Oxidants and chemistry working group

Things which are coming

- Stratosphere chemistry (new LINOZ , Murray)
- Bromine scheme (Parella)
- Some updates to the inorganic scheme (Evans)

Work to be done….

- more capable planeflight (by Mat Evans)
- kpp diagnostics (by Mat Evans ?? :-/)
- convergence problems kpp (c criteria change)
- new diagnostics (some by Mike Barkley)
- OVOCs dry deposition evaluation (by Jingqiu Mao)
- Evaluating caltech mechanism over US. (by Jingqiu Mao)
- globchem.dat (converting the documentation on wiki, by Jingqiu Mao)
- box model: DSMACC (put on wiki, by Jingqiu Mao)

Interesting

- May Fu working to update chemistry for GLYX, MGLY with Caltech isoprene scheme
- Steven Barrett stratospheric chemistry
- Jingqiu Mao – Variants of isoprene chemistry available if people want to try (with Fabien's help).
- Jingqiu Mao – POLARCAT model intercomparison, results are available upon request, with ten models using the same biomass burning emissions (NCAR FINN) and anthropogenic emissions (Streets). Code is also available for using the FINN bb emissions.

To be aware:

- Fix the isoprene nitrate yield in all the versions beyond v8-02-01

- the diagnostics of global OH at end of geos.log is in doubt

chemistry time step

Current setup

- 4x5:
  time step 1 : transport (30min) + Chemistry (60min)
  time step 2: transport (30 min)-------------------------->output
  time step 3 : transport (30min) + Chemistry (60min)
  time step 4: transport (30 min)-------------------------->output
  time step 5 : transport (30min) + Chemistry (60min)
  time step 6: transport (30 min)-------------------------->output

  2x2.5:
  time step 1 : transport (15min) + Chemistry (60min)
  time step 2: transport (15 min)
  time step 3 : transport (15min)
  time step 4: transport (15 min)-------------------------->output
  time step 5 : transport (15min) + Chemistry (60min)
  time step 6: transport (15 min)
  time step 7 : transport (15min)
  time step 8: transport (15 min)-------------------------->output

1. Is 60 min good for chemistry for both 4x5 and 2x2.5?
2. For 2x2.5, should we put the chemistry time step after 30 min (2 x 15 min) transport?