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Full chemistry run output unless pointed out in parenthesis. The full chemistry output are from Lin Zhang at Harvard, for 2006 at 2x2.5, 2-week averages, GEOS5, 40 Levels (only up to ~50 hPa). May contact Jenny Fisher for model output including the levels in stratosphere.

Possible: OCS from Parv; F11 and F12 from Q. Liang

2. MOZART-4 (NCAR):

Currently, MOZART is not used for any of the species in the table

N2O, CO, O3, CH3, HNO3, SO2, C2H4, CH3OH

```
/project/carbon_tmp/mars/yxiao/mozart4_2006MM.nc
Datavar[128, 64, 28] - lon, lat, lev
```

- MOZART (**http://www.acd.ucar.edu/gctm/mozart/models/m4/**) monthly mean output for 2006 (Louisa will probably add other years) from standard MOZART-4 simulation described in Emmons et al., Geosci. Model Devel., 2010. available on the NCAR Community Data Portal (http://cdp.ucar.edu). On the CDP, navigate to the MOZART-4 page (for example, Models -> MOZART -> MOZART-4). Firstly register for Access to the MOZART-4 Output Data (username: aer, pwd: Oss2010). Daily averaged data also available in ncdf format from website without registration (1-day global data is saved /project/carbon_tmp/mars/yxiao)
  (Louisa Emmons (emmons@ucar.edu) is the MOZART person to contact)

- Meteorology from NCEP, 2.8x2.8 (highest up to 0.7x0.7), 28 vertical levels from surface to ~2hPa. (http://www.acd.ucar.edu/gctm/about/)

- MOZART-4 runs on sigma or hybrid coordinates, depending on the input dynamics fields. These are run with NCEP/NCAR-reanalysis meteorology. These values are the same for all dates and times. pres_Pa[ilon, ilat, ilev, itim] = hyam[ilev] * P0 + hybm[ilev] * PS[ilon, ilat, itim]. The hybrid A values (hyam) are zero for these results, but the Bs (hybm) are non-zero
  Pres_hPa in the increasing order, need to be reversed; Species_VMR also needs to be reversed

3. GMI :

O3, CH4, N2O, CO, HNO3, CFCl3(F11), CF2Cl2(F12): daily

```
DATAVAR[144, 91, 72, 365]
/data_static/carbon/GMI/gmic_G5aura_2006_MMM.idaily.nc
```

CCl4: monthly

```
/data_static/carbon/GMI/ gmic_G5aura_2006_MMM.amonthly.nc
```

OCS: AER 2D model (19 latitudes and 12 months)

```
/data_static/carbon/GMI/OCS-aer2d.nc
```

The daily and monthly data in the year of 2006 is from **G5Aura** and archived under /data_static/carbon/GMI/ (~35GB). From Susan Strahan susan.e.strahan@nasa.gov via Debra (September 2010). monthly mean GMI combo output (*amonthly.nc) for the Aura4 run (geos4das met

fields) or **the G5Aura run (geos5das met fields).** The pressure coordinates (72 levels)

```
ftp dirac.gsfc.nasa.gov
cd /pub/gmidata2/output/gmic.
cd aura4/2005 (or another year)for Aura4 output
cd G5aura/2005 (or another year) for G5Aura output
 (If you try to 'ls' and get an error message like 'connection refused', type 'passive' then try ls
again)
```

Old GMI files in house, which seems wrong because of the spikes in midtroposphere

```
/project/carbon_tmp/mars/yxiao/gmic_geos4das_2005_const.nc,DATAVAR[144, 91, 42, 117, 12]
```

4. Hippo I : CO2, CH4, CO, N2O, O3, F11, OCS
   Hippo II: CO2, CH4, CO, N2O, O3