

Activity 2 Participant Call July 26, 2022

Participants: Olivia Clifton, Roberto San Jose, Christian Hogrefe, Jesse Bash, Jon Pleim, Laurens Ganzeveld, Paul Makar, Paul Nowell, Sam Bland, Shihan (Susie) Sun, Johannes Flemming, Lisa Emberson

Olivia provided an update on the status of data uploads and the revised technical note:

- all modelers provided results except DO3SE (expected by the end of the week). There are some issues for follow-up with TEMIR
- Initial results intercomparing the uploaded model outputs are available on the GoAnywhere site, these plots still show lots of model-to-model variability for seasonal and diurnal cycles
- Plan to start writing up the new results during the week of August 8
- Need some additional model documentation from Paul and Lisa
- Goal is to get a draft of the revised technical note to co-authors by mid-August. May then resubmit in September.

Christian reminded participants to try and log into GoAnywhere at least once every 60 days. If no login occurs within that time frame, access to the site will be cut off due to inactivity. Restoring access is usually quite straightforward and quick, but involves sending an email to Christian who then contacts EPA support who typically respond very quickly to such requests. If participants are using one-time access codes for two-factor authentication on Login.gov rather than SMS or an authenticator app, please be sure to obtain a new set of codes prior to using up the last existing one. Otherwise, the only way to “restore” things is to request a cancellation of the Login.gov account, then wait 24 hours, then re-register, and then contact EPA support (via Christian) to regain access to GoAnywhere.

Laurens told the group that he has a M.S. student interested in investigating the linkage between hydrology and deposition using the AQMEII4 point intercomparison datasets, the student plans to start their analysis in mid-August. Plans to look at impact of VPD and soil moisture. Observationalists and modelers of any datasets used in a potential publication will be offered co-authorship, but MS theses at his institution do not typically result in publications.

Jon asked where the soil parameters (field capacity, saturation, etc.) specified in the new datasets came from. He noted that at some sites the specified field capacity was very different from what had been specified previously within M3Dry based on soil texture lookup-table and would have an impact on results, and in some cases, now the simulated latent heat fluxes are now more biased against the observations. Jesse, who provided these estimates in the new datasets, explained that he used the CSU soil calculator for that purpose. The approach will be documented in the technical note. Future sensitivity simulations may explore the sensitivities of individual models to these parameter choices. Olivia sent soil texture info to Jon that was used by Jesse in calculating the soil parameters.

In an offline follow-up, Kiran noted that the use of latent heat flux measurements for evaluating modeled evapotranspiration is subject to observational uncertainty.

Jon also noted that leaf wetness for the Ramat dataset very rarely dropped below 0.5 which he considered unrealistic given the Rh values. Because he considered these values unrealistic, he set leaf wetness to 0 at that site unless it was raining.

Olivia provided a write-up from the paper on how leaf wetness was estimated from wind speed and Rh (in case of no rain) at Ramat Hanadiv and Harvard Forest as well as (for gap filling) at Ispra and Hyytiala.

Christian said he would double check the R processing code to see if this approach was implemented correctly – update after the call: **the R processing code did not implement the approach correctly, new data sets with corrected leaf wetness values have been prepared for Ramat, Harvard, Ispra and Hyytiala and modelers are asked to rerun with this new data.**

Next call: August 30, 10:00 EDT / 14:00 GMT / 15:00 BST / 16:00 CEST