Antarctic research sites.

Contact Port Hueneme Operations before shipping any oversize, unusual cargo, anything very heavy, and any intermodal container cargo. Send all documentation, including the tracking information, and proforma (TL-FRM-0005) for each shipment to Port Hueneme Operations at PH-CargoOps@usap.gov.

Address for Cargo Shipments

Use the following address and information for cargo shipments to Port Hueneme. Label each box with the following information. Ensure this information is clear and legible.

National Science Foundation
c/o Antarctic Support Contract

5020 Stethem Road
Building 471, North End, NBVC
Port Hueneme, CA 93043
ATTN: USAP <station abbreviation>
<Station code>
<Principal Investigator>
<Event number> or <Project code>
<ROS>

Note Information in brackets (< >) in the above address will be specific to the project or deployment.

Station Abbreviations and Station Project Codes

Table 3 identifies station abbreviations and Project Codes.

Table 3: Station Abbreviations and Station Project Codes

Antarctic Station	Station Abbreviation	Science Station Code	ASC Station Code
McMurdo Station	ZCM	DR1	DW1
South Pole Station	NPX	DR3	DW3
Punta Arenas, Chile	PUQ	DR4	DW4
Palmer Station and Peninsula	PAL	DR7	DW7
Christchurch, New Zealand	CHC	DR9	DW9
RV/IB Nathaniel B. Palmer	NBP	NBP	NBP
AR/SV Laurence M. Gould	LMG	LMG	LMG

Example of Address and Priority Number Label

National Science Foundation
c/o Antarctic Support Contract

5020 Stethem Road
Building 471, North End, NBVC
Port Hueneme, CA 93043
ATTN: USAP — NPX
DR3
R. Amundsen
A-404-S
2281

NPX

Shipping to Port Hueneme from Foreign Countries

Equipment shipped from a foreign country, then through the US to Antarctica, enters the US as imported material. When entering the United States, complete US Customs *Transportation Entry and Manifest of Goods Subject to CBP Inspection and Permit* (CBP Form 7512; February 2012). The form is available online, at the following Internet address:

<http://www.cbp.gov/newsroom/publications/forms>

Other forms may be required. When shipping foreign goods through the US, use a recognized customs broker to prepare the documentation needed for forwarded shipments. It is recommended to make prior contact with the Port Hueneme Operations manager to facilitate processing through US Customs and shipment, onward to Antarctica.

CAUTION When shipping by truck from a foreign location, Port Hueneme Operations must have the driver's name thirty (30) working days in advance to arrange clearance through DHS for delivery to NBVC.

All cargo shipments from foreign countries to Port Hueneme, California, must be shipped prepaid from the point of origin. All transportation charges, including surface or air cargo in the US, freight-forwarding fees, and brokerage commissions, must be prepaid.

Canada

All shipments from Canada or Canadian vendors should be shipped by air to Port Hueneme. Try to use standard US shippers, such as FedEx or UPS. If cargo moving to or from Canada is shipped by truck, we strongly recommend using FedEx, UPS, or Yellow Roadway Corporation (YRC).

Direct Commercial Shipping

It may be more practical for vendors to ship directly to Port Hueneme, New Zealand, or Chile. Port Hueneme has several options and services to offer in USAP support. Providing advanced notice also helps them prepare for receiving the cargo if any special handling is needed.

Note Neither NSF nor ASC is responsible for commercial shipments sent directly to these destinations.

New Zealand

For shipments to New Zealand, send the following information for all shipments to the Terminal Operations Manager at CHC-CourierNotifications@usap.gov before the cargo arrives.

- Commercial invoice
- Master airway bill (MAWB) number (if applicable)
- Flight number
- Bill of lading (BOL) number (if applicable)
- Departure dates
- Number of boxes
- Contents of each box
- Commercial value in US\$

Note Some companies, such as Federal Express in New Zealand, do not operate 24 hours a day and are closed on weekends, which may affect how quickly items can be delivered to our Christchurch cargo operation.

Use the following address for shipping directly to New Zealand:

National Science Foundation
c/o PAE (New Zealand) Limited
Gate 1, Orchard Road North
Christchurch International Airport
Christchurch, New Zealand
Tel: +64-3-358-8139
FAX: +64-3-358-1479

Note All direct shipments must be sent duty delivery paid (DDP).

Chile

For shipments to Chile, send the following information for all shipments to the Peninsula Logistics Manager at Palmer.Logistics@usap.gov and DAMCO at PA-PuntaArenasAll@usap.gov before the cargo arrives.

- Commercial invoice
- Master airway bill (MAWB) number (if applicable)
- Flight number
- Bill of lading (BOL) number (if applicable)
- Departure dates
- Number of boxes
- Contents of each box
- Commercial value in US\$

Use this address for shipping directly to Punta Arenas, Chile:

Master R/V NATHANIEL B PALMER or R/V LAURENCE M. GOULD or PALMER
STATION
c/o Damco Chile SA
Avenida Bernardo O'Higgins NBR. 1385
Muelle Arturo Prat
Punta Arenas, Chile

To avoid Customs delays, put these instructions below the address:

FOR FURTHER SHIPMENT TO ANTARCTICA
<Name>
<Station abbreviation>
<Station code>
<Grantee>
<Event number> or <Project code>
<ROS>
<Box of number-of-boxes> (e.g., "Box 1 of 4")Do Not Freeze

Baggage Allowances

Personnel will travel from their airport of departure to Christchurch, New Zealand, or Punta Arenas, Chile, on commercial carriers. It is essential to review the airline's baggage

limitations and fees before departure. Commercial airline baggage allowances are typically two bags, 23 kilograms (kg.)/50 lb. each, plus a carry-on.

The program does not reimburse costs for excess baggage. Notify the Christchurch Travel Office when planning to carry excess baggage.

All participants have the same luggage weight allowance when flying from New Zealand to McMurdo Station in summer and winter. A maximum of 39 kg./85 lb. for luggage plus 7 kg./15 lb. for carry-on is allowed for this leg of the journey.

Note The extreme cold weather (ECW) clothing issued to personnel in Christchurch weighs about 10 kg./22 lb. There is a requirement to wear certain items on the flight. The rest of the issued clothing (about 3 kg./7 lb.) is considered checked baggage.

Hazardous Material

Hazardous materials may not be carried in checked baggage or carry-on luggage. Military flights are no exception. For any questions, contact the hazardous cargo supervisor at USAP-Haz-Cargo-Questions@usap.gov.

Cargo Damage, Insurance, and Customs Inspections

Neither NSF nor ASC shall be responsible for lost or damaged scientific equipment and general cargo in the following categories:

- Shipped between the point of origin and Antarctica
- Shipped between Antarctica and the destination
- While in Antarctica
- While being transported via USAP transportation (research vessels, annual resupply vessel, or aircraft)

If the ASC contractor is found to be grossly negligent during handling and shipping, claims for lost or damaged shipments will be considered.

All participants are highly encouraged to obtain their own insurance. It is also highly encouraged to use shock watches, tiltmeters, or other rough handling indicators on delicate, high-value equipment being shipped within the USAP transportation network. The brand used by the USAP can be found at the following internet address:

http://www.uline.com/BL_1053/Shockwatch

Reporting Damage or Loss

Cargo damage must be reported as soon as found. Make reports directly to the T&L work center (e.g., USAP Cargo at McMurdo Station, South Pole Logistics, or Peninsula Logistics). For vessels, report immediately to the MPC. For retrograde cargo, report damage or loss to the Port Hueneme Operations manager or Port Hueneme Cargo supervisor via email at PH-CargoOps@usap.gov.

Collect digital images whenever possible. On vessels, the MPC often has a digital camera for use. Send an email with attached digital pictures to the USAP Cargo supervisor on

station or MPC on vessels. Material or cargo that never arrives (loss) or is not available as scheduled should also be reported in an email.

Note Refer to *Cargo Disposition Reporting Procedure* (TL-SOP-0004) for more complete details.

Each damage report is investigated to determine the extent of damage, the cause of damage, and the location where the damage occurred. Completed reports are forwarded to the T&L manager. The objective is to identify the nature and frequency of occurrences so that process and performance may be adjusted (as required) to prevent future damage.

Insurance and Customs

Participants are responsible for insuring their shipments. The insured value should be as high as the current replacement value of the material. Except for military transport, items may be insured at any point during transit. It is solely the shipper's responsibility to accurately describe the contents and declare the value of shipments. *The Antarctic Support Contract cannot and will not make this declaration.*

Customs Value

The insured value is not the same as the Customs value. The declared Customs value should be the actual market value; that is, the value of the item in its present condition and current age (e.g., the Blue-Book value).

Provide the actual market value on Customs forms for Chile and New Zealand. This is the same value reported when using *Cargo Disposition Report* (TL-FRM-0035). It is the shipper's responsibility to accurately describe contents and declare the value.

Note Refer to *Shipping Retrograde Cargo* (TL-MAN-0010) for more complete details.

The US Customs Office will scrutinize high-dollar value shipments more closely than less expensive cargo. When the cargo value reaches a certain dollar threshold, Customs personnel give the shipment more attention and ask more questions. That takes more time, so using the replacement cost (typically more expensive), rather than the current market value, may delay clearing Customs. The same is true for the retrograde of equipment. When US Customs identifies incoming shipments of highly technical equipment, they may specify a need for an import license. While the actual incidence is low in the USAP, proper identification and declaration is crucial.

Import/Export Licensing

Participants are responsible for compliance with all relevant US and foreign government export and import authorities and for obtaining any required export or import permits, licenses, or other authorizations. Please refer to the cognizant agency or agencies to confirm whether cargo requires a special authorization for exportation to or importation from Antarctica. Relevant US government agencies may include, but are not limited to, the following:

- US Department of Commerce (www.bis.doc.gov)
- US Department of State (www.pmdtc.state.gov)

- Nuclear Regulatory Commission (www.nrc.gov)
- Bureau of Alcohol, Tobacco, Firearms, and Explosives (www.atf.gov)
- US Food and Drug Administration (www.fda.gov)
- US Drug Enforcement Administration (www.justice.gov/dea)
- US Fish and Wildlife Service (www.fws.gov/international)
- US Department of Agriculture (www.usda.gov)
- USDA Animal and Plant Health Inspection Service (www.aphis.usda.gov)

Padlocks

Some shippers send cargo to Antarctica in locked containers. Both US and foreign Customs agents can and do cut off padlocks to inspect the contents. Serialized seals are recommended instead of padlocks.

Feedback and Contacts

To better serve participants, we encourage feedback about our transportation system. Positive feedback tells us what satisfies our customers and meets their needs. Constructive feedback highlights problem areas that may provide improvement opportunities and improve grantee support. We ask for both.

The following are the POCs for issues concerning Logistics:

- Transportation and Logistics manager
- USAP logistics manager
- Port Hueneme operations manager
- Antarctic Terminal Operations (ATO) manager
- USAP cargo supervisor
- Hazardous cargo supervisor
- Peninsula logistics manager
- Leidos Office of International Trade Compliance

Note These are contacts for shipping cargo and equipment. For postal mailing addresses, refer to the *USAP Participant Guide* (NSF 06-52).

Port Hueneme

Freight contact and correspondence address:

National Science Foundation
c/o Antarctic Support Contract
5020 Stethem Road
Building 471, North End, NBVC
Port Hueneme, CA 93043

Port Hueneme telephone contacts:

- Direct: (805) 985-6851
- Toll free: (800) 688-8606; x33615, x33619, and x33603

- Fax: (805) 984-5432
- Email: PH-CargoOps@usap.gov

US Customs

US Customs Office
Treasury Department
2100 K Street, NW.
Washington, DC, 20037

US Freight Carriers

Table 4 lists the contact numbers for freight forwarders in the USAP transportation system.

Table 4: Freight Carrier Contact Numbers

Carrier	Phone
ABF Freight Systems, Inc.	(800) 610-5544
Con-way Freight	(800) 755-2728
FedEx Express	(800) 463-3339
FedEx Freight	(866) 393-4585
Old Dominion	(800) 610-6500
UPS Freight	(800) 333-7400
UPS Domestic	(800) 742-5877
YRC (Yellow-Roadway Corp.)	(800) 775-2728

Use the following information to contact Damco regarding the USAP transportation system:

- Email: asc.lax@damco.com
- Phone: 281-224-8159

New Zealand

National Science Foundation
c/o PAE (New Zealand) Limited
Gate 1, Orchard Road North
Christchurch International Airport
Christchurch, New Zealand

Phone: +64-3-358-8139
Fax: +64-3-358-1479

Chile

Master R/V NATHANIEL B PALMER, Master R/V LAURENCE M. GOULD or
PALMER STATION
c/o Damco Chile SA
Avenida Bernardo O'Higgins NBR. 1385
Muelle Arturo Prat

Punta Arenas, Chile
Tel: +1 720 568 2870

References

Internal Documents

Cargo Disposition Reporting Procedure (TL-SOP-0004)

Cargo Disposition Report Form (TL-FRM-0035)

Intercontinental Shipment of Dangerous Goods (TL-MAN-0017)

Peninsula Logistics Manual (TL-MAN-0004)

Peninsula Logistics Schedule (TL-FRM-0100)

Port Hueneme Operations Manual (TL-MAN-0001)

Shipping Retrograde Cargo (TL-MAN-0010)

Hand-Carry Authorization Form (TL-FRM-0053)

USAP Proforma/Invoice (TL-FRM-0005)

External Supporting Documents

Refer to the following documents when completing these instructions.

Antarctic Conservation Act (www.nsf.gov/od/opp/antarct/aca/aca.jsp)

Certificate of Registration of Foreign Manufactured Item (US Customs form 4455)

Declaration for Free Entry of Unaccompanied Articles (US Customs form 3299
www.cbp.gov/xp/cgov/toolbox/forms/)

Import Health Standard: Vehicles, Machinery and Parts
(<https://www.mpi.gov.nz/dmsdocument/30224/direct>)

Management Manuals, Standard Operating Procedures, and Preventive Maintenance Manuals (ASC contract deliverable NSFDACS 1219442, F006)

Ministry for Primary Industries (<https://www.mpi.govt.nz/biosecurity/>)

New Zealand Customs (Form NZCS 213 (www.customs.govt.nz/))

Transportation Entry and Manifest of Goods Subject to CBP Inspection and Permit (US Customs form 7512 (<https://www.cbp.gov/newsroom/publications/forms?title=7512>))

Uline (http://www.uline.com/BL_1053/Shockwatch)

USAP Participant Guide (NSF 06-52)

External Standards and Guidelines

American Lumber Standard Committee (Agent: Number US-4522)

Drug Enforcement Agency (21 CFR §1300-1399)

Export Administration Regulations (15 CFR §730-774)

Food and Drug Administration (21 CFR §1-1299)
GAO Standards for Internal Control in the Federal Government
Government Property (FAR Part 44)
Internal National Plant Protection Convention (IPPC)
International Standards for Phytosanitary Measures (Publication 15, March 2002 [ISPM 15])
Container requirements (International Organization for Standardization [ISO])
International Traffic in Arms Regulations (22 CFR §120-130)
Management's Responsibility for Internal Control (OMB A-123)
Standard Practice for Military Packaging (MIL-STD-2073-1D)
Transportation (US Code of Federal Regulations (CFR), Title 49)
Wood Packaging Material (WPM) guidelines (United States Department of Agriculture Animal and Plant Health Inspection Service [APHIS])
(<http://www.aphis.usda.gov/aphis/home/>)

Records

Table 5 describes the records that result from the processes described in this manual.

Table 5: Records

Record ID (& Owner)	Format & Location	Protection & Retrieval	Retention & Disposition
<i>USAP Proforma/Invoice</i> (TL-FRM-0005) Owner: USAP cargo supervisor	Hard copy kept at ASC Denver.	Attached to shipping record in Maximo Retrieved per request to USAP Cargo supervisor	Electronic copy on USAP Cargo drive for five years

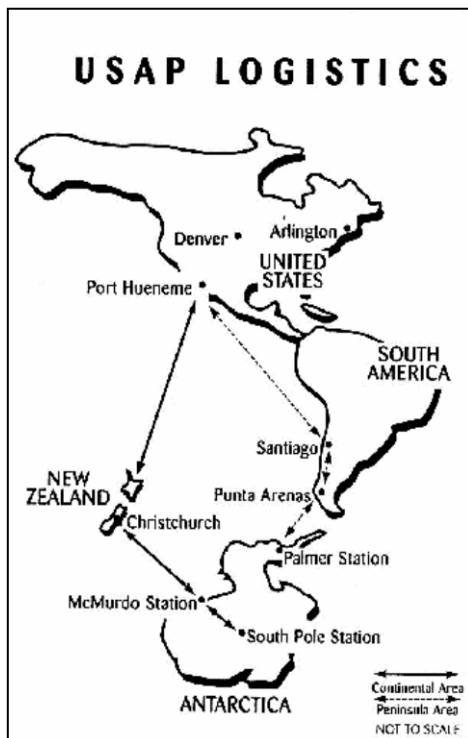
Appendix 1: Methods for Shipping Cargo

Unless otherwise directed by NSF, ASC will determine the mode of transport based on the date received and date required on site. To meet the Port Hueneme cargo cut-off dates, consider the shipping mode and transit time.

Resupply Vessel

The USAP charts one container ship each year to move cargo between Port Hueneme, CA, and McMurdo Station. That often includes a stop at Port Lyttelton, New Zealand. The Resupply Vessel departs from Port Hueneme, CA, and arrives at McMurdo Station in late January or early February. Considering all methods of transport to Antarctica, the annual resupply vessel is the most cost effective.

The resupply vessel returns with retrograde cargo to Port Hueneme for offload in mid-March. The onward shipment of scientific materials and samples is a priority over general cargo. Shipping via the resupply vessel should be the first option considered for cost and efficiency to support temperature sensitive cargo.



Commercial Shipping

Commercial surface shipping (COMSUR) moves cargo via ocean going surface vessel. Cargo that arrives at Port Hueneme by the RDD is containerized and shipped COMSUR to New Zealand or Chile. COMSUR is the primary and most cost-effective transportation mode. For Punta Arenas, Chile, and New Zealand, COMSUR shipments depart at regular intervals throughout the year.

Cargo that cannot arrive at Port Hueneme by the RDD must be flown by commercial air (COMAIR) if that is the only way to meet the ROS date. Shipping COMAIR is costly, and not recommended. Also, planning to COMAIR requires prior approval from NSF.

USAP Airlift

Special Assignment Airlift Mission (SAAM) flights are United States Air Force (USAF) cargo planes chartered by the USAP to transport cargo, and participants. SAAM flights typically start at the beginning of the austral summer.

Appendix 2: Transportation Costs and Planning

Acquisition planning schedules provide timelines for moving cargo to Antarctica. Plan ahead and use the lowest cost options as shown in table 6. Contact the Port Hueneme Operations manager with any questions about lead times for special handling.

Table 6: Costs and Planning

Transport Mode	TO:	Transit Time	Cost	Lead Time	Advantage
COMSUR Container ship. Break-bulk cargo too large for containers.	Christchurch, New Zealand	25 Days	US\$.64 per pound	52 days Due in Port Hueneme 52 days before ROS date.	Cost is less than other modes. Still more expensive than the Resupply vessel.
	Punta Arenas, Chile	55 Days		97 Days Due in Port Hueneme 97 days before ROS date.	Schedule based on vessel cut-off dates. Oversized cargo can be delayed in Santiago, Chile, up to 14 days.
COMAIR Commercial airline Cargo moved by freight handler or as freight on regular flights.	Christchurch, New Zealand	2 to 6 days	US\$ 6.49 per pound	7 to 10 days Due Port Hueneme 7 to 10 days before CHCH.	Most expensive shipping. Quickest delivery. Provides goods on short notice.
	Punta Arenas, Chile	27 days		30 days Due to Port Hueneme 30 days.	Outsized items sometimes go thru Chicago, and can take weeks as air freight.
Resupply Vessel Chartered vessel moving from Port Hueneme, CA to Lyttelton, NZ, to McMurdo Station South Pole cargo moved later from McMurdo Sta. (airlift or overland).	Port Lyttelton, New Zealand	17 days	US\$ 0.45 per pound	ALL DUE Port Hueneme November 27, 2020	Most cost effective shipment. Move containers and bulk cargo at same time. Move oversized and overweight cargo at no added cost.
	McMurdo Station South Pole Station	5 to 6 days (23 days to McMurdo) Movement to South Pole by air or land, at the end of the summer season or during the next season.			

Table 6: Costs and Planning - Continued

Transport Mode	TO:	Transit Time	Cost	Lead Time	Advantage
Vessel offloads cargo at McMurdo; loads retrograde and recycle for return trip.	Retrograde to Port Lyttelton	6 to 10 days, depending on reload.	US\$ 0.45 per pound	ALL DUE McMurdo Station January 31	Most cost effective return shipment. Most assured for temperature controlled samples. Most secure for containers and bulk samples on return.
	Retrograde to Port Hueneme	17 days			
USAP Airlift Contract airlift NZ to McMurdo, then to South Pole and deep field camps.	McMurdo Station	6 – 8 hours, depending on aircraft	N/A USAP subcontract	7 Days Due in CHCH 7 to 10 days before ROS date McMurdo.	Move passengers (PAX) and cargo between CHC and McMurdo Station.
	South Pole Station	3 to 4 hours, depending on weather.		10 Days Due in CHCH 10 to 14 days before ROS at South Pole.	Move PAX and cargo between McMurdo Station and South Pole Station.
Retrograde and Redeployment	Christchurch, New Zealand	6 – 8 hours, depending on aircraft		7 Days Due in McMurdo 7 to 10 days before flight to CHCH.	Move PAX and cargo back to NZ at end of season.

Appendix 3: Vessel Required Delivery Dates

Please refer to the RDD for Port Hueneme to determine the date when cargo must be received at Port Hueneme for on-time delivery via COMSUR. Refer to the table 7 and table 8 for resupply vessel RDDs to McMurdo Station. All science projects must have cargo to Port Hueneme no later than (NLT) November 30.

Table 7: Vessel Delivery Dates and Priority for McMurdo Station

	RDD Pt. Hueneme	Required On Site	ROS
Life, Health, Safety Critical	November 30 2020	January 25 2021	1120
Food Requisitions	30 November 2020	25 January 2021	1121
Mission Critical	30 November 2020	25 January 2021	1122
Mission Essential	30 November 2020	25 January 2021	1123
Mission Important	30 November 2020	25 January 2021	1124
MCM VSL Project Requests	30 November 2020	25 January 2021	1124

Table 8: Vessel Delivery Dates and Priority for South Pole Station

	RDD Pt. Hueneme	Required On Site	ROS
Life, Health, Safety Critical	November 30 2020	January 25 2021	1121
Food Requisitions	30 November 2020	25 January 2021	1121
Mission Critical	30 November 2020	25 January 2021	1122
Mission Essential	30 November 2020	25 January 2021	1123
Mission Important	30 November 2020	25 January 2021	1124

Glossary

Refer also to the list of approved terms at den.usap.gov/empresources/sctnglossary.cfm

AFMAN	Air Force Joint Manual
APHIS	Animal and Plant Health Inspection Service A division of the US Department of Agriculture
AR/SV	Antarctic Research and Supply Vessel
ASC	Antarctic Support Contract
ATO	Antarctic Terminal Operations
CAO	Cargo Aircraft Only
Cargo Resupply Vessel	A chartered vessel hired to move cargo between Port Hueneme and McMurdo Station. It generally includes a port call at Port Lyttelton, New Zealand. Often referred to as "the Vessel," it is the most cost efficient transport for moving material to McMurdo Station. That cargo is often moved on to inland camps and the South Pole Station.
CHC	Christchurch, New Zealand
Chilean Territory	Generally the area around the country of Chile May also refer to the area between 50° and 90° East latitude.
CITES	Convention on the International Trade in Endangered Species See http://www.cites.org/
COMAIR	Commercial Air Cargo transported by commercial aircraft (United, Air New Zealand, etc.).
COMSUR	Commercial Surface Cargo transported by commercial vessel
Continental Site	Any USAP site throughout the Antarctic continent Typically, transit occurs through Christchurch, NZ, to McMurdo Station; transit occurs to the South Pole Station or Inland field camps.
CONUS	Continental United States
COTR	Contract Officer Technical Representative
Damco	The logistics support agent contracted by ASC.
DDP	Duty Delivery Paid
DHL	Dalsey, Hillblom and Lynn
DHS	Department of Homeland Security
DNF	Do Not Freeze
DOD	Department of Defense
ECW	Extreme Cold Weather

Eutectic Ice	The solid formed when a mixture of 76% water and 23% salt (by weight) is frozen. It melts at -21°C (-5°F), with about three times the refrigerant effect of dry ice.
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
FedEx	Federal Express
IPPC	International Plant Protection Convention
ISIP	Internal Support Information Package
ISO	International Organization for Standardization
ISPM	International Standards for Phytosanitary Measures
KC	Keep Chilled
KF	Keep Frozen
LMG	AR/SV Laurence M. Gould
MPI	Ministry for Primary Industries, in New Zealand
Mainbody	Refers to the large movements of people and cargo at the beginning and end of the austral summer
MAWB	Master Airway Bill
Maximo	Maximo manages USAP inventory and asset information, to include: purchase requisitioning and purchase order tracking; receipt of inventory at USAP operating locations; support of in-transit visibility of cargo; and work order data to include preventive maintenance, emergency work order, and service requests.
MILSPEC	Military Specification
MPC	Marine Project Coordinator
MPI	Ministry for Primary Industries
MLT	Marine Laboratory Technician
MSDS	Material Safety Data Sheet
NBP	RV/IB Nathaniel B. Palmer
NBVC	Naval Base Ventura County Located at Port Hueneme, California
NLT	No Later Than
NPX	National Weather Service airfield designator for South Pole Station
NRC	Nuclear Regulatory Commission
NSF	National Science Foundation
OMB	Office of Management and Budget
OPP	Office of Polar Programs

Oversized Cargo	<p>Oversized cargo is cargo that cannot be flown on passenger aircraft or that which exceeds the capabilities of the aircraft available for the proposed route.</p> <p>Peninsula: Cargo that is more than 43 in. L(100 cm) x 43 in. W (100 cm) x 43 in. H(100 cm), with a total weight of over 125 kg.</p> <p>Continental: Cargo that is more than 124 in. L, 96 in. W, 62 in. H. No specific weight limit. Oversized and heavy items may be moved overland from Auckland to Christchurch without an expedite fee.</p>
PAL	National Weather Service designator for Palmer Station
PAX	Passengers
Peninsula Site	<p>Any USAP site along the Antarctic Peninsula</p> <p>Many vessel operations, Palmer Station, and surrounding field sites fall into this category.</p>
PI	Principal Investigator
POC	<p>Point of Contact</p> <p>The individual or office used to centralize input and exercise control over a project. For most events, this will be the science planning manager.</p>
PTH	USAP designator for Port Hueneme, California
PUQ	Punta Arenas, Chile
RDD	<p>Required Delivery Date</p> <p>The deadline for cargo intended to arrive at Port Hueneme for further shipped via USAP resources. Please refer to the Required Delivery Date section in this document to determine the cargo deadline to Port Hueneme.</p>
ROS	<p>Required On Site</p> <p>Date when an item is required at the location, where it will be used, whether on station, vessel, or field camp. Computing this date migrates to cargo scheduling, bar codes, flight manifests and on to the destination. Cargo tracking uses the first Saturday following the requested date. Cargo is manifested to reach its site by that Saturday. That date is then converted into a four-digit number representing the year and Julian date. For Peninsula operations, this is generally understood to be the date 12 days prior to departure of the vessel arrives at Punta Arenas or in some cases when the material must be carried via alternate means.</p>
RSP	Research Support Plan
RV/IB	Research Vessel, Ice Breaker
SAAM	Special Assignment Airlift Mission
Shipping Number	A field in Maximo that indicates a shipping code (an automated bar code) for shipping and receiving cargo and supplies through Port Hueneme and cargo staging areas, CONUS and on station.
SIP	Support Information Package

T&E	Transportation Entry A shipping form: US Customs Transportation Entry form 7512
T&L	Transportation and Logistics Division of ASC
TSSC	Temperature Sensitive Science Cargo Material which must be kept frozen, chilled, or prevented from freezing. For shipping: Keep Frozen = -80°C to -20°C (-112°F to -4°F) Keep Chilled = 4°C to 10°C (39°F to 50°F)
TSA	Transportation Security Administration
UN	United Nations
UPS	United Parcel Service
USAF	United States Air Force
USAP	United States Antarctic Program
USAP Airlift	This term refers to the scheduled movement of cargo and passengers (PAX) from Christchurch, NZ, to McMurdo Station via aircraft certified to operate in Antarctica.
USDA	United States Department of Agriculture
YRC	Yellow Roadway Corporation
WinFly	Winter Fly-in Deploying essential personnel and supplies to McMurdo Station before Mainbody. Arriving in late August, these people serve as an advance party for the start of each season.
WPM	Wooden Packaging Material
ZCM	National Weather Service airfield designator for McMurdo Station