

Electronic Systems Support Unit Seattle

US Coast Guard (MLC)

Polar Science Systems Branch

Polar Icebreaker Support

USCGC HEALY – Actively operating for science missions.

USCGC POLAR SEA – Science Missions scheduled for September/October 2009.

USCGC POLAR STAR – Just came out of yards.



Homeland
Security

June 24th and 25th 2009

Wide Area Network (WAN)

USCGC HEALY and USCGC POLAR SEA

INMARSAT – B (WAN)

- 24/7 connectivity
- At least 64K
- Provides Internet and e-mail connectivity

IRIDIUM (WAN)

- 24/7 E-mail connectivity
- High altitude connectivity
 - E-mail only



Wide Area Network (WAN) HEALY

VSAT (WAN)

- ECR completed by HEALY
- Satellite purchased
 - At least 256K for Science Network
 - Still need to contract service

INMARSAT B – Replaced FY11 or FY12

- Bandwidth increase
- U. S. Coast Guard has started on 378's



Chief Scientist

Science Network on HLY-09

HLY-0901 - Debrief

- The science network support was excellent
- Support is great including:
 - E-mail set-up
 - Enabling wireless on institutional computers
 - IRIDIUM Service
 - INMARSAT Service
 - Laptops onboard are showing their age
 - Will be replacing starting next year
 - Website restrictions (Firewall Filtering) *Paraphrased*
 - Sort of a sledgehammer approach
 - Had a couple websites that needed to get to enabled



Debrief - 7) Information technology

HLY-08

- CG's inability to communicate with shore (CGDN) impact mission?
 - Request for IRIDIUM for Coast Guard network has been submitted.
- The firewall between the science network and crew network
 - Not authorized
- (Capt., XO, OPS, YNC) to be copied in directly to science email
 - Command Cadre has accounts on Science Network
- Communication network between the ships
 - Reliable range to at least 6nm and more would be better:
 - Reliable Omni directional performance:
 - Currently have tested 180 degree worked
 - Minimum reliable bandwidth of 1 megabit per second:
 - Bench test – 6MB Passed – passed
 - Local test less than a mile – passed
 - Distance test - Passed 7.5 miles



Polar Science Systems Branch

Our mission for Science Support

- **ESU will collect scientific data during science cruises and transit.**
- **ESU will provides support for the Science Network, Infrastructure, and scientists during science missions on Icebreakers.**
- **ESU Supports ship communications. As well as developing future Satellite connectivity where ever the Ice Breakers missions go.**



Upgrades Local Area Network (LAN)

No changes scheduled for summer in port

GP Workstations

If time permits may refresh Image of all workstations



Science support Polar Icebreaker fleet

North Star Technology Systems Contract:

- David Hassilev and Mike Merchant
 - Options until 2017
 - April 1st of 2009 to March of 2010

Scripps Institute Oceanography contract:

- Scott Hiller
 - Supporting PSEA-0901 mission
 - Training:
 - CTD Casting
 - Winch & Cable termination

Science Network Science Mission Support

IT1 Doramus - transferred replacement due in July

IT2 Graham – Supporting the HLY-0904 mission

Mike Merchant – Supporting the HLY-0905 mission

- Ship to Ship communications with the LOUIS

David Hassilev

- Supporting the PSEA-0901 mission
- Supporting the PSEA 0902 mission



Science Network - Supports

- Network equipment (VSAT)
- Servers
 - Life cycle upgrades
- Workstation
 - Life cycle upgrades
- Printers
- Warranties
- Licenses
- Domain maintenance (VSAT)
- Supplies
- Software
- Hardware



Engineering Division

Polar Science Systems Branch

ESU – 24/7 contact phone number 1-800-982-2564

E-Mail Address: James.M.Wilson@USCG.mil

- Feel free to contact for any support issues

Civilian Personnel

- James Wilson
- Dave Cohoe
- David Hassilev (North Star)
- Mike Merchant (North Star)

Military Personnel

- ETSC Michael Luna
- IT1 - Vacant
- IT2 Donny Graham



Home Port – Seattle, WA



June 24th and 25th 2009

