

SatNAG

Satellite Network Advisory Group

2021 UPDATE



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SatNAG - Satellite Network Advisory Group

- **Advisory Group Members**

- Laura Stolp / Woods Hole Oceanographic Institution
- Ken Feldman / University Of Washington
- Erich Gruebel / University Of Rhode Island
- John Haverlack / University of Alaska Fairbanks

- **Mission Statement**

- To steward the objective, effective and efficient use of ship to shore network resources and optimize positive customer experiences for the UNOLS fleet

- **What We Do**

- SatNAG works in good faith as advocates to the benefit of ARF over personal or home institution interests to advise NSF, the ARF community, and UNOLS Council about key aspects of satellite communication and fleetwide bandwidth management.



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SatNAG - 2021 Year in Review

- **Cyber Infrastructure Working Group (CIWG)**
 - Worked with Peregrine; CIWG; to refine Cyber Security requirements for IMO and ONR
 - CyberX device (more on a following slide)
- **Next Generation Firewall**
 - Transition from Cyberoam to Sophos XG is in process
 - Completed on R/V Oceanus, R/V Armstrong, R/V Thompson, R/V Atlantis
 - Collaboration with ResearchSOC will influence the NGF choice
- **Internet Use Policy** being applied on SatNAG members' vessels.
 - satnag.unols.org/internet-use-policy
 - Raised the daily quota to 400 MB per day per user
- **SatNAG wiki** - Regularly updated with current info. tips, and how-tos



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<https://satnag.unols.org>



SatNAG wiki

<https://satnag.unols.org/>

- **Web based documentation and searchable knowledge base**
- **U.S. ARF Maritime Cybersecurity Resources**
 - <https://satnag.unols.org/cybersec/>
- **Documented procedures and how-to docs (continual improvement)**
 - Sophos upgrades
 - Telepresence and ship to shore solutions
 - Bandwidth management tips and tricks
 - Device maintenance
- **Links to online resources**
 - Internet Use Policy
 - Satellite System Hardware



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2021-2022 Goals

- **Deploy Sophos XG Firewalls**
 - Rebuild the traffic usage metrics & reporting
- **Work with HSN, CIWG and ResearchSOC**
 - Technical oversight for HiSeasNet on Satellite Communications Services
 - Evaluation of Fleetwide Bandwidth Needs
 - Technical oversight for ResearchSOC on Cybersecurity Program
 - Next-Generation Firewall / Stop Gap Firewall Future Directions
 - Develop a Network Reference Architecture
- **Maintain the user-facing SatNAG website content**
 - More tips, tricks, and best practices
 - Ongoing Cyber Infrastructure/Security section



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Peregrine CyberX

Peregrine CyberX Security Information and Event Management (SIEM)

- MOXA computer sent vessels in the ARF to be used as a SIEM
- Started out as CyberX the company was acquired by Microsoft, the system was rebranded as AZURE Defender for IoT (AIoT)
- The system was misconfigured and only works for about 2 days.
- It is not worth setting up and installing on the ships
- The hardware maybe used for other purposes, but **for the time being it can be left in the box.**



More Feedback Needed

- We'd like to hear more about issues that vessels are facing in the networking, cybersecurity, and satcom domain
- We would especially like to hear more from smaller vessels
- How would the community feel about a revised networking survey?
- Email at satnag@unols.org



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Thank You!

Questions?



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