Foreword

Remote sensing of the marine environment, though less intensively used than for the land environment, nevertheless has a history almost as long. The areas of applications for the marine environment have been far reaching: science, engineering, health and environment, and commercial. In spite of all this, there previously had not (to our knowledge) been a conference dedicated specifically to the uses of remote sensing for the marine environment. New developments in the technology and greater concerns for the environment prompted the Environmental Research Institute of Michigan (ERIM) and the Marine Spill Research Corporation (MSRC) to jointly sponsor and organize such a conference—and the "Thematic Conference on Remote Sensing for Marine and Coastal Environments" was born.

Being a new "Thematic" conference, there were some doubts about the type of response to be expected. The response, however, exceeded expectations: 527 participants from 31 countries and many exhibitors of products and services participated in the program. As a result, MSRC and ERIM have planned the "Second Thematic Conference on Remote Sensing for Marine and Coastal Environments" in New Orleans on 31 January to 2 February 1994.

To help bring in high quality papers, MSRC and ERIM arranged with the American Society for Photogrammetry and Remote Sensing (ASPRS) to publish peer-reviewed papers from the conference in this issue of *Photogrammetric Engineering & Remote Sensing*. These papers are a cross section of conference topics and illustrate some of the uses of remote sensing specifically focused on the marine and coastal environments.

Finally, the editors of this special issue express their sincere thanks to the reviewers. Their comments and positive criticisms improved the quality of the included papers. We also want to thank the ASPRS staff and the support staff at ERIM for their assistance and suggestions.

Guest Editors

F. Rainier Englehardt
Marine Spill Response Corporation

F. Rainer Englehardt came to the Marine Spill Response Corporation from an executive management position in the Canadian government, where he was responsible for national and international science and technology programs, including research and development in oil spills and petroleum industry operations as well as implementation of cooperative programs between Canada and the United States, the USSR, Greenland, Finland, and Norway. Throughout his career, Englehardt has worked the issue of oil and the environment. He was director of the Pollution Control Division of the Environmental Protection branch of Canada's Oil and Gas Lands Administration. As such, he was responsible for the development of Marine Environmental Policies regulating oil and gas activities in Canada, environmental licensing of expoloration and development activities, and research and development to support criteria for environmental protection.

Englehardt is the author of three books and numerous research and review papers on the effects of petroleum industry activities in the marine and arctic environments. He has chaired and serves on numerous international committees, workshops, and conferences dealing with pollution effects and control technologies. He has also had many years of experience as a consultant in environmental and occupational health, establishing scientific criteria for health-related regulations.

Born in Leipzig, Germany, he moved to Canada as a boy and is now a Canadian citizen. His academic background includes a BSc with honors in Zoology from the University of Western Ontario, an MSc in Marine Zoology from the University of British Columbia, and a PhD in Environmental Physiology fron the University of Guelph (Ontario).

Irving W. Ginsberg
Environmental Research Institute of Michigan

Irving W. Ginsberg has almost thirty years of experience in all aspects of remote sensing technologies: phenomenology, sensor systems, algorithm development, data analysis, and data exploitation. The applications include such areas as scientific research, engineering, environment, waste remediation, law enforcement, and defense. He joined the Environmental Research Institute of Michigan (ERIM) in 1987. At ERIM, he is manager of Remote Sensing Program Development, with responsibility for developing programs and projects involving the analysis and exploitation of remotely sensed data. During his first four years at ERIM, he directed the Information Analysis and Exploitation Laboratory which was directed toward the development of algorithms and the analysis and exploitation of multispectral and infrared imagery.

Before joining ERIM, Ginsberg spent eleven years with the Department of Energy's Remote Sensing Laboratory (Las Vegas), where he was responsible for the development and management of the Laboratory's multispectral and infrared remote sensing capability. He also spent ten years at the Willow Run Laboratories of the University of Michigan, where he performed research into the theory of optical reflectance and multispectral processing, and supervised an image analysis group.

Dr. Ginsberg received his undergraduate degree from Wayne State University; his Master's from Purdue University, and his PhD in Theoretical Physics (with Distinction) from Wayne State University in 1960. He has published numerous papers and articles on remote sensing and has been editor for proceedings of various conferences dealing with remote sensing applications. His present interests deal with developing techniques to exploit the imagery from newer, more advanced commercial satellite systems and applying remote sensing to the problems of waste site remediation.

Charles Giammona
Marine Spill Response Corporation

Charles Giammona came to the Marine Spill Response Corporation in June 1992 as the Director of Physical and Engineering Science. He previously served as Associate Dean for Faculty and Research at the City University of New York.

His record of collegial responsibilities within academia includes teaching, administration, and a research specialty in geoscience and engineering. His teaching record includes graduate and undergraduate courses in oceanography, environmental and water resources engineering, biology, and geology at Texas A&M University and the University of Wisconsin.

Dr. Giammona's personal research interests focus on environmental assessments of marine resources and impact mitigation. These efforts have yielded more than sixty reports, publications, and presentations. Recent research before coming to the Marine Spill Response Corporation ranged from studies on a major Texas river system to large environmental assessment programs within the Gulf of Mexico as well as hazardous waste and dredge disposal research.