

January 21, 2003

Dr. Larry Atkinson, Chairman
UNOLS Fleet Improvement Committee
UNOLS Office
University of Rhode Island
Graduate School of Oceanography
15 South Ferry Road
Box 32
Narragansett, RI 02882

Dear Dr. Atkinson:

At the invitation of Lamont-Doherty Earth Observatory (LDEO), 51 scientists, marine technicians, marine engineers, and marine operators from the U.S. marine research community met on October 22-23, 2002 to discuss the upgrade of the R/V *Maurice Ewing* during a mid-life refit. This upgrade was considered in the context of the FOFCC Fleet Plan, *Charting the Future for the National Academic Research Fleet* (FOFCC, 2001), which stated that the *Ewing* can be operated until about 2018, "but may require replacement earlier in that decade for technological and scientific reasons." In addition, the science needs of the coming decade were considered, with an emphasis on seismic requirements.

The *Ewing* has been the primary provider of multichannel seismic (MCS) and refraction source capabilities within the UNOLS fleet. More than 50% of the programs accomplished required use of MCS. In addition, the *Ewing* has conducted refraction (OBS/OBH), coring, heat flow, and dredging operations. The multibeam system has seen nearly continuous operation, even during transits. Physical, biological, and chemical oceanographic programs, while less numerous have successfully used the *Ewing*.

User surveys conducted by LDEO's Office of Marine Affairs revealed that Principal Investigators would like more lab, bunk, and work deck space. In general, non-seismic users, while often expressing these same sentiments, have been satisfied with the outcomes of their cruises. Some "other" users (e.g., coring, heatflow) say that they would really have liked to have DP capabilities on *Ewing* for improved station-keeping.

As part of this workshop we specifically sought to address changes and upgrades to the *Ewing* that would help fulfill the community's scientific vision and to identify the suite of systems necessary to meet this vision. To facilitate workshop discussions, a series of "Technical Option" papers were prepared in advance and made available to attendees. The Technical Options papers can be found at the EWING homepage-

<http://www.ldeo.columbia.edu/Ewing/Home.html>

under "Midlife Refit Workshop". Topics these papers sought to address included:

- Dynamic Positioning
- Multibeam/sidescan/acoustic capabilities

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- Lab layout/vans/science berths/storage
- Airgun array
- Multiple streamers
- New design for 2-D system
- Computer/infrastructure
- Deck layout/winches/cranes/coring and over-the-side handling
- Estimates of magnitude of future needs for 2-D, 3-D and Hi-Res Seismic Reflections
- Contracting Commercial 3-D
- Replacement Vessel
- Technical Support Services

The report from the workshop is in draft form. Once finalized, copy will be sent to FIC.

Sincerely,

G. Michael Purdy
Interim Associate Director
Office of Marine Affairs

cc: Ms. Annette De Silva, Asst. Exec. Secy.

Enclosures (2)