

# Cargo Operations

CARGO OPS

# Peninsula Cargo Operations

## Overview

Field teams preparing to set up camps on the Peninsula will be transported by the research vessels (NBP and/or LMG). Once at the site, team members and cargo are transferred via small inflatable boat or landing craft.

Team members should contact the ASC science project implementer or marine laboratory technician (MLT) if they foresee any changes in the cargo and sample shipments planned for the end of the field season.

## Cargo Requirements

### Weight and Dimensions

Cargo is transferred from the vessel to the small watercraft via crane and cargo net. In general, all cargo should fit within a four-foot by six-foot space in the net, and it should not be stacked higher than four feet. Loads should be balanced, and poles, picks, and long and/or sharp objects should be handed down separately. Larger equipment should be discussed in advance with the implementer and ASC Marine operations staff. The marine technicians or Peninsula field supervisor will ensure cargo loads are of the appropriate weight and size.

Cargo needs to be weighed before field deployment, with the weight written on duct tape and adhered to the package or equipment. Individual items should not be more than 30 pounds. It is very difficult to transport cargo through waist-deep water, especially in a surf zone and/or on a beach that could be rocky and icy. Packing cargo so it is smaller, lighter, and more easily handled may create more packages, but will make the loading and unloading at the shore much safer and smoother.

### Waterproofing

Depending on the field site and sea conditions, the trip from vessel to field site can be very wet. All sensitive cargo should be wrapped in heavy plastic trash bags or packed in watertight packages, such as dry bags, five-gallon buckets with sealed lids, or sealed and taped Rubbermaid tubs. Note that plastic bags are very slippery when wet and could easily be dropped into the sea. Extra care should be taken when handling bagged items.

## Labeling

All cargo requiring special handling should be clearly marked, such as “Liquid”, “Fragile”, or “Do Not Freeze.” For safety reasons, hazardous cargo must be clearly marked as such, with special handling requirements included. All items also need to have the weight clearly noted on the packaging.

In addition, cargo labels should include a general description and/or camp location (e.g., “kitchen,” “personal,” “science equipment,” “power supplies”). This will assist with sorting cargo efficiently at camp, especially when handled by volunteers from the ship who may not know how the cargo was packed.

## Hazardous Cargo on Vessels

All hazardous cargo should be loaded separately and stored in designated areas aboard the ship while en route to the field camp. Hazardous chemicals will be stored in a hazmat locker. The MLT will oversee storage of these items.

Liquid fuel containers (drums or jerry cans) must have the type of fuel written on them in indelible marker. A hazardous-cargo shipping label must also be affixed to the container. Fuel containers are usually stowed in a special rack on the 01 deck of the vessel. Depending on the number of containers and on vessel space limitations, the captain may authorize other areas.

Propane tanks and other pressure vessels should be in good condition and free of rust or damage. The ship’s captain has the authority to deny loading for any pressure vessel deemed unsafe for transport.

When field parties return hazardous cargo from the field, it must be properly packaged and labeled. Preserving the packaging, labels, and paperwork generated for the cargo’s field deployment makes it easier to prepare it for return shipping or entry into the USAP logistics stream.

## Shipping Cargo and Samples to the U.S.

Cargo slated for return to the U.S. is called retrograde cargo. This includes samples and grantee-owned equipment. The individuals generating retrograde cargo must be the ones to pack it, and a unique shipping number must be assigned to each package or item. For each item or container shipped from a vessel, a TCN

is generated in the MOCA database (see pages 6-7: Camp Gear Return Procedures). The marine laboratory technician (MLT) will instruct grantees how to use MOCA and provide guidance regarding proper cargo packing and documenting. As equipment is packed, grantees should prepare a list of TCNs, along with an inventory list for each one.

For items shipped from Palmer Station, a shipment notification must be sent to Palmer Logistics personnel, and they will assign a shipping number (not a TCN) from the Maximo materials management database. A proforma is required for each retrograde item, regardless of its origin.

## Sample Shipment

Science samples from Peninsula-based vessels and Peninsula field camps enter the cargo stream via the MOCA program, much like retrograde cargo. Vessel-based or field camp grantees can receive the same assistance from the project implementer and/or the MLT. At Palmer Station, Maximo is used in place of MOCA. Palmer Logistics personnel can help Palmer Station grantees determine how best to package samples, and they will assign a unique shipping number to each sample shipment.

Science samples require extensive and complete documentation, some of which must be obtained before deployment. Take great care in organizing the documentation; shipping samples from Antarctica, particularly from the Peninsula, can be a complicated process.

Researchers should have informed ASC Logistics during pre-deployment planning of any temperature-sensitive sample requirements. Make sure to discuss these requirements again once arriving in Antarctica. Palmer Station researchers should speak with Palmer Logistics personnel. Field camp or vessel-based researchers should contact the MLT or project implementer.

All science samples must be submitted to Logistics personnel at least 72 hours (or whatever is feasible, in the case of Peninsula field camps) before departing Palmer Station or the USAP vessel.

## Grantee Tasks in Punta Arenas

Researchers must pack “Keep Frozen” and “Keep Chilled” samples the first day the ship is in port. In addition, they must assist in unpacking and cleaning all field camp gear. This may take one or two full days. Researchers must plan accordingly.