ACTRIS - Aerosols, Clouds and Trace gases Research InfraStructure

and access to ACTRIS Data: http://actris.nilu.no/

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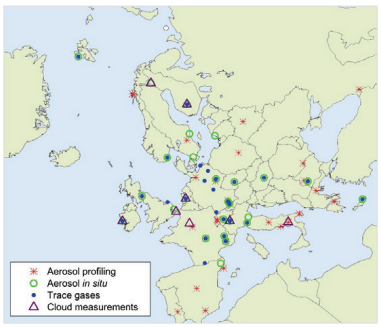
The Aerosols, Clouds and Trace gases Research InfraStructure (ACTRIS) is a European project integrating atmospheric supersites equipped with advanced instrumentation for studying aerosols, clouds, and short-lived gas-phase species: http://www.actris.net

ACTRIS

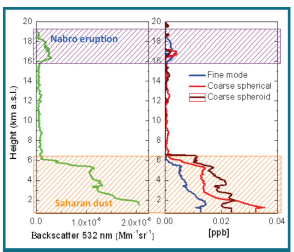
- ✓ improves measurements from numerous instruments located at more than 40 European sites illustrated in the map to the right
- ✓ ground based *in situ* measurements include aerosol optical, physical and chemical properties and measurements of short-lived trace gases (volatile organic carbon and nitrogen oxides) at ~25 European sites
- ✓ aerosol profile measurements provide aerosol scattering and extinction profiles, and more, at ~25 European sites
- ✓ cloud profile measurements provide drizzle drop sites, ice water content, and more at ~10 European sites



The ACTRIS data centre (ACTRIS DC) is giving free and open access to all data resulting from the activities of the infrastructure complemented with data from relevant networks and data bases.

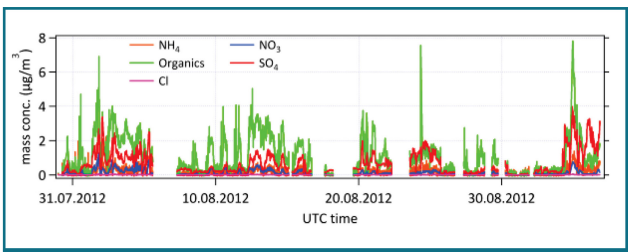
ACTRIS ILLUSTRATIONS

Supersites
BEO Moussala, Bulgaria



Lidar, Granada
30 June 2011

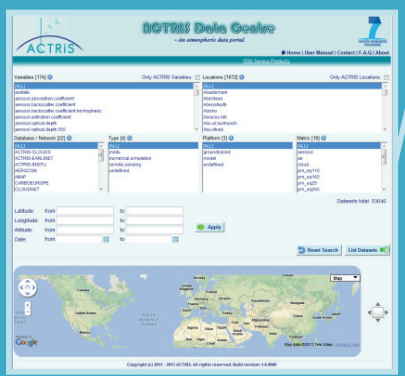
Aerosol optical & physical properties



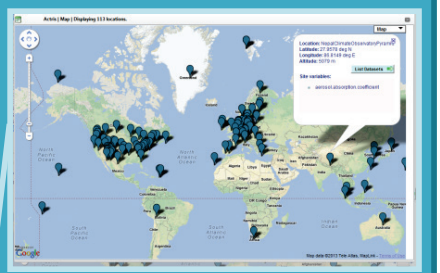
Aerosol chemical speciation, Jungfraujoch

Snapshot from ACTRIS Data Centre, more on http://actris.nilu.no/

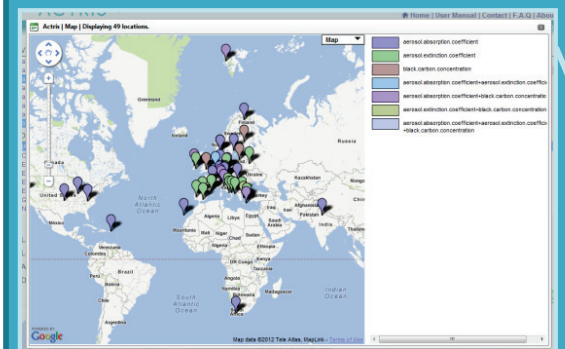
Basics about ACTRIS DC:
One goal: assist scientists with discovering and accessing atmospheric composition data. It contains an up-to-date catalogue of available datasets in a number of databases distributed throughout the world. Number of data sets identified though the DC is now 53046 from 1672 sites.
Data bases and networks currently available are e.g. ACTRIS, EMEP, EUSAAR, EUCAARI, EARLINET, CLOUDNET, GAW-WDCA, GAWSIS-WDCGG...



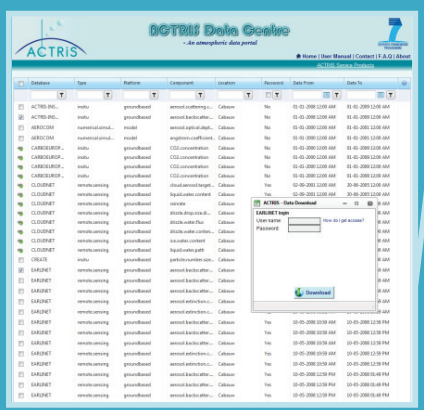
Search & find data: Search for atmospheric data across various data bases and networks, more will be implemented like AERONET.



Network affiliation: The map shows an example with all sites reported data to GAWDCA with the information available in the markers for Nepal Climate Observatory and the variables measured at this site.



Collocation of measurements: The map shows sites with measurements of absorption coefficient, black carbon, (Elemental carbon) and extinction coefficient and collocation of these observations in Europe.



Download: All ACTRIS data, and a lot of other data can be downloaded. Access is regulated through data protocols. The example shows data from Cabauw. Some data need registration and login (EARLINET) some are open (EUSAAR, EMEP). Download of larger data volumes for model use can be arranged
Number of aerosol profiles: ca 37 000
Number of aerosol *in situ* time series; ca 1700
Number of trace gas time series: ca 100

Interested in ACTRIS or ACTRIS data? *Contact Cathrine Lund Myhre, clm@nilu.no (PI ACTRIS Data Centre), or Gelsomina Pappalardo gelsomina.pappalardo@imaa.cnr.it (coordinator ACTRIS) or Paolo Laj Laj@lgge.obs.ujf-grenoble.fr (Co-coordinator ACTRIS).*

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