

## ***Interactive comment on “The benefit of high-resolution operational weather forecasts for flash flood warning” by J. Younis et al.***

### **Anonymous Referee #5**

Received and published: 11 March 2008

This is an extremely valuable paper for HESS, with some clear evidence that high resolution weather forecasting can be beneficial to flash flood warning. The paper demonstrates the possibilities for ungauged basins and the usefulness of the threshold exceedance approach. The case study is a very useful example. I would be very interested in seeing such a system implemented operationally.

I would advise that the authors check the manuscript again. In some sections the English is poor - see technical comments.

Specific Comments:

1. p.347 l.10. I think you need to present some evidence (references) that show that vulnerability to flash floods is probably going to increase under climate change

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2. p.348 l.16. These are two types of OVERLAND FLOW. Runoff processes is a much wider term that incorporates subsurface runoff etc. i.e. I think you should be specific that saturation excess and infiltration excess processes are two types of overland flow.

3. p.350 l.15 Can these specific discharges be given alongside actual expected discharges?

4. Threshold exceedance approach. I think this is a useful approach to use, especially for ungauged basins. However, you do need to be more specific about the limitations of this approach.

In addition, what are the sensitivities? Have you done any sensitivity analysis? How can you tell that your modelled discharge increases in the same type of way as real discharge - they could be potentially totally unrelated.

[You have included a useful paragraph already on the problems with different time and space resolutions and the issue of too low thresholds. More like this needed.]

5. p.355 l.15. Why have you not shown this statistical comparison? I think this is important to demonstrate.

Technical Comments:

1. p.346 l.12 'lead to develop' doesn't make sense. Check English.

2. p.346 l.19 change to 'As a case study, ' Check English.

3. p.346 l.22 change to 'a hybrid between a conceptual'.

4. p.348 l.1 'radar'

5. p.348 l.19 'upstream'

6. p.347 l.7 'flash-floods'

7. p.354 l.25 'either... or'

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8. p.358 l.1 '7th September' rather than '07'

9. p.358 l.12 'a system'

[i have not detailed more, but there are several more problems with English - please check]

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 5, 345, 2008.

**HESD**

5, S83–S85, 2008

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