APPENDIX X

SeaNet
Extending the Internet to the Oceanographic Fleet

Most recently, SeaNet was funded by ONR as part of the National Ocean Partnership Program (NOPP). Two-year funding , which began on August 1, 1997, was awarded to a consortium consisting of:

Joint Oceanographic Institutions (JOI) – Responsible for administration of project funds, liaison with government agencies and the academic research fleet operators. Ellen Kappel

Woods Hole Oceanographic Institution (WHOI) – Responsible for design, development and maintenance of the routing and protocol level communications software. Andy Maffei, Steve Lerner, Cindy Sellers

Lamont-Doherty Earth Observatory (LDEO) of Columbia University – Responsible for installation and operational management of the shipboard hardware/software package. Dale Chayes and Richard Perry

Naval Post-Graduate School (NPGS) – Responsible for liaison with the US Navy fleet, forward planning, and maintenance of testbed facilities. Rex Buddenberg

Omnet, Inc. – Responsible for establishment of a Network Operations Center (NOC) and Network Information Center (NIC), accounting and billing, development of application-level utilities, value-added services, and commercialization. Bob Heinmiller and Susan Kubany

First Ships Awarded SeaNet Units

- A letter to all UNOLS vessel operators was sent in March 1998 asking them to (1) provide information about their ship's current satellite communications system(s) and (2) provide a letter proposal to JOI to be one of the ships to be outfitted with a SeaNet unit this year.

- Eight proposals were received in response to the solicitation, a review committee was set up and sent the set of proposals for a written evaluation.

- The review committee consisted of two people from RVOC, one person from RVTEC, and one person from NOAA's Internet at Sea group.

- Shortly after the written evaluations were received and compiled, a conference call was convened to discuss the overall reviews and make the final recommendation. The committee's final recommendation was reviewed by ONR and NSF managers, and the entire SeaNet group, before the institutions were notified of SeaNet's decision.

The five ships recommended for the first SeaNet installations were:

ATLANTIS
EWING
MELVILLE
PELICAN
SEWARD JOHNSON

Tentative Installation Status/Schedule

September 1998: SeaNet was installed on the ATLANTIS while in San Diego. This was not a full and complete installation, however, but will provide us a with a good beta test of the system. We are currently gathering statistics on the INMARSAT unit every 15 minutes to determine how well the system is functioning through time, at different ship headings and in different latitudes. Meteorological data also being transmitted routinely as test files. A survey of the MELVILLE was also done in ~~January~~ September. We are anticipating survey of the PELICAN this month.

October 1998: We tentatively plan to install SeaNet hardware on the EWING. This will be the first complete hardware install.

December 1998: Install SeaNet software on EWING.

January 1999: Official turn-on of the SeaNet system.

January - March: ATLANTIS and EWING hardware and software shake-down.

January: Install antenna on SEWARD JOHNSON

MELVILLE/PELICAN installations are still being discussed.

**We are currently designing a home page for each "SeaNet ship" so that anyone could look up the ship's installation status. We are also considering putting up some ship information (e.g., heading, meteorological) once SeaNet is operational and the data routinely transmitted.

BILLING

- COMSAT will provide Omnet with detailed, electronic billing information for each SeaNet unit.

- Omnet will bill for all INMARSAT use that goes through SeaNet. Any other use, e.g., phone calls, etc. will still be billed to the institution registered to the INMARSAT unit.

- PO's will be set up between Omnet and each SeaNet institution.

- Omnet will be able to provide authorized users web-access to up-to-date SeaNet usage information, including cost-to-date.

- Omnet will be able to itemize billing by project, individual, account, etc. But, of course, Omnet will need to know beforehand what the billing breakdown should be.