

## BOOK REVIEW

G. A. Schultz, M. Hornbogen, P. Viterbo and J. Noilhan, 'Coupling Large-scale Atmospheric and Hydrologic Models', Special Publication No. 3, IAHS Press, Institute of Hydrology, Wallingford, Oxfordshire, OX10 8BB, U.K., 1995, 96 pp, £26, ISBN 0-947571-24-8.

This special publication by the International Association of Hydrological Sciences (IAHS) is itself a review (or monograph) addressing both land-surface schemes in atmospheric general circulation models and large-scale hydrological modelling, and the ways that have been proposed to couple them in large-scale forecast and climate models. It is a well written overview, and would be a useful introduction to this subject. It was written in 1994 following two World Climate Research Program Workshops, one at the European Weather Centre in 1991, and a following IAHS Workshop in Yokohama, Japan in 1993. Inevitably therefore it is already dated by 2 to 3 years, in what is a rapidly evolving field. The authors all work in Europe, and as a result it is perhaps a little more up to date on work there than in the US. No detail is given on the separate land-surface schemes and hydrologic models (just the general concepts in their formulation), but detailed references are cited. The chapter on coupling hydrological and atmospheric models is more limited, which perhaps shows how much work remains to be done in this area. Reference is made to the future contributions (in 1994) from the many Global Energy and Water Experiment (GEWEX) field programs such as GCIP, BALTEX, MAGS, LBA, and GAME, as well as BOREAS. I am left wishing that the authors would attempt an update of the text about 5 years from now.

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