

UNOLS Fleet Improvement Committee – Report to UNOLS Council

30 November 2016 – J. Swift (Chair, FIC)

Summary of Business from the November 2016 FIC Meeting:

1. Regarding ship design, construction, science verifications, refit, and repair activities, the FIC is presently attending to

- Ocean Class Research Vessels (OCRVs) – R/V *Neil Armstrong* and R/V *Sally Ride*
- Regional Class Research Vessels (RCRVs) - FIC mostly in stand-by at present
- Mid-life refit plans for R/Vs *Thompson & Revelle* (and *Atlantis*, we hope)
- Engine control and other modifications on R/V *Kilo Moana*
- R/V *Barnes* replacement plans
- California state effort to acquire a vessel to replace *Robert Gordon Sproul*
- Polar vessels – FIC support and interest in upcoming NSF/PLR ship matters

2. Science verification cruises and post-cruise feedback

R/Vs *Sikuliaq*, *Armstrong* and *Ride*

FIC oversight is proceeding without significant problems. *Sikuliaq* post-cruise feedback to FIC has reached the point – regarding its purpose – that the FIC can now move back to the PCAs to help assess user experiences.

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3. FIC reviewed fleet status (retirements, additions, service life end dates, optimal year definitions, etc.). Updates are in line with prior projections.

FY2016 – FY2030
Projected
UNOLS Fleet
Capacity

(updated: 11/23/2016)

		<div><div></div> DeSign Life</div> <div><div></div> Extended Life</div> <div><div></div> Retired</div>																			
Ship/Class	Owner	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Ship Age	Retire Year			
Global Class																					
Thomas G. Thompson	NAVY																25	2021			
Roger Revelle	NAVY																20	2026			
Atlantis	NAVY																19	2027			
Marcus G. Langseth	NSF																25	2030			
Sikuliaq	NSF																2	2045			
Ocean/Intermediate Class																					
Kilo Moana	NAVY																14	2032			
Endeavor	NSF																40	2020			
Oceanus	NSF																40	2019			
Atlantic Explorer	BIOS																34	2026			
Neil Armstrong	NAVY																1	2045			
Sally Ride	NAVY																1	2046			
Regional Class																					
Hugh R. Sharp	UDel																11	2035			
RCRV1	NSF																	2051			
RCRV2	NSF																	2052			
Coastal/Local Class																					
Robert Gordon Sproul	SIO																35	2018			
Pelican	LUMCON																31	2020			
Walton Smith	U.Miami																16	2030			
Savannah	SKIO/UG																15	2031			
Blue Heron	UMINN																31	2025			
Clifford Barnes	NSF																50	2018			
Ships		18	18	18	16	15	14	15	15	15	15	14	13	12	12	12					

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4. The FIC examined more flexible definitions of Full Optimal Year for each ship which better take into account unique events such as significant planned yard time. Optimal year definitions recommended in May 2016 are being implemented.
5. The FIC approved modifications of UNOLS STRS schedules which more clearly account for each calendar day.
6. No significant update from FIC regarding R/V *Langseth* operations and its liaison with the MLSOC (now reconfigured and renamed).
7. FIC membership was discussed. One non-operator member recently needed to retire due to change of institution, and there will soon be an open at-large representative position. Council and Office assistance will be sought to fill those positions.

Council approval is sought to approve a second term for operator member Nancy Rabalais (Lumcon).

8. Research Vessel Safety Standards Appendix B
(UNOLS Overboard Handling Systems)

Appendix B is a set of safety standard designed to ensure that all components of an overboard handling system (including the ship's structure and the means of attaching handling systems to the ship) are designed to meet the loads applied to the system.

FIC notes that the goals of Appendix B are suitable but the methods of getting there must be revised to be more realistic. For example no institution has yet been able to meet the current Appendix B requirements, and this puts institutions in a tenuous situation.

FIC recommends that Appendix B be evolved into a simpler set of guidelines for achieving its goals such that it is both easily understandable and also achievable.

When this is worked out, it would also be valuable to provide a road map so individual PIs who own over the side handling equipment can get their equipment into Appendix B compliance.

[UNOLS Fleet Improvement Committee – Report to the UNOLS Council (continued)]

9. The FIC greatly appreciated a talk by Vicki Ferrini (LDEO and Multibeam Advisory Committee/MAC) which provided an update on sea acceptance tests of multibeam systems on new vessels and MAC resources.

10. Areas of new or increasing FIC activity include:

a. Science Mission Requirements (SMRs) for Global class

FIC subcommittee was formed to draft mission scenarios

beginning to gather UNOLS community input

will engage federal agencies

attention to lessons learned from recent vessel construction projects

compare these to the Global class capabilities

examine modern non-US global-ranging research ships

consider infrastructure requirements and implications to back up the SMRs

should also consider the process of moving from SMRs to design specifications

re-design the SMRs to be a living document

b. The FIC would like to develop a liaison with the UNOLS AAIC to jointly provide input regarding US polar ship refits and acquisitions.