Interactive comment on “The AACES field experiments: SMOS calibration and validation across the Murrumbidgee River catchment” by S. Peischl et al.

M.F. McCabe (Referee)
mmccabe@unsw.edu.au

Received and published: 27 April 2012

The manuscript of Peischl et al. provides a technical summary of the methods and motivation behind the 2010 AACES field campaign, an evaluation exercise undertaken in the south-east of Australia for the purpose of assessing the recently launched SMOS satellite. The work presents a well written and detailed description of the airborne and field campaign and outlines the development of a data set that will undoubtedly form the basis of subsequent research contributions.

The manuscript provides an important addition to the remote sensing and product evaluation community, not just because of the description of the data set (a major scientific and logistical undertaking in its own right) but perhaps more importantly in that it provides a solid template from which future international validation missions can also draw from. The capacity to undertake such detailed and large scale validation exercises - while critical to product assessment - is very challenging to even groups of researchers, due to limited funding, site access, timing and specialised equipment needs - further increasing the importance of this work.

While there is little in the way of new scientific outcomes present in the work (I expect these to follow), it nonetheless provides an important contribution to the research community. Indeed, papers such as this often struggle to find a suitable outlet in the research literature, even though they are extremely valuable additions for anyone seeking to understand or replicate such exercises. Likewise, they significantly reduce the task of repeatedly detailing the data-set description/methodology that future papers will require: an activity which often distracts from the scientific substance of the actual research.

As such, HESS could (and should) fill a serious gap in the hydrological (and related) community by providing an outlet for such technical notes. Apart from the many scientific works that I expect the authors will derive from this activity, I anticipate that the distribution and access of the data to the international community will yield many multi-disciplinary investigations by researchers. HESS provides an ideal vehicle to advertise such important data sets to the community.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 2763, 2012.