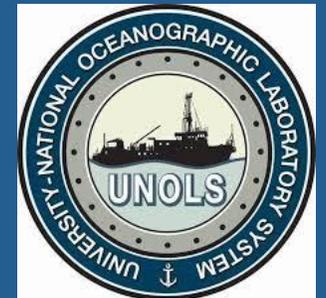# NSF Trusted CI Engagement Update

Lee Ellett

Summary of Trusted CI Engagement Timeline

Trusted CI:

July 2, 2019: Regular weekly meetings commence

Jan 7, 2020: Formal end of engagement activities. All written deliverables delivered to and accepted by US Academic Research Fleet

ARF Committee:

Jan 30, 2020: regular weekly meetings

TARGET: White paper response documenting fleet CI/CS recommendations complete 2-4 weeks prior to UNOLS Council summer meeting

Review Committee

John Bichy, SKIO

Lee Ellett, SIO

Ken Feldman, UW

Scott Ferguson, UH

Erich Gruebel, URI

John Haverlack, UAF

Robert Kamphaus, UW

Jon Meyer, SIO

Brandi Murphy, UNOLS

Alex Ren, LUMCON

Chris Romsos, OSU, RCRV

Ethan Roth, UAF

Laura Stolp, WHOI

Goals and Current Activities

Goals:

- Review of the Trusted CI Report by diverse expertise within the ARF
- Prioritize recommendations in the report
- Provide guidance as to how recommendations should be applied within the ARF
- Provide near term guidance to operators facing regulatory requirements

Activites

- Weekly telecons
- Discussing and outlining core issues
- Considering how existing UNOLS mechanisms can be applied to CI and CS
- NSF has provided some informal feedback on feasibility of recommendations

Examples of Relevant Cybersecurity Requirements

1. IMO Maritime Cyber Risk Management in Safety Management Systems
2. Defense Federal Acquisition Regulation Supplement 252.204-7012 Safeguarding Covered Defense Information and Cyber Incident Reporting
3. NSF Major Facilities Manual (Sept 2019)
4. Personally Identifiable Information (PII) i.e.
   - Health Insurance Portability and Accountability Act (HIPAA)
   - Family Educational Rights and Privacy Act (FERPA)

Key Recommendation Topics

1. Cyberinfrastructure Plan
   - Needs to address science and operational goals
   - Fleetwide Shared Service Catalog
   - Fleetwide Identity and Asset Management
   - Cybersecurity Incident Response
2. Governance, Accountability, Roles and Responsibilities
3. Industry Standard Roles of Interest:
   - Chief Information Technology Officer (CITO)
   - Chief Information Security Officer (CISO)
4. Funding Structure Recommendations (CI vs OI/SSSE)

Topics for Council Consideration

1. The state of ARF is not in line with the CI/CS regulatory obligations and requirements of our funding agencies
2. Efficiencies can be gained for CI/CS across the ARF using mechanisms from the NSF Major Facilities Guide
3. We recommend industry-standard roles of CISO and CITO
4. UNOLS Council participation, support, input and buy-in are critical for success
5. Solving these foundational issues for ARF will produce better and more consistent scientific outcomes and field experience