EPA/WSU GEOSS Project Update

GEOSS Project implemented the following features:

AIRPACT Website is at: http://lar.wsu.edu/airpact/graphics.html

Google Maps Page for AIRPACT-4 provides the following features:

- pan, zoom, and search for locations
- Calendar interface to select date of interest
- Air quality map opacity control
- Animation controls for hourly results
- Custom overlays such as dominant land use, AIRNow sites, point-source emissions, and relevant borders (i.e. counties, National Parks & Monuments)
- AIRPACT-4 hourly results with AIRNow feed for ozone and PM2.5 with matched MODIS AOD and AIRS ozone are available by selecting an AIRNow site location.
- Meteorology hourly animations derived from UW WRF forecast
- Satellite imagery for MODIS, AIRS, OMI, and GOES products
- Global model results (on 6-hr time steps) from NCAR's MOZART-4, using MOPITT-assimilated CO (the same system currently used to derive AIRPACT boundary conditions).

Current list of satellite products being served

Cloud Type (GOES hourly)
OMI Tropospheric Column NO_2 (2 pm LT)
OMI SO_2 (2 pm LT)
MODIS/Terra AOD (10 am LT)
MODIS/Aqua AOD (2 pm LT)
AIRS Surface Ozone (1 am LT)
AIRS Surface Ozone (2 pm LT)
AIRS Total Column CO (1 am LT)
AIRS Total Column CO (2 pm LT)
AIRS Total Column Ozone (1 am LT)
AIRS Total Column Ozone (2 pm LT)
CALIOP aerosol curtain imagery (on AIRPACT graphics page) (2 pm LT)
NDVI from MODIS (on AIRPACT graphics page)

Note: Satellite images usually lag 2-7 days behind today's date.

Changes Since Last Update (January 16, 2013)

CMAQ AOD animations **DONE!**
• There is an issue with MOZART results (our BCON source) where too many aerosols are accumulated in the stratosphere. This causes a ~0.13 over-bias in the model results. We can sum layers 1-18, wait for NCAR to fix, or just subtract 0.13 from results.

GOES GASP AOD animations **PROBLEM!**
• Turns out that the GRIB files from GOES contain blank AOD fields. So, the only alternatives for GOES AOD are to obtain the binary files (requires annual IDL license to read) or we can simply link to the images already provided on the web (might be nice to create an external links page for this product and other sites).

Replacement of AIRS CO L3 column imagery with AIRS L2 for greater detail. **DONE!**

CMAQ western boundary vertical profiles (O3 and CO) (uses CONC results) **DONE!**

CMAQ cumulative (monthly) deposition **IN DEVELOPMENT**
• requires accumulation scripting to be finished

"Misc Overlays" now include **NEW OVERLAYS**
• "Latest Fires/Smoke (HMS)" and "2008 Industrial Emissions"
• Note that using the HMS layer disables GMAPS panning, currently no fix available