

Global Ocean Science: Toward an Integrated Approach

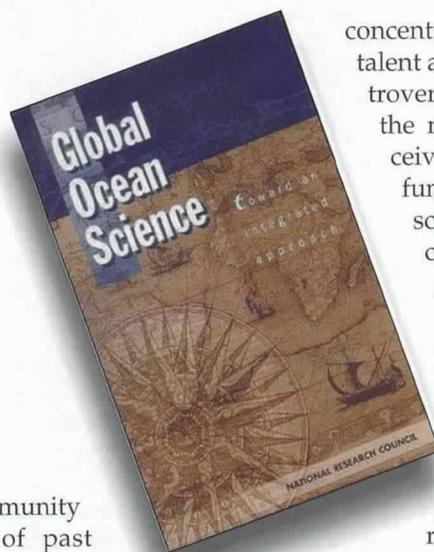
National Research Council
Ocean Studies Board
Commission on Geosciences
Environment, and Resources
165 pages. National Academy Press
ISBN 0-309-06564-X

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Periodically, the ocean sciences community undertakes a serious contemplation of past accomplishments and future efforts and research directions. These reviews have produced a few landmark publications that have provided both useful insight and, occasionally, inspiration for our national marine scientific endeavor. Collectively, they leave a legacy that reveals the evolution of consensus, organization, and method during the ongoing maturing of this relatively young science. *Global Ocean Science: Toward an Integrated Approach* is one such document.

This publication follows, by seven years, an earlier landmark work, *Oceanography in the Next Decade: Building New Partnerships*, both of which were generated by the Ocean Studies Board of the National Research Council. That earlier study provided the intellectual framework and supported the public policy momentum that eventually led to the enactment of the National Oceanographic Partnership Program by Congress. Whether *Global Ocean Science* has a likewise seminal effect on the future direction of our field remains to be seen.

This report provides a concise yet thorough examination of the role of major oceanographic research programs (MORPs) in our attempts to understand scientific problems of a scale that requires a significant



concentration of resources, facilities, human talent and capital. Examined too are the controversies engendered by agency support of the major programs, including their perceived and actual effect upon competitive funding, peer review, encouragement of science across multiple disciplines, education of young scientists, and collegiality among Investigators.

At the request of NSF/OCE, the Committee on Major U.S. Oceanographic Research Programs was convened to perform this evaluation of the impact of past and present MORPs. "Implicit in (their) charge (was) the recognition that the ability to organize and implement large, coordinated efforts to conduct basic oceanographic research . . . is, and must be, an essential component of the scientific capability of the United States." Accommodating this mandate, while retaining the time-honored system of supporting science through its core oceanographic discipline programs, has been a challenge for NSF/OCE. Agency leadership must continue to balance funding pressures for large-scale time-series and ocean basin/world-wide studies while encouraging investigators outside of the major programs who, likewise, contribute to important basic research, working individually or within small groups. Perceptions of fairness and access to support are important, and *Global Ocean Science* addresses these concerns both from the retrospective (through survey results and community comments), and with specific recommendations for future program management.

At century's close, *Global Ocean Science* is an important document by and for our community. It is certainly worth the investment in reading time, both for ocean scientists and science policy makers, as well as for program or facilities managers who are interested in an insightful and revealing review of science funding history and decision-making. 

Books Undergoing Review:

Radiative Transfer in the Atmosphere and Ocean

Gary E. Thomas and Knut Stamnes
Cambridge University Press, Publisher

Phycology

Robert Edward Lee
Cambridge University Press, Publisher