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Hydrology and Earth System Sciences Discussions

Interactive comment on "Mapping daily evapotranspiration at field to global scales using geostationary and polar orbiting satellite imagery" *by* M. C. Anderson et al.

Anonymous Referee #3

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Major remarks

This is clearly a "picture book" paper. The first part provides a comprehensive description of The ALEXI/disALEXI models. The second one presents some application of the model from the irrigation district to the global scales. Unfortunately, apart from the drought analysis over the US, little effort is made to provide insight about the performance of the model against ground data at the irrigation district scale. Additionally, the conclusion about the performance of the approach at the irrigation scale is optimistic knowing the limitation the image sharpening technique when the parcels are small ,

when irrigation is present or with the presence of trees. Theses limitations have been discussed in Agam paper. In this regard, the authors could mention the work performed by Merlin et al. (2010) with regard to TIR desaggregation under complex conditions.

Minor remark

The authors should provide a brief description of the STARFM model

Conclusions

This paper cannot be published as it is , I recommend to the authors to rewrite the paper and to keep only the application to the drought monitoring over the US and to analyze the effective added value of the approach comparatively to other drought indices.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 5957, 2010.