



AVDC Update

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Outline

- Status
- Cal/Val support
- Validation data centers
- Future plans



Status



AVDC Status/Plans 3



Status

- Routine operations on-going
- Currently 315 registered users
- 2×10^6 pages accessed
 - 50×10^3 login access in last 12 months (~ 140 /day)
- 6 TB downloads in last year (~ 16 GB/day)
- Total correlative data volume:
 - 400 GB
 - correlative satellite datasets: 2.6 TB



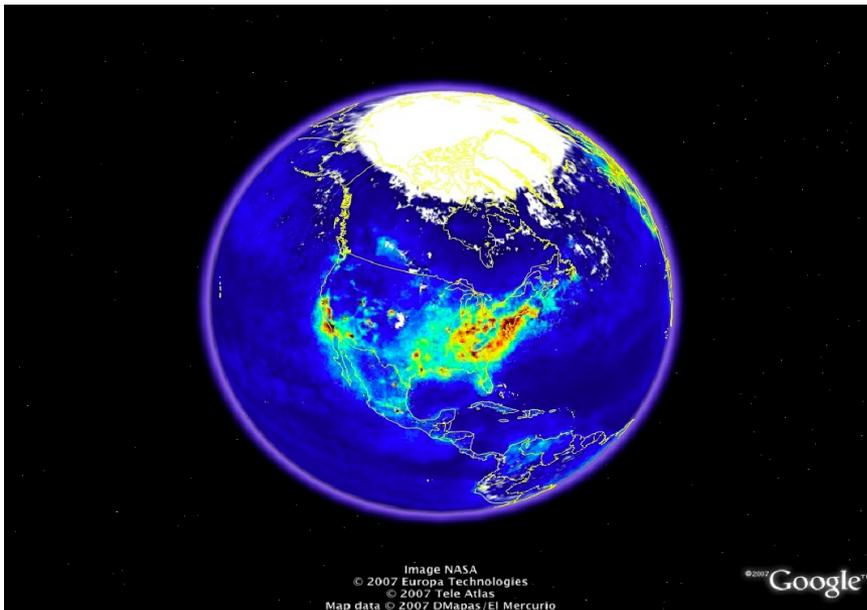
Datasets

- Continue to mirror all Aura L2 data from DISC
- Continue to host preliminary, experimental and complimentary satellite datasets:
 - *Aura preliminary and test datasets*
 - *AIRS, Scisat ACE*
 - *NOAA 16-18 SBUV v8 profiles*
 - *Envisat*
- Maintain Aura related campaign archives
 - *SAUNA (1&2), WAVES, TMF NO2 campaign, etc.*
 - *Mirror aircraft/large balloon missions*



Datasets: OMNO2 L3

Routine processing for daily and monthly OMI NO₂ tropospheric and total column maps available as images, hdf5 or Google Earth files (Scientific product for J. Gleason (OMI NO₂ PI))



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Aura
validation data center

OVERVIEW | DATA | TOOLS | DOCUMENTATION | LINKS | EVENTS

[DATA/ OMNO2 L3](#)

The global nitrogen dioxide (NO₂) measured by the Ozone Monitoring Instrument (OMI) on board the EOS-AURA satellite is available as a mapped 0.25 deg. x 0.25 deg. grid product (format description). This NO₂ dataset is updated on a near daily basis as new OMI NO₂ level 2 data become available.
If you have any questions regarding this gridded NO₂ dataset or if you are planning to use this dataset for studies and/or publication, please contact the OMNO2 PI, Dr. James F. Gleason.
There are currently two data sets available:

Total NO₂ vertical column densities (VCD)

Latest images:
July 2008 | August 05, 2008

[to monthly/daily data](#)

Tropospheric NO₂ vertical column densities (VCD)

Latest images:
July 2008 | August 05, 2008

[to monthly/daily data](#)

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Last Updated: June 23, 2008

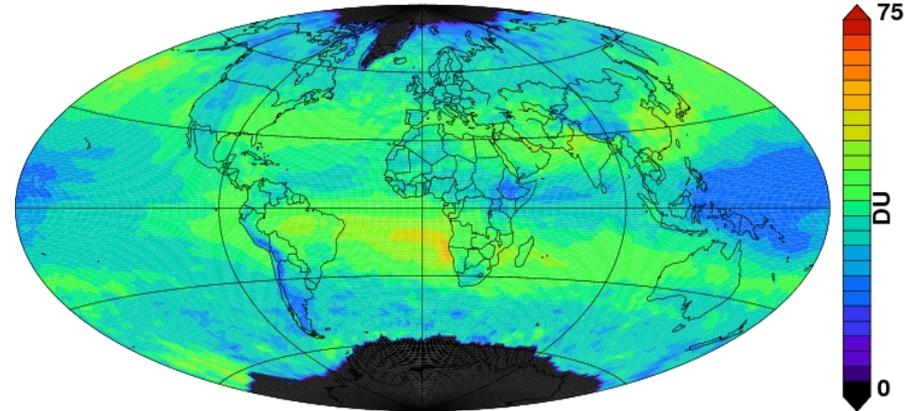
NASA
+NASA Privacy, Security, Notices



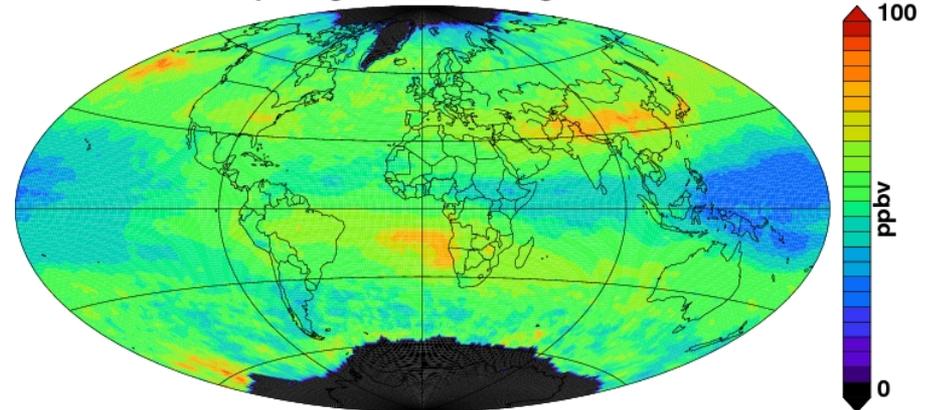
Datasets: TOR

An example, in addition to the OMI NO₂ mapping shown previously, is the Tropospheric Ozone Residual (TOR, Schoeberl *et al.*, 2007) which is generated by merging the Aura MLS stratospheric ozone profiles and OMI total ozone products

Trop. Ozone Residual Sep. 2006



Trop. Avg. Ozone Mixing Ratio



Cal/val support



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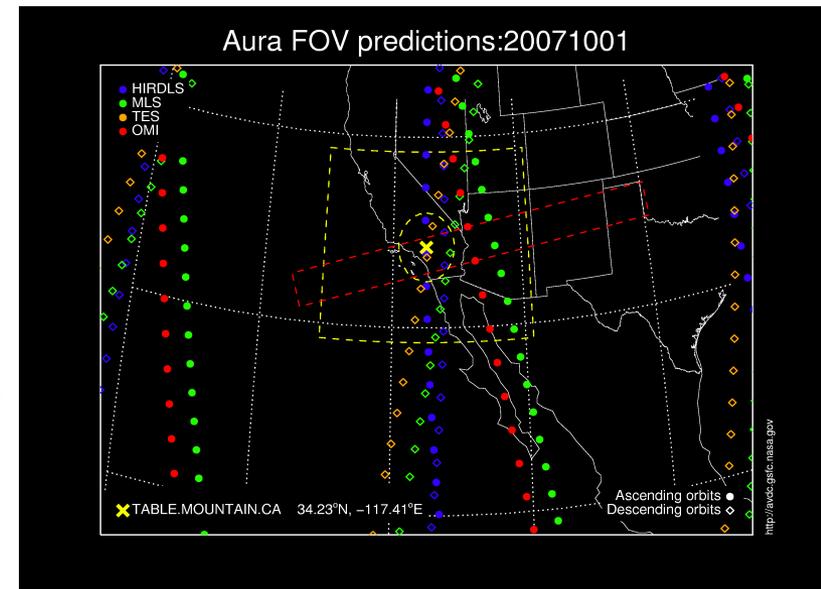
L2/L3 subsets & co-location

- Sub-setting is updated as Aura L2 data becomes available:
 - All OMI products (HDF5 and ASCII)
 - MLS, HIRDLS and TES
 - O₃, T, H₂O at NDACC sites and other key profiling stations
- CO2 instruments subsets
 - SCIAMACHY
 - Station overpasses for TCCON
 - Discussions with OCO and GOSAT
- Other instruments, e.g. IASI, Radio Occultation (RO)
- Campaign and regional sub-setting on request



Satellite instrument field of views (FOV)

- Aura FOVs
 - Predictions in support of PIs and campaigns
 - 16-day Aura instrument FOV predictions for stations and campaigns (updated daily)
 - Actual FOVs
 - Actual coincidences and global collocations for temporal and geographic search
- Generation of FOV for other instruments
 - Aqua, Terra, CALIPSO, Cloudsat and Envisat for campaigns
 - others instruments are easily added



Cal/Val support tools

- Continue direct PI support
 - *Mainly in sub-setting and data conversion*
- Tools and documentation on-line
 - *Creation of HDF datasets (idlcr8hdf + TAV)*
 - *Download tools*
 - *Metadata guidelines*
 - *Aura ST and WG documentation and presentations*
- HDF5 read/write now available for correlative data
 - *Download HDF4 and/or HDF5 as per user request*



Validation data centers



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Validation data centers

Data Centers with correlative observations for Aura, Envisat and from NDACC and several EC Campaigns use a single data format (Envisat/Aura standard)

Objective is to make at least these centers interoperable, enabling remote query, catalog replication, data ordering and/or systematic mirroring.

Effort led jointly by ESA (GECA interoperability project) and AVDC includes new partners: EUMETSAT, EARLINET and GEOMON



GECA mission & components

- Generic Environment for Cal/Val Analysis (GECA) project
 - *Expanded harmonized metadata*
 - *Study of standards for interoperability between validation data centers*
 - *A validation data center implementing these standards*
 - *Open-source data conversion tools*
 - *Open-source building blocks (libraries) for collocation algorithms*
- GECA Validation Data Centre (GVDC) and end-user analysis toolboxes
- Quality Information and Action Protocol (QAIP)
- Candidate CEOS single upload portal



Future plans



Up & Coming

- Focus shifted to long-term validation
 - *Collect and update ground datasets*
 - *Data completeness*
- Continue ESA/NDACC efforts
 - *Share datasets and coordinate submissions*
- Proactive on AVDC side but need support from cal/val and instrument teams





AVDC Update

Thank you

