

Interactive comment on “Verification of the new ECMWF ERA-Interim reanalysis over France” by C. Szczypta et al.

Anonymous Referee #2

Received and published: 11 November 2010

The paper by Szczypta et al. compares soil moisture and screen level parameters from a global reanalysis product (ERA-Interim) to high resolution reanalysis data (SAFRAN) and interpolated observations over France. This could have resulted in an interesting discussion of the effect of different scales and model parameterisations. Unfortunately the authors do not provide an in depth analysis of the obtained results but just present some statistics and a superficial interpretation of the observed differences. As the analysed data shall later be used to great a soil moisture and vegetation climatology it is of critical importance to understand the causes of the observed differences.

Before publication as a HESS paper I therefore recommend that the authors completely revise the discussions section. Currently this section only presents the results

C3437

of the data comparison but these are not discusses/interpreted. Consequently also the conclusions are superficial and limited to a summary rather than real conclusions.

Further I recommend focusing the comparison to the most relevant datasets. Including that many datasets does not add any value to the comparison but is only confusing. For example using GPCC and GPCP does add only little additional information. Also it is not clear to me why the PERSIANN data set is used considering its low quality over France.

In addition to these general comments I have following minor issues:

1. If I understood correctly different data product have been compared for different time periods. This is very confusing. Why is the data not compared for the same period?
2. Add a brief discussion about the differences in the model physics and the data which is assimilated in the reanalysis products. This would help to understand the observed differences
3. For the comparison did you use analysed fields or forecasts?
4. It is difficult to interpret the observed differences in the statistics (for example the correlations in Table 2) without an indication if the differences are statistical significant.
5. In table 5 what is the meaning of the abbreviation TU.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 7151, 2010.

C3438