

**Guaymas Basin cruise AT37-06
Manzanillo Nov. 7 – Manzanillo Dec. 29, 2016**



Problems:

- Two containers of expedition supplies held up in Mexican customs and never reached R/V *Atlantis*; a perfect storm
- Sampling and science had to be improvised with minimal supplies already on the ship [preloaded in Newport, OR] and with emergency supply shipment for science and machine crew via Guaymas Port, still with some unaccounted losses
- Radiochemicals not listed on *Atlantis* Manifest, leading to lengthy customs problems and ultimately complete loss of ca. \$ 80,000

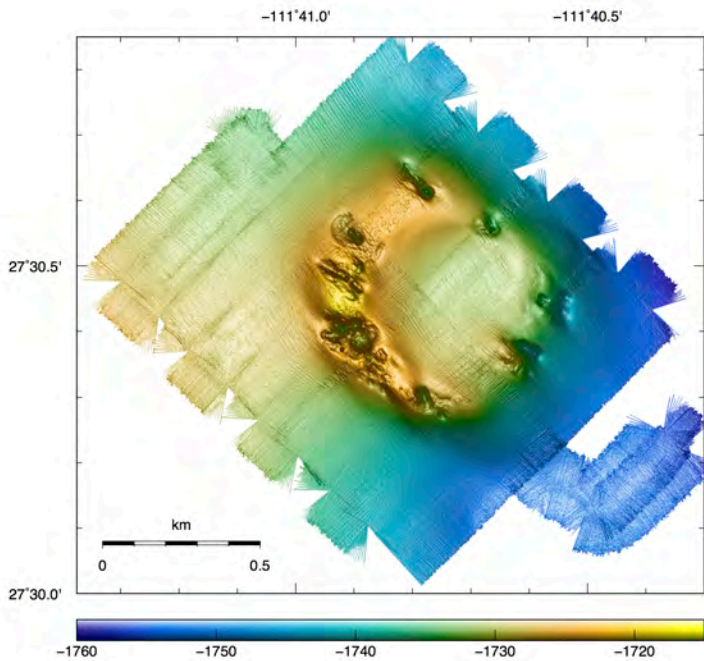
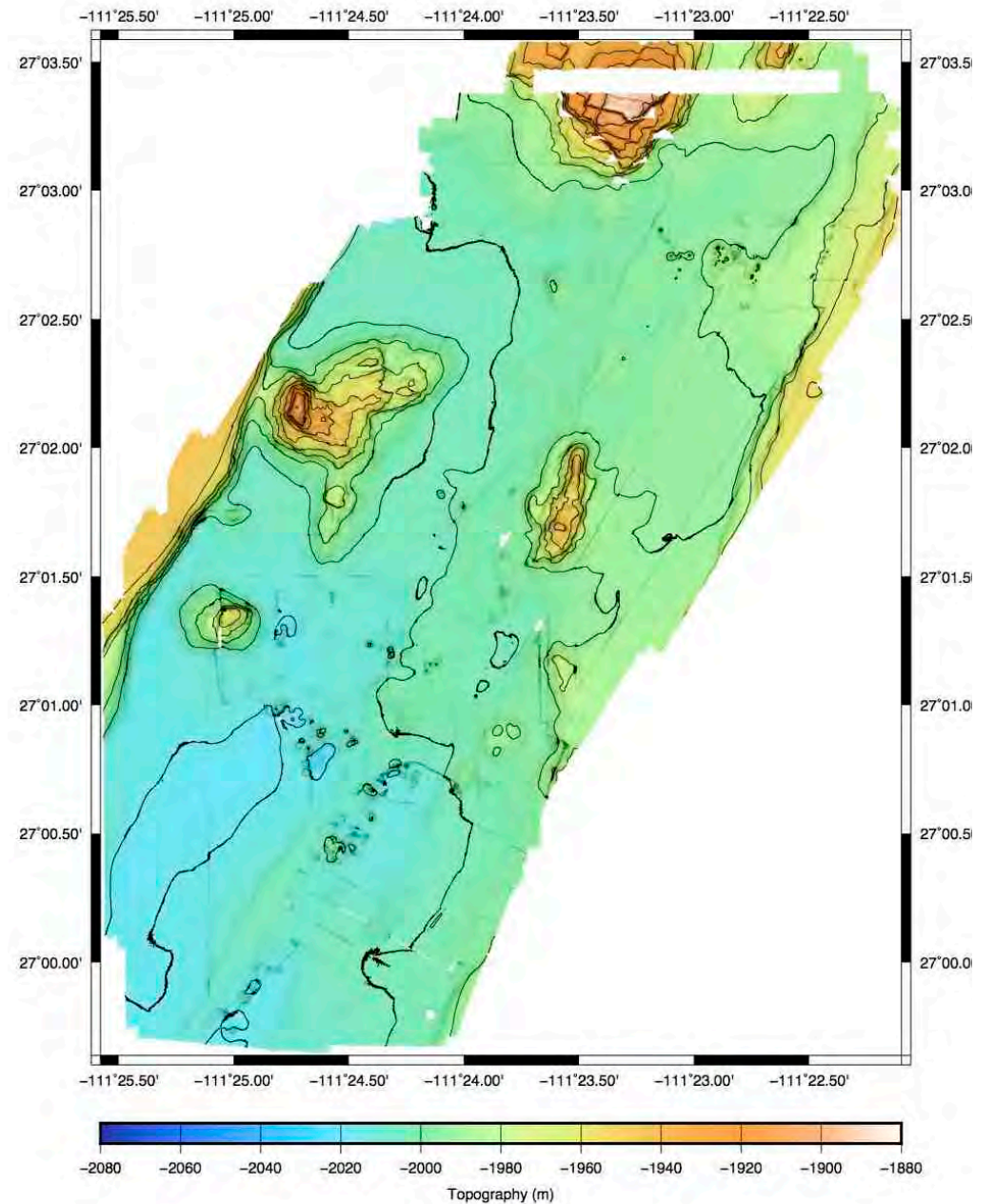
What good came out of it:

- Small preloaded supply cache, and emergency shipment salvaged science to some extent: small input, big effect!
- Alvin & Sentry excelled in exploratory dives [Guaymas off-axis targets]
- White Paper on international cruise planning, a joint effort of scientists, ship operators, UNOLS and NSF
- Makeup cruise R/V *Atlantis*, Guaymas to Manzanillo Nov. 15-29, 2018



SENTRY BATHYMETRIC MAP OF SOUTHERN GUAYMAS BASIN SPREADING CENTER

2016_teske_full_rnv_tide_equal_1.00x1.00_BV01



RINGVENT, off-axis 30 km northwest

UNOLS White Paper
Proposing, Planning and Executing Logistics Involved in Oceanographic
Field Operations in Foreign Waters and Ports

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1. Motivation

To be successful and productive, oceanographic field studies require excellent coordination between scientists, ship and facility operators and funding agency representatives. Oceanographic data collection is expensive and in most cases public funds are being used to support the science and operations, hence it is crucial for everyone to be as safe, efficient, and cost-effective as possible. It is also a reality that the 21st century's dynamic, global, geopolitical environment has created challenges and opportunities to working in foreign waters to conduct oceanographic research. These realities, and recent experiences where complex logistics and marine science research (MSR) clearances hampered oceanographic cruises, have brought to light the need for a renewed effort by scientists and operators within the U.S. Academic Research Fleet (ARF) to work together to ensure that Federally funded field research is well coordinated and successful.

After several meetings and teleconferences in early 2017 among a diverse group of oceanographic scientists, UNOLS ship operators and Federal agency program managers- the working group members cited above - accepted the task of reviewing a range of topics that relate to the planning and execution of oceanographic field research. The primary focus of the deliberations pertained to work in international waters, where ships enter and return to foreign ports, as well as work involving field studies within the Exclusive Economic Zones (EEZs) of foreign nations, and the requisite planning, logistics and permitting involved with those efforts. This included polling and discussions with many U.S. ARF operators involved with supporting field work in foreign and international waters throughout the world's oceans to better understand the protocols, best-practices and communications methods each operating institution employed in their work to support scientists using their ships and facilities.



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

