



FLEET IMPROVEMENT COMMITTEE REPORT

June 14, 2011

Oceanus retirement/re-positioning

- 1. After considerable review and in light of the long term investment in their respective ships, the operators of *Endeavor* and *Wecoma* do not feel it would provide any benefit to moving the *Oceanus* to either URI or OSU. Therefore FIC recommends not pursuing this further.
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- **2. While not agreeing with the timing (several years too early) or the process**, FIC accepts NSF's recommendation to take *Oceanus* out of UNOLS service at the end of 2011. This would mean *Oceanus* will not be included in 2012 scheduling. FIC recommends that NSF through the UNOLS Office make a community wide announcement of this NSF decision that the *Oceanus* will be retired from UNOLS service at the end of calendar year 2011.
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- 3. FIC recommends that the operators of the *Endeavor* and *Wecoma* submit proposals to NSF to move forward on service life extensions (SLE). To extend and enhance the material condition of both the *Endeavor* and the *Wecoma* would assist in filling the anticipated gap in research vessel platforms on the East and West coast until the regional class research vessels are constructed and operating.

Long Core Re-positioning

FIC response forwarded to NSF 6/3/2011

- The repositioning options on either the *Thompson* or *Revelle* are not seen as good.
- Pros of installation on *Marcus Langseth*:
 - a. Long core system installation could make the *Langseth* more capable for general purpose operations and should improve her user base. There is not expected to be a long term demand for more than 2-3 seismic cruises per year. FIC cautions it is essential that any modifications made to *Langseth* be shown to enhance not take away from general purpose capabilities.
 - b. Long coring is consistent with the mission of LDEO. It would be very attractive if having this equipment onboard leads to more *Langseth* operating days.
 - c. Cross-training of support people should be feasible and beneficial.
 - d. Semi-permanent installation may cut down on mobilization costs.

Long Core re-positioning cont.

- Cons of installation on *Marcus Langseth*:
 - a. Extended and expensive shipyard period would be required for ship modifications.
 - b. Maintenance of the long corer system may be difficult to deal with due to semi-permanent installation (e.g. ship rarely in convenient ports).
 - c. Long Core System takes up payload and OBS space, 15% less fuel could be carried. It needs to be determined if this loss of fuel capacity would limit future seismic operations.
 - d. Glosten report makes it sound doubtful that both seismic and long core operations could occur on the same cruise - since could not set up underway. It would be a much more unique capability if both operations could be performed on the same cruise.
 - e. Existing dynamic positioning system on *Langseth* may not be adequate. This will need further research and testing.

Long Core re-positioning recommendation

- More study of the structural and, especially, stability profile changes of *Langseth* be made in order to assess cost and know if the changes required would cause conflicts with either general purpose or seismic gear operations.
- Tandem changes in the Long Core System itself need to be assessed when evaluating vessel modifications.
- NSF should wait to make any final repositioning decision until the shipyard is chosen for the construction of the two new Ocean Class AGORs to determine if these vessels offer an alternative for support of the Long Core System.

Projected Service Life End Dates

- FIC is concerned that under the current end of service dates there will be a gap in ship availability between roughly 2015 and 2020. This gap could widen due to delays in the construction of the new RCRVs. Therefore, it is premature to lock in end of service life dates for the R/V's *Point Sur*, *Cape Hatteras*, *Wecoma*, *Endeavor* or *New Horizon* at this time.
- The operators of these vessels should be encouraged to develop SLE proposals to NSF and to inform the UNOLS Office about their plans for continuing operations in the 5-10 year time frame. SLE proposals can then be evaluated based on up-to-date projections for demand and the costs of enhancements to the material condition and capabilities of existing vessels. As new end of service dates are approached, operators and NSF should concur with at least 2 years advance planning on intent to proceed with removing a vessel from service.
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- The futures of the Global vessels, R/Vs *Thompson*, *Revelle* and *Atlantis* also need to be secured. FIC fully supports plans under consideration by the Navy to extend the service lives of these vessels through a mid-life refit program.

New Classification (FIC alternative) and end of service dates

SHIP/CLASS	BUILT	Conv/ Mid Life	Owner	LOA m (ft)	Science Berths	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Global Class																											
<i>Melville</i>	1969	1991	NAVY	85 (279)	38	---	---	---	---	---	--X																
<i>Knorr</i>	1970	1989	NAVY	85 (279)	34	---	---	---	---	---	--X																
<i>Thomas G. Thompson</i>	1991		NAVY	84 (274)	36	---	---	---	---	---							--X	---	---	---	---	---	---	---	---	-->	
<i>Roger Revelle</i>	1996		NAVY	84 (274)	37	---	---	---	---	---												--X	---	---	---	-->	
<i>Atlantis (Submersible Support Ship)</i>	1997		NAVY	84 (274)	37	---	---	---	---	---													--X	---	---	-->	
<i>Marcus G. Langseth (Seismic Ship)</i>	1991	2007-2011	NSF	71 (235)	35	---	---	---	---	---																-->	
<i>Sikuliaq</i>	2013		NSF	80 (261)	26					>																	-->
Ocean/Intermediate Class																											
<i>Kilo Moana</i>	2002		NAVY	57 (186)	29	---	---	---	---	---																	-->
<i>Wecoma</i>	1976	1994	NSF	56 (185)	18	---	---	---	---	--X	S---	---	---	---	---	--X											-->
<i>Endeavor</i>	1976	1993	NSF	56 (184)	18	---	---	---	---	--X	S---	---	---	---	---	--X											-->
<i>Oceanus</i>	1976	1994	NSF	54 (177)	19	---	--X																				-->
<i>New Horizon</i>	1978	1996	SIO	52 (170)	19	---	---	---	---	---		--X	S---	---	---	---	--X										-->
<i>AGOR 27</i>	2014		NAVY							>																	-->
<i>AGOR 28</i>	2014		NAVY							>																	-->
Regional Class																											
<i>Point Sur</i>	1981		NSF	41 (135)	12	---	---	---	---	---		--X	S---	---	---	---	--X										-->
<i>Cape Hatteras</i>	1981	2004	NSF	41 (135)	14	---	---	---	---	---		--X	S---	---	---	---	--X										-->
<i>Atlantic Explorer</i>	1982	2006	BIOS	51 (168)	20	---	---	---	---	---													--X				-->
<i>Hugh R. Sharp</i>	2005		UD	44 (146)	14	---	---	---	---	---								-M-									-->
<i>RCRV1</i>	2018		NSF										>														-->
<i>RCRV2</i>	2019		NSF											>													-->
<i>RCRV3</i>	2020		NSF												>												-->
Coastal Class																											
<i>Robert Gordon Sproul</i>	1981	1985	SIO	38 (125)	12	---	---	---	---	---	--X																-->
<i>Pelican</i>	1985	2003	LUMCON	32 (105)	14	---	---	---	---	---							--X										-->
<i>Walton Smith</i>	2000		Miami	30 (96)	16	---	---	---	---	---		-M-															-->
<i>Savannah</i>	2001		SKID/UG	28 (92)	19	---	---	---	---	---			-M-														-->
<i>Blue Heron</i>	1985	1999	UMINN	26 (86)	6	---	---	---	---	---																	-->
<i>Clifford Barnes</i>	1966	1984	NSF	20 (66)	6	---	---	---	--X																		-->

X = Current Projected End of Service Life
M = Midlife Refit
S=service life extension with upgrades

Entries in RED are Proposed. SLPs dependent on demand, cost and the timing of RCRV completion