

Appendix 1

Detailed Recommendations and Considerations for Working in Foreign Ports and Obtaining Marine Science Research Clearances

The UNOLS Logistics Working Group investigated a number of key topics related to U.S. Academic Research Fleet (ARF) vessel operations in foreign waters and ports, and how these activities should be approached, starting from the proposal writing stage through to completion of the field work. This Appendix provides more extensive details about topics that are briefly mentioned in the Logistics Working Group White Paper, and the recommendations are formulated to be generally applicable to a broad cross-section of sea-going oceanographic studies.

We recommend that UNOLS publish these materials by posting them on its website and sending these documents electronically to the full membership mailing list. In addition, detailed information and updates about foreign countries with particularly complex clearance, visa, shipping and other procedural requirements will be organized as separate Appendices. We recommend that UNOLS facilitate access to this type of information by the oceanographic research community and ARF vessel operators as soon as possible. A means for periodic updating of the information on the UNOLS website, along with notification of updates to the community via electronic mail should be discussed by relevant UNOLS standing committees.

A1. Considerations for Proposal Budgeting and Logistics Planning

Effective cruise preparation starts at the proposal stage where logistics are laid out and costs budgeted and reference made to in-country collaborators and/or facilitators that can assist with the various clearances required. Budgetary considerations should include the following key topics:

- **Shipping, logistics, customs, clearance processes.** A credible budgeting effort to allow for shipping science equipment to/from a research vessel in a foreign port (and the various activities associated with complex shipments) is essential at the proposal submission stage. When selecting start/end ports for their field work in foreign waters, PIs should not assume that equipment can be loaded on a vessel in a U.S. port prior to arriving in foreign work areas. Field program planning at the proposal stage should include contingencies and allowances for the need to ship science equipment to/from foreign ports. However, it is recommended that ARF operators pay close attention to the shipping and equipment requirements for cruises in foreign waters during the scheduling process.
- **Foreign collaborators and observers and any costs involved with their participation.** Foreign collaborators are extremely valuable for their local knowledge and relationship with government organizations that are involved in approving and issuing Marine Science Research (MSR) clearances. Some countries are known to require this type of



collaboration as a precondition for approving an MSR clearance. Scientists proposing data collection in foreign-waters should be certain of country-specific requirements and provide supporting letters and/or other documentation with their science proposals so that this important aspect of data collection is well established for reviewers and program officers. Foreign observers, on the other hand, are individuals selected by the foreign government agency granting the MSR clearance to be official representatives onboard during operations in foreign waters. Scientists should budget for the participation of both collaborators and observers.

- **Shipment and storage of equipment and hazardous materials (hazmats).** Anticipating any regulatory or safety protocols related to shipping equipment or hazmats to foreign ports is essential to avoiding possible delays or customs problems. Arranging for contingency options is also important so that essential equipment or supplies do not delay the cruise. This may include contacting collaborators in that country that may be able to locally source supplies or consumables (e.g., chemicals, gases, etc.) in order to avoid having to ship them. It is especially important to have contingency plans for specialty gases and supplies which are less likely to be found in foreign countries.
- **Sample storage onboard during the cruise and return-shipping of equipment and samples post cruise.** Proposal budgets should reflect the plan for sample shipments. In many instances, an oceanographic cruise can be multidisciplinary and involve numerous PIs each with individual sample storage needs. Storing samples on board the research vessel until it can reach a U.S. port after multiple port stops in foreign ports may not be possible. Again, this aspect of science coordination with ARF logistics and planning should be considered in the scheduling process.
- **Other costs not normally covered by vessel operators.** In some cases, costs associated with particular equipment or facilities to be loaded onboard an academic research vessel that are essential for the proposed science program may not be covered by the vessel operator. It is very important to discuss this with prospective vessel operators so that proper budgeting and any engineering required can be taken care of well in advance of the cruise and factored into the logistics required to accomplish the research objectives.

A.2 General Pre-Cruise Planning

Early and substantive cruise planning is key for organizing cruises that require foreign ports and as well as data collection in foreign waters. Cruise planning is a collaborative process between scientists and vessel operators, which should include discussions of all or most of the following topics. It is also important that there be good documentation, communication and follow-up of key action items related to cruise planning between scientists using the vessel (especially if there are multiple science groups on a cruise), and between vessel operators and shipboard technical support groups.



- As soon as a cruise with a foreign port or a foreign research clearance is assigned to a vessel, the Operator and the PI(s) should start the cruise planning process by sharing information regarding shipping and logistics (e.g., freight-forwarders, agents) and requirements for visas and MSR clearances.
- In cases where a cruise requires stops in foreign ports or requires a MSR clearance, the vessel operator should strive to conduct a pre-cruise meeting 6-9 months prior to the start of the cruise. In the case of particularly complex cruise arrangements and host country visa/clearance requirements, discussions regarding these specific issues may need to begin earlier than 9 months.
- Wherever possible, updated detailed information about shipments, reputable agents in foreign ports, and foreign clearances should be available on both the UNOLS website as well as websites of ARF vessel operators. The operating institution should make every effort to make this critical information easy to access, but this does not remove the primary responsibility of the scientist(s) involved to get the necessary information and follow proper procedures.
- It is important that the operator and Federal funding agencies consider expedition planning in assigning cruises in a geographic area to a particular vessel. This could include incorporating strategic planning for blocks of multiple cruises where shipping, loading and unloading is concentrated in reliable ports, or if logistically possible in U.S. ports. Some key items to consider are:
 - Identify hard-to-ship items such as hazardous materials, radioisotopes and gases and, where space allows, pre-load these items on the vessel in a U.S. port and, discuss with the operator the storage of these items on the vessel until it returns to a U.S. port.
 - Identify items that will be pre-loaded but may be shipped out of a foreign port at the end of the cruise. It is important that these items are properly accounted for on the vessel's manifest when entering/exiting a foreign port.
 - ARF vessel operators working out of foreign ports should discuss with the Federal funding agencies procurement of sufficient science sample storage capability (e.g. - 80°C freezers) to handle samples from multiple cruises to ensure the integrity of the samples until the vessel can return to a US port and the samples shipped back to the scientists' laboratory.

A.3 Shipping Logistics and Operations in Foreign Ports

Freight Forwarders and Agents

A freight-forwarder moves cargo from a home institution to the port of entry. An agent is hired to move cargo from the port of entry to the vessel. The agent is also helpful with pre- and post-cruise in-port operations. Some key considerations regarding freight forwarders and agents are:



- For science equipment and supplies that are important to achieving the field program goals, it is important to have a solid contingency plan in case equipment is damaged or lost during shipment or delayed.
- It is important to choose a freight-forwarder who has international experience. Most vessel operators whose ships work in foreign ports have lists of agents in various ports and can provide guidance on their experience and capabilities.
- The vessel operator can recommend an agent to the science party but it is the scientist's decision which agent to choose. It may be useful to hire an agent depending on the complexity of science shipments and the capabilities of the vessel's agent. Scientists should engage in detailed communications with potential agents about their shipments, costs, and the logistics involved. Often the science party may not think they need an agent but they can be helpful in foreign port calls for last minute visa issues, purchases or service requests, transporting science members to the ship, or to assist with medical problems. However, it is crucial that the scientist and the agent have a clear understanding of the costs involved for various services and that those costs not be confused with what are vessel operator requirements or charges. Written documentation, quotes and invoicing are key to ensuring that there are no misunderstandings between scientists and vessel operators in regards to agent's fees and who is paying for various costs while in a foreign port.
- UNOLS could consider compiling a webpage or starting a listserv that contains comments and information about experiences of scientists and vessel operators who have worked in foreign ports over the last 5 years. Such a means of providing access to recent and relevant information could help avoid excessive costs or problems during foreign port calls.
- Some foreign embassies, or U.S. embassies in foreign countries keep a list of vetted agents. In U.S. embassies, the commerce liaison (not the science liaison) is usually the best contact for this information.
- The US governments Dep. of Commerce maintains a website: <http://trade.gov/> that contains information about international trade. It and other websites such as: http://2016.export.gov/worldwide_us/index.asp are useful resources for exploring agents and contacts in foreign ports.

Packing and Shipping

Packing and shipping are key elements of foreign port logistics. Cargo must be packaged to IATA standards and documented meticulously to avoid getting held-up in customs. Nothing is too small to document and clerical mistakes can cause the entire shipment to be delayed in customs. Some key items to consider are:

- Identify hard-to-ship items and discuss pre-loading with the operators (see A2. General Pre-cruise Planning, above).



- Ask the freight-forwarder about any nuances of shipping to a particular port. For instance, shipments to Mexico cannot include clothing, lab coats, work boots or shoes, household items, or biomedical equipment such as syringes. Other countries may have similar, stringent requirements.
- The chief scientist may receive information from the vessel operator regarding packing and shipping requirements. That information should be passed along by the chief scientist to other individuals in the research team(s) that may be doing the actual packing, and to any other groups involved in that particular cruise.
- If shipping equipment overseas from the U.S., and that equipment is scheduled to return to the U.S. at some point in the future, it is highly recommended that all exported items be registered with U.S. Customs via Customs Form 4455. This form is needed for re-importing the items back to the U.S. Copies of these forms should be provided to vessel operators and the Captain of the research vessel.
- Cargo should arrive in port approximately two weeks prior to the vessel's arrival and the start of the cruise. If a cruise is departing near a holiday, it is important to enquire with the local agent whether even more time is necessary. This may result in storage charges but these incurred costs are far less than delaying a cruise in order to wait for a shipment to be released from customs.
- Cargo that is moving directly onto the ship should be marked "in-transit" to the vessel to make sure the customs agents understand that it is not for import.
- Shipping of International Trade in Arms Regulations (ITAR) and Export Administration Regulations (EAR) restricted items is complex. It is important to contact your institution's Export Control officer for guidance. Additional information can be found on line: <https://www.bis.doc.gov/index.php/forms-documents/technology-evaluation/781-export-licensing/file>
- Cargo that is pre-loaded on the ship but will be shipped from the foreign country should be discussed with the operator to ensure proper paperwork is completed.

A.4 Visas

It is the chief scientist's responsibility to obtain visas, if required, for the science party. The visa process can be complex as the requirements are not always straight-forward. Some things to consider are:

- Due to changing visa-requirements, the PI should keep in regular contact with the embassy or their on-campus visa office regarding visa requirements for their cruise participants, especially if some of the members of the science party are not US citizens.
- Discussions should continue after the visa applications are submitted to make sure any changes in application procedures are recognized and revised applications submitted well prior to the cruise departure.



A.5 Marine Research Clearances

- As stated above, whenever possible, the MRS clearance process should begin at least 9 months before the start of the cruise.
- It is essential to communicate often with vessel operators about whose responsibility it is to execute each function in the clearance process. Establishing a document share site for each vessel operator could help in organizing this type of material prior to submission of the MRS clearance request.
- Proposal budgets should include funds to cover the travel and stipend costs (if required) of foreign observers and foreign collaborators.
- Whenever possible the vessel operator should work directly with the U.S. embassy in the destination country to start a dialogue about the required clearances. The clearance process is a collaborative process between the PI, the Operator, and U.S Department of State (including U.S Embassies), and may include the foreign collaborators.
- Wherever possible, the PI should find a science collaborator within the country in whose waters they will be working. Although this is not always required, it may help the clearance process. In many cases, the local knowledge and connections of local science collaborators have turned out to be essential for navigating permit issues, port procedures, supply problems and travel and shipping issues.

