

**GEOS-Chem Steering Committee Telecon
March 3, 2014 10-11:30 Eastern**

Attending: Daniel Jacob, Bob Yantosca, Randall Martin, Kevin Bowman, Prasad Kasibhatla, Andrea Molod, Noelle Selin, Qiang Zhang, Jun Wang, Mathew Evans, Daven Henze, Dylan Jones, Elsie Sunderland, Jeff Pierce, Lin Zhang, Colette Heald, Hong Liao, Jintai Lin, Jingqiu Mao, Dylan Millet, Shiliang Wu, Yuxuan Wang

Missing: Emily Fisher, Steven Pawson, Ray Nassar

1. IGC7 agenda (Randall)

- Discussion of meeting agenda: decision made that there will be no parallel sessions, all sessions will be plenary
- In order to facilitate wide participation in WG discussions without taking too much time out of the agenda some WG sessions will be combined (chemistry & organics, adjoint & C & transport), so there will be 3 WG sessions instead of 4 on the agenda.

2. IGC7 logistics (Daniel)

- 179 people now registered for IGC7! Registration now closed. With given facilities there is an absolute cap at 200 people.
- Travel budget: similar to previous meetings, has now all been allocated
- More \$\$ for food at breaks (MIT, HUCE, EPRI) than before to support healthier snacks and second dinner
- GC Steering Committee Social will be held on Sunday at Colette's House (NCAS funds from Mat supporting this). Colette will send out info soon.
- Young Scientist Social to also be held on Sunday. 106 of registrants of 179 want to be at Young Scientist Social
- Substantial effort has been made to address concerns about poster session raised after IGC6.
- Model Clinics: 5 clinics were offered at registration (beginners, advanced, ESM-component, HP GEOS-Chem, adjoint) – saw overlapping interests from registrants. Final recommendation is to have only one clinic timeslot on the agenda, with 3 parallel clinics: (1) Beginning to advanced users (2) GEOS-Chem as Earth System Component and MPI and (3) Adjoint. The GEOS-Chem beginners' clinic will also be held in parallel. Clinics will be 60-90 minutes. There will be an offline discussion on the goals of the ESM/MPI clinic.

3. GCSC membership (Daniel)

- A number of GCSC member terms are ending. Daniel issued a call for new members to the email list, received a number of volunteers. Daniel also received responses from folks who want to step down. As a result achieved a pretty good steady-state
- Status:
 - Staying on: Daniel, Dylan J. (stepping down from Transport, co-leading C), Hong Liao, Jun Wang
 - New members: Hongyu Liu, Baron Henderson, Jenny Fisher, Chris Holmes, Peter Adams

- Stepping down: Ray Nassar, Jeff Pierce (moving to at-large), Jingqiu Mao, Noelle Selin, Elsie Sunderland
- General consensus that current structure of WG works fine. In a good position to maintain continuity while injecting new blood.
- An important responsibility for all members of the GCSC (including at-large members) is the review of the benchmarks.
- At-large-members: to maintain expertise of former WG chairs when they step down. The large numbers of folks on the GCSC has not been a problem (high attendance on telecons), important indicator of community involvement. Suggestion that we advertise the GCSC telecons to the community of all GEOS-Chem PIs in the future.
- In the future, WG chairs should work on recruiting new PIs internally from WGs
- Some guidelines about running WG sessions will be provided in advance of IGC7 (based on Aerosol WG session from IGC6)

4. Model Updates (Bob)

- Next public release anticipated for IGC7
- Working on v10.01h: emissions updates in HEMCO (including FINN, Guenther updates to MEGAN, MASAGE, EDGAR 4.2, HTAP, MIX, NEI 2008/2011), some updates to HEMCO to allow emissions to be turned on/off. Will be both one month and one year benchmarks for this version.
- RRTMG integration has been delayed because FAST-JX and UCX required new work to make RRTMG compatible with those updates (these were integrated since RRTMG was submitted to Support Team). David Ridley (MIT) working on this. Will likely be v10.01i, if further delayed, this will be moved to next release.
- Mike Long and GMAO working on getting GEOS-Chem running with DAS in the 7km "Nature" run. Mike also working on replacing chemistry with FlexChem (helps to remove legacy code and improve memory use). FlexChem likely to be in the next version of GEOS-Chem.
- Also working on Mega-Chem: stand-alone HPC version of offline GEOS-Chem, will run in MPI environment with ESMF, will be HP version of GEOS-Chem for the community (not limited to GMAO environment). Mega-Chem has successfully been compiled, need to integrate latest v10.1 updates.
- Some confusion about names of all these versions! Note that GIGC doesn't exist anymore. We should emphasize that there is only one version of GEOS-Chem, the only difference is the software environment.
- Need for a follow-up telecom on HPC with GEOS-Chem (Prasad, Dylan J. Kevin, Daven, Andrea).

5. GMAO news (Andrea)

- MERRA2 is on schedule, should be completed late April, ready for early summer for release. If interested in testing MERRA2 output with GEOS-Chem, get in touch with Andrea. MERRA2 has some advantages: warm bias is gone
- GEOS-5 CTM is hooked up, initial glitch with cube-sphere, have been running with strat-chem and GMI, plan to run with GEOS-Chem chemistry when it's ready
- Forward processing stream of GEOS-FP starts in 2000 and runs forward to present (at ½ degree)

6. Model adjoint updates (Daven)

- Lin Zhang contributed support for GEOS-FP meteorology in the adjoint. Has been tested, will be released in standard code and plan to run with nested simulations by IGC7
- On-going work to modify adjoint to use UCX and HEMCO

7. Working Group Reports

- Elsie: Goddard has made progress coupling a version of MIT GCM ocean model to GEOS-5 within ESMF. Very promising for those interested in coupling MIT GCM ocean model with GEOS-Chem
- Jeff: Duncan Fairlie found that SO₂ is treated as a particle during wetdep, instead of using Henry's Law (so too much being scavenged, not making it into the FT)
- Jun: working with Christoph Keller and Jenny Fisher to process FINN emissions for 2013/2014
- Lin: working on ½ degree nested simulation
- Note from Daniel: with HEMCO it will be challenging to define a "standard" GEOS-Chem. We should discuss this at IGC7, whether there should be a standard set of recommended emissions.