

Inter-Agency Committee on the Hydrological Use of Weather Radar

Bibliography on Hydrological Applications of Weather Radar in the United Kingdom

**Eighth Edition
(publications notified up to December 2011)**

Prepared and published on behalf of the Committee by the Centre for Ecology & Hydrology

Centre for Ecology & Hydrology
Crowmarsh Gifford
Wallingford
Oxon, OX10 8BB
United Kingdom

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Preface

This bibliography of UK publications in the field of hydrological applications of weather radar is an update of the one produced in 2009. It has been compiled by the Inter-Agency Committee on the Hydrological Use of Weather Radar, with the help of the NERC Centre for Ecology & Hydrology at Wallingford.

The Committee was originally established to provide a forum to foster links between organisations and individuals with expertise in the use of weather radar for hydrological purposes, in particular the users and the research community, and promote additional research and international contacts. If you are interested in finding out more about the Committee, then the terms of reference and membership information can be found in Appendices to this document. There is also a website <http://www.iac.rl.ac.uk/> which provides additional information and web access to this bibliography.

The UK has played a leading role for over 30 years in the development of operational weather radar networks and their application, in particular for flood forecasting. This has been achieved through the collaborative effort of many individuals, organisations and disciplines. It has been pleasing to see that in recent years this collaboration has extended beyond the weather radar community to more actively involve the hydrologists and meteorologists, both in the UK and across Europe. To this end, the 5th edition of the bibliography formed a UK contribution to the COST Action 717 “Use of radar observations in hydrological and NWP models”. The 6th edition provided a relevant radar reference source to the follow-on action COST 731 “Propagation of uncertainty in advanced meteo-hydrological forecast systems” (cost731.bafg.de/servlet/is/9691/?lang=en).

This 8th edition includes papers from the International Symposium on “Weather Radar and Hydrology” (www.wrah2011.org), published as an IAHS Red Book conference proceedings (IAHS Publ. 351, iahs.info/redbooks/351.htm). The Committee had the pleasure of organising WRaH 2011 at Exeter (UK), with the assistance of the Royal Meteorological Society and British Hydrological Society as convenors.

Whilst every effort has been made to include in the bibliography all the contributions made in the UK up to December 2011, there will inevitably be some omissions for which we apologise. The Secretary at the Centre for Ecology & Hydrology Wallingford would be pleased to receive details of additional papers and reports for inclusion in future editions of the bibliography.

In compiling this bibliography, we have found it enlightening and encouraging to see the diversity and quality of work being undertaken. We hope you find it a useful reference document.

Michael Cranston
Chairman
Inter-Agency Committee on the Hydrological Use of Weather Radar

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Appendix A Committee Constitution and Terms of Reference

A.1 Constitution

The Committee comprises members appointed by the following supporting agencies:

Met Office	1
Department for Environment Food and Rural Affairs (Defra)	1
Environment Agency	1
Natural Environment Research Council (NERC)	1
Science and Technology Facilities Council (STFC)	1
Scottish Environment Protection Agency (SEPA)	1
Department of Agriculture and Rural Development, Northern Ireland (DARDNI)	1
States of Jersey	1
UK Water PLCs	1

and up to four members (of which at least two should be from Higher Education Institutes and/or research organisations) to be co-opted for a two year period at the invitation of the Committee. The Chairman is appointed from amongst the representatives of the supporting agencies for a two year term of office. The Secretary to the Committee is provided by CEH Wallingford.

A.2 Terms of Reference

1. To identify research needs and opportunities
2. To recommend priorities for future research and to coordinate research activities
3. To seek funding for research.
4. To identify needs for and availability of data and to recommend archiving requirements.
5. To publicise and promote hydrological uses of weather radar.
6. To promote and establish international contacts.
7. To report on its work to the nominating bodies and the water industry generally.

Appendix B Committee Membership

Mr Michael Cranston (<i>Chairman</i>)	Scottish Environment Protection Agency
Dr Steven Cole (<i>Technical Secretary</i>)	Natural Environment Research Council Centre for Ecology & Hydrology, Wallingford
Prof. Chris Collier	National Centre for Atmospheric Science (NCAS) University of Leeds School of Earth and Environment
Mr Tim Harrison	Environment Agency
Dr Miguel Rico-Ramirez	University of Bristol Department of Civil Engineering
Dr Noel Higginson	Department of Agricultural and Rural Development Hydrometric Section, Rivers Agency
Dr David Bebbington	University of Essex School of Computer Science & Electronic Engineering
Prof. Anthony Illingworth	University of Reading Joint Centre for Mesoscale Meteorology
Dr Jacqueline Sugier	Met Office
Mr William Neale	Thames Water Utilities
Mr Bob Moore	Natural Environment Research Council Centre for Ecology & Hydrology, Wallingford
Dr Chris Walden	Science and Technology Facilities Council Rutherford Appleton Laboratory