

## PREFACE

This latest edition of the *Forecasters' Reference Book (FRB)* builds on the strengths of the previous editions and handbooks, incorporating the latest science, where this is available in 'forecaster-friendly' form. From the outset, in designing the contents and format, every regard has been paid to forecasters' suggestions; the draft chapters have been thoroughly reviewed by a panel of forecasters and specialists. In this review process it became apparent that, to do justice to the copious literature on forecasting techniques, it was sensible to present not only a *FRB* of selected forecasting techniques but also a more erudite account of techniques, alternatives and limitations in a *Source Book*. The Chapters of the *FRB* and the *Source Book* should be seen as complementing many of those in *Images in Weather Forecasting*, 1995 (Ed. M. Bader et al.).

Remote Sensing, and Numerical Weather Prediction, now integral parts of the the forecasters' armoury are constantly referred to in the text but, with many guides available (e.g. *Images in Weather Forecasting*), they are only touched upon in the *Source Book* and *FRB*. Other chapters reflect the increasing concern over Air Pollution (*Source Book* Chapter 12), as well as the customer demand for Probability Forecasting (*FRB* and *Source Book* Chapter 11). I am grateful to Eddie Carroll for contributing Chapter 8, reflecting his insight on the use of dynamical concepts in assessing development. Chapter 11, Probability Forecasts, is based on a lecture course prepared by Bob Riddaway.

Where appropriate, Sections have references to key published papers as well as useful general reading articles/books. Reference is often made to the *Handbook of Weather Forecasting*, 1975 (HWF), which contains detailed accounts of forecasting techniques, accompanied by copious references.

There are some topics, such as fog, stratocumulus, and airflow over hills, where a more-detailed physical and dynamical picture has been included in the *Source Book* to enable the forecaster to make more considered judgements in forecasting elements whose behaviour is at best capricious.

As with previous editions it should be noted that this *Forecasters' Reference Book* has been produced specifically for the UK Meteorological Office forecaster; thus, forecasting techniques and rules apply mainly to the British Isles and north-west Europe and will not necessarily be applicable in other areas.

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**SOURCE BOOK**  
**to the**  
**FORECASTERS' REFERENCE BOOK**  
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