

# Electronic Systems Support Unit Seattle

US Coast Guard (MLC)

## Polar Science Systems - Support

- USCGC HEALY – Actively operating for science work.
- USCGC POLAR SEA – Will have Science of opportunity.
- USCGC POLAR STAR – care taker status.



Homeland  
Security

November 27<sup>th</sup> & 28<sup>th</sup> 2007

# Engineering Division Polar Science Systems Branch

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

- James Wilson
- Dave Cohoe
- David Hassilev (ATG)
- Mike Merchant (ATG)
- ETSC Michael Luna
- IT1 Jeff Doramus
- IT2 Donny Graham
  - Reports December 3<sup>rd</sup> 2007

November 26th 2007



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# Upgrades

## Wide Area Network (WAN)

### INMARSAT – B (WAN)

- Previous seasons FY 06
  - 64K 2 hour period
- 128K upgrade FY 07
  - 24/7 connectivity
  - At least 64K

### IRIDIUM (WAN)

- 24/7 E-mail connectivity
- High altitude connectivity
- Upgrade to Voyager Reachback
  - More reliable connectivity

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# Polar Science Systems Branch

**ESU will collect scientific data during science legs including transit legs.**

- 1. Provide Servers and RAID Servers for data.
- 2. Archive RAW cruise data on tape in CPIO format to be held at ESU for one year.
- 3. Provide Access on scientific data to work on.

**Provide and support a Science Network for scientists to work on science missions for the following infrastructure on Icebreakers:**

- 1. Servers platforms to provide:
  - Authentication, network monitoring, email, web, backups and data acquisition
- 2. Support access to the network including wireless and provide General purpose workstations
- 3. Upgrade and maintain NOAA SCS (data collection) software along with sensor templates
- 4. Maintain Terascan Contract and grooms for ADCP's, Knudsen, and Seabeam
- 5. Maintain and Support peripherals printers, USB, scanners and support equipment.

**Support and develop Satellite connectivity where ever the Ice Breakers travels around the globe.**

- 1. Support ship to shore satellites.
- 2. Provide 24/7 Support for LAN/WAN connectivity
- 4. Maintain and Support:
  - Firewalls, Network, cables, fiber, switches, routers.
- 5. Engineer and develop future connectivity for Science Network aboard Ice Breakers.

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# Upgrades

## Local Area Network (LAN)

### HEALY Server Upgrades LAN

- Replacing SNAP Servers
  - End of life cycle
- Installing Apples X-Serve and X-Raid
  - Reliable directory authentication
  - Reliable permissions
  - Increased data capacity
- Install new equipment racks in Computer LAB

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# Science support

Allied Technologies Group (ATG) – FY 07

North Star Technology Systems – FY 08

- Polar Icebreaker System Support contract
  - ATG last year ends March 31<sup>st</sup> 2008
  - North Star Contract starts April 1<sup>st</sup> of 2008 to March of 2009
    - 9 year option
    - David Hassilev contract has be renewed
    - Mike Merchant as a second contractor
- ESU will be covering all transit legs

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# System Grooms

- ADCP – Groom scheduled for shake down cruise
  - 75 khz – Received new rings for installation
  - 150 khz – EMI conduit
- Knudsen Sub-bottom profiler - Groom
- Seabeam Sonar Bottom Mapper – Groom scheduled for shake down cruise
- Terascan
  - New contract awarded 5 year option
  - New antenna 1.5 meter (POLAR SEA) upgrade from 1.2 meter
  - New processors (All three Ice Breakers)
  - Upgrade backup hardware (HEALY)
  - Provide Training for (HEALY and POLAR SEA)
    - ET and MST's
  - Groom – Scheduled for shake down cruise

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# Home Port – Seattle, WA



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