

ESTUARINE AND COASTAL MODELING

Proceedings of the Tenth International Conference Edited by Malcolm L. Spaulding, Ph.D., P.E.



ESTUARINE AND COASTAL MODELING

PROCEEDINGS OF THE TENTH INTERNATIONAL CONFERENCE

November 5–7, 2007 Newport, Rhode Island

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EDITED BY Malcolm L. Spaulding, Ph.D., P.E.





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Foreword

This conference represents the 10th in a biennial series to explore the development, testing, application, calibration, validation, and visualization of predictions from estuarine and coastal models. Application of models to problems in hydrodynamics, water quality, and sediment transport were presented. There were a substantial number of papers highlighting the advancement of modeling capabilities for storm surge and coastal inundation. This heightened interest was driven in part by Hurricanes Katrina and Rita that impacted the Gulf coast. Attendance at the meeting was 135 and included representatives from both the US and many foreign countries. Participants were predominantly government and academic engineers and scientist, but also included a significant number of industry professionals.

As for the earlier conferences in the series, the goal of the present conference was to bring together a diverse group of model developers, users, and evaluators to exchange information on new directions in the field and the current state-of-the-art and practice in marine environmental modeling. The primary focus was on development of new models and the application of models to bays, sounds, lagoons, estuaries, embayments, bights, and coastal seas. The models were addressed at solving engineering and environmental impact assessment problems and also at better understanding circulation and pollutant transport in near shore waters. Model applications to address regulatory requirements for facility sighting and operation were also presented.

The conference included 20 oral sessions and 1 poster session, held over the two and one half day meeting period. Papers from both poster and oral sessions are included in the conference proceedings. Each paper in the proceedings was presented at the meeting, subjected to at least two external peer reviews, and accepted, if appropriate and after revision, by the proceedings editor.

The enthusiastic support and assistance of the Organizing and Advisory committees, whose names are listed below, are acknowledged. I would like to extend particular thanks to Ralph Cheng and Keith Bedford, who have provided long and valued service on the conference organizing committee. They have stepped down from the committee and are moving on to the next phase in their lives. Joseph Pittle and Connie Kenyon, University of Rhode Island Conference and Special Programs Development Office, managed the conference and contributed greatly to the success of the meeting. Thanks are also extended to the many other individuals who generously served as session chairs and reviewers.

ORGANIZING COMMITTEE:

Professor Keith W. Bedford, Ohio State University, Columbus, OH. Professor Alan F. Blumberg, Stevens Institute of Technology, Hoboken, NJ Professor Michael Piasecki, Drexel University, Philadelphia, PA Dr Richard Signell, US Geological Survey, Woods Hole, MA Dr. David Schwab, NOAA Great Lakes Environmental Research Laboratory, Ann Arbor, MI Professor Malcolm L. Spaulding, University of Rhode Island, Narragansett, RI. **ADVISORY COMMITTEE:** Dr. Frank Aikman, NOAA, National Ocean Service, Silver Spring, MD. Professor Scott Hagen, University of Central Florida, Orlando, FL. Dr. Guoqui Han, Environmental Sciences Division, Fisheries and Oceans Canada, St Johns, NL, Canada. Dr Jeff Ji, Minerals Management Service, Reston, VA Dr. Billy Johnson, Computational Hydraulics and Transport, Vicksburg, MS. Professor Nikolaos Katopodes, University of Michigan, Ann Arbor, MI Professor Wilbert Lick, University of California, Santa Barbara, CA Professor Rick Luettich Jr., University of North Carolina Chapel Hill, Morehead City, NC Professor Ehab Meselhe, University of Louisiana-Lafavette, Lafavette, LA Dr Roger Proctor, Proudman Oceanographic Laboratory, Liverpool, UK Dr. Jinyu Sheng, Dalhousie University, Halifax, Nova Scotia, Canada Professor Y. Peter Sheng, University of Florida, Gainsville, FL. Dr. Pravi Shrestha, Exponent Inc, Irvine, CA. Dr. McAllister Sisson, Virginia Institute of Marine Sciences, Gloucester Pt., VA. Dr. Peter E. Smith, U.S. Geological Survey, Sacramento, CA.

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Thanks are also due to Larry Simoneau who updated and maintained the conference web site.

Planning is currently in progress for the 11 th International Estuarine and Coastal Modeling Conference (ECM 11) to be held in Seattle, WA in November 2009.

Malcolm L. Spaulding Narragansett, RI Conference Chairman March 2008

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