

FOREWORD

The Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), and its predecessors, has a long-standing programme activity relating to the provision of expert technical advice on the modelling, analysis and forecasting of natural hazards, to assist national agencies in fulfilling their service obligations.

JCOMM-II (September 2005, Halifax) addressed the importance of enhancing storm surge forecasting capabilities, and the need to complement other international efforts in this field, including the ongoing series of capacity building workshops on storm surge and wave forecasting organized by JCOMM and other relevant programmes, as well as JCOMM efforts into developing ocean-related hazard warning systems. In this context, two main activities were planned for the intersessional period: the preparation of a Guide to Storm Surge Forecasting, and the convening of the first international Scientific and Technical Symposium on Storm Surges.

During the 39th Session of the IOC Executive Council, the Republic of Korea confirmed its intention to host the proposed symposium in 2007 in Seoul,. Following this kind offer, IOC and WMO organized the first international Scientific and Technical Symposium on Storm Surges (JCOMM2007SSS), from 2 to 6 October 2007. This Symposium was also sponsored by the European Space Agency (ESA), the Australian Bureau of Meteorology, Environment Canada, the Norwegian Meteorological Institute, the UK Met Office, Météo-France, the Korean Society of Oceanography (KSO), the Korean Society of Coastal and Ocean Engineers (KSCOE), and the Korean Meteorological Society (KMS). The Organizing Committee for JCOMM2007SSS was composed of Dr. Peter Dexter (JCOMM Co-president, Australia), Dr. Jean-Louis Fellous (JCOMM Co-president, France), Dr. Craig Donlon (JCOMM Services Programme Area Coordinator, UK), Dr. Johannes Guddal (Norway), Dr. Jang-Won Seo (Korea), Ms Alice Soares (WMO), and Ms Boram Lee (Chair, IOC). The JCOMM Expert Team on Waves and Storm Surges (ETWS) played a major role in the Programme Committee for JCOMM2007SSS, the membership of which comprised Mr Val Swail (Chair, Canada), Dr. Tad Murty (Canada), Dr. Shishir Dube (India), Dr. Kevin Horsburgh (UK), Ms. Maria Paula Etala (Argentina), Dr. Donald Resio (USA), Dr. Mikhail Entel (Australia), Dr. Sok-Kuh Kange (Korea), and Dr. Vincent Cardone (USA). A Local Organizing Committee was also set up, from the Korea Meteorological Administration (KMA) and the Korea Ministry of Maritime Affairs and Fisheries (MOMAF).

This symposium was the first such scientific event devoted solely to storm surges in at least the past 3 decades. It aimed to support the development of marine multi-hazard warning systems, by

- 1) providing a forum for the exchange of ideas and information related to storm surge modelling, forecasting and hindcasting, covering both tropical and extra-tropical storm surges;
- 2) providing input to the development of effect-oriented products such as inundation maps and GIS-based tools;
- 3) coordinating ongoing R&D initiatives in these fields;
- 4) developing appropriate input for the dynamic part of the Guide to Storm Surge Forecasting (part of the JCOMM Guide Series), emphasizing new developments;
- 5) providing guidance/technical support for National Meteorological Services and other national agencies providing storm surge forecasting and warning services, and;

6) identifying areas for future research and development.

Symposium announcements were distributed to WMO Members and IOC Action Addresses, and to the general marine meteorological and oceanographic community. To make this important initiative successful and fruitful, considerable effort was made in the careful selection of papers and posters, as well as ensuring funding of keynote speakers and participants from developing countries. The programme of the Symposium comprised selected invited presentations from experts in the respective fields, and presentations by the general scientific community including posters. This resulted in 70 presentations by experts from 23 countries, and more than 120 participants (including 60 non-local) who contributed to, and were appreciative of the quality input and fruitful discussion during the Symposium. Overall, the Symposium was deemed to be a great success.

Apart from these proceedings, results from the Symposium are expected to contribute to the JCOMM Guide to Storm Surge Forecasting as a dynamic part of the Guide containing selected peer-reviewed papers. This would set the stage for advances in forecasting of these events and reduction of their impacts. The same subset of papers are planned to form a special edition of the journal "Natural Hazards – Journal of the International Society for the Prevention and Mitigation of Natural Hazards" (Springer).

A key component of the Symposium was the summary panel discussion session, designed to draw conclusions and point the way forward in storm surge modelling and forecasting. The agreed set of recommendations and actions were addressed to researchers, WMO/IOC/JCOMM, and Member States.

The considerable appreciation of WMO and IOC is due to the co-hosts (Korea Meteorological Administration and Korea Ocean Research and Development Institute), all members of the Organizing Committee and Programme Committee, and all those who have contributed to the Symposium.

One of the strongest recommendations from the panel discussion during the JCOMM2007SSS was to convene a 2nd Symposium within the next 4 years, and investigate the possibility of co-convening a meeting with the International Wave Workshop series, which this year has an associated Coastal Hazards Symposium. This would create an excellent opportunity to increase recognition of the importance of the total water level problem in coastal prediction, by combining the wave and surge efforts. In this context, the electronic publication of the proceedings for JCOMM2007SSS and that of the 10th International Workshop on Wave Hindcasting and Forecasting are jointly published in one DVD-ROM.
