Participant Call December 8, 2022

Participants: Aura Lupascu, Jesse Bash, Christian Hogrefe, Richard Kranenburg, Chris Holmes, Olivia Clifton, Ummugulsum Alyuz

Grid intercomparison (Activity 1)

- Participant updates on reruns, postprocessing, data upload, and analysis
    - Ummugulsum: reprocessing 002 to fix a few missing hours, 132 - 442 for 2009 should be ready within a day or two, the remaining cases (001, 005, 012 – 122, and 462 – 472 for both years) should be ready over the coming week or two.
    - Richard: uploaded everything. For LU-specific deposition diagnostics (132 – 442), the currently uploaded LOTOS-EUROS fields report values at all grid cells, not only at grid cells with LU fraction > 0 for a given category. For plotting and analysis, use LU fraction files to mask out these areas for consistency with other models. Richard offered to reprocess these fields with the LU mask applied, and Christian thanked him for this and asked him to please go ahead with the reprocessing so that future analyses do not have to apply manual masking. Christian also shared a post-processing issue with LOTOS-EUROS wet deposition flux and precipitation fields with Richard, and Richard will investigate.
    - Chris: Holly is working through post-processing the 002 case for the North American GEOS-Chem runs this week, and will then work on the other cases in the coming weeks.
    - All new files are on the sftp server until the batch transfer will occur - no problems so far with disk space on the sftp server
    - Paul email update on critical load analysis:

        "a. I've been in touch with the US, Cdn and EU critical load people – have agreement from all for a "we send you shapefiles of annual deposition from the different models and the ensemble, you generate critical load exceedances at critical load and AQMEII4 grid resolutions, returning results to us as shapefiles, AQMEII4 model shapefiles will not be shared or used for other purposes without clearing it first with AQMEII4" project. We're also going to get together on the morning of the 12th to discuss the methodologies used to generate the critical load fields – there's some interest (US, Cdn) in generating a combined North America set of critical load data, and ideally we'd like similar methodologies used in EU and NA for both sets of CL data.

        b. Philip has all the EU data now for that comparison. … He's been generating shapefiles already for the NA grid for the runs we do have, and will finish off EU sometime this week."
    - Christian prepared screening plots (maps, seasonal and diurnal cycles) using currently-uploaded gridded fields. These have been uploaded to the "results" folder on the sftp site, in a new subdirectory "20221207".
        - Discovered incomplete wet deposition flux data for 10708 0241 002 (UPM WRF/Chem 2010 NA deposition flux TSD), Roberto will investigate and fix.
        - PDF files with plots are organized in folders "conc_dep_meteo" for meteorology, gas phase and aerosol concentrations, and wet and dry deposition fluxes, "diag_gridscale" for grid-scale dry deposition diagnostics, and "diag_by_landuse" for LU-specific dry deposition diagnostics. The types of plots are maps of monthly or seasonal means and

time series of seasonal cycles or diurnal cycles averaged over non-water grid cells. The file names and figure labels hopefully are descriptive enough, but participants can reach out to Christian with any question they may have. All participants are encouraged to browse through these plots and provide feedback and comments.

Point intercomparison (Activity 2)

- An Activity 2 call was held October 29 and call notes have been posted to the github site. The next call will be held on January 3. Olivia noted that the work on the manuscript is progressing well and that some last-minute model issues were discovered and fixed.

Conferences/Meetings

- Christian will provide an AQMEII4 status update to the MICS-Asia community at their December 22-23 virtual workshop.

Next Call

- The next call will be scheduled for January 19 and every third Thursday of each month thereafter.