



Greening the UNOLS Academic Research Fleet

UNOLS Annual Meeting

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Bruce Corliss (Duke)

Clare Reimers (OSU)

Chris Goldfinger (OSU)

Julie Wagner (NOAA)



2010 UNOLS GOAL

"Greening the Fleet – UNOLS should explore how to make the present and future fleet more environmentally sustainable. New and existing technologies and practices should be used in the construction, operation, and recycling of research vessels and UNOLS should take a leadership role in promoting a green U.S. research fleet, as we move forward in developing the academic fleet."



MOTIVATION

1. Environmental stewardship
2. Educational outreach
3. Finances
4. Fleet renewal

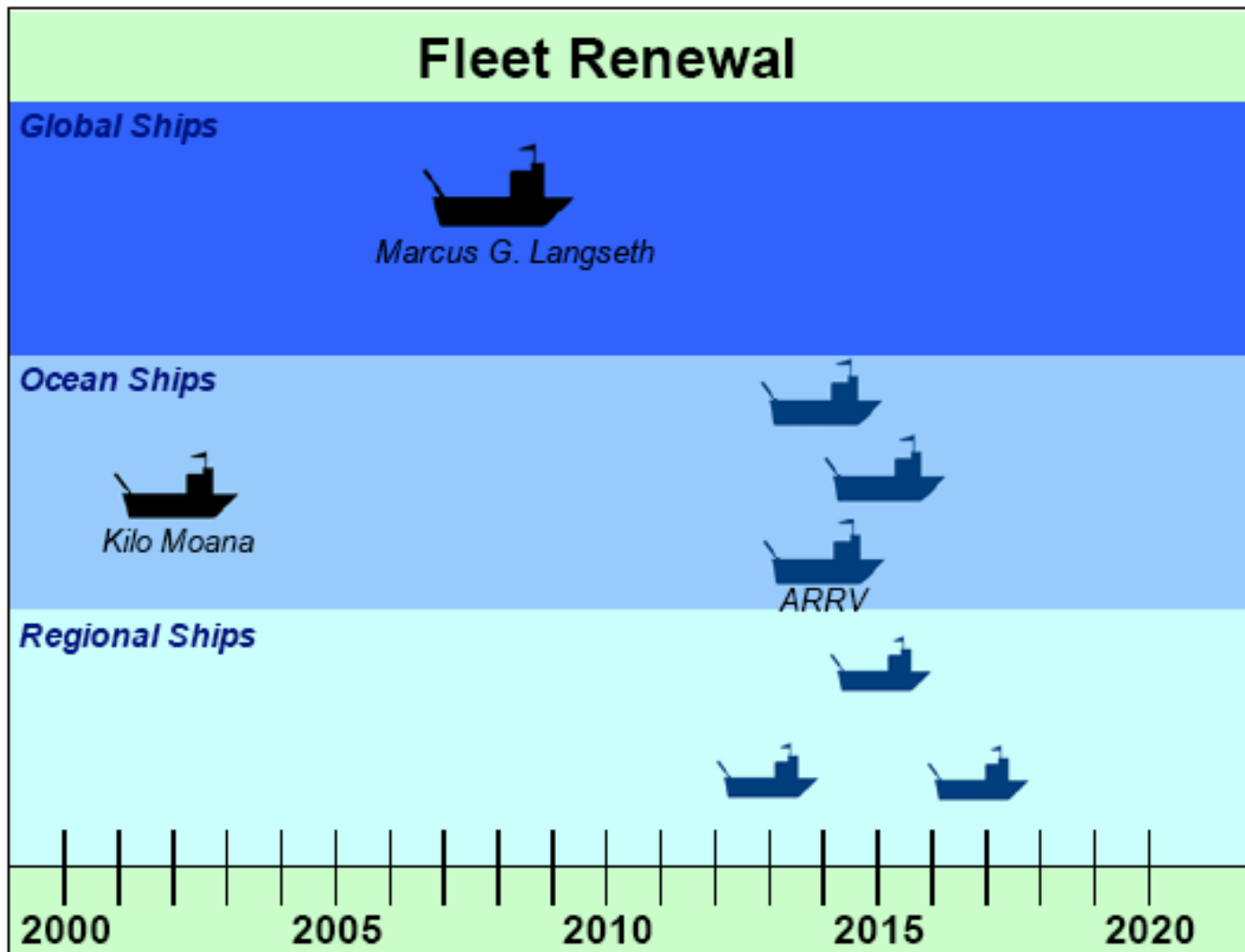


Figure 46. Fleet Renewal Timeline through 2020



Greening the Fleet: Work in Progress:

1. RVOC questionnaire on how to make existing ship operations more environmentally friendly- (Liz Caporelli-WHOI)-initiate discussion within the fleet on environmental sustainability
2. NSF 3RD Large Facility Workshop
3. *Cape Hatteras* Life Cycle Analysis: Assess environmental and economic impacts from cradle to grave



A Pilot Study: Cape Hatteras Life Cycle Analysis

- *Fuel comparisons: impact of diesel, waste oil and biodiesel

- *Lighting options

(Dr. Dalia Patino, Duke)



Greening the U.S. Academic Fleet: A UNOLS Workshop

Objective: An Assessment of Current Technologies, Designs and Practices for Environmentally Sustainable Research Vessels

Time: March 8-10, 2011

Location: Nicholas School of the Environment, Duke University, Durham, NC

Composition: 25-30 invitees, with representation from Council, RVOOC, RVTEC, FIC, NSF, Navy, NOAA, architects and naval designers, industry, and marine scientists interested in attending.



Format: 1 ½ day workshop with invited presentations on various aspects of green ships: design, technology, practices

Funding: Proposal for support of the workshop to be submitted to NSF and ONR

Announcement: UNOLS website and mailing lists, advertisement for workshop in EOS and Sea Technology



LONG TERM GOALS:

- 1) Promote environmental sustainability within UNOLS.
- 2) Development of guidelines for construction, operation and recycling of UNOLS research vessels that can be used by UNOLS and the federal agencies responsible for U. S. oceanographic vessels.
- 3) Development of green vessel guidelines for a broad range of U.S. vessels in addition to research vessels.

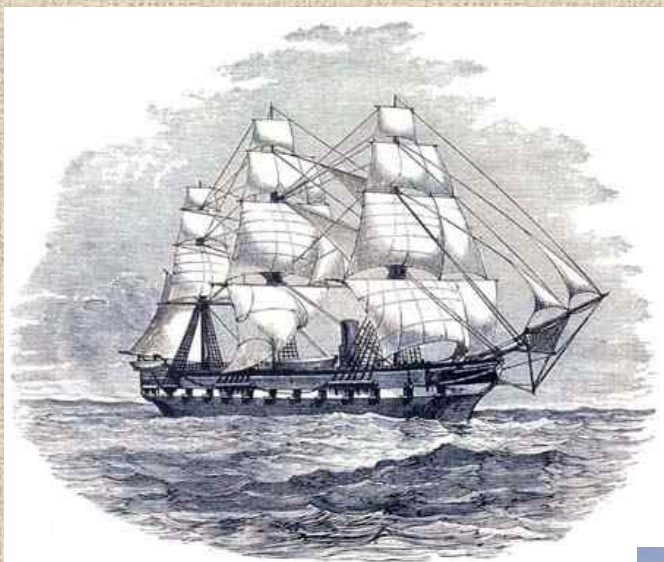


LONG TERM GOALS:

- 4) Promote environmental awareness on UNOLS ships with U.S. ocean scientists and students over the coming decades.
- 5) Incorporate environmental sustainability in Ocean Class and Regional Class vessel construction and operation.



GREENING THE UNOLS ACADEMIC FLEET



<http://www.geology.19thcenturyscience.org/books/hmsc.jpg>

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