SWAP Report

Ship-to-Ship/Shore Wireless Access Protocol
Wireless Mesh Network in the UNOLS Fleet
http://www.shipops.oregonstate.edu/martech/project/swap

2011

- **SWAP Mandate**
  - A ship Arriving in port is able to (easily) gain an insecure route to the Internet.
  - Multiple ships working in proximity can exchange data
  - Ships are able to “discover” buoys and transfer data
  - A ship with an “out bound” link (HiSeasNet or FBB) can act as a router for other ships or buoys.

- **SWAP Status**
  - Continued expansion of the network
    - R/V Cape Hatteras
    - Duke Marine Lab
  - SWAPmeet 2011
    - Training and InstallFest – April 2011
    - Duke Marine Lab
  - Ship Maintenance Visitations
    - R/V Marcus Langseth
    - R/V Western Flyer
  - Known Guests:
    - R/V Western Flyer

R/V Cape Hatteras April Installation

- **SWAP Future**
  - InstallFest 2012
    - Florida ?
  - Development
    - Investigate lower power nodes
    - Alternate frequencies and transmit protocols
    - Security: WPA2
    - Alternative Platforms
    - Driver Expansion
  - Expansion 2012
    - Florida ?
    - OSU Wave Energy Buoy Network
    - OOI

Antenna placement and cable run