SatNAG

Satellite and **N**etwork **A**dvisory **G**roup

2025 UPDATE

SatNAG

Satellite Network Advisory Group

UNOLS
UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

https://satnag.unols.org

NSF

SatNAG - Satellite and Network Advisory Group

- **Advisory Group Members**
  - Rebecca Hudak / Woods Hole Oceanographic Institution
  - Ken Feldman / University Of Washington
  - Melissa Gonsalves / 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 cyberinfrastructure, and to optimize positive customer experience across the UNOLS fleet, while serving as a technical consultant to Academic Research Fleet (ARF) leadership.
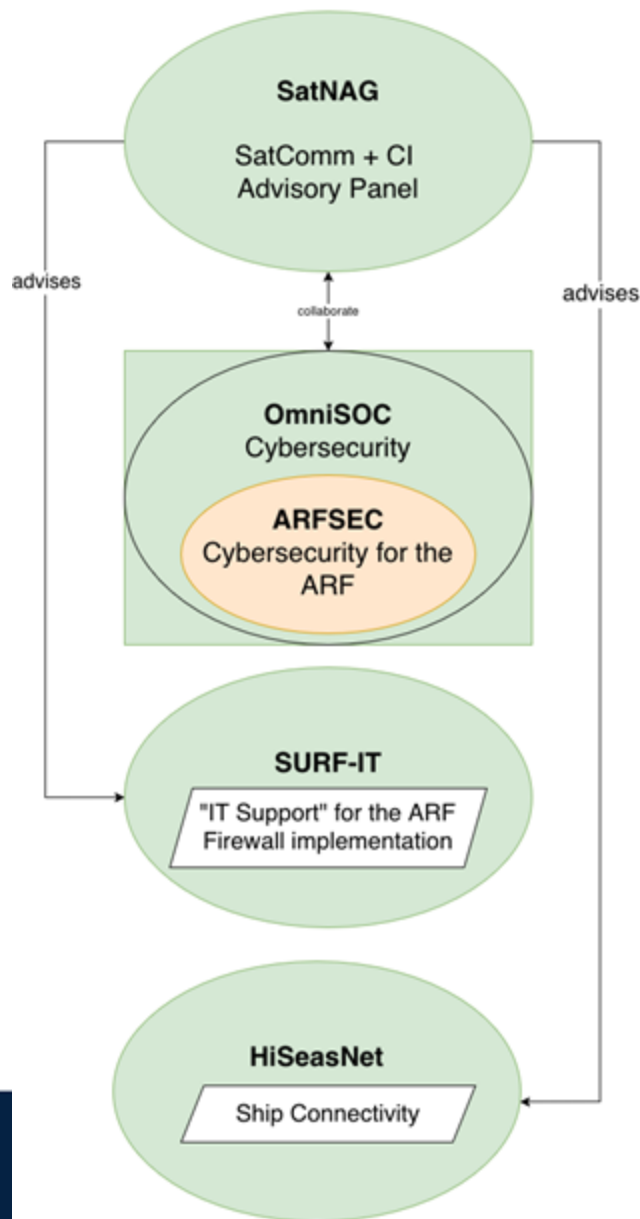
- **What We Do**
  - SatNAG works in good faith as advocates for the benefit of the ARF, independent of institutional affiliations, to advise NSF, the ARF community, and the UNOLS Council on matters of cyberinfrastructure, including satellite communications and fleetwide network management
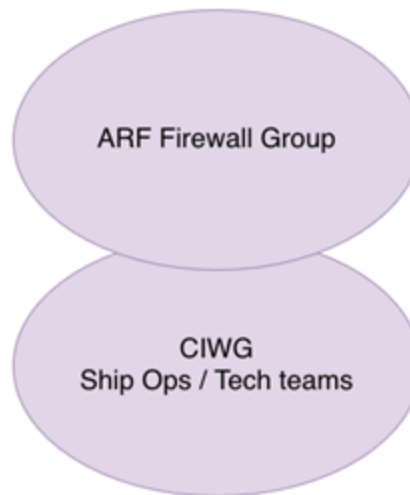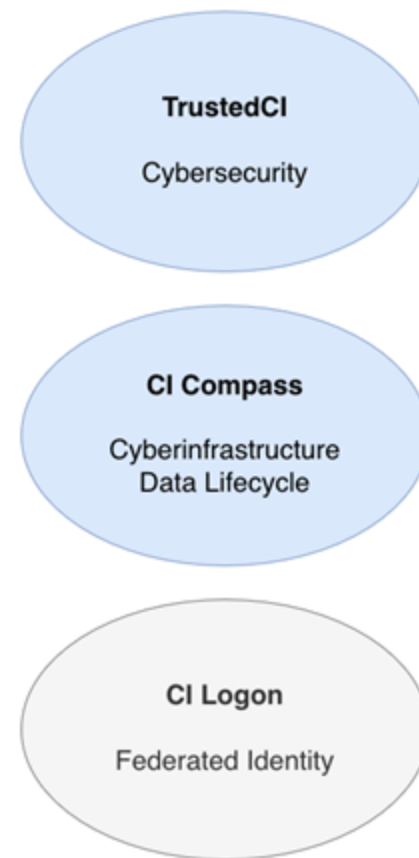
Funded Groups

SatNAG

SatComm + CI
Advisory Panel

collaborate

OmniSOC
Cybersecurity

ARFSEC
Cybersecurity for the
ARF

SURF-IT

"IT Support" for the ARF
Firewall implementation

HiSeasNet

Ship Connectivity

advises

advises

Volunteer
Working Groups

ARF Firewall Group

CIWG
Ship Ops / Tech teams

NSF Centers of Excellence
(for all major facilties)

TrustedCI

Cybersecurity

CI Compass

Cyberinfrastructure
Data Lifecycle

CI Logon

Federated Identity

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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 with a strong focus on meeting cybersecurity regulations and best practices.
- 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 - 2025 Year in Review

- **Cyber Infrastructure Working Group (CIWG)**
  - Technical and Ship Ops Focused Groups. Technical consulting and liaison role
- **NSF 2025 TrustedCI Cybersecurity Summit**
  - Represent the ARF and work towards building collaborations with other NSF Large Facilities and TrustedCI regarding cybersecurity and cyberinfrastructure
- **Cyber Training Cruises**
  - RV Endeavor last December, RV Sikuliaq last April.
  - We hope to put more on the books soon - looking for ships!
- **Next Generation Firewall**
  - Continued work on FortiGate roll-out in the ARF
  - Spin off SURF-IT to focus on implementation support
- **SaferSeas Act Technology Implementation Review**
- Helped Organize **RVTEC Cyber Monday**
- **Internet Use Policy**
  - satnag.unols.org/internet-use-policy
- **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
  - Cyber Security Training Resources

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2026 Goals

- **Support Fleet-wide Cyberinfrastructure Initiatives**
  - **Fortigate Rollout:**
    - Support configuration, testing, and optimization of Fortigate firewall deployments across vessels and institutions.
    - Work with SURF-IT, OmniSOC, Fortigate firewall team and individual operators to advise and support rollouts of firewalls and logging devices.
  - **Promote Cyberinfrastructure Training Cruises**
    - We hope to host more in the coming year.
- **Continue collaboration with HSN, CIWG, OmniSOC and others**
  - Foster and grow relationships with TrustedCI and CI-Compass partners.
- **Maintain user-facing SatNAG website content**
  - Ongoing Cyber Infrastructure/Security section
  - Fortigate information
- **Work with Fleet Program Directors**
  Continue to advise and assist with cybersecurity and network infrastructure initiatives with attention to evolving regulations and technological enhancements.
    - Tim McGovern - NSF - Oceanographic Technical Services
  - Rob Sparrock - ONR - Oceanographic Research Facilities Program

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 us at satnag@unols.org**

Thank You!

Questions?