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Hydrology and Earth System Sciences
Discussions

Interactive comment on "The WACMOS-ET project – Part 1: Tower-scale evaluation of four remote sensing-based evapotranspiration algorithms" *by* D. Michel et al.

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We thank Kevin Tu for his comments and his interest in improving the article. We added the following lines (bold) to the text:

p10752. L10: "As the SEBS and PM-MOD models have typically been used with MODIS vegetation products, a rescaling between our TIP-derived LAI and fAPAR products against the MODIS product has been undertaken. For running the models at the tower scale, a local rescaling is conducted by a linear regression between the MOD15A2 and the TIP values co-registered at each tower. For global model

simulations, individual rescaling per biome/climate classification is conducted. **For PT-JPL, given the model internal relationships between these variables and the vegetation indexes used as model inputs (see Table 1 in Fisher et al., 2008), it can be discussed whether the original TIP LAI/fAPAR or the rescaled LAI/fAPAR are the most appropriate to be used as model inputs. For simplicity we will apply also the rescaled LAI/fAPAR, but this choice will be further evaluated in future applications of the model with the TIP LAI/fAPAR inputs.**"

p10748. L10: "...where f wet is the relative surface wetness, f_g is green canopy fraction, fAPAR (fIPAR) is the Fraction of Absorbed (Intercepted) Photosynthetically Active Radiation, f_M is a plant moisture constraint, fAPAR$_{max}$ is the maximum of fAPAR, f_{sm} is a soil moisture constraint, f_T is a plant temperature constraint and $T_{opt}$is the optimum plant growth temperature, estimated as the air temperature at the time of peak canopy activity when the highest fAPAR and minimum VPD occur. **Note that as the input data set does not include fIPAR, fIPAR is derived from the rescaled project LAI by inverting the model original relationships between LAI and fIPAR.**"

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 12, 10739, 2015.