Participant Call March 5, 2020

Participants: Aura Lupascu, Chris Holmes, Paul Makar, Ana Ascenso, Donna Schwede, Roberto San Jose, Jon Pleim, Christian Hogrefe

Call notes (follow-up items are highlighted in yellow)

- Status update on box model intercomparison (activity 3) - provided by Donna Schwede
  - Overview document was sent out to potential participants. Password-protected data upload/download site is set up, observational data sets at several field study locations have been obtained. "wrapper" code isn't ready yet.
  - Planning group is trying to set up a conference call, fairly low response so far (Roberto San Jose, Gabriele Curci and Ralf Wolke in addition to four members of the planning team)
  - Donna and the planning team will reach out again to groups who had previously indicated an interest in participating
  - Donna will also send out a reminder to all groups and update the poll with an extended time frame
  - Ana Ascenso reported that her group (University of Aveiro) will not participate in this activity
  - Aura's group had planned to participate but was relying on bringing on a master's student which didn't happen. Therefore, her group likely cannot participate. Donna mentioned that there is the possibility of a group contributing their code rather than running the model themselves, this may be an option here.
  - Roberto is hoping to participate but cannot give a firm commitment yet. However, he can participate in the planned call
  - Group discussion: It would be useful to poll all WRF-Chem groups (even if not participating in activity 3) to see if it possible to include all dry deposition options available in WRF-Chem (if there are multiple options) in the box model intercomparison
  - Steering group also welcomes the submission of code even if a group cannot perform the box model runs themselves.
- Status update on single-hour regional-scale grid modeling (activity 2) - provided by Chris Holmes
  - Planning group (Chris Holmes, Paul Makar, Jon Pleim and Christian Hogrefe) held call on March 2
  - Planning group will continue to work via email and calls to develop technical guidance on how to conduct the grid model simulations under a few selected idealized meteorological conditions
- Status updates from annual regional-scale grid modeling participants (activity 1)
  - Groups participating in the call provided updates to the information summarized in the table below
  - Will need to provide guidance on how groups should interpolate from their native grid to the common analysis grid.
    - Options for interpolation include nearest neighbor sampling, bi-linear interpolation, or mass-conserving interpolation

- - Roberto San Jose reported that Renate Forkel had provided a mass-conserving interpolation code for WRF-Chem groups which was used in previous AQMEII exercises and offered to share the code with interested parties
    - Chris Holmes mentioned that the cdo (climate data operators) suite of tools includes an option for performing mass-conserving regridding
    - Paul Makar mentioned that his group also has internal code to perform mass-conversing regridding
    - Paul Makar was interested in comparing the cdo approach, the approach developed by Renate Forkel, and his group's approach
  - Group discussion: may want to use mass-conserving interpolation for some fields (e.g. grid cell concentrations, total fluxes) and nearest neighbor sampling for other fields (e.g. fractional LU coverage, LU-specific dry deposition diagnostics)
- Post-processing: need more TSDs/src files, need model codes
  - Currently do not yet have TSDs/src files for post-processing model output at receptor and profile locations
  - Also need to specify the process for obtaining the model code and model ID needed by each group
  - Roberto Bianconi is currently not under contract by JRC, waiting for contract to be renewed, timing may also be impacted by COVID-19
  - Christian and Paul will touch base with Stefano and Roberto on the status of this after March 23

- The next call will be held April 2, 09:00 EDST / 13:00 GMT / 14:00 BST / 15:00 CEST

Activity 1 Participant Status

Color key: simulations have started; simulations have not started but group is committed to participating in the activity; simulations have not started and group likely is not able to participate due to resource constraints but may participate if the situation changes ; simulations have not started and group does no longer plan to participate due to resource constraints; no response

Contact	Institution	Model	Continent(s)	Date of Last Update	Status
Alma Hodzic	NCAR	WRF/Chem	NA	2/26/2020	Started simulations
Ana Ascenso	University of Aveiro	Chimere	EU	3/5/2020	Started meteorological simulations in early February Finishing met simulations, plan to start Chimere in April

Aura Lupascu	IASS Potsdam	WRF/Chem	EU/NA	3/5/2020	Started simulations for EU in early February and for NA in mid February Finished EU runs for both years, by end of next week both NA simulations will be finished Need guidance on regridding, especially with fractional land use
Christian Hogrefe	U.S. EPA	WRF/CMAQ	NA	3/5/2020	Finished three of four 2016 simulations with both STAGE and M3DRY dry deposition schemes: two simulations with each scheme using two different WRF meteorological fields, one with and one without lightning assimilation in WRF. Also performed two additional 2016 simulations with M3DRY to assess the impact of lightning NO emissions and SOA formation from RWC
Christoph Knote	LMU Munich	WRF/Chem	EU	2/27/2020	Simulations not started, on leave through May 1, still expects to perform simulations
David Simpson	Norwegian Meteorological Institute	EMEP	EU	2/27/2020	Simulations not started and busy with other mandatory projects, may not be able to participate

Dimitris Melas	Aristotle University Thessaloniki	WRF/CAMx	EU/NA	2/27/2020	Simulations not started Upload results for EU 2010 and NA 2016 by the end of summer Upload results for EU 2009 and NA 2010 by the end of the year
Ioannis Kioutsioukis	University of Patras	WRF/CAMx	EU/NA	2/27/2020	Simulations not started Upload results for EU 2010 and NA 2016 by the end of summer Upload results for EU 2009 and NA 2010 by the end of the year
Jean-Pierre Chaboureau	University of Toulouse/CNRS	Meso NH	EU	2/27/2020	Likely cannot participate due to lack of time and resources
Johannes Bieser	Helmholtz-Zentrum Geesthacht	CCLM/CMAQ	EU/NA	2/25/2020	Finished meteorological simulations for NA domain
Marta Garcia Vivanco	CIEMAT	Chimere	EU	3/3/2020	Delayed by transition to new machine and new Chimere version which had several bugs and is causing delays in other projects. Still plans to participate in AQMEII4 simulations. Additional code updates (LU-specific deposition) still need to be implemented.
Metin Baykara	Istanbul Technical University	WRF/CMAQ	EU	2/21/2020	Transitioned to new computer system, expect to start CMAQ simulations in April
Paul Makar	Environment and Climate Change Canada	GEM-MACH	NA	3/5/2020	Finished first 2016 run, will perform one or more sensitivity

					simulations. Will start post-processing gridded files soon. Will use this project to perform additional sensitivities (e.g. different science options, comparison to operational version).
Pedro Jimenez Guerrero	University of Murcia	WRF/Chem	EU/NA		
Ralf Wolke	Leibniz Institute for Tropospheric Research	COSMO-MUSCAT	EU	2/28/2020	Started simulations. Expect to finish 2009 by the end of March and upload data by mid-April. Expect to upload 2010 data by the end of May
Ranjeet Sokhi	University of Hertfordshire	WRF/CMAQ	EU	2/18/2020	Recently made offers to two post-docs, expects that it'll be several months before candidates start and can begin working on the project
Richard Kranenburg	TNO	LOTOS/EUROS	EU	3/5/2020	started simulations in early February 2020. Discovered errors, restarted in March, expect to finish by end of March and upload data after that.
Roberto San Jose	Technical University of Madrid	WRF/Chem	EU/NA	3/5/2020	Simulations not started March: Start of the simulations for EU 2010 and NA 2016, upload data by July July: Start of the simulations for EU 2009 and NA 2010,

					upload data by November
Rong-Ming Hu	National University of Ireland Galway	WRF/Chem	EU/NA?	2/26/2020	Likely cannot participate due to timing and resource constraints
Rotislav Kouznetsov	FMI	SILAM	EU	3/3/2020	Simulations not started. Plan to start simulations in late March and submit data by late May. Plans to submit gridded concentrations and depositions but no LU-specific resistances.
Ulas Im	Aarhus University	WRF/DEHM	EU		