RVOC Safety Committee Update

RVTEC 2025

Matt Durham - SIO
Erich Gruebel - URI

Safety Committee Charge

- Maintain the Research Vessel Safety Standards (RVSS)
- Consider waiver requests to the RVSS
- Evaluate mishaps, near-misses, and ongoing safety issues relevant to the research fleet
- Provide advice to Federal Funding Agencies on safety issues

2025 Safety Committee Meeting

April 30th - Beautiful Lewes, Delaware

New Committee Chair!

Jeff Garrett 2015-2025

Jon Swallow 2025 -

Resolved Issues

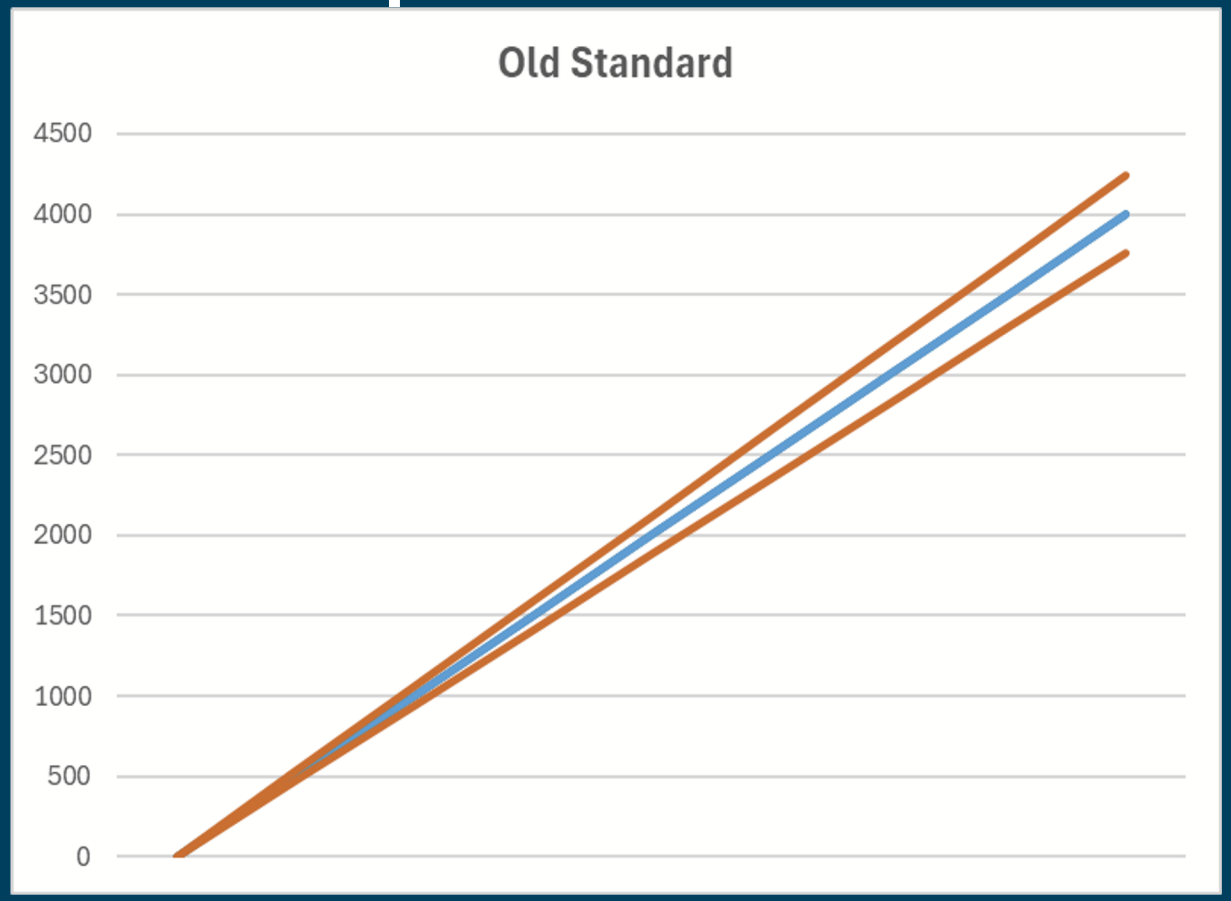
Tension Monitoring System Accuracy Change Request Accepted into RVSS

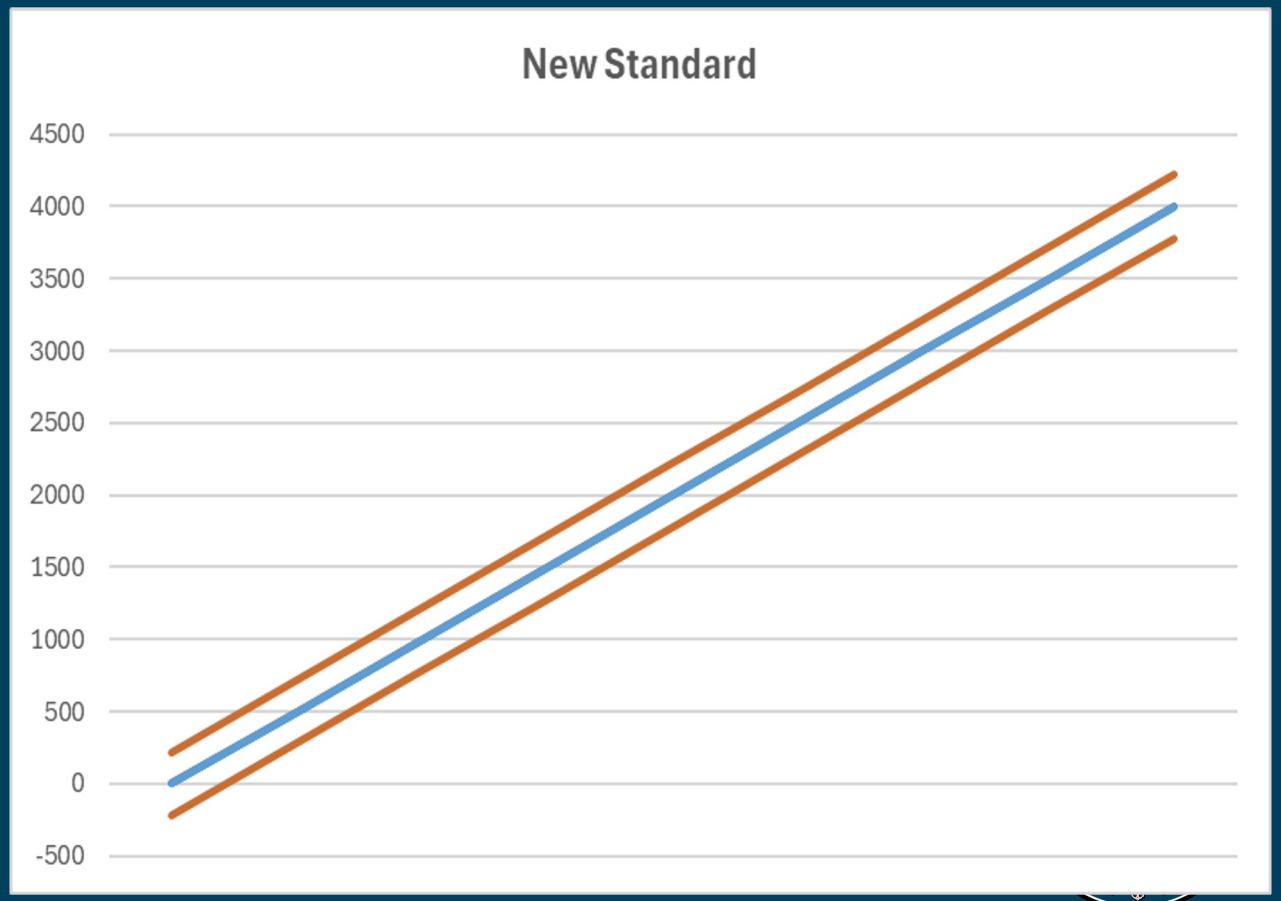
~~3%-4% of Applied Load~~

Constant error window = 3%-4% of the Safe Working Tension

Resolved Issues

Tension Monitoring System Accuracy Change Request Accepted into RVSS





Resolved Issues

Clarification of the RVSS Alcohol Policy

All UNOLS vessel operators shall ban the consumption of alcoholic beverages on board vessels of the Academic Research Fleet by crewmembers or embarked members of the scientific party. Possession of alcoholic beverages onboard ARF vessels is also prohibited.

Certain exceptions can be approved in writing by institutional management for the purpose of allowing the possession and consumption of alcohol on board ARF vessels while in port for receptions, special occasions and entertainment of visiting dignitaries.

-RVSS 6.1.2

Open Issues

Break Testing of Field-Terminated Samples

The Vessel Operator shall send samples to a UNOLS-accepted test facility (UNOLS Wire Pool at WHOI) for consistency of testing purposes and maintaining statistics.

For steel cables and wire rope, the Operation shall send a five-meter (16 ft.) test sample terminated on both ends with the fittings normally used in the field.

-RVSS A.5.2

Open Issues

Labeling of Overboard Handling Apparatus

OHS components must be labelled with SWT, most recent test date, and whenever possible, a SWT diagram providing a clear illustration of the tension member's allowable range of angles when loaded to SWT.

-RVSS B.3.3

Ongoing Discussions

- RVSS exclusions for light-duty overboarding systems
- RVSS guidance for high-voltage considerations
- Comprehensive update for harassment and respectful behavior
- Wire lubrication protocols
- Consistent testing of ship’s cranes
- Lithium battery safety

UNOLS Fleet Improvement Committee Update

RVTEC 2025

Erich Gruebel - URI

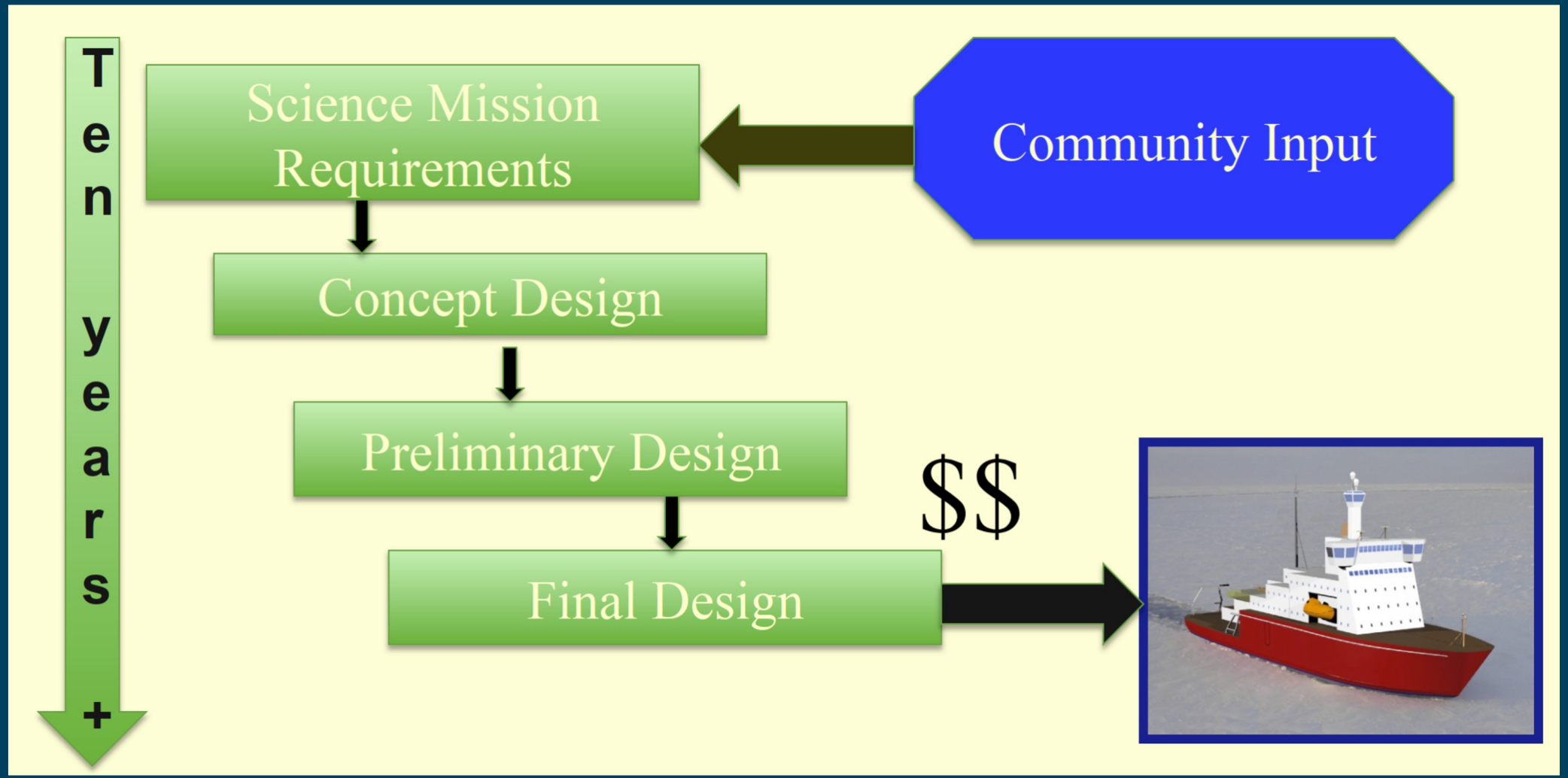
Fleet Improvement Committee Charge

The Fleet Improvement Committee (FIC) works to assure the continuing excellence of the Academic Research Fleet (ARF), to improve the capability and effectiveness of individual ships and to assure that the number, mix and overall capability of ships in the ARF match the science requirements of academic oceanography in the U.S.

Science Mission Requirements (SMRs)

- Specifications which define minimum requirements and capabilities needed for research vessels, separated by classification
- SMRs are the first step in ~10 year ship acquisition process
- Updated periodically by panels of scientists, engineers, maritime professionals, and vessel operators. Driven by community input.
- The FIC has begun the newest update to the Ocean Class SMR, last updated in 2003

Science Mission Requirements (SMRs)



Replacing the Kilo Moana and Thomas G. Thompson

- RV Kilo Moana's service life ends 2032
- RV Thomas G. Thompson service life ends 2036
- No formal replacement program is in place for either vessel at this time

Evaluation of NOAA *"Class B"* Vessel

Evaluation of NOAA *"Class B"* Vessel

- Design review to determine the suitability of the new NOAA Class B (Surveyor & Navigator) as a potential replacement for Kilo Moana and Thomas G Thompson

- The Class B design is inadequate for several reasons
  - Deck and Lab Space (-1400 sq. ft.)
  - Overboard Handling Capability
  - Seakeeping (up to SS4)
  - Endurance (-40 days)

- Built as survey vessels, not general purpose RVs

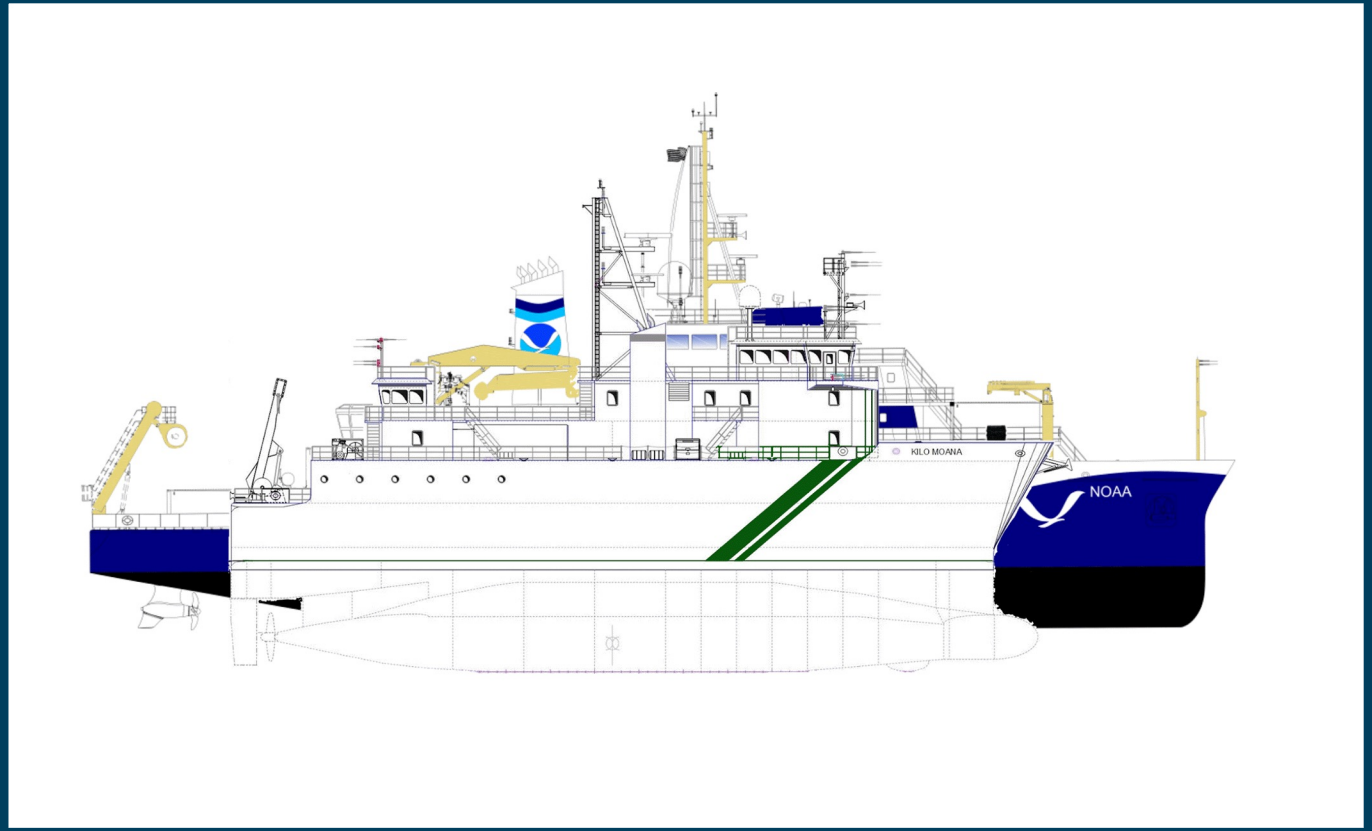
Evaluation of NOAA *"Class A"* Vessel

Evaluation of NOAA *"Class A"* Vessel

- Design review against the to determine the suitability of the new NOAA Class A (Discoverer & Oceanographer) as a potential replacement for Kilo Moana and Thomas G Thompson
- The Class A is a suitable replacement for Kilo Moana
- The Class A does NOT meet the GCSMR
- Recommendation sent to UNOLS Council in July of 2025

Evaluation of NOAA *"Class A"* Vessel

- Meets or exceeds OCSMRs *with reasonable modifications
- Overboard handling system needs a refresh
- Lab layout modifications from the NOAA design



2025 (or ‘26) Fleet Improvement Plan

FIP last updated in 2019

Assessment of the past, present, and future of the ARF

Recommendations to funding agencies and the UNOLS Council on funding priorities

Fleet Recapitalization!