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Interactive comment on "Non-orthogonal version of the arbitrary polygonal C-grid and a new diamond grid" *by* H. Weller

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Comments in an email from nigel.wood@metoffice.gov.uk to h.weller@reading.ac.uk

Thanks for the diamond paper, looks like the way to go on a cubed-sphere. The only comments I have are:

i) I think (as Andrew [Staniforth] pointed out to me originally) that a further advantage of this grid is that the velocity components are not held at the edges where their components change discontinuously.

ii) Your number (1.8) for the ratio of min to max lengths for the equi-angular cubed sphere does not tally with the asymptotic 1.3 given by Staniforth and Thuburn, citing Rancic et al (1996)? And in that vein, it would be interesting to know what the asymp-

totic value is for the diamond grid (the resolution you go to is not enough to be able to say it has converged yet).

iii) Figure 10 shows a strange mix of experiments with different numbers of d.o.f.'s (and therefore also timesteps) whereas in other figures you have approximately matched the d.o.f.'s?

Interactive comment on Geosci. Model Dev. Discuss., 6, 6035, 2013.