INTERNATIONAL JOURNAL OF CLIMATOLOGY
Int. J. Climatol. **25**: 821 (2005)
Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/joc.1165

EDITORIAL

This special issue includes the papers presented at the CLIMAR-II Workshop on Advances in Marine Climatology held in Brussels in November 2003. This workshop marked the 150-year anniversary of the Brussels Maritime Conference of 1853, which established a Uniform system of meteorological observations at sea carried out by voluntary observing ships (VOSs). This workshop focused on today's critical issues of marine climatology. These are, first of all, the development of new-generation global and regional climatologies of the basic surface variables (sea-surface temperature (SST), air temperature, winds, waves, etc.) and surface air–sea fluxes governing the impact of the oceans on atmospheric climate variability. Furthermore, some new algorithms for the quantification and correction of biases in surface variables and fluxes were introduced. Nearly all workshop presentations, in one way or another, employed the newly updated outstanding world collection of marine observations known as the International Comprehensive Ocean–Atmosphere Data Set (ICOADS).

This special issue starts with the paper by Worley *et al*. giving a comprehensive guide on the ICOADS. The article by Kent and Berry addresses the issue of quantitative estimation of different sources of uncertainties in the basic surface meteorological variables. A detailed analysis of different error sources in air temperatures and marine winds is presented in the articles by Moat *et al*., and Berry and Kent. Several articles (Reynolds *et al*., Ishii *et al*., Minobe and Maeda, Folland, and Boyer *et al*.) deal with the analysis of the new SST products that include both uncertainties estimation and field evaluation on regional and global scales. The attempt to quantify the climate variability modes (Yasunaka and Hanawa) shows that climatological VOS-based SST fields are well developed and could be used for variability studies. There are also attempts to evaluate SST characteristics from data sources other than from VOS. These are hydrographic databases (article by Boyer *et al*.) and palaeo records (Schöne *et al*.). Apart from the SST analyses, considerable efforts have been taken to improve the global fields of the wind and wave variables available from both in-situ observations and modelling (articles by Sterl and Caires, and by Thomas *et al*.). Altogether, 13 papers give extensive coverage of the burning issues of present-day marine climatology.

The Brussels Workshop was made possible thanks to the outstanding efforts of the organizing committee consisting of Scott Woodruff (Chair), David Dehenauw, Don Harrison, Teruko Manabe, Miroslaw Mietus, David E. Parker and Val Swail. The following agencies provided valuable sponsorship for the workshop: the World Meteorological Organization, the Intergovernmental Oceanographic Commission, the Royal Meteorological Institute of Belgium, the Belgian Federal Science Policy Office, Environment Canada, the Japan Meteorological Agency, the National Center for Atmospheric Research, and the National Oceanic and Atmospheric Administration. In June 2007 all articles of this Special Issue will appear (for free access) on the WMO Website in the Dynamical Part of the WMO Guide on Marine Climatology. We thank the Royal Meteorological Society and our publisher, John Wiley and Sons for the permission. Glenn McGregor, the Editor-in-Chief of the *International Journal of Climatology*, provided valuable support to this special issue. This journal, in general, holds marine climatology as one of its current major themes. Finally, I would like to thank Nadia Kovaleva for editorial assistance.

SERGEY GULEV
Guest Editor