

Integration of observational databases for evaluation of Hemispheric Transport of Air Pollutants

EMEP-TFHTAP

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Paul Eckhardt, Kjetil Tørseth and Aasmund Fahre Vik, NILU,
Michael Schulz, LSCE

EC service contract to provide:

- A "real" compilation of data in support of HTAP experiments (core dataset)
 - Data from regional monitoring networks
 - *Data from individual providers*
 - Period 2000-2006
 - Observations, not aggregates
 - Meet user needs
 - Encourage integration of regional monitoring efforts
 - Have lasting value, and provide guidance for further developments

Data to be stored in a relational database offering

- Access control
- Batch export in NASA-AMES, NARSTO and NET-CDF formats
- Export according to CF naming convention
- A suite of standard programs to generate statistics, aggregates etc.
- A web interface to search, display and extract data
- Exchange of data and metadata with other data repositories (aircraft, satellite observations)

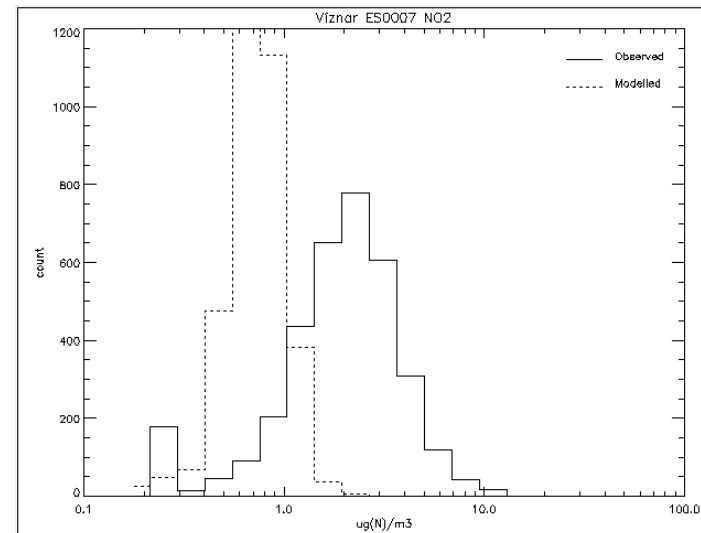
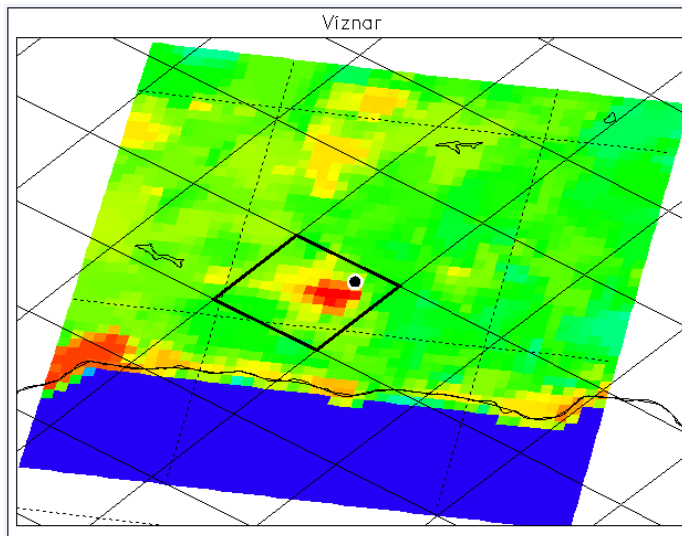
Three areas where a close interaction is needed:

- **Data users and their needs/requests**
- Data providers (Networks and PI's)
- Providers to other types of data

Data user needs

Short-term and long-term needs

- What parameters are requested
- At what spatial resolution
- Temporal resolution
- How to deal with QAQC issues
- How to deal with representativeness



Our approach

- Start with standard monitoring parameters available from regional networks
 - Inorganic chemistry in air and precipitation,
 - ozone and precursors,
 - Aerosol chemistry and physical properties
 - Toxics (Hg and POPs)
 - Tracers (CO, CH₄, others)
- Identify individual data and assist PI's in providing non-network data

Our approach (suggestion)

- In areas with many sites (Europe and North America) a subset of sites are to be selected in consultation with individual networks
- In areas with fewer sites, less stringent criteria will apply, but also here will we only include data from background sites
- PI' type data will be taken "as they are"
- No efforts towards short-term campaign data
- Avoid duplication of effort

Sites, data originators



Original data repositories
EMEP, EANET, CAD, NewDebits, CASTNET, NADP, CAPMON, GAW WDCs, others
EARLINET, AERONET, GAW-PFR, others

Export of data with meta data
using standard routines

input to EBAS

File conversion routines
to be developed

Export routines to accomodate needs
of naming conventions to be developed

HTAP data archive
(with access control)

Data available in NASA-ames,
NARSTO, NetCDF and HDF formats

Use in combination with models

Integration of in-situ data with
aircraft and satellite data

as more data or revisions
are needed...



Basic facts

- Project started March 2008,
- 23 month duration
- Contact person at NILU is Paul Eckhardt
pe@nilu.no
- Preliminary dataset available late summer 2008
- <http://www3.nilu.no/EBAS/> (test version!)