

SatNAG

Satellite and Network Advisory Group

2024 UPDATE



SatNAG

Satellite Network Advisory Group



SatNAG - Satellite and Network Advisory Group

- **Advisory Group Members**

- Rebecca Hudak / Woods Hole Oceanographic Institution
- Ken Feldman / University Of Washington
- Erich Gruebel / University Of Rhode Island
- Julian Race / University of Alaska Fairbanks

- **Mission Statement**

- To steward the objective, effective and efficient use of ship to shore network resources and cyber infrastructure and optimize positive customer experiences for the UNOLS fleet and to serve as a technical consultant to the Academic Research Fleet (ARF) leadership.

- **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 network management.



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SatNAG's Role

SatNAG was formed in 2016 and has been funded and directed to review and advise NSF and ONR on ARF satellite communication considerations, and other technology directions which have broader impacts to the U.S. Academic Research Fleet.

SatNAG's Role is to:

- Review ARF satellite communication service levels, market rates, performance, and priorities, broad strokes budget.
- Provide recommendations to NSF regarding fleetwide technology needs and project priorities.
- Advise on ARF technology resource allocations.
- Facilitate ARF fleetwide technology collaborations.
- Establish and maintain ARF fleetwide bandwidth management policies.
- Digest and communicate complex technology decisions to the broader ARF community.



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SatNAG - 2024 Year in Review

- **Cyber Infrastructure Working Group (CIWG)**
 - Technical consulting and liaison role
- **NSF 2024 TrustedCI Cybersecurity Summit**
 - Building Collaborations with other NSF Large Facilities and TrustedCI regarding Cybersecurity and cyberinfrastructure
- **Cyber Training Cruises**
 - RV Sikuliaq & RV Endeavor
- **Next Generation Firewall**
 - Continued work on FortiGate roll-out in the ARF
- **SaferSeas Act Technology Implementation Review**
- **Helped Organize RVTEC Cyber Monday**
- **Internet Use Policy**
 - satnag.unols.org/internet-use-policy
 - Need for quotas alleviated by Starlink, Navy bandwidth expansions, and NGFW
- **SatNAG wiki**
 - Regularly updated with current info. tips, and how-tos
- **RVTEC Slack** - arf-cybsec channel



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SatNAG wiki

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

- **Web based documentation and searchable knowledge base**
- **Documented procedures and how-to docs (continual improvement)**
 - 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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2025 Goals

- **Fortinet Firewall**
 - Assist in rollout
 - Evaluate effectiveness
 - Refine best practices
 - Security monitoring with OmniSOC
- **Continue collaboration with HSN, CIWG and OmniSOC**
 - Foster relationships with TrustedCI and CI-Compass partners
- **Promote Cyberinfrastructure Training Cruises**
 - Another on R/V Sikuliaq in April
- **Maintain the user-facing SatNAG website content**
 - Ongoing Cyber Infrastructure/Security section
 - Fortigate information
- **Work with the fleet program directors:**
 - **Laura Stolp - NSF - Cyberinfrastructure**
 - **Tim McGovern - NSF - Oceanographic Technical Services**
 - **Rob Sparrock - ONR - Oceanographic Research Facilities Program**



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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 coastal/local vessels**
- **Email at satnag@unols.org**



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Thank You!

Questions?



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Landscape in which ARF Operates

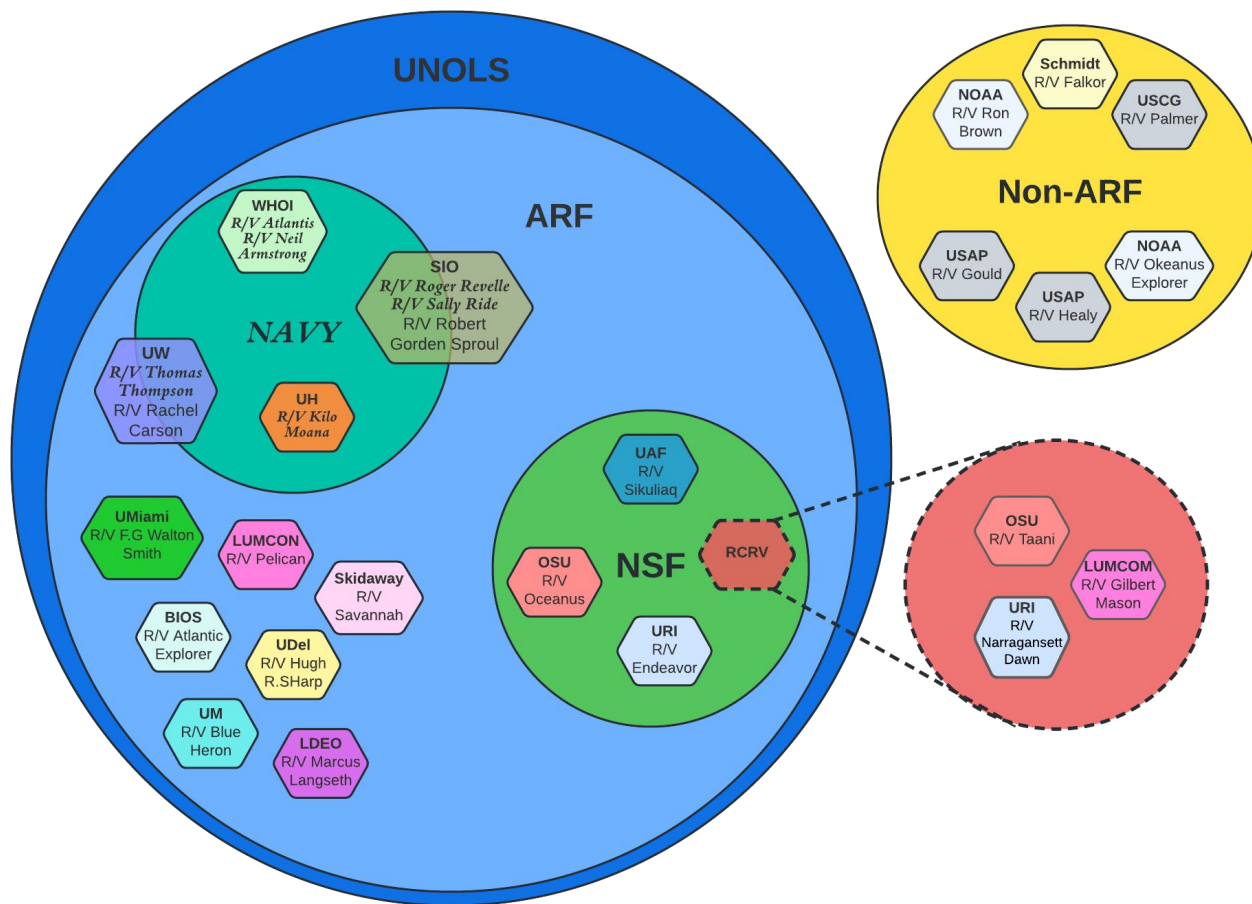
- University-National Oceanographic Laboratory System (UNOLS)
 - Includes over 60 National Laboratories involved in oceanographic research dedicated to coordinating oceanographic ships' schedules and research facilities.
- NAVY
 - Office of Naval Research (ONR)
- National Science Foundation
 - Geosciences (GEO)-> Ocean Sciences (OCE)
- Individual Operators
 - Home Institution
- Principle Investigator
 - Could be from the International Science community - write the proposal to charter the vessel - expedition
- Grant Funding Agency
 - E.g. NSF, ONR, NOAA, NASA, Other
- R2R
 - Lamont-Doherty Earth Observatory - Columbia
 - Scripps Institute of Oceanography - University of California
 - Florida State University
 - Wood Hole Oceanographic Institution



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ARF Governance Landscape



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