

Interactive comment on “Combining satellite observations to develop a daily global soil moisture product for a wide range of applications” by M. Enenkel et al.

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Dear reviewer #1,

Thanks a lot for your valuable comments. We discussed them carefully. Please find our reply to the comments below.

1. Since the aim of the paper is to develop a near real time soil moisture product, I suggest the authors improve the title by adding ‘near real time global soil moisture

→ Any changes to the title are welcome if they help to clarify the paper’s content.

2. To facilitate applications, I suggest the authors provide the link for the access to the

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new CCI NRT product.

→ The CCI NRT product is not yet generated operationally. However, we will include the contact to the data providers to eventually facilitate access to the pre-operational product.

3. Since SMOS also has Near Real Time Processing Chain, and relevant NRT product. It would be interesting to compare your product with SMOS NRT product in future study.

→ We fully agree. This could also help to understand the strengths and limitations of both datasets better with regard to sensor technology, algorithmic processing chains, etc.

4. It is good to see the current study validated the satellite estimates with in-situ soil moisture measurements. However, the number of the sites (networks) are very limited. I understand it was due to the coverage problem. Nevertheless, I suggest the authors add a few sentences in the Discussion and conclusions section, to discuss this issue.

→ The discussion and/or conclusion section will be revised with regard to the choice and number of the in-situ measurements.

Specific comments: 1. P11552 L4-5: The CCI SM v02.2 has been released, please update here.

→ The document will be updated with regard to CCI SM V02.2

2. P11558, L7-8: The description needs to be improved: do you use a flag here for RFI and VOD? What are the thresholds?

→ The document will be revised with regard to the choice of channels to minized RFI (currently a relatively simple decision-tree). In addition, we will explain the VOD masking that finally decides where to use the active/passive/merged component in greater detail.

3. P11564 L15-16: The SMAP active sensor can not provide data anymore, please

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update here.

→ The document will be revised with regard to the failure of the active SMAP sensor and a possible substitution via Sentinel-1.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 12, 11549, 2015.

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