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

Bruce H. Corliss
Duke University
DESSC Meeting
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Greening the Research Fleet
January 10-11, 2012
Nicholas School of the Environment

http://www.geology.19thcenturyscience.org/books/hmsc.jpg
Greening the U.S. Academic Fleet: A UNOLS Workshop


Composition: 50 participants, with representation from Council, RVOC, RVTEC, FIC, NSF, Navy, NOAA, architects and naval designers, industry, and marine scientists
Format: 1 ½ day workshop with invited presentations on various aspects of green ships: design, technology, practices; Breakout sessions and group discussions

Funding: Support of the workshop funded by NSF, ONR, and the Nicholas School of the Environment

Announcements: UNOLS website and mailing lists, advertisement for workshop in EOS

Organized by the UNOLS Office, URI
Participants

NSF
ONR
NOAA
UNOLS Office
Glosten Associates
Alaris Companies
ARUP
Foss Maritime
Kluber Lubrication North America
Eurofleet Project
Royal Caribbean Cruises
Tara Consortium
Tactical Marine Solutions
Harley Marine Services
Maersk Line, Limited
Wing Systems
Seacraft Design
DRDC Atlantic
Maritime Reporter Group
Aspin Kemp and Associates
Participants-UNOLS Members

Oregon State University*
Duke University
University of Rhode Island*
Columbia University*
Penn State
Bermuda Institute of Ocean Sciences*
University of South Florida (FIC)
University of Maine
Ocean Exploration Trust-GSO- URI
LUMCON*
WHOI
UW
UNCW
University of Miami
Skidaway
Humboldt State University
Consortium for Ocean Leadership
Schmidt Ocean Institute

*Marine Superintendent
LONG TERM GOALS:

1) Promote environmental sustainability within UNOLS

2) Guidelines for construction, operation and recycling of UNOLS Research Vessels

3) Development of green vessel guidelines for U.S. vessels (outreach)

4) Promote environmental awareness on UNOLS ships with U.S. ocean scientists (outreach)

5) Ocean Class and Regional Class vessel construction
Green Workshop Findings

1. Sail-assist vessels with a small environmental footprint can be used for particular operations.

2. Hybrid power systems and new technologies should be considered as options for future vessels.

3. Vessel energy management consisting of detailed energy audits and on-going monitoring can be carried out with existing vessels.

4. Biofuels and bio-lubricants and an environmental management plan can reduce a vessel's environmental impact and may be appropriate for some vessels.
5. Development of an environmental classification system, similar to LEED, is underway (Tim Leach, Glosten Assoc.) and will help operators and agencies identify environmental issues and successes in the fleet.

6. Environmental sustainability of UNOLS support facilities and ports should be considered in parallel with vessels.

7. Environmental sustainability can be enhanced by incorporating both technological innovation and attitude changes (green culture) amongst ship operators and users.
Green Workshop Findings

8. Developing collaborations between UNOLS, ship operators, and the private sector will be beneficial to the fleet.

More information on the meeting at:

http://unols.org/meetings/2012/green_workshop/details.html

http://www.digitalwavepublishing.com/pubs/NWM/marinetechnologyreporter/201203/