

Electronic Systems Support Unit Seattle

US Coast Guard (C4IT)

Polar Science Systems Branch Polar Icebreaker Support

USCGC HEALY – Actively operating for science missions.

USCGC POLAR SEA – Actively operating for science missions.

USCGC POLAR STAR – No Science Network (SN)



Homeland
Security

December 7th and 8th 2009

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Wide Area Network (WAN)

USCGC HEALY

VSAT

- 24/7 connectivity
- At least 256K
- Provides Internet and e-mail connectivity

IRIDIUM Reachback

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

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Wide Area Network (WAN) HEALY

VSAT Install – January 2010

- ECR Prototype approved
- Satellite Service
 - Contracting Month to Month service for FY10
 - Option for 4 years
- Testing connectivity to Science Network
 - Spring shake down cruise

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Wide Area Network (WAN)

USCGC POLAR SEA

INMARSAT B

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

IRIDIUM Reachback

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

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Wide Area Network (WAN)

IRIDIUM OpenPort

- Tested this summer
- Temporary install (not the best location)
- Permanent install?
 - Will need a Engineering Change Request
 - Identify best location
- Current Access
 - Science missions while underway only
 - For large file transfers
 - For transfer of images



Upgrades Local Area Network (LAN)

No significant changes scheduled for in port this year

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Chief Scientist - Debrief Science Network Information Technology

HEALY

HLY-0901 - Debrief - Presented in June

HLY -0902 – Firewall Issue.

- Blocking excel files
 - Not a firewall issue. E-Mail Anti-virus scanner
- In general, many compliments on the IT.

HLY -0903 – Cancelled

HLY -0904 – No debrief to date

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Debrief - Information technology

HEALY

HLV-0905 – WAN communications

- General Purpose laptops worked.
- Laptop in Chief Scientist stateroom - is erratic and needed some work
- Usual problems of limited bandwidth
- Problem with maintaining robust connection during important press conference (actually failed).
- As always greater bandwidth would be helpful but all in all things were good.

POLAR Sea

PSEA -0901 – E-mail, Communications

- Web site was slow and difficult
- E-mail accounts from the start would have been helpful
- Once up and running this system was fine.
- Good ship board network
- INMARSAT and IRIDIUM – Random and not great

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Debrief - Information technology

POLAR Sea

PSEA -0902 – Science Network

- The internal email user accounts were efficiently set.
- User accounts were set up in advance
- Easily configured our computers to work on the local network.
- Learning curve for specifics of the apple based system.
- We had hardly any access to the internet outside the ship email system.
- Unable to log onto my University webmail account in the entire 36 days.
- Able to post her blog on a regular basis.
- Moderate success connecting via Iridium both regular and open port

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Science Network - Supports

- Network equipment
 - VSAT and IRIDIUM Reachback
 - Ship to shore connectivity
 - LAN, WLAN, MESH, VLAN
 - Routers and Switches, Ship to ship, VoIP
- Servers
 - Life cycle upgrades
- Workstation
 - Life cycle upgrades
- Printers
- Warranties
- Licenses
- Domain maintenance and services
- Supplies
- Software
- Hardware

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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.**

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Engineering Division

Polar Science Systems Branch

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- Feel free to contact for any support issues

Civilian Personnel

- James Wilson
- Dave Cohoe
- David Hassilev (North Star)
- Mike Merchant (North Star)
- Third Contractor (North Star)
POLAR SEA

Military Personnel

- ETSC Michael Luna
- IT1 Eric Burns
- IT2 Donny Graham

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Home Port – Seattle, WA



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