

## Preface

Tropical cyclones are amongst the most damaging weather phenomena that directly affect hundreds of millions of people and cause huge economic loss every year. Mitigation and reduction of disasters induced by tropical cyclones and consequential phenomena such as storm surges, floods and high winds have been long-standing objectives and mandates of WMO Members prone to tropical cyclones and their National Meteorological and Hydrometeorological Services. To this end, accurate and timely available forecasting of tropical cyclones are fundamental to enable those objectives and mandates to be materialized.

The *Global Guide to Tropical Cyclone Forecasting* is a collection of the state-of-art sciences and technologies and best practices that are available for use by operational tropical cyclone forecasters. It is both a heritage and development of forecasting techniques and warning methodologies for tropical cyclones. It serves as a series of tools and a platform for information source for operational forecasters to acquire essential skills and competencies and latest techniques in tropical cyclone monitoring, forecasting and warnings.

The *Global Guide to Tropical Cyclone Forecasting* was first compiled and edited by Dr Greg Holland in 1992, with contributions from a large number of scientists and experts. However, significant changes in many aspects of tropical cyclone forecasting have occurred since 1992, as results of advances in computing, radar and satellite capabilities, and meteorological science itself. Therefore, the *Global Guide to Tropical Cyclone Forecasting* was recommended to be updated by a group of experts and forecasters who attended the serial WMO International Workshops on Tropical Cyclones in 2006 and 2010. The updating was finally completed in 2015.

The updating of the *Global Guide to Tropical Cyclone Forecasting* includes contributions from experts from around the world. Particular thanks are due to Charles "Chip" Guard (United States of America), Chief Editor, for his leadership and scientific contributions, and the chapter authors for their time, dedication and expertise, and many others who kindly provided their advice and assistance.

The updated *Global Guide to Tropical Cyclone Forecasting* is adopting modern Web-based technology with easy access by readers. It was initially configured by a technical team led by Dr Beth Ebert of Australia Bureau of Meteorology. For this special thanks go to Dr Beth Ebert and her team.

The current e-book is reformatted following latest Web standards. It now becomes more user-friendly. I hope this e-book and its PDF version, together with other publications on tropical cyclones, will become a valuable source of information, tools, data, techniques, methodologies, and best practices in tropical cyclone monitoring, forecasting and warning services.



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