

Issues to Resolve

- **What version of Aura runs to use (Aura 3, 4)**
- **Doubling experiments**
- **Radionucleides?**

Proposal ideas / themes

- **Use / impact of other meteorological fields**
 - GFDL (Liu) – (Future simulations, Long Range Transport, Adjoint?)
 - UCI/Oslo (Prather)
 - NCEP (GMAO)
- **Hindcast (Improve forecast?)**
 - Aerosols? (not here)
 - SO₂ (Weisenstein)
 - Duncan, Liu (air quality, Long-range transport)
 - Other? (Logan? Prather?)
- **Testing/ Improving model**
 - Use of satellite data (MLS, other).
 - Radionucleides (Considine, Liu)
 - Aerosols (nitrate, Biang;AQ, Duncan; cloud/ice activation, Nenes, Liu/Penner...).
 - AC and C No. 2 (convection, washout; Rodriguez, Considine, Liu, Neu? Nenes...).
 - Chemical mechanisms?
- **WHAT MODELING CAPABILITIES SHOULD BE PROVIDED BY “CORE” INSTITUTION?**

GROUP ON WET DEPOSITION / CONVECTION

- **Wet deposition: Issues**
 - Most schemes for liquid scavenging seem similar, except for Rosstyn
 - Treatment of ice scavenging varies a lot
 - What data to use? (Besides ^{210}Pb)
 - Deposition data (NAPD) (Aqueous phase chemistry?)
 - HIRDLS HNO_3 (ice removal?)
 - HNO_3 gas (large variability).
 - TC4 outflow data
 - Possibility of developing microphysics-based schemes (need more variables archived).
 - Implicit dependence of current schemes on Δt .
- **Convection issues:**
 - New data bases for testing convection?
 - Test different met. fields with different schemes, same emissions, simple chemistry.
 - For a given met. field, perturb strength of convection and find impact.
 - “On line” vs. offline.
 - Other species tests (methyl iodide)
 - Other diagnostics

WET DEPOSITION / CONVECTION + Others

- **Potential proposals**
 - Test convection, wet deposition, new sources of ^7Be , other tests of convection: (Considine, Liu)
 - Bring in GFDL met. fields, adjoint of GMI? Look at long-range transport (Liu).
 - New wet deposition schemes? (Neu, Prather).
 - Lightning in future climate (Pickering).
 - Wet deposition / microphysics (Nenes?).
 - Impact of stratospheric changes, QBO on tropospheric composition (Prather/Logan?)
- **“Core” activities**
 - Automated grading system for results, fold in data (PCMDI)
 - Data archive?
 - Incorporating different met. fields, develop tests to guarantee incorporation.
 - Additional archived variables from GEOS (autoconversion rates).

ACTION ITEMS

- **Regular update on development of embedded CTM.**
- **Further coordination of proposals.**
- **Understand differences between AURA3 and AURA4.**
- **Finish doubling experiments.**
- **Upcoming papers:**
 - **Logan (TES)**
 - **Lightning (Allen/Pickering)**
 - **Use of HIRDLS data?**