
# HiSeasNet 2.0 2015 Review

**Kevin Walsh**
**Scripps Institution of Oceanography**
**kwalsh@ucsd.edu**

# 2015 Transitions and Highlights

- HiSeasNet Team Transition
- Network infrastructure Transition
  - New Q-Flex modems fully fielded on ships and shore
  - Bandwidth increased 4X at 2X price
  - All IP Architecture – no more serial interfaces
- Comparison to U.S. Navy Commercial SatCom
- Network Operations and Support Transition
  - Shared situational awareness
  - Matrix Team Support Structure
- HiSeasNet Future Directions
  - Move from development phase to mature operations
  - Requirements driven

# Steve Foley – Heart and Soul of HiSeasNet Gentleman Farmer

- Architect, Engineer, and User Support for HiSeasNet for 13+ years
- Shipboard Technical Support Veteran
- Once an HiSeasNet Veteran – Always a HiSeasNet Veteran
- *Semper fi*

# Kevin Walsh – Old New Guy



SPAWAR
Systems Center
PACIFIC

USS Bonhomme Richard LHD-6


PROGRAM EXECUTIVE OFFICE
PEO C4I
COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS AND INTELLIGENCE

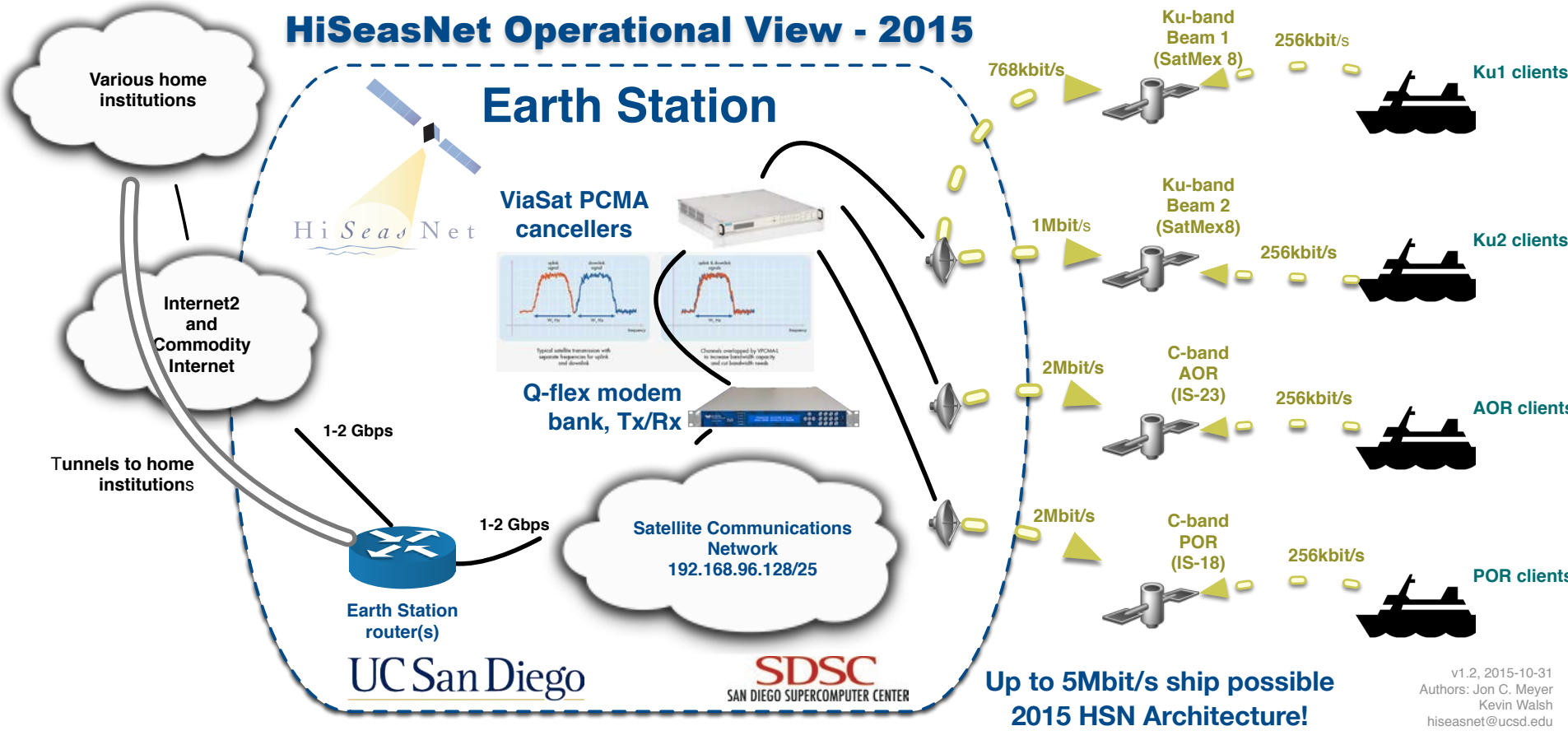
RVTEC 2015 - Miami

# Please Be Patient

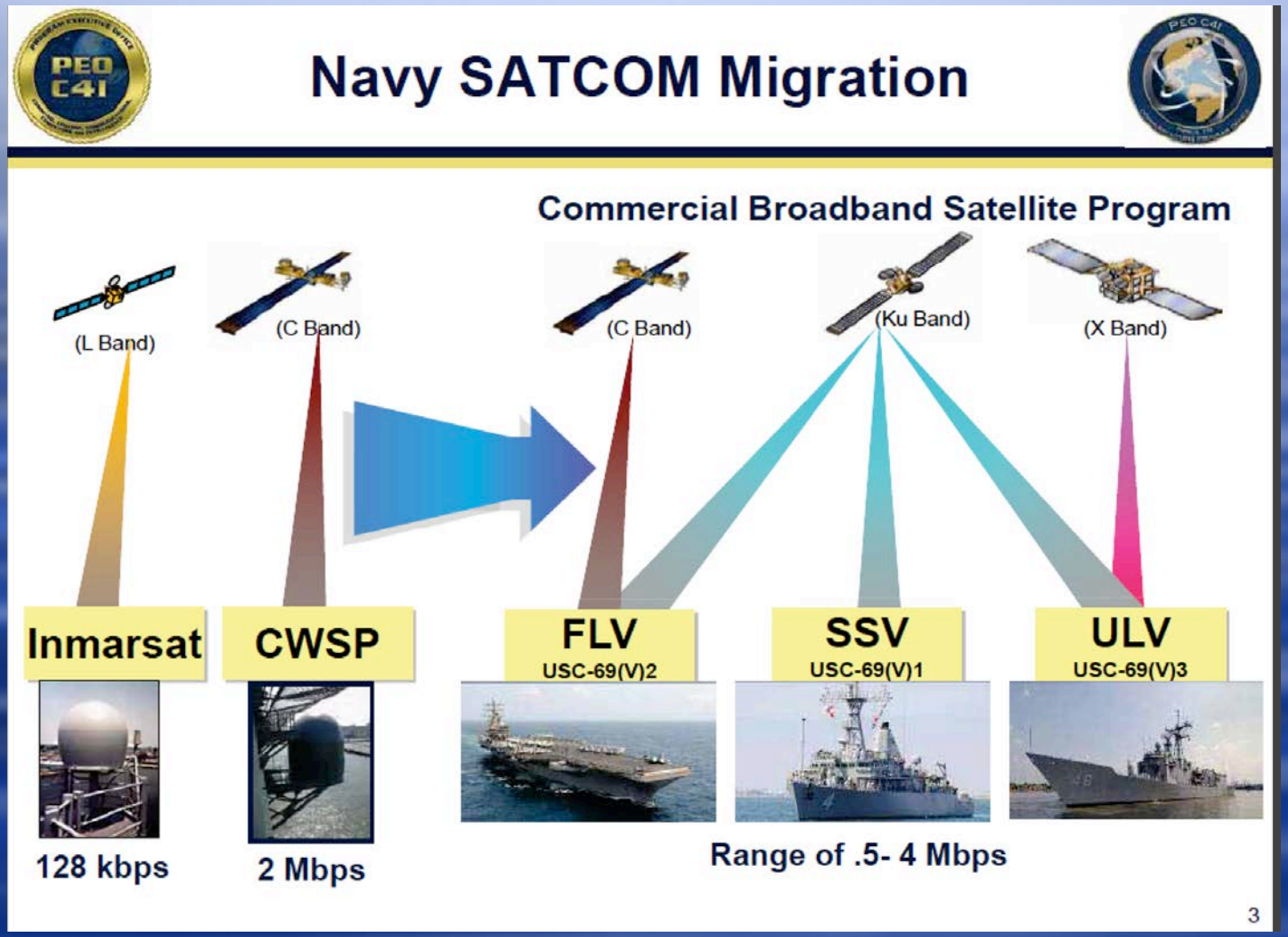
*Patience is something you admire in the driver behind you, but not in one ahead.*

Bill McGlashen

# HiSeasNet 2015
# 4X Performance Increase ++ IP



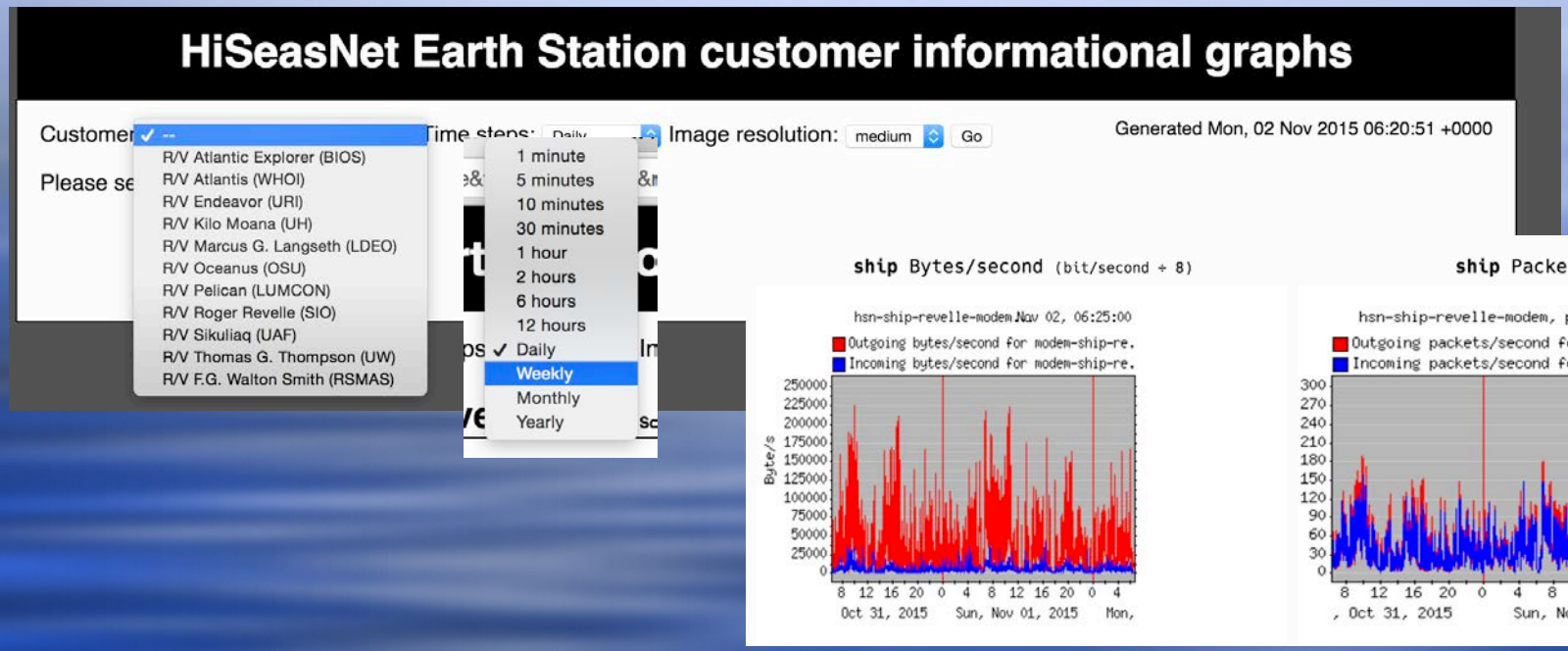
# HiSeasNet Compared to Navy

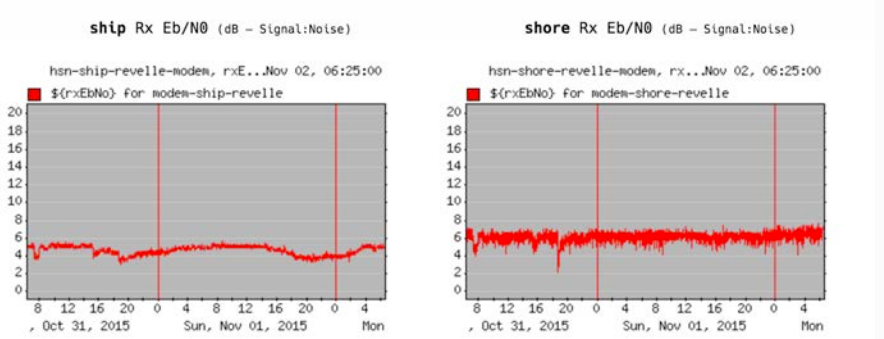



SOURCE: Communications Program Office, PMW-170
Satellite Industry Association's 2012 Naval & Maritime Commercial SATCOM User's Workshop,25 January 2012, Vince Squitteri


USS BONHOMME RICHARD -- Updated: 12:59:41 PM
UNCLASSIFIED
SATELLITE COMMUNICATIONS
DSCS
CWSP
EHF
EHF-TIP
MIL SHF
COM SHF
UHF
INMARSAT
SIPRNET SERVICES
IASM EVENTS
E-MAIL
CHAT
WEB
DNS
SIPRNET TRAFFIC BY TYPE
NIPERNET
1500MB
DNSE-Mail
2MB48MB
Other
197MB
HTTP
1563MB
TO SHIP
HTTP
125MB
DNS
1MB
NIPRNET
100MB
E-Mail
1MB
Other
532MB
FROM SHIP
E-MAIL QUEUES
23 Msgs
Queue 3MB
SIPRNET AGGREGATE BANDWIDTH
BITS PER SECOND
500
400
300
200
100
0
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
To Ship
From Ship

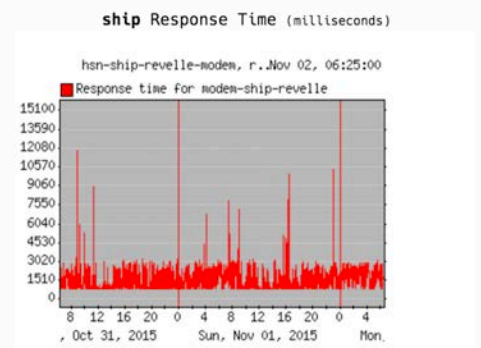
# http://hiseasnet.ucsd.edu/customer/

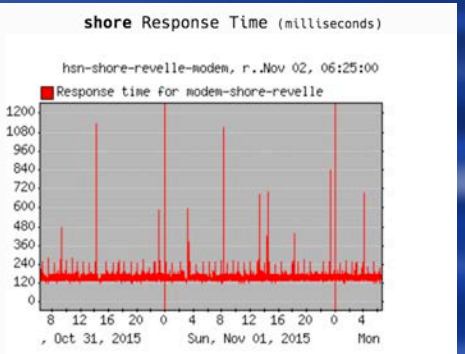




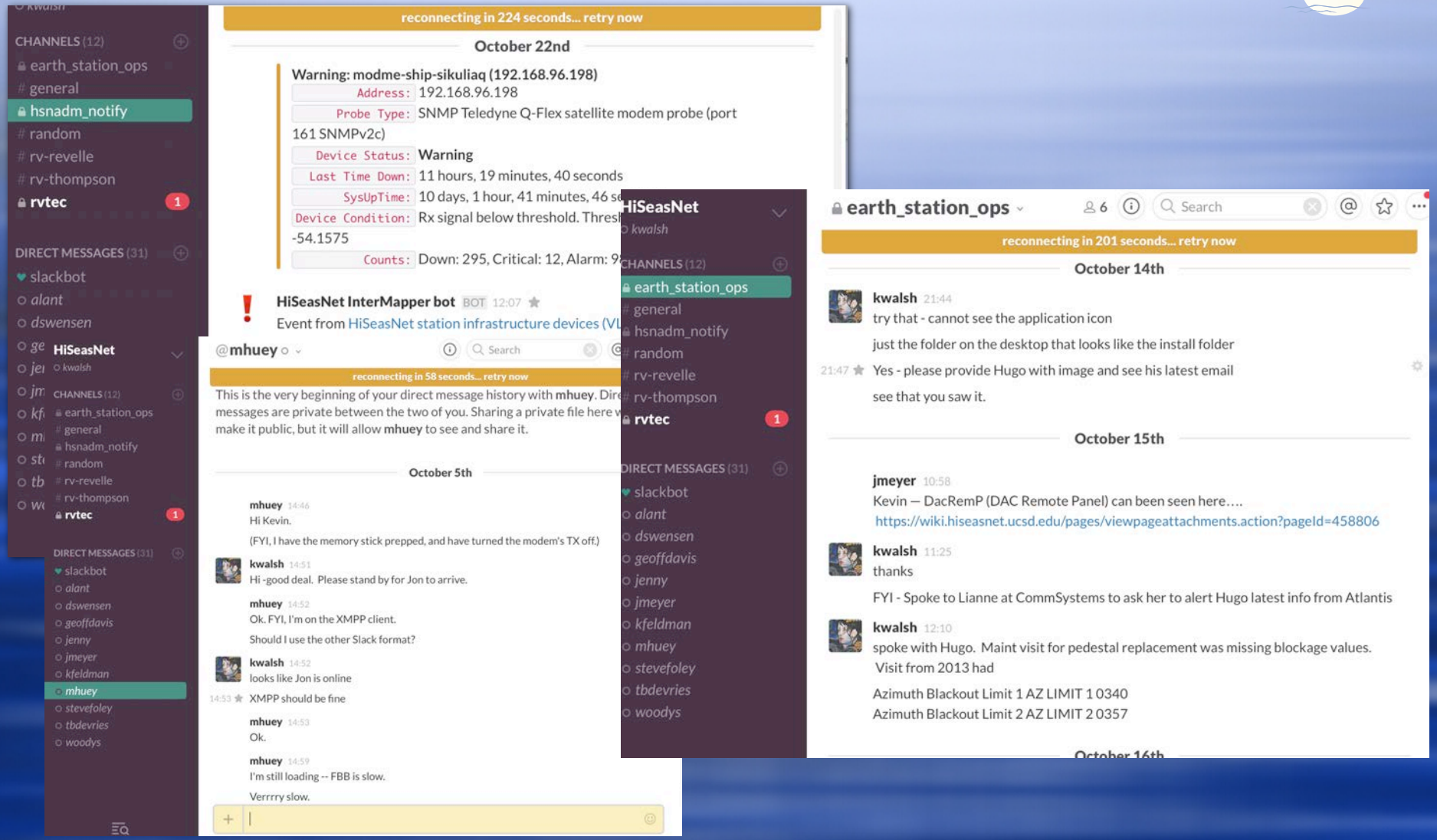




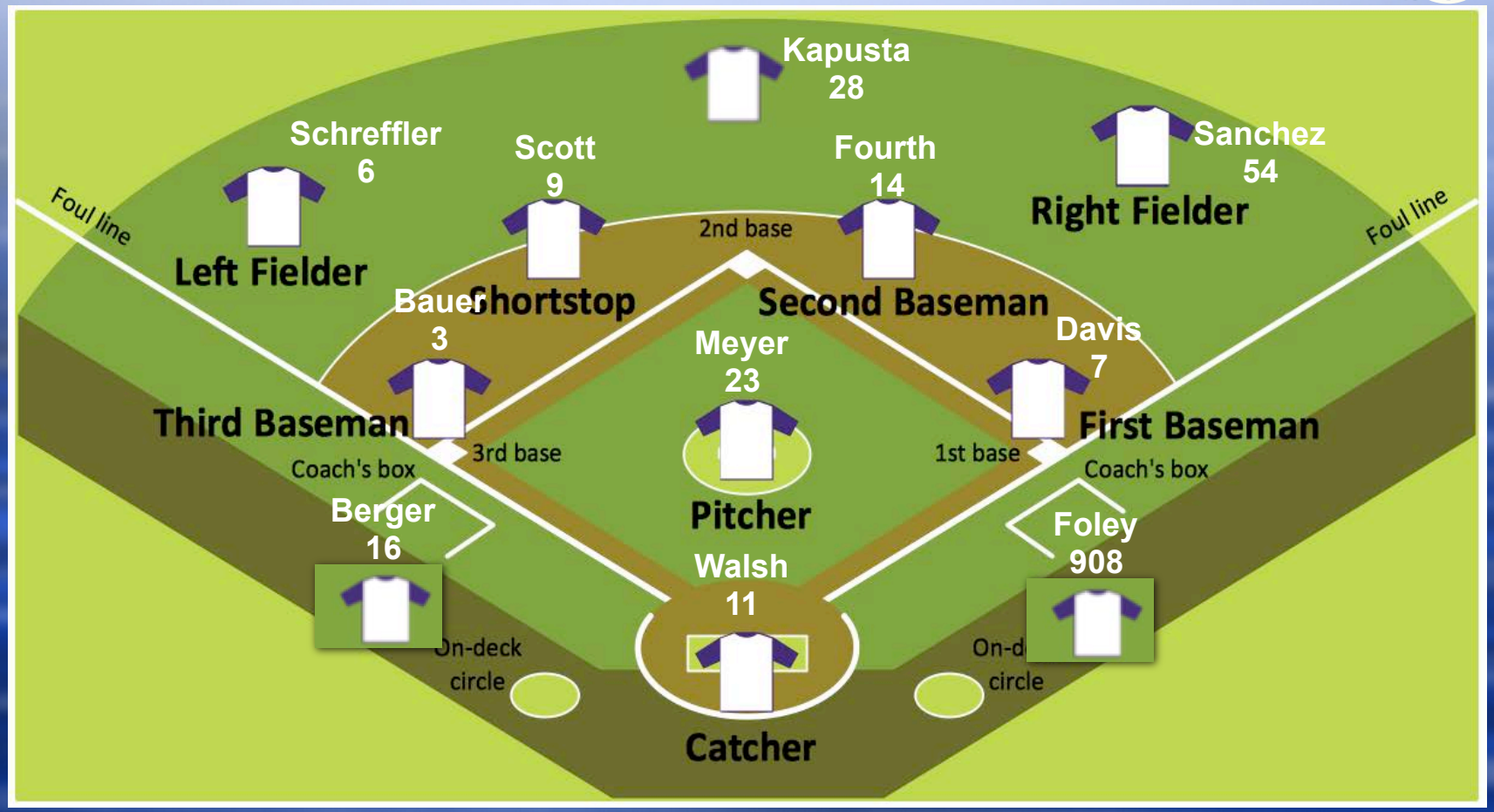



# Slack - Collaboration and Situational Awareness



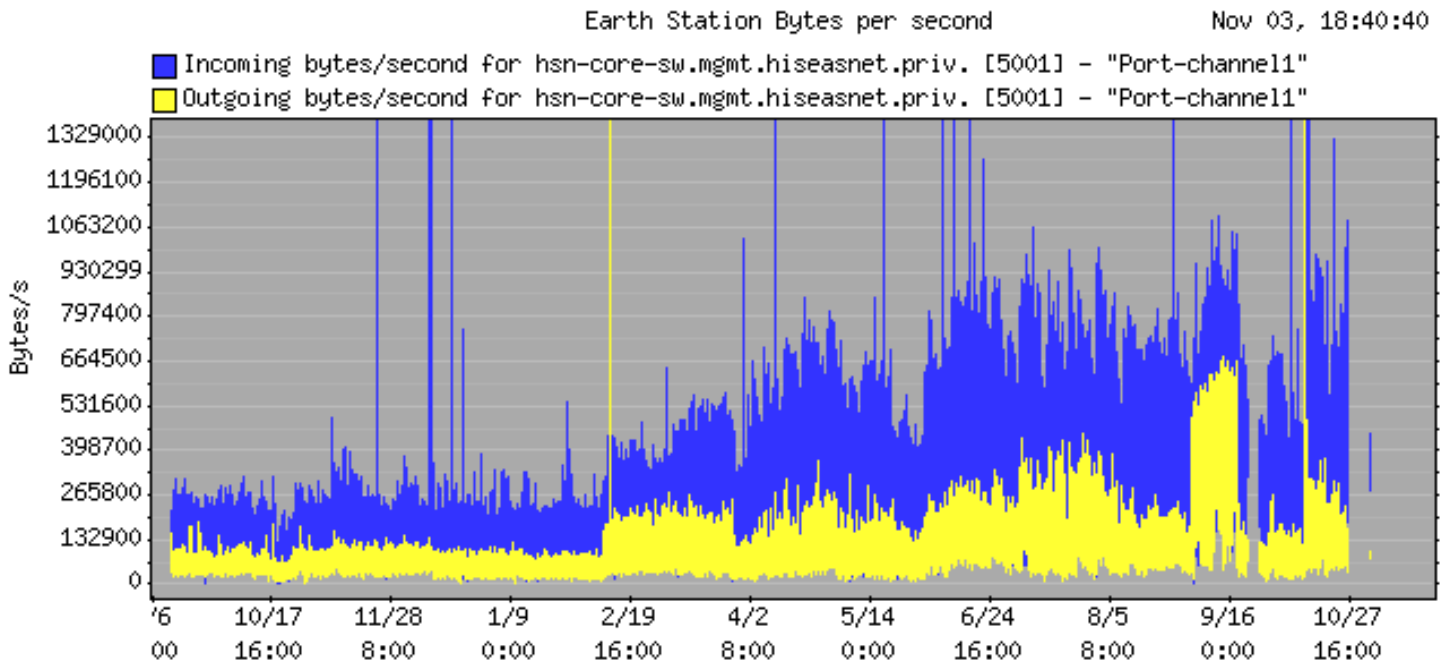


# HiSeasNet Support Team




HiSeasNet Support Line (858)822-3356 hiseasnet@ucsd.edu

# HiSeasNet 2.0 – 4 X Bandwidth ++ IP
# What's Next?




**Fall 2014 Aggregate Utilization**

**Fall 2015 Aggregate Utilization**

- Delivered 4X increase in bandwidth – all IP
- No surprise – ships use it
- What if another 2X?
- Target objective – 15 Mbit?

# Take Aways for HiSeasNet 2.0

- New Q-Flex modems fully fielded on ships and shore
  - Bandwidth increased 4X at 2X price
  - Scalable Bandwidth Expansions
  - Enables new capabilities for scientific users
- All IP Architecture – no more serial interfaces
  - Enables better remote support , monitoring and measurement
  - Leveraging UC San Diego and CENIC/ I2 network infrastructure
- Matrix Staff Support – Mature operations posture
  - Leveraging skills and knowledge of staff across projects
  - Leveraging  collaborative integrated systems management
  - Shared situational awareness and
  - Rapid response 7 days a week best effort
- HiSeasNet delivering mainstream maritime SatCom services tailored to Oceanographic research community
  - Future development to align with user requirements

Thank you for your attention.