



Plugging Into the MVCO

One of the goals of the MVCO was to provide users with an extension cord into the coastal ocean. This extension cord would allow users to plug their sensors into a standard port, return to their office, lab, or home and access their data over the Internet. We are now working on the best way to put this objective into practice and attempting to keep it simple. The steps required in this process include:

1. Get in touch with the appropriate WHOI point-of-contact (POC) and describe your connection request.
2. Plan for technical and field support for your installation through the WHOI POC. This will include cost estimates for ship use, diving support, accommodations, and travel from WHOI to Martha's Vineyard. Additional information about data availability and infrastructure support are also available on the web site.
3. Determine the type of data logging and data delivery support you require for your application.
4. Test your instrument connection at WHOI using the guest port simulator.
5. Plug in and return home to collect and receive data over the Internet and/or some other delivery system.

1. Initial Point-of-Contact

Inquiries about plugging into the MVCO should be addressed to:

Janet Fredericks, MS 9
Phone: (508) 289-2573
FAX: (508) 457-2132
Email: jfredericks@whoi.edu

The following will be provided or can be obtained from the "Plugging In" web page:

6. ***"Guest Port Interface Document"*** Instructions for fabrication of cables for plugging the instrument into one of the nodes.
7. Forms to fill out to reserve a guest port & configure it for your instrument.
8. Additional technical contacts.

All forms should be sent to Janet Fredericks using either email, FAX or regular mail.

2. Arranging for Field Support

To avoid damage to the observatory and its users' instruments we ask that all users adhere to the following procedures when planning instrument installation, maintenance or work in the vicinity of the observatory. This plan has been developed to avoid conflicts in flow fields, interruption of data, disturbance of cables or connectors, future expansion and safety of personnel and vessels.

Users will be expected to pay for any field support provided either by WHOI, their host institution, or other means. Cost estimate information for planning purposes is provided at the end of this section.

The MVCO manager will coordinate all user installations at either the Met Mast on South Beach or the offshore node. Assistance will be provided for logistics and scheduling, access to vessels, dive/installation planning, technical support from engineering for interfacing or mounts, island transportation, etc.

Users who plan to use their own divers or wish to use WHOI divers to connect to the offshore node ***must also*** contact the WHOI Dive Safety Officer.

Terry Rioux
Islin MS # 28
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Phone: 508-289-2239

Terry will review/approve requests for certification of guest divers and can assist with dive planning and some equipment. ***Before any user can connect underwater there must be a copy of a written summary of the dive plan, signed by the DSO, sent to the MVCO office at MS # 9.*** If the user prefers to use commercial divers or the scope of the installation exceeds the safety limits for science divers, the MVCO manager can recommend local commercial divers who have been approved for operation at WHOI facilities.

**NO OVER-THE-SIDE WORK OR ANCHORING WILL BE PERMITTED
WITHIN 300 METERS OF THE OBSERVATORY WITHOUT PRIOR
NOTIFICATION & APPROVAL OF THE MVCO OFFICE.**

Deployment of oceanographic sensors at the offshore node and the Air-Sea Interaction Tower (ASIT) will require vessel time and, in the case of underwater measurements, divers. Two WHOI vessels are available for these operations:

R/V Mytilus

This is a 24-foot vessel that is capable of 20 knots in low sea states. It is therefore intended for fair-weather (typically < 20 knots), small payload operations that do not require crane or winch support although it is equipped with a small davit with a powered capstan. The transit time from WHOI to the offshore node under these conditions is approximately 1 to 1.5 hours. The cost of the vessel with fuel varies depending on the year but is about \$453/day for 2004 or \$476/day for 2005 plus the cost of the WHOI operator. Details are available at: <http://www.whoi.edu/institutes/coi/index.htm>

Coastal Research Vessel Tioga

Designed and outfitted for oceanographic work close to shore, the *Tioga* measures 60 feet and cruises at 17 knots. The cost of this vessel is currently \$2,000/day. Details are available at: http://www.whoi.edu/marine/ndsf/research_vessels/CRV/index.html

Other commercial vessels and those from nearby institutions are available with sufficient lead time. Contact information for these vessels are available from the MVCO manager upon request.

Dive operations at MVCO typically require 2-4 divers depending on the complexity of the operation. In addition to the boat operator, we require at least one other individual aboard the vessel when divers are in the water to assist with recovery efforts. Cost estimates for WHOI dive support are available upon request.

Additional costs for operations at MVCO may include transportation costs to the shore laboratory from WHOI and accommodations either on the island or mainland. These costs vary seasonally. However, to assist with planning efforts we offer the following sources of information.

House rentals in Falmouth or on Martha's Vineyard:

www.cyberrentals.com

Local hotels:

Holiday Inn	508-540-2000
Falmouth Inn	508-540-2500
Ramada Inn	508-457-0606
Sands of Times	508-548-6300

Current and seasonal schedules and rates for ferry service from Woods Hole to Martha's Vineyard are available at: <http://www.islandferry.com/>. Vehicle reservations are recommended through the year and required in summer.

3. Data Logging and Data Delivery Support

The MVCO data logging philosophy is essentially to log locally and access remotely. This philosophy is driven by the Byte data rates along the fiber optic cables that run from the nodes to the shore lab versus the 1.5 Mbyte data rates over the T-1 interface running from the shore lab to WHOI. In principle, very slow data rates could be maintained between instruments offshore or on the meteorological mast and across the Internet to a remote location. However, most applications will require a logging computer on the island side of the T-1 interface. Some or all of the data logged on this computer could then be accessed via telnet sessions or ftp. The shore lab has UPS and generator backup. The MVCO manager can assist with shore lab computer installations and access to the lab or assist with transportation planning. Special access for high data rates or special power requirements will be handled on a case-by-case basis by the Science Policy and Management Committee.

4 Pre-Deployment Preparation

To avoid excess costs of deploying an instrument that may not work, it is recommended that instruments be tested using the guest port simulator at WHOI. The MVCO manager can arrange access to this and any technical assistance that may be required. Instrument access over the network can also be tested.

Instrument mounting on the met mast is generally accomplished by using an extension ladder and safety harness; both are available at the shore lab. The MVCO manager can assist with technical planning or designing a mount as well as access to the electronics housing.