Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-431-RC2, 2016 © Author(s) 2016. CC-BY 3.0 License.



HESSD

Interactive comment

## Interactive comment on "The residence time of water in the atmosphere revisited" by Ruud J. van der Ent and Obbe A. Tuinenburg

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The fundamental issue is the whole methodology used by this and other studies, which the evidence suggests does not give the correct answers for reasons given. Namely the processes are not reversible, precipitation processes are not addressed (they are parameterized in models), and the lifetime of moisture in models is too short). Indeed precipitation processes are parameterized in the ECMWF model. The study does not deal with realistic precipitation processes. I am fine with the authors saying what their assumptions are and here are the results, but it is another matter to claim they represent the real world.



Discussion paper



Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-431, 2016.