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Hydrology and Earth System Sciences
Discussions

Interactive comment on "Monitoring small reservoirs storage from satellite remote sensing in inaccessible areas" *by* Nicolas Avisse et al.

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Conclusion/Discussion: You could also mention the potential of Sentinel-1 and 2, which have a much higher resolution than Landsat.

Proposed additional correction for the conclusion (p19, l15): "**The recent two Sentinel-2 satellites also promise a great improvement of the method for post-2015 studies, as they have spatial and temporal resolutions finer than Landsat (up to 10 m and 5 days). Combining Landsat and Sentinel-2 satellites would then reduce the already short revisit cycle of water bodies and would provide near real-time updates on water bodies storage**.

Furthermore, the algorithms used in the paper automatically detect water bodies,

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define the water areas retrieval parameters, build filling curves and assess reservoir storage. **Such algorithmic tools can then be dynamically updated with each new image from Sentinel-2 and Landsat satellites, giving the model the potential to learn by itself and correct previous storage estimates while generating new ones. This approach is somehow comparable to the continuous change detection proposed by Zhu et al. (2014)**."

References:

Zhu, Z. and Woodcock, C. E.: Continuous change detection and classification of land cover using all available Landsat data, Remote Sensing of Environment, 144, 152 - 171, doi:/10:1016/j:rse:2014:01:011, 2014.

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