

Aerosol Data Exploration Using GIOVANNI, GIOVANNI-HTAP, and The Multi-sensor Aerosol Products Sampling System (MAPSS)

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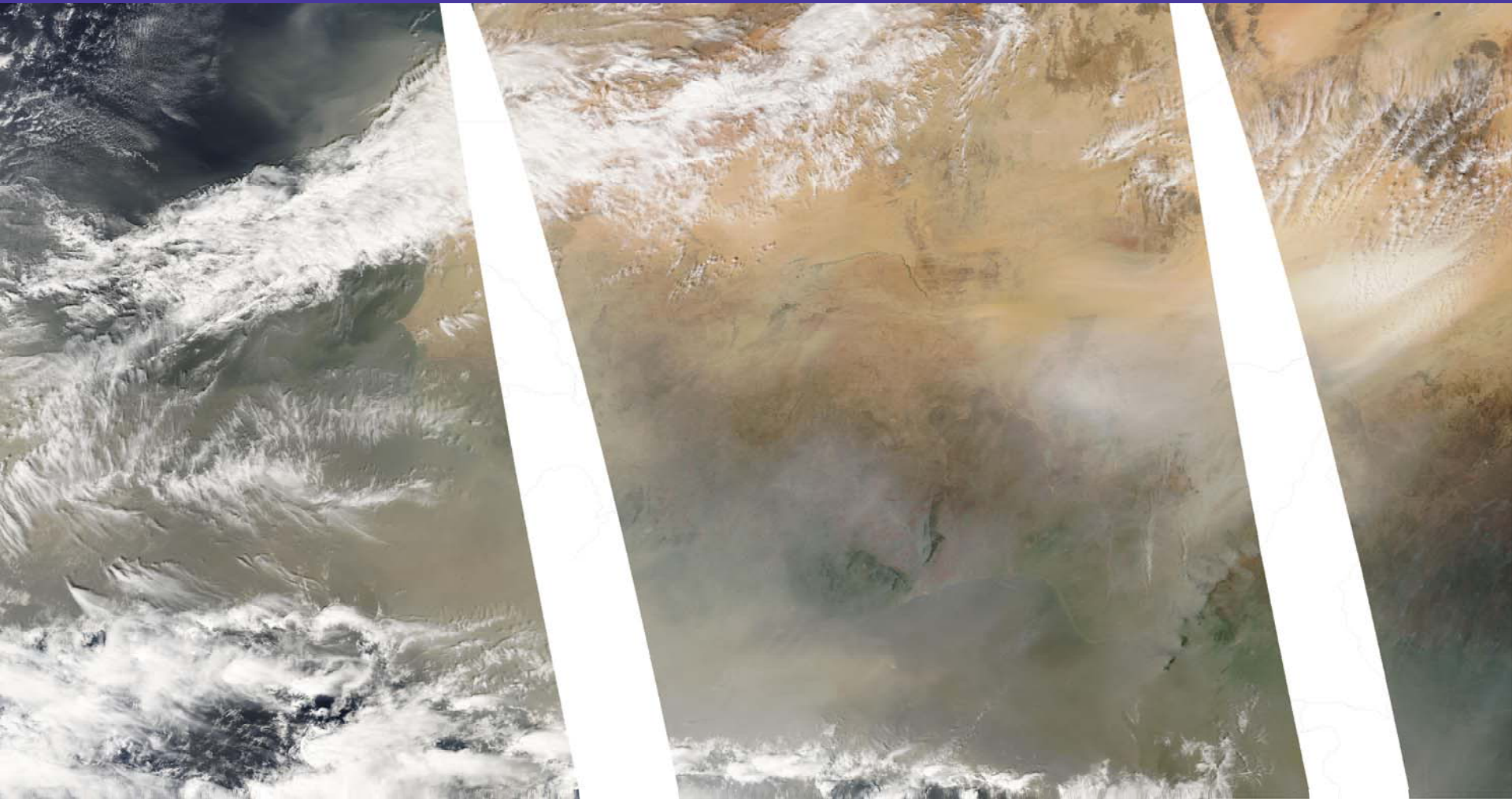


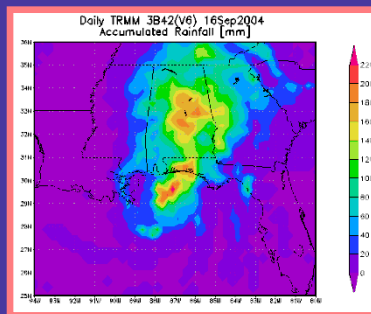
Image: Aqua-MODIS true color RGB of 09-Jan-2005 (courtesy: NASA EarthObservatory and MODIS Rapid Response Teams)

Presented at the EOS Funding & GEWEX Aerosol Assessment Workshop, NASA/GSFC, Greenbelt MD, 06-Feb-2008

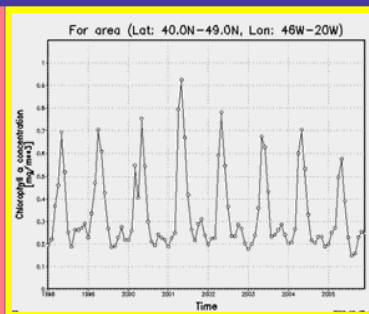
Giovanni



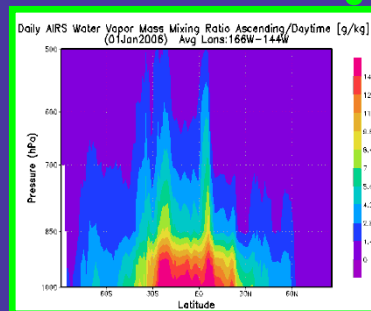
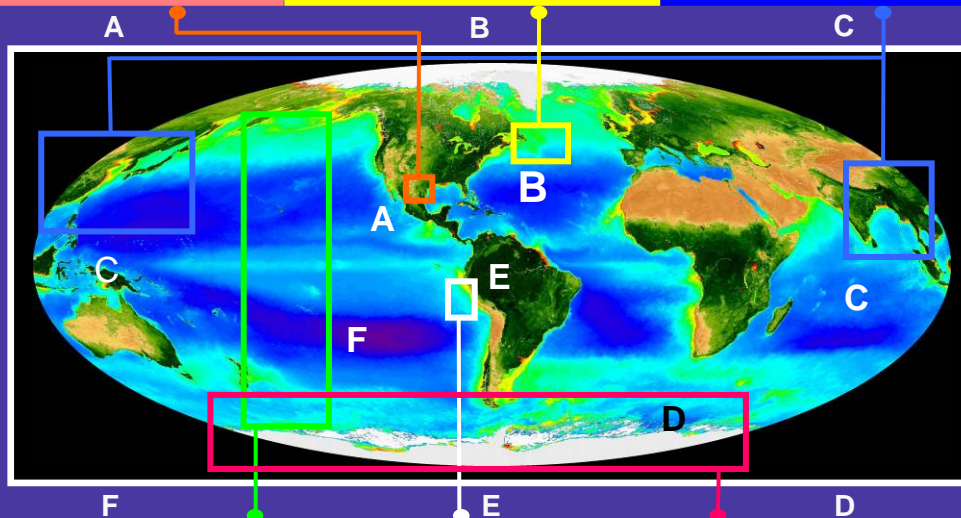
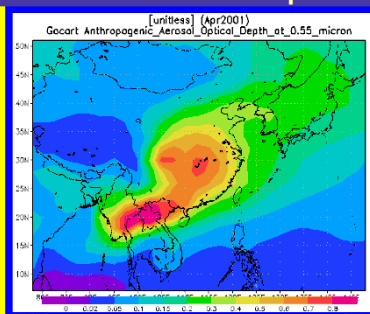
Area Plot



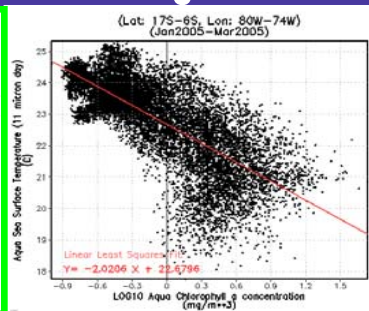
Time Series



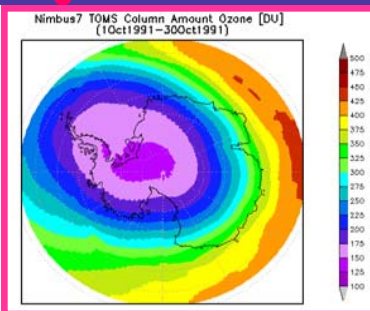
Model Output



Profile Cross-Section



Correlations

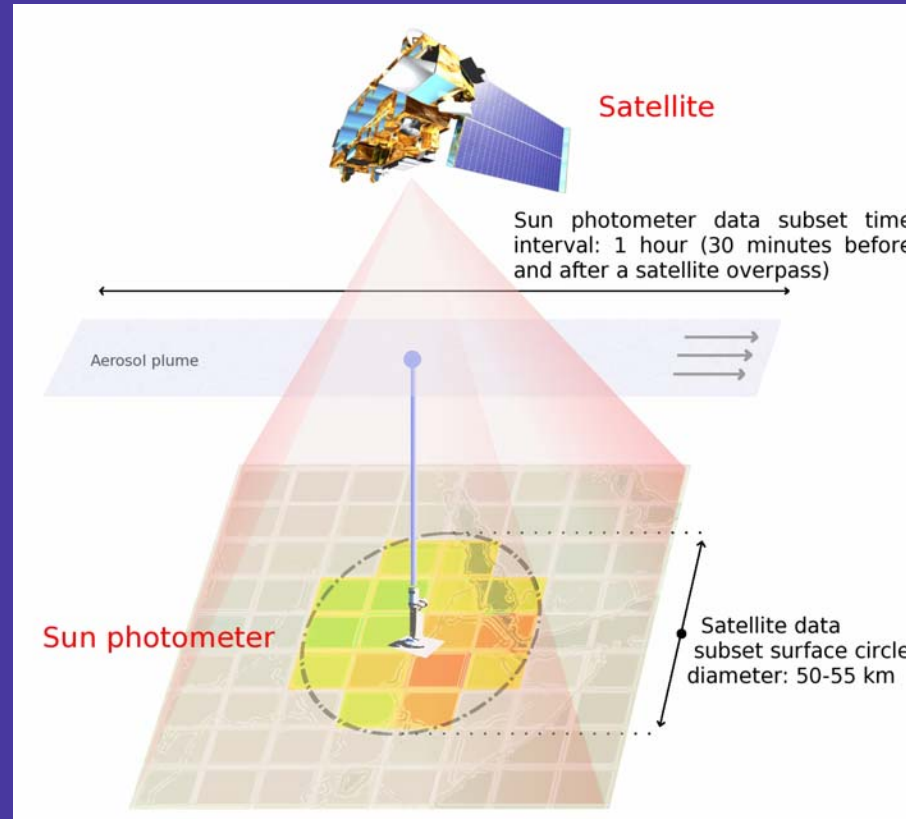


Column Densities

Giovanni provides an entire suite of statistical analysis and visualization tools for the comparison of regional and global datasets.



MAPSS: Multi-sensor Aerosol Products Sampling System



- MAPSS uniformly samples Level-2 aerosol products and stores resulting statistics in simple CSV files

- Giovanni-based WEB interface for MAPSS provides a convenient customized access to the data, with on-line plotting and data export capabilities

- Aerosol data are available from different sensors

- MODIS
- MISR
- OMI
- POLDER
- CALIOP
- AERONET

- Hard to compare and inter-validate

- Different spatial and temporal resolution
- Different data access strategies

Procedures

GIOVANNI

- <http://disc.sci.gsfc.nasa.gov/giovanni/>
- Select Aerosols Daily (No more than 1 month)
- Select Region
- Select Time Series or any other plot type
- Tune results if necessary
- Overlay plots and, if needed, put on the same scale by typing Min and Max
- Home – to make a new plot
- You can share result by copying the link URL or send link by e-mail from firefox: e.g.
- http://gdata2.sci.gsfc.nasa.gov/daac-bin/G3/results.cgi?wsid=128533924927413&app=timeseries&instance_id=aerosol_daily&sid=128533901123862&gsid=aerosol_daily_128.183.108.215_1285338693&selectedMap=OpenLayers.Layer.WMS_4

Procedures

- GIOVANNI-HTAP
- [http://gdata1.sci.gsfc.nasa.gov/daac-bin/G3/iGui.pl?instance_id=HTAP Prototype](http://gdata1.sci.gsfc.nasa.gov/daac-bin/G3/iGui.pl?instance_id=HTAP%20Prototype)

- WEB-MAPSS
- <http://gdata2.sci.gsfc.nasa.gov/giovanni/mapss.html>
- Select Locations
- Select Products and Parameters (Add)
- Select Dates
- Get Plot
- Save Data
- Can Always go back to results.