

Participant Call January 13, 2022

Participants: Stefano Galmarini, Ummugulsum Alyuz, Aura Lupascu, Lisa Emberson, Paul Makar, Jesse Bash, Saurabh Kumar, Sam Bland, Olivia Clifton, Jon Pleim, Christopher Holmes, Colleen Baublitz, Roberto San Jose

- Grid intercomparison (Activity 1)
- Participant updates on postprocessing, data upload, and analysis
 - ECCC will rerun all GEM-MACH simulations due to issues with run control files that led to incomplete spinup affected clouds and precip. Will take about 2 weeks per run to redo, will perform post-processing after each run is done. Paul will send an email to all participants informing them that the 10703 - 10705 files currently on the ENSEMBLE paper will be updated in the future.
 - Ummugulsum and Saurabh:
 - CMAQ: EU domain 2009 CMAQ run completed, 2010 CMAQ in progress. Currently post-processing 2009 CMAQ output, upload starting soon
 - WRF-Chem: debugging dry deposition velocities, runs not started. Once runs start, it should take about 1 month to complete one year.
 - Aura: re-uploaded calculated dew point temperature and wind direction fields for all runs. Recalculated some dry deposition fluxes to remove spurious spikes. Questionable wet deposition fields for some cases are still being investigated.
 - Roberto: Submitted a request for additional CPU hours for this project. If approved in March, may still run 2010 NA later this spring.
 - Recent uploads of grid-scale diagnostic values for LOTOS-EUROS have been transferred to the ENSEMBLE server
- ENSEMBLE server transitioning to private access only – encourage all groups to download what they need before January 31. Going forward, the sftp server will be used for data exchange - both upload and download. The ENSEMBLE server still will be used to store the data (the sftp server cannot hold all the data at once) and Stefano has access, so Stefano can always temporarily move files from the ENSEMBLE server to the sftp server for download.
- Receptor processing:
 - Christian finished receptor processing for concentration, meteorology, and wet deposition fields for NA and EU domains. Tar files with receptor extractions and associated observations are available on the ENSEMBLE server where they reside along the gridded .ens.bz2 files provided by all groups
 - Christian also prepared and shared average seasonal and diurnal plots of model output and observations, averaged over all sites.
- Plans for collective analyses (accounting for GEM-MACH reruns) and individual contributions:

- Discussion postponed until the February call, Stefano to circle back with Iannis regarding his plans for working with the current receptor extractions.
- Point intercomparison (Activity 2) - Updates and discussion led by Olivia.
 - Obtained data from 9 modelers, might get to 10 models if DO3SE model can participate. Over the past month, some inconsistencies in driving datasets were found and corrected
 - Have scheduled 2 meetings with observationalists in February to share initial model results and get answers to site-specific questions:
 - ensure an appropriate interpretation of results
 - Try to resolve reasons for large interannual variability seen in some datasets
 - Next activity 2 call will be used to prepare for these meetings
 - Olivia is working on introductory technical note - two plots (observed and modeled seasonal cycles, and seasonal average diurnal Vd and modeled effective conductances). Include model documentation - need information from Johannes and Paul. Plan to circulate draft to co-authors by February 1, submit early March
 - Other papers:
 - Jesse: STAGE manuscript
 - Jon: M3DRY manuscript
 - Limei: comparison of M3DRY and M3DRY PSM
 - Paul: comparison of effective conductances and effective fluxes in both point and regional models
 - Chris: sensitivity simulations (see discussion below)
 - Participation of DO3SE model - clarification questions:
 - How many sites - 8, different land use types, multiple years of data at most sites
 - Initially: base runs driven by observations
 - Later: sensitivity simulations with perturbed inputs, design is still a work in progress.
 - Motivations: improve process-level diagnostic understanding of point model differences; make a connection between differences seen in grid models between schemes implemented in these regional models and stand-alone point model comparison
 - Time resolution: half-hourly or hourly depending on site
 - Deadline: get draft manuscript to co-authors by February 1, this could still exclude DO3SE, but submit by March so output would be needed no later than mid-February.
- Next call February 10, 9:00 EST / 15:00 CET