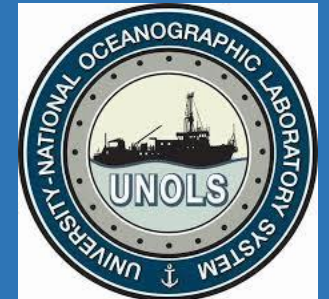# RVTEC Report
UNOLS Annual Meeting

02 Nov 2018

INMARTECH

- INMARTECH Woods Hole, MA Oct 16-19
  - Record Attendance

- Significant Technical Sessions
  - Exploring the mysteries of EK80: A Practical Guide to Simrad Broadband Echosounders
  - Technical session on pCO2 Installations and Operations
  - Multibeam technical session (MAC, Kongsberg, QPS)
  - Satellite Communications, Bandwidth Management
  - USBL technical session and demonstrations

Training Sub Committee – Formed July 2018

- Brandi Murphy (UW), Kristin Beem (OSU) , Brett Hembrough (SIO), Joe McCabe (WHOI), Nick Mathews (BIOS)
- Professional video documentation of four INMARTECH sessions
- Several collaborative training opportunities to date.

SatNAG

- Pilot program to deploy uniform Internet use policy on committee member vessels
- Collecting metrics from these uniform firewalls
- Identify next generation firewalls and define a strategy to deploy at scale

RVTEC Vice-Chair/Chair-Elect
Jules Hummon (UH)

Cybersecurity

The Maritime Safety Committee, at its 98th session in June 2017, also adopted [Resolution MSC.428(98)](#) - Maritime Cyber Risk Management in Safety Management Systems. The resolution encourages administrations to ensure that cyber risks are appropriately addressed in existing safety management systems (as defined in the ISM Code) no later than the first annual verification of the company's Document of Compliance after 1 January 2021.
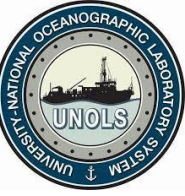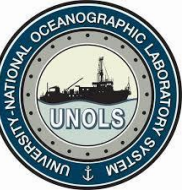
IT Support on Research Vessels

- Basic IT support for mariners and researchers
- Ancillary IT support for ship operations has become insufficient to support complex vessel systems
- Cybersecurity requirements (IMO, Institutional)
- Experts in advanced network engineering are needed to design and maintain cyberinfrastructure

Credit: UC San Diego Library

What are we doing now?

- SatNAG is evaluating future firewalls and how to deploy them at scale

What can we do in the future?

- Short term recommendations of increased technical personnel at sea to specifically support ship systems have been proposed
- Long term solutions would move basic IT support and system administration duties duties off ship (currently bandwidth and hardware limited)