

October 24, 2018

From: UNOLS Council Non-Operator Subcommittee (Tammi Richardson, Chair; Rhian Waller, Anna-Louise Reysenbach)

To: NSF and ONR (hereafter ‘the Agencies’)

Subj: Response to document “2019 U.S. Academic Research Fleet Operations Support Findings and Recommendations”

Ref: The above document (submitted to Dr. Deborah Steinberg-UNOLS Chair, 18 July 2018)

The following comments from the UNOLS Council Non-operator Subcommittee are in response to the Agencies’ positions, guidelines, and recommendations as detailed in the “2019 U.S. Academic Research Fleet Operations Support Findings and Recommendations.”

Overall, we are encouraged to see that the Agencies are satisfied with efforts towards achieving desired Fleet utilization rates and we note the possible challenges with scheduling the Global class vessels due to the *Revelle*’s mid-life refit. We concur that a clear definition of the fleet’s surge potential is critical, especially considering recent needs for rapid response research in the wake of major hurricanes and the Kilauea volcano eruption, for example. We are encouraged that the NSF will accept proposals with ship time requests at both panels, and feel that the recommended 18-month-from-submission time window is a reasonable timeframe for the more complex Global/Ocean class ship requests.

Our comments focus on the Agency Positions, Decisions and Recommendations, and Guidelines.

Agency Positions

Most agency positions are identical to those in the past and have been commented on in previous Non-Operator responses. In response to position 4 and as mentioned above, we agree that some level of surge capacity is needed for rapid-response type cruises. We are in favor of this assuming that rapid response cruises do not displace already-scheduled ship operations, and thus truly increase science utilization. In response to position 6, we concur with the NSF decision to follow the Sea Change recommendation of retiring the *R/V Marcus G. Langseth* in mid-2020. While this is disappointing, we understand the factors that underlie this decision.

Agency Decisions and Recommendations

Recommendation 1 (identification of cost reduction strategies, leveraging of institutional resources) is a recurring theme and a continuing activity for ship operators.

Similarly, re: Recommendation 2, the science community is embracing the enhanced capabilities of the newest members of the ARF and we believe will plan for reduced berthing capacities as needed.

Guidelines

Agency Guidelines are identical to those in previous documents.

Agency Guidelines

Most of the guidelines listed are identical to those in previous years, but we note that the concept of using a two-ship operation instead of one Global is problematic given that most cruises share samples and sampling systems (i.e., most cruises for Globals are interdisciplinary) so the applicability of this approach would be very limited and potentially more costly as a result. We also note that past two-ship operations have fully utilized the space afforded by two global class vessels (e.g., SoFex; R/V *Melville* and R/V *Revelle*) or one global and one ocean/intermediate class vessel (e.g., 2018 NASA EXPORTS; R/V *Revelle* and R/V *Ride*).

Supporting Information and Findings

Given the sinusoidal variations in ship requests (Figure 4) we have to be careful in interpreting trends, but clearly the fleet utilization (Figure 1) is declining steadily; this appears to be driven primarily by overall funding, not by a lack of scientific initiative (i.e., requests). The decline in Global utilization (Figure 2) since 2012-2013 is probably due to the cycle of OOI, Repeat Hydrography/CLIVAR, and GEOTRACES cruises (e.g., RH and GEOTRACES were on *USCGC Healy* in 2015). It is anticipated that these programs (e.g., planned GEOTRACES Pacific in 2018; OOI global array servicing) and other newly developed ones (e.g., NASA/NSF-funded EXPORTS) will increase Global demand and should shift this trend upward. Moreover, given the ages of the Global class vessels, notwithstanding SLEP, and the long lead-time for new ship funding and construction, the FIC has started writing new Science Mission Requirements for replacement Global vessel(s).

Sincerely,



Dr. Deborah Steinberg/UNOLS Chair