



# Subcontractor Packing & Shipping Instructions

TL-MAN-xxx  
Version 1

August 2016

Risk Factor: 1

**This document applies to the following locations:**

CHC <input checked="" type="checkbox"/>	DEN <input type="checkbox"/>	LMG <input type="checkbox"/>	McM <input checked="" type="checkbox"/>	NBP <input type="checkbox"/>	PAL <input type="checkbox"/>	PTH <input checked="" type="checkbox"/>	PUQ <input type="checkbox"/>	SP <input type="checkbox"/>
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Prepared by the Antarctic Support Contractor  
for the National Science Foundation Division of Polar Programs

## Version History

Version #	Date	Section (if applicable)	Author/Editor	Change Details
1	19 August 2016	All	Logistics Ops Manager	Created document tailored to AIMS/MPSM General Contractors.

**The document library holds the most recent versions of all documents.**

Approved by:

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Transportation & Logistics Manager

Date

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## Purpose

This manual contains instructions for documenting, packaging, marking, and shipping materials to and from McMurdo Station. These instructions are published to assist AIMS/MPSM subcontractors in preparing and forwarding their supplies and equipment to and from Antarctica in the most efficient manner. While most retrograde cargo has a destination in the Continental United States (CONUS), these procedures apply to all northbound material, even if the destination is a foreign address.

The logistic streams to Antarctica are some of the longest and most difficult cargo distribution routes in the world. The distance, the few transportation modes, customs inspections through several countries, frequency of delivery, and volume limitations all contribute to difficulties planning on-time delivery of needed materials.

Because of these transportation difficulties, advance planning is critical.

Your actions are the first of many in a long logistics pipeline. Improper documentation, poor packaging or labeling, failure to meet the required delivery dates — whether at Port Hueneme, CA, USA; or directly to Christchurch, New Zealand — can all result in delay, which could jeopardize the accomplishment of planned work.

All cargo receives normal handling, which is generally rough treatment characteristic of stevedoring and transportation aboard ocean going vessels. Cranes and forklifts are used for loading and unloading. To ensure safe arrival, all material should be packaged anticipating the rigors associated with transport by land, sea, and air over several continents. Pack with greater care and mark all containers to indicate contents which may be sensitive to impact, temperature, moisture, orientation (e.g., “This End Up”), etc.

All shipping costs for processing and transport between point of origin and Port Hueneme, CA, are borne by the subcontractor. The USAP contractor pays for shipping costs between Antarctica and the Continental United States (CONUS).

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, and back
- Commercial Surface (COMSUR)
- Commercial Air (COMAIR)

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

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## Authorities and Mandates

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

This document applies to all AIMS/MPSM subcontractors sending cargo/equipment to or from Antarctica. The Antarctic Support Contract (ASC) provides transportation support, but cannot be

held accountable for required permits or customs inspections in any of the several nations through which the cargo may travel. Therefore, subcontractors are responsible for their own permits and for providing the paperwork for clearing Customs through each leg of the trip.

## Responsibilities

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

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

### ASC Logistics POC

Designated member(s) of the ASC Transportation and Logistics department whom will serve as the POC to the subcontractor to facilitate movement of equipment and materials within the USAP supply chain. At different times, the Logistics POC or designee may be responsible for entering Maximo data for subcontractor cargo.

### Subcontractors

Everyone who requires sending cargo to or from Antarctica, whether back to the US or otherwise, must do so within the USAP cargo system and must follow the steps in this procedure.

### Marine Terminal Supervisor

The Marine Terminal supervisor is responsible for coordinating movement of cargo on marine resources and of cargo to the vessel, enabling the loading of containers, and ensuring that container placement on the vessel is accurately recorded in the Maximo database and vessel stow plan.

### Port Hueneme Operations Manager

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

## General Information

Each subcontractor shall prepare a Logistics Plan (LP) which address both Southbound and Northbound cargo shipping requirements. It is important to make sure the LP is accurate so that it will include information on projected inbound and retrograde cargo and equipment to include number of shipping containers, breakbulk items (oversized cargo or rolling stock) and any temperature controlled shipping environments.

Subcontractors must account for shipping each way, and only the end user can specify whether special handling is required. Equipment, supplies, and materials are all shipped as cargo unless specific arrangements are made in advance.

## General Shipping Requirements

Each Antarctic station has its own shipping requirements; vessels also have different requirements. Shipping documentation differs between countries, so it is important to have the correct paperwork for the nations through which any cargo will move. The documents required are determined by the cargo and the mode of shipping. Subcontractors are responsible for all the paperwork, permits, and permissions that may be needed to ship their cargo.

## Shipping Modes

Unless otherwise directed by the NSF, ASC determines the mode of transport based on when the cargo is received and what mode is available at the time to meet the required on site (ROS) date. Subcontractors may request commercial transport to/from New Zealand, but the extra expense requires prior approval from the NSF.

### Resupply Vessel

The USAP charters one container ship each year to supply McMurdo Station and to move retrograde cargo from McMurdo to Port Hueneme at Naval Base Ventura County (NBVC) (hereinafter referred to as Port Hueneme). Referred to as “the vessel,” it leaves from Port Hueneme typically the end of December. It has a brief layover (4 days) in Port Lyttleton, NZ to upload cargo mid-January and then departs for McMurdo. Arrival in McMurdo typically falls around 25 January. The cargo discharge and backload evolution in McMurdo is planned for 8 days. The vessel departs McMurdo in February and returns to Port Hueneme, via Lyttleton, NZ, for retrograde offload in late-February/early-March. Shipping via the resupply vessel should be the first option considered for the following reasons:

- It is the most cost effective method available to the USAP.
- It simplifies permits because there is no transshipment through New Zealand. It can also reduce the permits required for US Customs, because it moves directly from a US protectorate (Antarctica) to a US facility (Port Hueneme).

### COMSUR Shipping

Commercial surface (COMSUR) shipping is cargo on an ocean vessel other than the regular USAP container vessel to McMurdo Station each year. Oversized material that is late but still required may be sent via COMSUR.

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

In general, allow for at least as many days listed in Table 1 for shipping.

**Table 1:** General Dates

<b>Destination</b>	<b>Approximate time</b>
McMurdo Station	35 days
Hazardous material to New Zealand (en route to McMurdo Station)	65 days

### COMAIR Shipping

Cargo may be moved north/south by commercial air cargo (COMAIR), though at a higher cost and with less space available. Because COMAIR is the most expensive transport method, *all* COMAIR shipments require prior coordination via the LP for COMAIR allocations. Subcontractors exceeding approved COMAIR allocations may be held liable for the excess shipping costs. Commercial air (COMAIR) cargo shipments may require up to 21 days to process from Port Hueneme to McMurdo Station. Remember to allow for processing time as much as shipping time. Hazardous and oversized cargo needs more time for inspection and clearance, sometimes up to 60 days.

- Be aware that COMAIR can be subject to unforeseen delays, including labor strikes, national holidays in foreign countries, waiting for cargo-only aircraft, and customs clearance

### USAP Airlift

Special Assignment Airlift Mission (SAAM) flights are USAF cargo planes chartered by the USAP to transport oversized or perishable cargo, like helicopters and liquid helium. SAAM flights typically start at the beginning of the austral summer. Special coordination is required for all SAAM flights, and they are expensive. Do not plan to send cargo by SAAM; there is no guarantee a SAAM flight will be available.

### Shipment Tracking

A Shipping Number is assigned to each article moving as cargo through the USAP transportation system. ASC will assign Shipping Numbers to subcontractor cargo as it is turned over for transport. The Shipping Number is a unique number used to track cargo from its origin to its destination, and from delivery to the receiving party. The Shipping Number is a smart number that includes the following:

- Department of Defense Address Code (DODAC)
- ASC Project code or science event number
- Auto-generated number

The following is an example of a Shipping Number:

- 499129-352-000000001

**Table 2:** Station Abbreviations and Station Project Codes

DODAC	ASC Project Code or event #	Unique identifier auto- generated by MAXIMO
499129	352	nnnnnnnnn

Anyone with access to Maximo can use the Shipping Number to locate cargo within the system. That same Shipping Number might be used to verify delivery. Station personnel use the Shipping Number to track cargo back to Port Hueneme (retrograde cargo) or any other USAP cargo hub (e.g., Christchurch, New Zealand). The Shipping Number can sometimes be used to find cargo or supplies in storage or staged for shipment. As long as it is still in the system, the Shipping Number can be used to locate it.

## Preparing Cargo for Shipment

During the shipping process, equipment and material will receive treatment characteristic of stevedoring operations. Delicate or sensitive equipment must be well-packed and protected by means of the packaging used. Subcontractors, suppliers and their packing agents should not only give consideration for providing additional packing, but should also consider the type of materials utilized for shock-absorbent packing.

Contact Port Hueneme Operations before shipping any unique or unusual cargo, anything very large or unusually heavy, any odd-sized cargo, and any intermodal container cargo. Provide them with the shipping information so that they can prepare for receiving and transshipment. If any special handling is needed, Port Hueneme Operations will know the requirements that must be met. Call first with any questions.

## Packing Material

Avoid using materials that are not easily degradable. That includes most plastics, especially polystyrene cushioning materials (common packing peanuts).

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

Do not use polystyrene, polyurethane foam, or silicone sponge. Suitable alternatives are bubble wrap, shredded paper, corrugated cardboard, burlap, and packing tissue. Paper products are more easily recycled, and therefore, more suitable for shipping material to Antarctica. Some cargo shipments have been delayed on entry to New Zealand due to the condition of the packing crates, when the outside material failed inspection. Wooden packaging material (WPM), such as pallets, crates, and boxes are often reused to return material to the United States, which has some of the strictest requirements.

## Wood Packing and Lumber 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 of any kind — sometimes with quarantine restrictions. All shipments of lumber must be accompanied by a certificate from the manufacturer stating the extent and level of any treatment process.

Inspections are conducted by the Ministry for Primary Industries (MPI) to prevent accidentally introducing any insects or fungi that could damage New Zealand forests and 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. Grantees 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 on the standard, please refer to the MPI website at the following Internet address:

- <http://www.mpi.govt.nz>

### **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 in order to be returned to the United States, as repackaging material or recycled material — all material in retrograde movement from Antarctica.

Wooden packaging material (WPM) 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. Effective 16 September 2005, the same requirements apply to regulate WPM arriving in the US. Refer also to WPM guidelines published by USDA Animal and Plant Health Inspection Service (APHIS) at the following Internet address:

- <http://www.aphis.usda.gov/aphis/home/>

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

The wood packaging materials used in this shipment are in compliance with the International Standards for Phytosanitary Measures, Publication 15, March 2002 (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 International Plant Protection Convention (IPPC) and are so marked by an approved and inspected agent (Number US-4522) of the American Lumber Standard Committee.

## Packing Containers

As often as possible, pack reusable containers with hinged, clamped, or screw-fastened tops — most especially if items are to be returned or reused in retrograde.

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 station. Use sturdy material that is well fastened, securely braced, and reinforced. All boxes and containers should be secured with steel banding or Cordstrap. The number of straps depends on the size of the box, but it is recommended to use at least two straps per box.

**CAUTION** All participants must be aware of the very rough conditions that may be encountered by material during transport.

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.

### Conditions

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 McMurdo Station.

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 must be palletized for safer cargo handling. Consider also the total volume of the box, and do not pack anything over 125 cubic feet (5x5x5 feet). Crates larger and heavier may restrict handling and cause materials to be delayed.

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

Any air cargo longer than 125 inches (10 ½ feet, or 3.2 m) must be sent via cargo carrier. Sometimes, mail or air cargo can be expedited on passenger aircraft. The following sizes can only be flown by cargo carriers:

- Longer than 125" (10 ½ feet, or 3.2 m)
- Wider than 96" (8 ft. or 2.4 m)
- More than 64" (5 ¼ ft. or 1.6 m) high

## Marking and Labeling

Mark all boxes and crates in a distinctive and obvious manner. Using a stencil or a permanent marker, 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 re-used from previous seasons in Antarctica or other locations, remove any old labels, barcodes, and markings to prevent delays or misdirection.

Many labeling requirements are common to all packages, but there are also special requirements for USAP airlift and COMAIR cargo transiting through New Zealand. These additional requirements may include permits, customs letters, chain-of-custody forms, Maximo, packing lists, and airline-required labels.

### Special Handling

Some items require specific treatment. We must prevent some contents from freezing and other contents that must not thaw. Boxes will need to be kept upright or protected from energy sources.

Special handling instructions must be marked outside the box. Appropriate and bold labels or stencils should provide cargo handlers with instructions. Common examples include the following:

- Fragile
- Do Not X-Ray
- Keep Dry
- Keep Frozen
- Do Not Freeze

Figure 1 illustrates standard labeling for all cargo packages

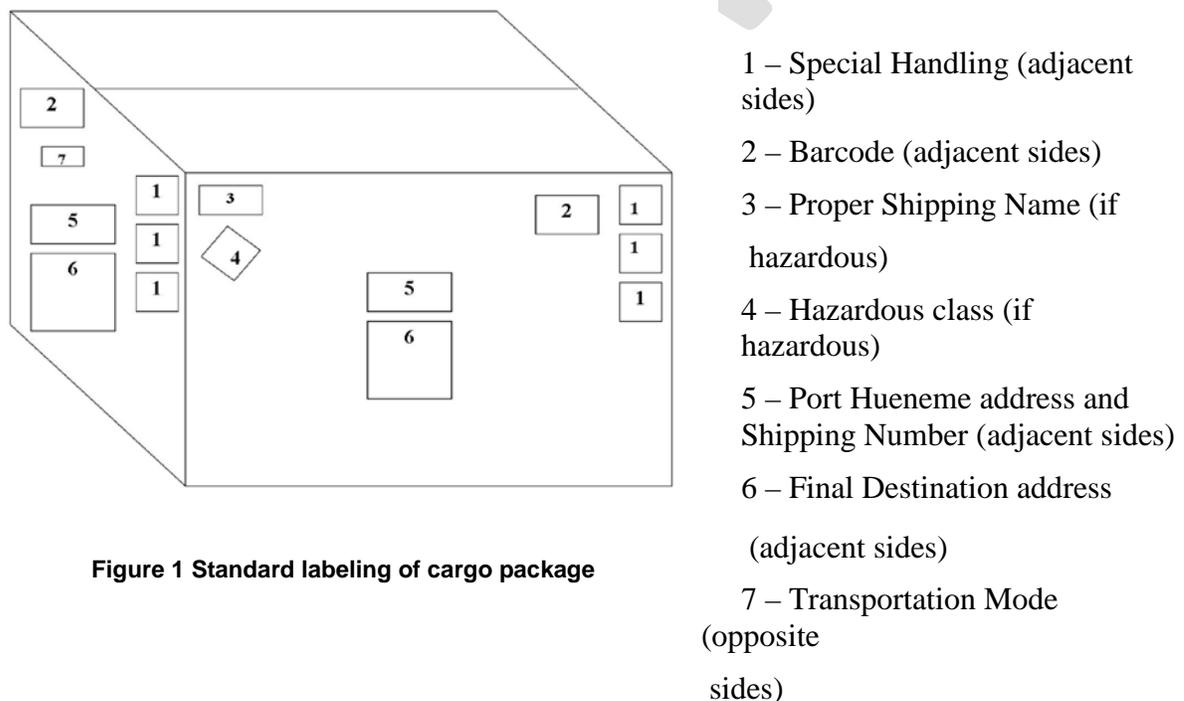


Figure 1 Standard labeling of cargo package

## Intermodal Shipping Containers

Intermodal cargo transportation includes shipping freight in containers that can be moved between different modes of transportation (e.g., rail, ship, truck) without any handling of the freight itself between modes. For instance, container shipments can move from an ocean vessel to the USAP Airlift without being unloaded and repacked. Intermodal shipping reduces cargo handling, improves security, reduces damages or loss, and allows freight to be transported faster. The International Organization for Standardization (ISO) maintains container requirements, which were first based upon original Department of Defense (DOD) standards.

With the exception of large breakbulk type items, all subcontractor cargo will be shipped to/from PTH/McMurdo in ISO standard intermodal shipping containers. There are many different kinds (closed and open) and brands of intermodal shipping containers; all must be ISO certified. ASC will provide USAP owned ISO standard intermodal shipping containers to the subcontractor.

Subcontractors are responsible for packing their own containers; neither ASC nor the USAP are responsible if something is inadequately packaged. Inadequately packed cargo may suffer damage during transit. Subcontractors should contact the ASC Logistics POC for guidance and assistance in proper retrograde cargo packaging.

When using preloaded, non-USAP intermodal containers from a supplier, subcontractors must notify the Port Hueneme Operations manager in advance to coordinate offload and staging on base. Subcontractors should also be advised that leased intermodal shipping containers may remain on station for a period of at least one year due to the limitations of the USAP transportation system and should plan accordingly with suppliers/vendors. In addition, the Port Hueneme Operations manager should be provided advance notice for any preloaded containers which require specific handling instructions. For instance, if the container includes 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 transshipped via COMAIR or COMSUR, as determined by the Port Hueneme Operations manager.

The subcontractor shall notify Port Hueneme Operations when a container is packed and ready for inspection. Port Hueneme Operations visually verifies the contents of each container for seaworthiness, to include the proper blocking and bracing of cargo for transport. If it is determined a container does not meet the blocking and bracing requirements, the subcontractor is responsible for correction and request of follow up inspection. Container inspection is documented and reported to the subcontractor and to ASC management. In addition, hazardous materials should be shipped separately when possible, and must include a safety data sheet (SDS) with the packing list.

To accurately detail requirements for certifying an intermodal container for seaward transportation to Antarctica, the following are the current MILSPEC certification guidelines:

- MIL-STD-2073-1D *Standard Practice for Military Packaging*

<https://acc.dau.mil/adl/en-US/53966/file/56105/MIL-STD-2073-1D.pdf>

## Container Labels

Intermodal Containers (MILVANS) have labels on the outside, typically by the door. Some requirements place container numbers at the corners. Depending on their content, containers may require additional labels. Containers with temperature sensitive (Do Not Freeze) must be as labeled prominently on front and back. Use yellow tape with black lettering to make sure that they are easily identified from 100 meters away (about 300 feet). After inspection, ASC seals each container with serialized, color-coded seals, and the numbers are entered in Maximo.

If any of the contents in a container are hazardous, that container is marked according to international regulations. When those containers arrive in retrograde, Port Hueneme Operations uses the *Container Packing Certificate* (TL-FRM-0015) to identify and properly handle whatever hazards are listed.

## Port Hueneme, California

Through contractual arrangements with the Antarctic Support Contract (ASC), the Port Hueneme Operations manager is responsible for the receipt and movement of all USAP cargo shipments going to or returned from Antarctica. Material going to Antarctica is first processed at Port Hueneme Operations (California), where it is entered into the USAP transportation system. To the greatest extent possible, all subcontractor cargo should be routed via Port Hueneme to enter/exit the USAP transportation system

The Port Hueneme Operations manager is the point of contact (POC) for all matters related to processing outgoing cargo, and can be reached at the contact information provided below.

### Freight:

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

### Correspondence:

National Science Foundation  
c/o Antarctic Support Contract  
Post Office Box 338  
Port Hueneme, California 93041

### Telephone:

805-985-6851  
800-688-8606, x33601

### Fax:

805-984-5432

### Email:

PH-CargoOps@usap.gov

## Indirect Air Carrier

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 states that the shipment does not contain any unauthorized explosives, destructive devices, or hazardous materials. The Port Hueneme Operations manager is responsible for preventing the unauthorized addition of explosives or hazardous materials to contents. The unauthorized shipment of hazardous materials via air carriers subjects the shipper to a 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.

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

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Therefore, each container arriving at the Port Hueneme Operations facility is subject to inspection before it can be forwarded to Antarctica. Containers shipped with locking devices, such as padlocks, will also be inspected. Cargo will not be forwarded if the container cannot be opened. 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.

## South Bound Cargo Shipping

Subcontractors should send all shipments to Port Hueneme Operations for transport to Antarctica, as this is the most reliable method for the delivery and tracking shipments to USAP Stations. Cargo entering the USAP Cargo stream at Port Hueneme is assigned a Shipping Number in Maximo, which is used to manage the movement and staging of cargo, just as a FedEx number is used to track movement of material shipped by this mode. The Shipping Number can also be used for tracking and to identify the updated status of items in the cargo stream.

Subcontractors will have a designated staging area assigned at Port Hueneme for receipt, packing and staging of their cargo. The staging area is comprised of a 3,000 sq. ft warehouse portion and an outdoor portion which is scalable to the subcontractor requirements identified in the logistics plan. Contact Port Hueneme Operations before shipping any unique or unusual cargo, anything very large or unusually heavy, any odd-sized cargo, and any intermodal container cargo. Provide Port Hueneme Operations with shipping information so that they can prepare for receiving and trans-shipment. If any special handling is needed, Port Hueneme Operations will know the requirements that must be met. Call Port Hueneme Operations with any questions.

## Address for Cargo Shipments

Use the following address and information for cargo shipments to Port Hueneme. The information should be labeled on each box. Make sure this information is clear and legible.

### Example Address

The following is an example address from a fictitious subcontractor:

National Science Foundation  
c/o Antarctic Support Contract / AIMS  
Naval Base Ventura County  
5020 Stethem Road  
Building 471, North End  
Port Hueneme, CA 93043  
ATTN: USAP — ZCM  
DX1  
Contractor X  
AIMS  
7121

## Station Abbreviations and Station Project Codes

### 1. Station Abbreviations and Station Project Codes

Antarctic Station	Station Abbreviation	Construction Code	General Cargo Code
McMurdo Station	ZCM	DX1	DW1
Christchurch, New Zealand	CHC	DX9	DW9

Shipping cargo outside of the USAP to an Antarctic gateway, such as Christchurch, New Zealand, may encounter delays in customs inspections or other unforeseen reasons that are beyond USAP control. The NSF and ASC (Leidos) have instituted shipping procedures in order to reduce or eliminate delays in shipping materials to Antarctic research sites.

If shipping directly to a gateway destination is unavoidable, be sure to explain it to the appropriate Logistics POC. Follow their direction. They will advise the sender to contact the Port Hueneme Operations manager for further instruction.

## Shipping to Port Hueneme from Foreign Locations

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 required documentation 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.

Cargo consigned to the USAP at Port Hueneme will be re-exported from Port Hueneme, California (NBVC), which is covered by US Customs. To clear inspections by the Department of Homeland Security (DHS), make sure the Leidos obo National Science Foundation is listed as consignee for these shipments. Start Transportation Entry (T&E) shipments early enough to allow for occasional short delays, while the carrier arranges local delivery witnessed by US Customs officials.

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**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 the Department of Homeland Security (DHS) for delivery to NBVC.

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All cargo shipments from foreign countries to Port Hueneme, CA 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 from 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 YRC.

## 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 NZCS 213.

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**Note** Copies of New Zealand Customs Form NZCS 213 are available from the ASC Travel department. Be sure to have Form NZCS 213 completed before departure.

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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 NZCS 213 be the same person to clear the item through Customs.
  - If in possession of high-value technical equipment without Form NZCS 213, the individual (not the USAP) may be charged with import duties, fines, or the equipment may be seized.
- The individual deploying with the equipment is not required to accompany its return, as long as the form accompanies the goods.

## Direct Commercial Shipping

All subcontractors should use the NSF Port Hueneme facility for cargo shipments southbound to Antarctica, as this is the most reliable method for delivery and for tracking shipments to Antarctic research sites. Shipments may be made directly overseas.

Port Hueneme Operations must be contacted before shipping anything that may be very large or unusually heavy, any odd-sized cargo, loaded intermodal containers, and any unique or extremely valuable cargo. If intending to send a large volume of cargo, contact Port Hueneme Operations before commencement of shipment. Port Hueneme has several options and expert services to offer in USAP support. Be aware that they may need advance notice for support of special cargo. They may be able contact special carriers in your area.

Contacting Port Hueneme Operations before directly shipping cargo will help them locate and track the cargo during shipment. This also helps them prepare for receiving the cargo, in case any special handling is needed. It also helps process items that may need transshipment onward to the final destination.

In some situations, it may be more practical for cargo originating outside the United States to be shipped directly to New Zealand. In these cases, please consult with Port Hueneme Operations for advice and to coordinate delivery.

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**Note** Neither the NSF nor ASC (Leidos) is responsible for commercial shipments sent directly to these destinations.

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Recent changes in Transportation Security Administration (TSA) security policy may affect direct cargo shipments. Please consult the TSA website to determine if additional information or measures are required to ship cargo outside of the USAP supply chain. For more information, please refer to the Air Cargo Security Changes letter issued by the TSA, which is available at the following Internet address:

- [http://www.tsa.gov/sites/default/files/assets/pdf/Intermodal/newsletter\\_january\\_2013.pdf](http://www.tsa.gov/sites/default/files/assets/pdf/Intermodal/newsletter_january_2013.pdf)

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")

Preparing material for direct commercial shipping is the same as preparing for shipment in the USAP supply chain; refer to other sections in this manual.

Be sure to notify the USAP representatives at the destination that materials have been shipped to the addresses listed below. Ensure that the commercial invoice is included with the Bill of Lading, which outlines specific contents and dollar values. The appropriate paperwork must be received prior to the arrival of the cargo. The following information must be identified on all correspondence:

- Master Airway Bill Number (MAWB) (if applicable)
- Flight number
- Departure dates
- Bill of Lading numbers (COMSUR)
- Number of boxes
- Contents of each box
- Commercial value in US\$

It is strongly recommended that the shipper confirm receipt of all communications with the transportation terminals listed below.

## New Zealand

For shipments to New Zealand, please email [CHC-CourierNotifications@usap.gov](mailto:CHC-CourierNotifications@usap.gov) for advice and assistance. Forward the original paperwork for shipments to New Zealand to:

- Email: [CHC-CourierNotifications@usap.gov](mailto:CHC-CourierNotifications@usap.gov)

- Fax: +64-3-358-1479

Send to the attention of the Terminal Operations Manager.

Please ensure that a commercial invoice is included with the Bill of Lading, which outlines specific contents and dollar values. The appropriate paperwork must be received prior to the arrival of the cargo. The following information must be identified on all correspondence:

- Master Airway Bill (MAWB) number (if applicable)
- Flight number
- Departure dates
- Bill of Lading numbers (COMSUR)
- Number of boxes
- Contents of each box
- Commercial value in US\$

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**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.

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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

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**Note** All direct shipments must be sent Duty Delivery Paid (DDP).

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## North Bound Cargo Shipping

All northbound material moving from Antarctica is classified as retrograde. All requirements for packing, permits, approvals, and inspections, as explained in Packing & Shipping Instructions (TL-MAN-0002), also apply for retrograde cargo.

Subcontractors must keep in mind that the fact something was approved for shipment to Antarctica is no assurance that it will be approved for the return; not everything shipped down is automatically returned. Also, separate permits are often needed for each direction.

## Shipping from McMurdo Station

- The *Retrograde Cargo Form* (TL-FRM-0021) is required for all cargo.

After packing their retrograde cargo, subcontractors take all other paperwork (i.e., permits) required to the USAP Cargo Admin for processing. All retrograde cargo at McMurdo Station — NSF, contractor, or partners — is prepared for shipment by USAP Cargo. (Waste, recycled material, and resale items are not cargo, and are processed by the Waste Management department.) The USAP Cargo Supervisor plans retrograde cargo as early as possible. As noted

earlier, material planned for return to the US should be identified during the Logistics Plan review.

By default, retrograde cargo from McMurdo Station is loaded on the resupply vessel. With prior approval from the NSF, retrograde cargo may be shipped via USAP airlift and/or COMAIR. However, these methods have additional requirements, because the cargo travels through NZ. From there, it needs permits and customs forms to enter the United States. Retrograde cargo on the resupply vessel moves directly to Port Hueneme, which simplifies the US Customs and permit process.

Retrograde cargo is stored on station until transport is available.

Temperature Sensitive Cargo (TSC) to be transported on the resupply vessel is loaded in refrigerated MILVANS and stored until they are loaded on the vessel. During the voyage to Port Hueneme, the vessel crew or an USAP reefer technician monitors container temperatures and performs any reefer repairs capable while at sea. A USAP 40' spare parts container accompanies the resupply vessel and also is used as a work center by the reefer tech.

## **Shipping from Port Hueneme to Final Destination**

### **Notification**

Port Hueneme Operations utilizes Maximo and the Maximo shipping document to determine the Ship To and Final Location for retrograde cargo. Determining if ASC or the end user will pay for shipping cargo is also determined. Once cargo is ready to ship, the Port Hueneme Operations sends an email to the end user of the cargo to let them know that their cargo has arrived and is ready to ship. In addition, Port Hueneme provides the weight, dimensions, hazardous materials (HAZMAT) information, pick up, and ship to address, as well as pertinent additional information. The email requests verification of the Ship To address and that the return shipment is arranged by the end user, if they are responsible for shipping costs.

### **Shipping**

After the end user verifies the "Ship To" address, he or she provides Port Hueneme Operations a Bill of Lading (BOL) or and FedEx/UPS return shipping labels (if applicable) via email. For HAZMAT retrograde cargo, it is recommended the end users work with their institution's HAZMAT department or a freight forwarder of their choice to ensure that proper transportation regulations are followed.

If ASC is responsible for the shipping costs, Port Hueneme Operations creates the shipment, BOL, and shipping labels, and utilizes the most cost-effective and efficient carrier available. Note that shipping via a quicker means is often more cost effective. Tracking information is emailed to the end user and all pertinent personnel. In the event the cargo is too large to lift and load with a warehouse forklift, Port Hueneme Operations coordinates with Naval Base Ventura County (NBVC) material handling support to load into/onto the carrier's truck.

## Required Documentation

Provide the Port Hueneme Operations manager with a copy of the shipping information by email (PH-CargoOps@usap.gov) or fax. 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 should be created and attached to the outside of each box or emailed to PH-CargoOps@usap.gov. Be sure to do the following:

1. Describe the contents, especially any hazardous materials.
2. List the event number.
3. Use the Antarctic station abbreviation.
4. Indicate the required on-site (ROS) date and any temperature requirements or special handling needed.

Due to compliance regulations, the level of detail for the packing list has been increased. Information on the contents must include a detailed description of item, manufacturer part number, manufacturer and country of origin, US dollar amount (US\$) per item, and the total cost for all items. Please be as specific as possible to prevent any problems. This information is required for each item shipped within each box/crate/pallet/tote/etc. to be used by USAP personnel to create the Proforma invoice required by US Customs for export.

In the event that information is missing from the packing list, cargo may be delayed until the information is obtained. There are specific templates to be used depending on shipping situations. The templates are as follows:

- *USAP Southbound Cargo Packing List Form (TL-FRM-0004)*
  - This template is to be used by all subcontractors or their agents to ship southbound cargo to Antarctica.
- *USAP Northbound Cargo Retrograde Packing List Form (TL-FRM-0005)*
  - This template is to be used by all subcontractors to ship northbound or retrograde cargo from Antarctica not traveling on the annual resupply vessel. The only instance that the *USAP Northbound Cargo Retrograde Packing List Form* is not completed is if the final destination of the cargo is New Zealand.

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

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In addition, forward the electronic copies of the detailed packing lists in Microsoft Excel that were attached to each box that outline the contents of each package.

## Do Not Freeze

Some cargo cannot tolerate freezing. Some materials become very brittle when they get cold. Certain cargo cannot tolerate constriction or shrinkage that occurs at freezing temperatures. Some food stuffs will spoil if allowed to freeze. Some computer equipment or digital components can be ruined by freezing due to the extreme temperatures in Antarctica. Batteries and some chemicals can be rendered useless if subjected to these extreme temperatures.

The size restrictions on Do Not Freeze (DNF) cargo are as follows:

48" x 45" x 40" (L x W x H) 122 cm x 114 cm x 102 cm

This is roughly the size of a standard, tri-wall container used in the USAP Airlift. Larger DNF items may be shipped through the USAP Transportation system, but only with significant business justification provided in writing in advance. With that, further arrangements need to be made with the Port Hueneme Operations manager.

In addition to size restrictions, the 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 McMurdo.

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**Note** DNF cargo may be inspected at any point in the USAP Transportation system. Items will be segregated at the start of the logistics train in Port Hueneme to prevent repacking items once on the ice.

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After the DNF cargo is processed through Port Hueneme Operations, follow the procedures in the following sections to ensure that cargo is not damaged by freezing temperatures.

## Marking

For ready identification and continuity throughout the USAP Transportation system, mark temperature restricted items as DO NOT FREEZE (DNF).

Mark the box used for shipping DNF cargo by making a square field in black, with distinct white letters to say DO NOT FREEZE; or use appropriate DNF stickers. Mark DNF on all four sides — not on top or bottom.

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**Note** All IPPC markings must not be covered if wooden crates are to be painted to indicate DNF condition..

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Include all other cargo markings and required documentation.

## Southbound COMAIR

For 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 NZ, cargo is palletized and transported via the USAP Airlift. At McMurdo Station, DNF cargo is

placed in a temperature-controlled warehouse environment until delivered to the grantee or appropriate work center.

## **Southbound COMSUR**

Port Hueneme Operations loads all DNF cargo in an intermodal container, and manifests the container for surface vessel to Christchurch, New Zealand. Cargo is off-loaded from the ocean vessels in Port Lyttelton, New Zealand. On delivery to the Air Cargo Yard in Christchurch, DNF cargo is unloaded from the container, palletized, and transported to McMurdo Station via USAP airlift. On arrival at McMurdo Station, DNF cargo is placed in a temperature-controlled warehouse environment until delivered to the subcontractor's designated warm storage location.

## **Resupply Vessel**

Port Hueneme Operations loads all DNF cargo into refrigerated containers set at 4°C (39.2°F) to ensure temperature control while being transported on the resupply vessel. 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 the Marine Terminal supervisor to ensure that all DNF cargo has been identified. Cargo disposition is determined based on the following criteria, and distributed to the resupply vessel off-load team for full situational awareness.

Criteria for determining DNF cargo disposition:

1. Size and scope of cargo.
2. DNF storage capacity on station.
3. Number of refrigerated container power plug-ins on the resupply vessel, or stated 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 off-loaded 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 into the subcontractor's designated warm storage location.

## **Hazardous Material**

The shipper is responsible for declaring dangerous goods and for ensuring the proper packaging, marking, labeling, and documentation of the package. Failure to provide proper disclosure puts logistics personnel at risk and poses a danger to all aircraft and vessels throughout the system. Required information will include the UN number, proper shipping name, class/division, and net quantity, and may include the packing group, flashpoint, and type of specification packaging. Failure to identify hazardous material violates federal law, and holds penalties up to \$100,000 and ten years in jail. Identify and label all material being shipped, hazardous and otherwise. All hazardous materials must be accompanied by a SDS.

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**Note** Many common items used every day are considered hazardous material for shipment by aircraft and vessel. When in doubt, ask.

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The shipment of hazardous material through the USAP transportation system is supervised by the Hazardous Cargo supervisor at ASC Denver. For consultation or advice they can be reached at the following email address:

- USAP-Haz-Cargo-Questions@usap.gov

Messages to this email address are reviewed by the Hazardous Cargo supervisor and Port Hueneme Operations personnel to assist with shipments to Antarctica.

Participants planning shipments of hazardous cargo should consult *all* the following regulations:

- U.S. Code of Federal Regulations, Title 49, Parts 100-185 (49CFR), *Hazardous Materials Regulations*
- Air Force Interservice Manual (AFMAN) 24-204, *Preparing Hazardous Materials for Military Air Shipments*
- International Air Transport Association (IATA), *Dangerous Goods Regulations*
- International Maritime Dangerous Goods (IMDG) Code

Hazardous cargo should be prepared in accordance with the restrictions applicable to passenger aircraft.

## Packaging

Subcontractors are responsible for packaging materials for their project. Shipments made by a third party are still the responsibility of the subcontractor. Ensure that the third party is aware of precautions and requirements for hazardous materials.

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**Note** Packing lists must describe all materials used in packing hazardous items.

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Hazardous materials must be segregated by UN number and packaged separately from other cargo. There are nine hazard classes:

1. Explosives
2. Gases
3. Flammable liquids
4. Flammable solids
5. Oxidizers
6. Poisons
7. Radioactive material
8. Corrosives
9. Miscellaneous

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**Note** With the exception of some medicinal and toilet articles for personal use, hazardous materials may never be carried in baggage.

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Participants requiring assistance in preparing shipments may contact the Port Hueneme Operations manager or secure the services of a professional shipper.

## Shipping

When shipping hazardous materials (hazmat) internationally, packages may move through the system slowly due to the various regulations that restrict hazmat transportation. In order to ensure timely arrival of hazardous material, send them to Port Hueneme Operations as early as possible. Follow the dates for COMSUR as specified on the materials cut-off schedule described in Table 3: Required Delivery Dates to Port Hueneme.

## Waivers

Hazardous materials requiring packaging waivers for US military air shipment should be identified as soon as possible so that the Hazardous Cargo supervisor can start the *45-day process*. The US Air Force Materiel Command (AFMC) requires 30 days to process a waiver request. The Hazardous Cargo supervisor needs at least 15 days to research the request before applying for a waiver from AFMC.

Shippers are required to provide to the Hazardous Cargo supervisor all pertinent specifications concerning the hazardous material shipment, including the manufacturer's part number.

## Safety Data Sheet

Safety data sheets (SDSs) contain detailed information on materials, from generic name to specific chemical properties and emergency, first aid procedures. They are commonly available from manufacturers and vendors. Participants must ensure that this information is included with each shipment of hazardous material through the USAP transportation system.

This may be difficult with custom materials, which are purified or mixed individually, but a SDS is still required. Also, participants should maintain copies of each SDS shipped in case the original is not delivered to Port Hueneme Operations by the shipping agent.

## Examples of Hazardous Cargo

Many common items used every day are considered hazardous, and may be regulated for shipment by aircraft and surface vessel. When in doubt, contact Hazardous Cargo supervisor for clarification. Examples of hazardous cargo are described in Table 2.

**Table 3:** Examples of Hazardous Cargo

pyrotechnics and explosives	SCUBA cylinders (air)	fire extinguishers	aerosols and compressed gas cylinders
cryogenic liquids: oxygen (LOx), nitrogen (LN2), helium (LHe)		cigarette lighters and lighter fluid	kerosene and gasoline
methanol, ethanol, and isopropyl alcohol	acetone and benzene	paint, spray paint, paint thinner	some cleaning solvents and adhesives
ether, chloroform	carbon tetrachloride	hydrochloric acid, nitric acid, sulfuric acid	glutaraldehyde
formaldehyde	automobile batteries	ammonia	lithium batteries

This is not a comprehensive list, and is not intended to offer complete details — these are merely examples. Use this as a guide to help identify if a material is subject to regulation when placed in the transportation system.

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**Note** For help with identification and classification any hazardous material, contact the Hazardous Cargo supervisor at (800) 688-8606, ext. 32261. Or, contact the Port Hueneme Operations manager.

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### **Explosives**

Extremely dangerous, and an obvious hazard, explosives may still be transported to Antarctica. Prior planning is essential due to the need to check state, federal, military, and international regulations. Port Hueneme Operations is located on a US Naval base, and is not permitted to accept, receive, ship, or store explosives or any Class 1 hazardous materials. Deliveries of explosives will be refused and attempts are subject to fines.

Shipment of explosives must be coordinated in advance. Some explosive shipments need 12 months lead time or more. Please contact the Hazardous Cargo supervisor at (720) 568-2035 (toll free: 1 (800) 688-8606 ext. 32035), or ask the Port Hueneme Operations manager for more information.

### **Lithium Batteries**

Lithium battery shipments or shipments with items that contain charged batteries may overheat and ignite in certain conditions and, once ignited, may be difficult to extinguish.

#### ***Lithium Ion Batteries***

Lithium ion batteries are rechargeable batteries that are often found in the following:

- Cameras
- Cell phones
- Laptop computers

Effective 1 April, 2016 all lithium ion cells and batteries shipped by themselves (as defined in UN 3480) are forbidden for transport as cargo on passenger aircraft.

All packages containing lithium ion batteries must be prepared in accordance with Packing Instruction 965, Section IA, IB and must bear a label indicating “Cargo Aircraft Only” in addition to existing labels. Lithium ion cells and batteries must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity. Cells and/or batteries at a SoC of greater than 30% may only be shipped with the *approval of the State of Origin and the State of the Operator*, under the written conditions established by those authorities.

#### ***Lithium Metal Batteries***

Lithium metal batteries are non-rechargeable batteries that are designed to be discarded.

All lithium metal cells and batteries shipped alone (as defined in UN 3090) are forbidden for transport as cargo on passenger aircraft. All packages prepared in accordance with Packing Instruction 968, Section IA, IB and II must bear a label indicating “Cargo Aircraft Only” in addition to existing labels.

### **Basic Packaging Requirements**

Table 3 outlines the basic packaging requirements for lithium batteries according to Packing Instruction 965

**Table 4:** Basic Packaging Instructions for Lithium Batteries

<b>Requirement</b>	<b>Description</b>
Section IA	<p>Cells and batteries must be placed in inner packaging that completely enclose the cell or battery and then tightly packed in an outer packaging. The completed package for the cells or batteries must meet the Packing Group II performance standards.</p> <p>Batteries with a weight of 12 kg or greater and having a strong, impact-resistant outer casing may be transported when packed in strong outer packaging or protective enclosures (e.g., in fully enclosed or wooden slatted crates).</p> <p>Batteries manufactured after 31 December 2011 must be marked with the Watt-hour rating on the outside case.</p>
Section IB	<p>Cells and batteries must be packed in inner packaging that completely enclose the cell or battery. To provide protection from damage or compression to the batteries, the inner packaging must be tightly packed in a strong rigid outer packaging.</p>
Section II	<p>Cells and batteries must be packed in inner packaging that completely enclose the cell or battery. To provide protection from damage or compression to the batteries, the inner packaging must be placed in a strong rigid outer packaging of one of the packaging.</p> <p>A shipper is not permitted to offer for transport more than one (1) package prepared according to Section II in any single consignment. Not more than one (1) package prepared in accordance with Section II of PI 965 may be placed into an overpack. The lithium battery handling label and Cargo Aircraft Only must be visible.</p> <p><i>A Shipper's Declaration for Dangerous Goods is not required.</i></p>

For lithium batteries packaged according to Section 1B or Section II, each consignment must be accompanied with a document that indicates that the package contains lithium ion cells or batteries. Additionally, the following must be followed:

- The package must be handled with care and that a flammability hazard exists if the package is damaged.
- Special procedures must be followed in the event that the package is damaged, including inspection and repacking if necessary.
- The package must include a telephone number for additional information.

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**CAUTION** Recalled or defected lithium batteries are forbidden for air transport.

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## Radioactive Materials, New Zealand

Shipment and use of radioactive materials in Antarctica requires strict adherence to a Memo of Understanding between the NSF and the Nuclear Regulatory Commission (NRC) for US Antarctic policies and procedures in order to avoid contaminating the Antarctic environment and to ensure safety. Approval by the NSF Office of Polar Programs (NSF/OPP) to use any type of radioisotopes in Antarctica must be obtained in advance, before any radioactive material is shipped south. Contact the ASC (Leidos) Logistics POC for further information on this process. A hard copy of the NSF/OPP Radioisotope Authorization (NSF form 1368) should accompany all radioactive material shipments to and from Antarctica.

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**Note** General Contractors are responsible for procuring, packaging, documenting, transporting, and retrograde movement of all radioactive materials and radioisotopes required for research.

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The Radiation Safety Officer (RSO) for each company can specify the requirements for the radioisotope, radioactive substance, or radioactive emissions to be shipped to ensure compliance with state, national, and international regulations pertaining to packaging and shipping. For further information, the RSO may consult with the Hazardous Material (HazMat) Specialist, Christchurch, New Zealand, by email ([hazmat@usap.gov](mailto:hazmat@usap.gov)) or by fax (+64-3-358-1479) for shipments to and through New Zealand. When shipping radioactive materials, or having them consigned from a vendor, please ensure that material is packaged within category Yellow-II, that it does not exceed a transport index of 1.0, and that any Yellow-III packages do not exceed a transport index of 3.0.

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**Note** It is against the law to hand carry radioactive materials into New Zealand.

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The HazMat Specialist, Christchurch, New Zealand, must receive import documents five (5) business days before radioisotopes are received in New Zealand, whether being shipped to the country, or transshipped through to Antarctica. Accordingly, if vendors are planning to ship radioisotopes directly to New Zealand, all orders must be marked by the vendor as follows:

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

The Project or Event number and principal investigator (PI) name must be included in the shipping instructions so that the HazMat Specialist in Christchurch will know to whom to consign the shipment in Antarctica.

After the order is placed with the vendor, notify the HazMat Specialist in Christchurch. Notification in writing may be made by email ([hazmat@usap.gov](mailto:hazmat@usap.gov)) or fax (+64-3-358-1479), and include the information identified in the next sections.

### Unsealed

Radioactive items that are not an integral part of equipment must include the following information:

- Radioactivity per item
- Number of items
- Description of radioactive material
- Country of origin
- Expected departure date from country of origin. Include country name (e.g., United States)
- Arrival in New Zealand

### **Sealed**

Radioactive items that are an integral part of the instrument or equipment must including the following information:

- Radionuclide
- Activity per item
- Number of items
- Year of manufacture (if known)
- Serial number (if known)
- Instrument type (if part of an instrument or other equipment)
- Model
- Country of origin
- Expected departure date from country of origin (include country name)
- Arrival in New Zealand

It is also a requirement to follow up with written confirmation for any radioactive compounds or radioisotopes being shipped. The Airway Bill (Bill of Lading), flight numbers, and any special handling instructions need to be provided as soon as the shipment is confirmed. Include any special handling, such as Keep Frozen (KF) or Do Not Freeze (DNF).

When received in Christchurch, the HazMat Specialist consigns the shipment to the PI on station or research vessel. Contact the HazMat Specialist in New Zealand with any questions using the following information:

### **Terminal Operations Cargo Coordinator**

PAE (New Zealand) Limited

Tel: +64-3-358-1471

Fax: +64-3-358-1479

Cell: 027-4357731

Email: hazmat@usap.gov

## **Cargo Damage, Insurance, and Customs Inspections**

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

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

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**Note** Claims for lost or damaged shipments will be considered if the ASC contractor is found to be grossly negligent during handling and shipping.

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All participants are highly recommended to obtain their own insurance. It is also highly encouraged to use some type of rough handling indicator 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](http://www.uline.com/BL_1053/Shockwatch)

## Reporting Discrepancies to include incidents, damage or loss

Any discrepancy found during shipping or on receipt of cargo should be reported using the *Cargo Disposition Report* (TL-FRM-0035). Cargo damage must be reported as soon as found. Make reports directly to the T&L Logistics POC assigned to the subcontractor. 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. Send an email with attached digital pictures to the ASC Logistics POC. Material or cargo that never arrives (loss), or that is not available as scheduled, should also be reported in an email.

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

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Each report of damage or loss is investigated to determine the extent of damage, the cause of damage and, if possible, 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

General Contractors are responsible for insuring their own 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 — 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 value.

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

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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 retrograde return 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 very important.

### **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](http://www.bis.doc.gov))
- US Department of State ([www.pmddtc.state.gov](http://www.pmddtc.state.gov))
- Nuclear Regulatory Commission ([www.nrc.gov](http://www.nrc.gov))
- Bureau of Alcohol, Tobacco, Firearms, and Explosives ([www.atf.gov](http://www.atf.gov))
- US Food and Drug Administration ([www.fda.gov](http://www.fda.gov))
- US Drug Enforcement Administration ([www.justice.gov/dea](http://www.justice.gov/dea))
- US Fish and Wildlife Service ([www.fws.gov/international](http://www.fws.gov/international))
- US Department of Agriculture ([www.usda.gov](http://www.usda.gov))
- USDA Animal and Plant Health Inspection Service ([www.aphis.usda.gov](http://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 in lieu of padlocks. Any container may be inspected at any point in the transportation chain; serialized seals will be replaced if removed for inspection.

## **Shipping Dates**

Pre-shipment planning is essential to timely material delivery in Antarctica. Advanced planning can help to reduce USAP transportation costs, while improving the probability of on-time delivery.

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**Note** Allow an additional 15 days lead time for hazardous or oversized materials in order to make each required delivery date (RDD).

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Please note that the material cut-off schedule changes as the vessel schedules are adjusted. Before shipping materials to Port Hueneme, please confirm the required material cut-off dates with the appropriate logistics POC.

Cargo enroute might be checked through Port Hueneme Operations.

## Required Delivery Date, Continental Area

Schedule a required on-station (ROS) date, which then determines when the required delivery date (RDD) must be met in Port Hueneme, CA to arrive in Antarctica on time.

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

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Table 4 shows the ROS dates and RDD for cargo shipments during the 2016-2017 field season. Cargo that does not arrive within these prescribed guidelines may require COMAIR shipment. Shipping COMAIR is expensive and requires NSF approval.

**Table 5:** RDD Continental Area

Required Delivery Date (RDD) to Port Hueneme	ROS date	ROS number
6 July 2016	20 August 2016	6233
24 August 2016	8 October 2016	6282
31 August 2016	15 October 2016	6289
7 September 2016	22 October 2016	6296
14 September 2016	29 October 2016	6303
21 September 2016	5 November 2016	6310
28 September 2016	12 November 2016	6317
5 October 2016	19 November 2016	6324
12 October 2016	26 November 2016	6331
19 October 2016	3 December 2016	6338
26 October 2016	10 December 2016	6345
2 November 2016	17 December 2016	6352
9 November 2016	24 December 2016	6359
16 November 2016	31 December 2016	6366
23 November 2016	7 January 2017	7007
30 November 2016	14 January 2017	7014
7 December 2016	21 January 2017	7021
14 December 2016	28 January 2017	7028
21 December 2016	4 February 2017	7035
28 December 2016	11 February 2017	7042
4 January 2017	18 February 2017	7049

## Baggage

Frequently confused, “baggage” is distinctly different from “cargo.”

Subcontractors are responsible for all commercial airline baggage costs incurred by their staff.

Regardless of the baggage allowance on regular commercial airlines, standard checked baggage on flights from Christchurch to Antarctica is 39 kg (85 lbs.) of personal. The total includes luggage, personal equipment, and extreme cold weather (ECW) gear issued.

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**Note** Wear or carry boots, bibs, parka, goggles, and gloves on all flights to and from Antarctica.

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Weight limits are strictly enforced from Christchurch to McMurdo Station

### Hazardous Material

Hazardous materials and restricted substances are strictly forbidden in baggage, and may not be carried in checked baggage or carry-on luggage.

Military flights are no exception. Typically, if an item can be carried on a commercial airline in the U.S., it can be carried on the flight to Antarctica.

## Feedback and Contacts

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

The following are the points of contact (POCs) for issues concerning Logistics:

- Transportation and Logistics Manager
- USAP Logistics Manager
- Port Hueneme Operations Manager
- Antarctic Terminal Operations (ATO) Manager
- USAP Cargo Supervisor
- Peninsula Logistics Manager
- Leidos International Trade Compliance Office

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

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### Port Hueneme

Freight contact address:

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

Correspondence address:

National Science Foundation  
c/o Antarctic Support Contract  
Post Office Box 338  
Port Hueneme, California 93041

Port Hueneme telephone contacts:

- Direct: (805) 985-6851
- Toll free: (800) 688-8606; x33615, x33619, and x33601
- Fax: (805) 984-5432
- Email: PH-CargoOps@usap.gov

## US Customs

U.S. Customs Office  
Treasury Department  
2100 K Street, N.W.  
Washington, D.C., 20037

## US Freight Carriers

Table 6 lists the contact numbers for freight forwarders in the USAP transportation system.

**Table 6:** 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: 973.610.0826

## 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

## References

### Supporting Documents

Refer to the following documents when completing these instructions:

- *Antarctic Conservation Act* [www.nsf.gov/od/opp/antarct/aca/aca.jsp](http://www.nsf.gov/od/opp/antarct/aca/aca.jsp)
- *Certificate of Registration of Foreign Manufactured Item* U.S. Customs form 4455
- *Transportation Entry and Manifest of Goods Subject to CBP Inspection and Permit* U.S. Customs form 7512  
[http://forms.cbp.gov/pdf/CBP\\_Form\\_7512.pdf](http://forms.cbp.gov/pdf/CBP_Form_7512.pdf)
- *Declaration for Free Entry of Unaccompanied Articles* U.S. Customs form 3299  
[www.cbp.gov/xp/cgov/toolbox/forms/](http://www.cbp.gov/xp/cgov/toolbox/forms/)
- *New Zealand Customs Form NZCS 213* [www.customs.govt.nz/](http://www.customs.govt.nz/)
- *Ministry for Primary Industries (MPI)* [www.biosecurity.govt.nz](http://www.biosecurity.govt.nz)
- *Participants Guide* NSF 06-52
- *Radioisotope Authorization* NSF form 1368

### Standards and Guidelines

- AFMAN 24-204 *Preparing Hazardous Materials for Military Air Shipments*
- CFR Title 49 *Transportation*
- FAR Part 44 *Government Property*
- *GAO Standards for Internal Control in the Federal Government*
- International Air Transport Association *Dangerous Goods Regulations*
- International Air Transport Association *Packaging Instructions 202*
- *International Maritime Dangerous Goods (IMDG) Code*
- MIL-STD-2073-1 *Packaging Requirement Code (PRC)*
- OMB A-123 *Management's Responsibility for Internal Control*
- United States Code, Title 49 *Parts 100-185 Hazardous Materials Regulations*
- 22 CFR §120-130 *International Traffic in Arms Regulations*
- 15 CFR §730-774 *Export Administration Regulations*

- 10 CFR §0-30 *Nuclear Regulatory Commission*
- 21 CFR §1-1299 *Food and Drug Administration*
- 21 CFR §1300-1399 *Drug Enforcement Agency*

## Related Internal Documents

- *Cargo Disposition Reporting Procedure (TL-SOP-0004)*
- *Cargo Disposition Report (TL-FRM-0035)*
- *Shipping Retrograde Cargo (TL-MAN-0010)*
- *Port Hueneme Operations Manual (TL-MAN-0001)*
- *USAP Southbound Cargo Packing List Form (TL-FRM-0004)*
- *USAP Northbound Cargo Retrograde Packing List Form (TL-FRM-0005)*
- 
- *New Zealand High-value Good Declaration (TL-FRM-0094)*

## Records

Table 7 describes the records that result from the processes described in this manual.

**Table 7:** Records

Record ID (& Owner)	Format & Location	Protection & Retrieval	Retention & Disposition
<i>USAP Southbound Cargo Packing List (TL-FRM-0004)</i> Owner: PTH Operations Manager	Hard copy kept at ASC in Port Hueneme, CA. Electronic copy on PTH J:\drive.	Kept in a filing cabinet. Retrieved per request to USAP Cargo Supervisor.	Retained for one year and then destroyed.
<i>USAP Northbound Cargo Retrograde Packing List (TL-FRM-0005)</i> Owner: USAP Cargo Supervisor	Hard copy kept at ASC Denver. Electronic copy on the ATO J:\drive.	Kept in a filing cabinet. Retrieved per request to USAP Cargo Supervisor.	Retained for one year and then destroyed.

## Appendices

This document contains the following appendices:

- Appendix 1: Methods for Shipping Cargo
- Appendix 2: Transportation Costs and Planning
- Appendix 3: Vessel Required Delivery Dates

## Glossary

Refer also to the list of approved terms posted to the Intranet:

<http://denverhq.usap.gov/EmpResources/sctnGlossary.cfm>

### **AIMS**

**Antarctic Infrastructure Modernization for Science**

### **AFMAN**

Air Force Joint Manual

### **AFMC**

USAF Material Command

### **APHIS**

Animal and Plant Health Inspection Service of the US Department of Agriculture

### **ASC**

Antarctic Support Contract

### **ATO**

Antarctic Terminal Operations

### **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.

### **CHC**

Christchurch, New Zealand

### **CITES**

Convention on the International Trade in Endangered Species  
See <http://www.cites.org/>

### **COMAIR**

Commercial Air  
Material or supplies transported via commercial aircraft, rather than USAP subcontractor (ANG, Kenn Bork Air Ltd., etc.). This is the most expensive shipping method for the USAP. Please avoid whenever possible. Advance authorization from the NSF is required for all COMAIR shipments.

### **COMSUR**

Commercial Surface  
Cargo transported by a commercial shipping line, usually an ocean-going vessel.

### **Continental Site**

Any USAP site throughout the Antarctic continent.  
Typically, transit occurs through Christchurch, NZ, to McMurdo Station; from there, 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 (LMCO).

**DDP**

Duty Delivery Paid

**DHS**

Department of Homeland Security

**DNF**

Do Not Freeze

**DOD**

Department of Defense

**DOT**

US Department of Transportation

**ECW**

Extreme Cold Weather Gear  
Issued for deployment.

**FAA**

Federal Aviation Administration

**FAR**

Federal Acquisition Regulation

**HazMat**

Hazardous Material

**HBCF**

Hydrobromochlorofluorocarbon  
An organic compound damaging to the ozone layer.

**HCFC**

Hydrochlorofluorocarbon  
An organic compound damaging to the ozone layer.

**IATA**

International Air Transport Association  
These regulations on dangerous goods govern commercial hazardous material transport.

**ICAO**

International Civil Aviation Organization

**IMDG**

International Maritime Dangerous Goods

**IPPC**

International Plant Protection Convention

**ISO**

International Organization for Standardization

**ISPM**

International Standards for Phytosanitary Measures

**KC**

Keep Chilled

**KF**

Keep Frozen

**MAWB**

Master Airway Bill

**Maximo**

Software solution provided by IBM Company which 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.

**MCC**

Movement Control Center

**MPI**

Ministry for Primary Industries, in New Zealand

**MPSM**

**McMurdo, Palmer, South Pole Modernization**

**NBVC**

Naval Base Ventura County  
Located at Port Hueneme, California.

**NRC**

Nuclear Regulatory Commission

**NSF**

National Science Foundation

**OMB**

Office of Management and Budget

**OPP**

Office of Polar Programs

**Oversized Cargo**

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.

**Continental:** Cargo that is more than 124" L, 96" W, 62" H. No specific weight limit. However, very heavy items may be moved overland from Auckland to Christchurch without an expedite fee.

**PAX**

Passengers

**POC**

Point Of Contact

The individual or office used to centralize input and exercise control over a project. For most events, this will be the Science Planning Manager.

**RDD**

Required Delivery Date

The deadline for cargo intended to arrive at Port Hueneme in order to be further shipped via USAP resources. Please refer to the Required Delivery Dates to Port Hueneme section in this document to determine the date which cargo needs to be received in Port Hueneme.

**ROS**

Required On Site

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.

**RSO**

Radiation Safety Officer

**SAAM**

Special Assignment Airlift Mission

**SCUBA**

Self-contained Underwater Breathing Apparatus

**SDS**

Safety Data Sheet

**Shipping Number**

A field in IBM 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.

**SoC**

State of Charge.

**SOPP**

SPAWAR Office of Polar Programs

**SPAWAR**

Space and Naval Warfare Systems Command

This USN support contractor provides services to the NSF supporting communications, navigation, and air traffic management for the USAP.

**T&E**

Transportation Entry

A shipping form: *U.S. Customs Transportation Entry form 7512.*

**T&L**

Transportation and Logistics Division

**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

**WPM**

Wooden Packaging Material

**ZCM**

National Weather Service airfield designator for McMurdo Station

DRAFT

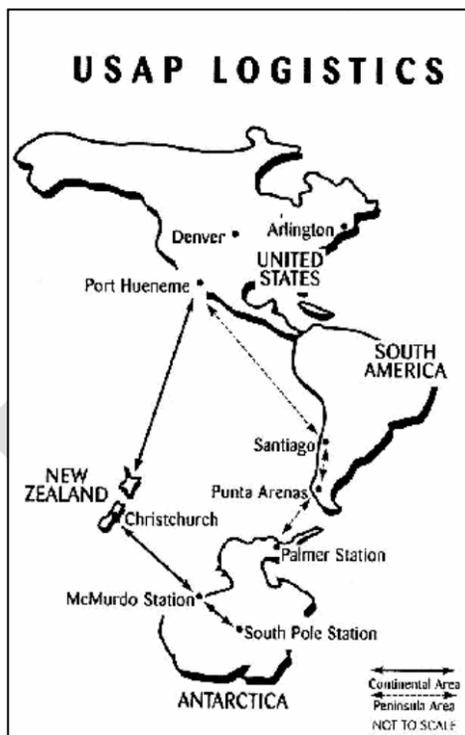
## Appendix 1: Methods for Shipping Cargo

Unless otherwise directed by the NSF, ASC (Leidos) will determine the mode of transport based on when the cargo is received and what is available at the time. 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. Often referred to as “The Vessel,” it leaves from Port Hueneme, CA and arrives at McMurdo Station in February. Considering all methods of transport to Antarctica, the annual resupply vessel is most cost effective and preferred method.

The vessel returns to Port Hueneme for retrograde offload in mid-March. The onward shipment of scientific materials and samples is first priority. Shipping via the resupply vessel should be the first option considered for cost and the ability 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. This is a primary and cost-effective transportation mode. 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, it requires prior approval from the NSF.

### USAP Airlift

Special Assignment Airlift Mission (SAAM) flights are USAF cargo planes chartered by the

USAP to transport oversized or perishable cargo, like helicopters and liquid helium. SAAM flights typically start at the beginning of the austral summer. Special coordination is required for all SAAM flights, and they are expensive. Do not plan to send cargo by SAAM; there is no guarantee a SAAM flight will be available.

## 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 8. Contact the Port Hueneme Operations manager with any questions about lead times for special handling.

**Table 8:** Costs and Planning

Transport Mode	TO:	Transit Time	Cost	Lead Time	Advantage
<b>COMSUR</b> Container ship. Break-bulk cargo too large for containers.	Christchurch, New Zealand	25 Days	<b>US\$ 1.13</b> per pound	<b>45 days</b> Due in Port Hueneme 35 days before ROS date.	Cost is less than other modes. Still more expensive than the Resupply vessel.
<b>COMAIR</b> Commercial airline Cargo moved by freight handler or as freight on regular flights.	Christchurch, New Zealand	2 to 6 days	<b>US\$ 5.05</b> per pound	<b>7 to 10 days</b> Due Port Hueneme 7 to 10 days before CHCH.	Most expensive shipping. Quickest delivery. Provides goods on short notice. Oversized items sometimes go thru Chicago, and can take weeks as air freight.
<b>Resupply Vessel</b> Chartered vessel moving from Port Hueneme, CA to Lyttelton, NZ, to McMurdo Sta.	Port Lyttelton, New Zealand	17 days	<b>US\$ 0.45</b> per pound	ALL DUE Port Hueneme 1 December	Most cost effective shipment. Move containers and bulk cargo at same time. Move oversized and overweight cargo at no added cost.
	McMurdo Station	5 to 6 days (23 days to McMurdo)			
Vessel offloads cargo at McMurdo; loads retrograde and recycle for return trip.	Retrograde to Port Lyttelton	6 to 10 days, depending on reload.	US\$ 0.30 per pound	ALL DUE McMurdo Station 31 January	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			

**Table 8 (continued):** Costs and Planning

<b>Transport Mode</b>	<b>TO:</b>	<b>Transit Time</b>	<b>Cost</b>	<b>Lead Time</b>	<b>Advantage</b>
<b>USAP Airlift</b> Contract airlift NZ to McMurdo, then to South Pole and deep field camps.	McMurdo Station	6 – 8 hours, depending on aircraft.	N/A	<b>7 Days</b> Due in CHCH 7 to 10 days before ROS date McMurdo.	Move passengers (PAX) and cargo between CHC and McMurdo Station.
Retrograde and Redeployment	Christchurch, New Zealand	6 – 8 hours, depending on aircraft.	USAP subcontract	<b>7 Days</b> Due in McMurdo 7 to 10 days before flight to CHCH.	Move PAX and cargo back to NZ at end of season.

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## 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 Table 9 below for resupply vessel RDDs to McMurdo Station. All projects must have cargo to Port Hueneme NLT than 1 December.

**Table 9:** Vessel Delivery Dates and Priority for McMurdo Station

	<b>RDD Pt. Hueneme</b>	<b>Required On Site</b>	<b>ROS</b>
Life, Health, Safety Critical	9 November 2016	21 January 2017	<b>7121</b>
Food Requisitions	1 November 2016	21 January 2017	<b>7121</b>
Mission Critical	9 November 2016	21 January 2017	<b>7122</b>
Mission Essential	9 November 2016	21 January 2017	<b>7123</b>
Mission Important	9 November 2016	21 January 2017	<b>7124</b>
MCM VSL Project Requests	1 December 2016	21 January 2017	<b>7124</b>