

# AQMEII-4 Activity 3 Participant Call – August 23, 2021

Attendees: Sam, Christian, Jesse, Olivia, Jon, Chris, Paul, Bin

- Activity 1 update (Christian)
  - Response to journal review of technical note is underway
  - Most groups have submitted their data
- Point intercomparison technical note
  - September 15 is the target for modelers to submit their model results; see copy of Olivia's email below for details on format, etc
  - Reviewers rejected the original version as it didn't contain any analyses; the extent of the analyses that need to be added is uncertain
  - Chris - we could show similar summary analyses for models as was included for the observations
  - Olivia - that could be more work than it seems as the models need to be documented
  - The analysis of effective conductances is going to be interesting - do we include that in the technical note or as a standalone paper? Could include some examples of effective conductance analyses.
  - What if we didn't document the models in the TN and just cited references?
  - Could limit the analysis for the TN to just the models that are described in TN 1 as they are documented in the supplemental.
  - Does TN2 duplicate the Hardacre et al paper? Somewhat, but the TN outlines the method to further investigate the differences.
  - Donna will set up a call with Joshua Fu to discuss our planned response and the path forward
- Robichaud scheme early results (Paul)
- Other
  - There is some ambiguity in the data and modelers will adapt the data to their models. This will contribute to model differences and needs to be documented.

## Copy of email for modelers on data submission

*Hi everyone!*

***Modelers, please submit your time series of your simulated ozone deposition velocities and effective conductances for all the sites by Sept 15. Please load the model datasets to the folder 'Box Model Results' on the Go Anywhere site (you all should have access to this; if not, contact Donna). We need to incorporate the simulated values into the Technical Note for the single-point activity in order to address reviewer concerns (you will be added as co-authors if you contribute!). Please use the forcing data files dated 8/10/2021 to drive your single point models.***

For directions on how to calculate the effective conductances (which should sum to the deposition velocity), please see Stefano's Technical Note in ACPD (<https://doi.org/10.5194/acp-2021-313>).

The format of the file with simulated values should be a CSV. Please include all the variables in Table 4 of Stefano's Technical Note (excluding the post-processing flux fields) in your file, in the order they are in the table. Conductances should be in cm/s and resistances should be in s/cm. **Model output files should be continuous time series** with missing values for half hours (hours for Harvard) where the forcing data is insufficient to calculate the deposition. Missing values should be denoted as -999.99. The time period covered should be exactly the same as the forcing files. Please include time as the first variables in your file (year — YYYY, month — MM, day — DD, hour — HH, seconds — SS). The title of your file should be SITE\_MODEL.csv with MODEL denoting whatever name you chose for your model.

SITES are

auchen

borden

bugac

easter

ispra

harvard

hyttiala

ramat

As always, if you see strange values in the forcing data, please let us know. For now, just calculate the simulated deposition velocities and effective conductances for every instance that there is non-missing driving data (again, model output files should be continuous time series with missing values denoted as -999.99). We can always filter the simulated values corresponding to weird forcing data out later on.

We also need full descriptions of your parameterizations in the Technical Note for this activity (please also load to the folder 'Box Model Code' on GoAnywhere with the site MODEL\_description where model denotes the name of your model). In a Microsoft Word document, please include equations and a written description of the resistance network (see Galmarini et al. ACPD for a definition) and each resistance, details on what you do for wet, dry, snow-covered, cold surfaces, etc. We also need a list of all the parameters defined for a given site (where/how the parameters are used should also be clear from your description/equations). At this point we just need to know what happens for ozone.

Please let me know if you have any questions.

Thanks,

Olivia