

APPENDIX VIII

FUNDAMENTAL QUESTIONS

(A) WILL THERE BE SUFFICIENT SCIENCE AND OPERATIONAL FUNDING IN THE FUTURE FOR OCEAN SCIENCE TO CONTINUE TO SUPPORT THE UNOLS FLEET AS CURRENTLY CONFIGURED?

AND, IF NOT

(B) WHAT ACTIONS MIGHT BE TAKEN TO MAXIMIZE THE EFFECTIVENESS OF THE U.S. OCEAN SCIENCE ENTERPRISE?

SPECIFIC COMMITTEE CHARGE

1. THE BUDGET PROJECTIONS OF DON HEINRICHS FOR UNOLS SHIP OPERATIONS, GIVING SPECIAL REGARD TO THE POSSIBLE EXPANDED PARTICIPATION OF SUPPORTERS/USERS, OTHER THAN NSF (I.E. ONR, NRL, NOAA, USGS, MMS, DOE, EPA AND NASA);

2. WITHIN REASONABLE BUDGETARY ASSUMPTIONS, ASSESS A GENERAL MODEL FOR THE UNOLS FLEET REQUIREMENTS FOR SUPPORTING SCIENCE. THIS ASSESSMENT SHOULD BE BASED ON THE MODEL THE UNOLS FLEET IMPROVEMENT COMMITTEE PROJECTED FOR THE YEAR 2000 BUT MODIFIED TO MORE ACCURATELY REFLECT CURRENT STATUS AND UPDATED PROJECTIONS;

3. IF ANY IMBALANCE EXISTS BETWEEN REQUIREMENTS AND RESOURCES, OFFER SUGGESTIONS AS TO HOW WE MIGHT BEST RECONCILE THE MISMATCH? (I.E. INCREASE THE USER BASE, REDUCE THE FLEET, AND/OR GO TO DIFFERENT MODES OF OPERATION);

4. WHAT UNOLS OPERATIONAL/FISCAL CHANGES WOULD WORK BEST FOR THE U.S. OCEANOGRAPHIC COMMUNITY?;

5. COULD FLEET REALIGNMENT LEAD TO A MORE EFFECTIVE USE OF OUR SHIPS? IF SO, WHAT ARE THE PARTICULAR CRITERIA THAT SHOULD BE USED TO EVALUATE THE MERITS OF SHIFTING SEA-GOING ASSETS.

Figure 1 [Trends in Federal support \(\\$M\) for UNOLS Over Past 27 Years](#)

Figure 2. Table 4 (Presented Below)

TABLE 4 Estimated Costs , Funding and Shortfall for the UNOLS fleet in (\$M)

Year	Costs for Optimal Utilization	(4% Inc.)	Funding (\$M)	Shortfall (%)
1992	49.7	46.8	2.9	6%
1993	51.7	46.2	5.5	11%
1994	53.8	47.1	6.7	12%
1995	53.8	49.6	4.2	8%
1996	57.1	47.3	9.8	17%
1997	60.5	47.3	13.2	22%

1998	60.5	47.3	13.2	22%
1999	63	47.3	15.7	25%
2000	65.5	47.3	18.2	28%

Notes: Assumptions as in Table 3 of this report and in the FIC 1995 Plan (i.e. *no resources for an Arctic Research Vessel*)

Figure 3. [UNOLS Operations Support](#)

Figure 4. [Estimated Costs for Optimal Utilization, Funding, and Shortfall of the UNOLS Fleet in \\$M without an Arctic Vessel](#)