

Introduction to the use of the AEROCOM web interfaces model/data

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Motivation for web interface(s)

- **Harmonized model evaluation tool / Documentation of model progress**
- **Communication tool**
 - Error detection and feedback
 - Transparency of work-up process
 - Publicity for joint efforts (eg AEROCOM/CREATE/INCA)
 - Work tool for joint publications
- **Publication of model results for users, field data scientists**
- **FAST access to model results and observations**
 - User can select information for comparisons
 - automated processing of large model data sets
 - currently ca 50000 images

Overview of web interfaces

Several sub-interfaces maintained
to differentiate principal types of data

All under <http://nansen.ipsl.jussieu.fr/AEROCOM/DATA/>
Michael Schulz

- AEROCOM public [aerocom.html](#)
 - AEROCOM internal working interface [aerocom_work.html](#) *
 - Comparison to surface observations [surfobs.html](#) *
- Christiane Textor*
Sarah Guibert

Just go to <http://nansen.ipsl.jussieu.fr/AEROCOM/DATA/aerocom.html>
⇒ list and choice of the different interfaces

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Basics principles for interfaces

Standard name used for any image :

[PARAMETER]_[SPECIES]_an[YEAR]_[PERIOD]_[STATIONNAME].ps.png

Choice of each « category » to see the corresponding graph

Examples : OD550_AER
EMI_DUST
CONC_SO4

only for interface with
comparison to observations
surfobs.html

1996/1997/2000/2001/9999*
for AEROCOM internal working interface
2000/96-02/96-02AVG*
for surfobs interface

*climatological run

AEROCOM internal working interface (1)

2D fields, global average, «any» combination of year/model/species/parameter

The screenshot shows the AEROCOM Aerosol Model Comparison WORK INTERFACE in Netscape. The browser address bar shows the URL: `http://ipsl.jussieu.fr/cgi-bin/AEROCOM/aerocom_work/aerocom_work_annualrs.pl`. The page title is "PUBLIC INTERFACE) -- PRELIMINARY RESULTS - CONTACT PLEASE AUTHORS FOR". There are several dropdown menus for selecting variables and models. The main content area displays four plots and a table of global budgets/averages.

Global budgets/averages of any species

EMI	[Tg/a]	672.766
WET	[Tg/a]	372.754
WETCV	[Tg/a]	165.288
WETST	[Tg/a]	207.464
DRY	[Tg/a]	170.487
	[g/a]	129.036
	[g/a]	299.523
	[g]	10.870
	[%]	55.446
	[%]	0.073
	[days]	5.897
LIFE_Sinks	[days]	5.902

Zonal plots

2D fields of METEO fields

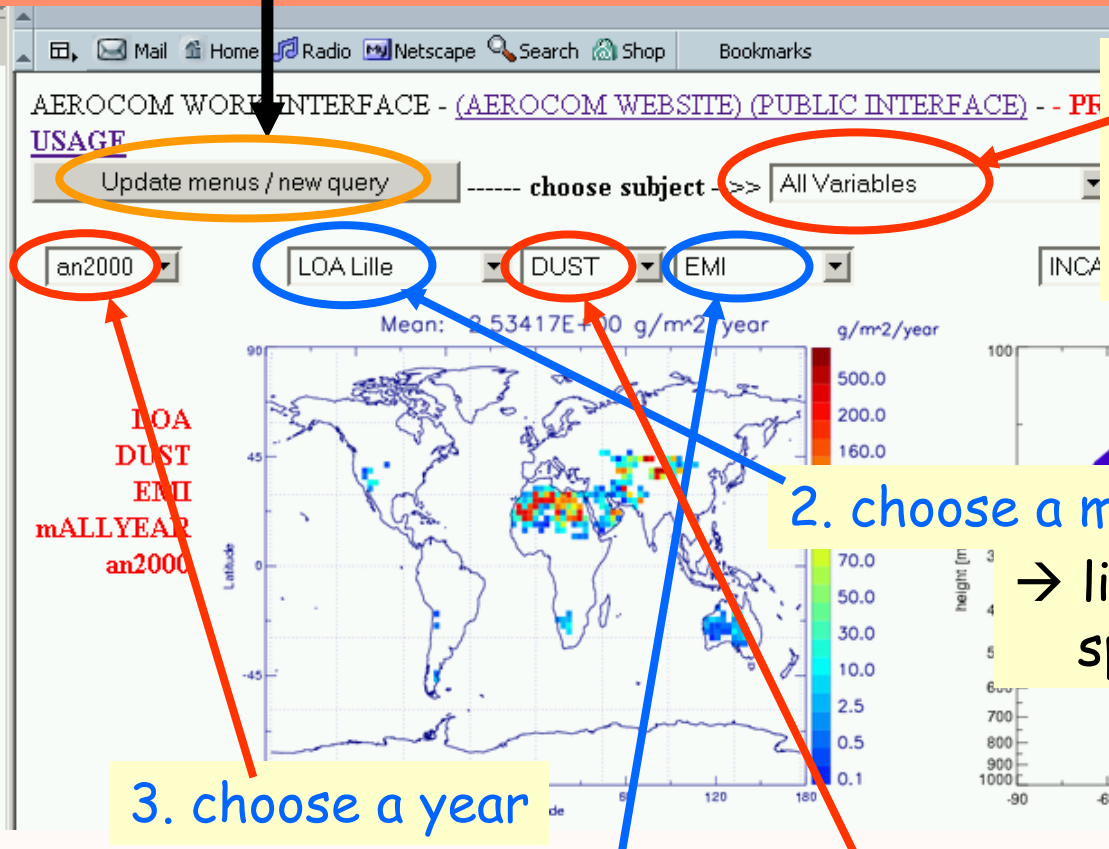
Help on Parameter/Species/Model names

Explanations - Info >> Functionality of interface - Info >> model description

Explanation on Abbreviations used above in menus:

AEROCOM internal working interface (2)

Update button for new selection



1. choose subject + update
→ subselection of parameters or species
(sulfur cycle : species = SO₄, SO₂, DMS)

2. choose a model + update

→ list the years, parameters and species associated to this model

3. choose a year

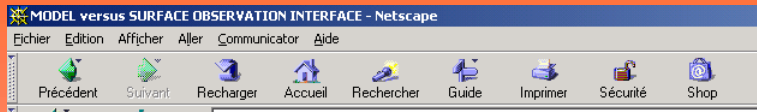
4. choose a parameter

5. choose a specie

6. then update

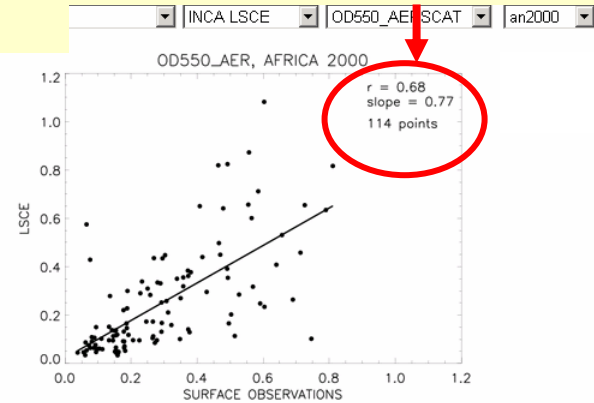
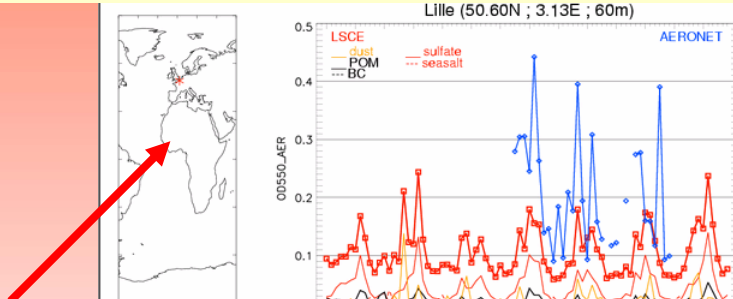
LOA
DUST
EMI
mALLYEAR
an2000

Surface observations interface (1)

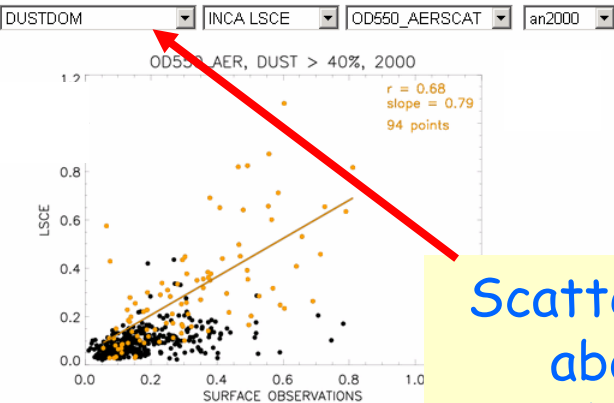
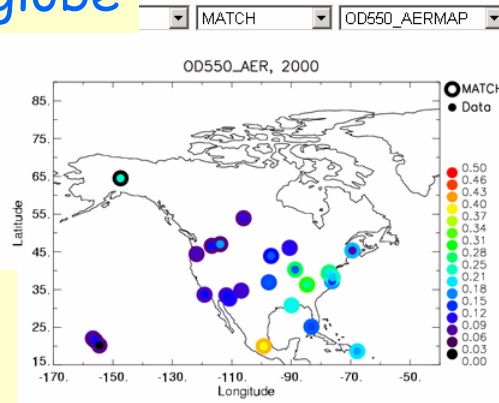


REGION BASED scatter plot
monthly observation vs model
Correlation coefficient
Slope and Number of obs

Monthly time series (year or period 96-02)
Observational data vs Model results
Contribution from each aerosol species



Station location on globe



Region selection
Obs versus Model
mapping of values
(same color -> good)

Scatter plot as
above of
subsample
(colored) obs
versus model

Explanations - Info >> [Functionality of interface](#) - Info >> [model description](#)
Info >> [Surface observation description](#)

Surface observations interface (2)

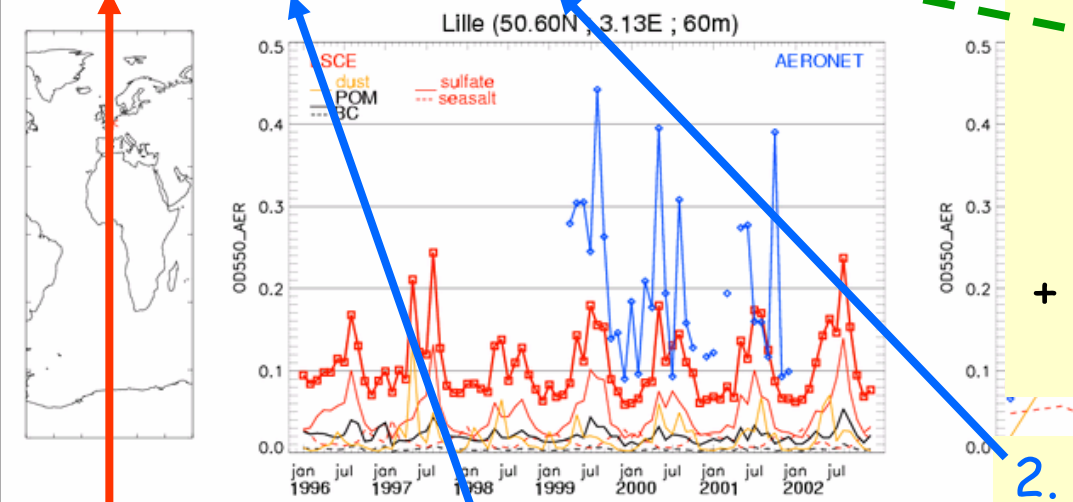
Update button for new selection

1. choose network + update

MODEL versus SURFACE OBSERVATIONS - PRELIMINARY RESULTS - AUTHORS

Update menus / new query - choose network: AERONET --- see explanations

an96-02 Lille INCA LSCE OD550_AER Barbad



automatic selection of [parameter]_[species] associated to this network (except networks all + scatterplots) + associated list of observation stations

3. choose a year

2. choose a model + update

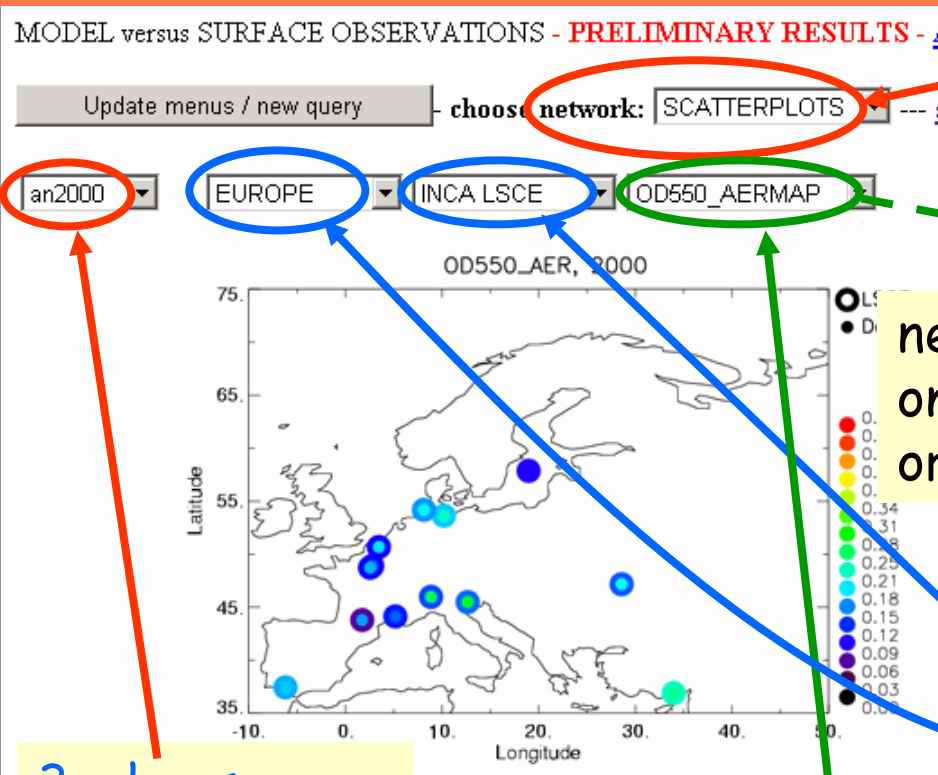
→ list the years associated to this model

4. choose a station

5. then update

!! If no graph for the combination model/[param]_[species]/station then error message : « Sorry, this image is not available » !!

Surface observations interface (3)



case network = scatterplots

need to choose [parameter]_[species]
only [parameter]_[species]MAP
or [parameter]_[species]SCAT

3. choose year

4. choose [parameter]_[species]

2. choose model + update

6. then update

here no station list but continent or subsample selection
[parameter]_[species]MAP → 5. choose continent
[parameter]_[species]SCAT → 5. choose continent or subsample selection

Some remarks...

Sometimes need to update 2 or 3 times before it works

Very soon a table will explain all the combinations available for the comparison to surface observations interface

Work in progress so web site in constant progress

All remarks or check up of your model results are welcome !!