

Interactive comment on “Development and evaluation of an Earth-system model – HadGEM2” by W. J. Collins et al.

E. Blyth

emb@ceh.ac.uk

Received and published: 9 June 2011

I found this paper both useful and interesting. I am glad to see the open discussion of the evaluation of the HadGEM model being published – particularly as many researchers in the UK work on different aspects of this model and may like to see how their work impacts on this Earth System model. It also helps researchers in when they are looking to get funds for more research to see how the model performs against a host of tests.

My main point I would like to make is to ask you to update your references to JULES and to the paper that compares the (off-line) distributed global version of JULES against a suite of similar data to yours. I think this would enhance the paper.

C355

So, for instance, the following paper: E. Blyth, D. B. Clark, R. Ellis, C. Huntingford, S. Los, M. Pryor, M. Best and S. Sitch, A comprehensive set of benchmark tests for a land surface model of simultaneous fluxes of water and carbon at both the global and seasonal scale. *Geosci. Model Dev.*, 3, 1829–1859

Could be cited as follows: page 1000, line 5, page 1024, line 28, and page 1025 line 16.

The two new papers that describe JULES should be cited instead of Essery et al and Cox et al:

Best, M.J.; Pryor, M.; Clark, D.B.; Rooney, G.G.; Essery, R.L.H.; Menard, C.B.; Edwards, J.M.; Hendry, M.A.; Porson, A.; Gedney, N.; Mercado, L.M.; Sitch, S.; Blyth, E.; Boucher, O.; Cox, P.M.; Grimmond, C.S.B.; Harding, R.J.. 2011 The Joint UK Land Environment Simulator (JULES), Model description – Part 1: Energy and water fluxes. *Geoscientific Model Development Discussions*, 4. 595-640. 10.5194/gmdd-4-595-2011

At page 1002, line 22, page 1004, line 1

Clark, D.B.; Mercado, L.M.; Sitch, S.; Jones, C.D.; Gedney, N.; Best, M.J.; Pryor, M.; Rooney, G.G.; Essery, R.L.H.; Blyth, E.; Boucher, O.; Harding, R.J.; Cox, P.M.. 2011 The Joint UK Land Environment Simulator (JULES), Model description – Part 2: Carbon fluxes and vegetation. *Geoscientific Model Development Discussions*, 4. 641-688. 10.5194/gmdd-4-641-2011

At page 1002, line 22 and page 1008, line 26.

Apart from that, I welcome this paper.

Interactive comment on *Geosci. Model Dev. Discuss.*, 4, 997, 2011.

C356