NORS: Demonstration Network Of ground-based Remote Sensing Observations in support of the GMES Atmospheric Service

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NORS:
• EU FP7 project
• Start: Nov. 1, 2011
• Duration: 33 months
• Objective:
  - To perform the required research and developments for optimizing the NDACC data for the purpose of supporting the quality assessments of the future GMES Atmospheric Service (GAS ⇔ MACC-II)
  - To develop and implement a Web-based Validation Server of the MACC-II (GAS) products using the NORS data products

NORS data products:
- tropospheric and stratospheric ozone columns and vertical profiles up to 70 km altitude;
- tropospheric and stratospheric NO2 columns and profiles;
- lower tropospheric profiles of NO2, HCHO, aerosol extinction;
- tropospheric and stratospheric columns of CO
- tropospheric and stratospheric columns of CH4

4 NDACC techniques + in-situ surface monitoring:
- Lidar, MicroWave, FTIR, UV-VIS DOAS
+ in-situ surface monitoring

Current progress:
- NORS data will be HDF formatted, according to GEOMS guidelines (http://avdc.nasa.gsfc.gov/GEOMS)
- Rapid data delivery system is set up:
  - All NORS data are submitted within 1 month after acquisition to ‘NRT’ section of NDACC database (ftp://ftp.cpc.ncep.noaa.gov/ndacc/NRT/)
- Data access is public
- The User Requirements for the NORS Validation Server (NVS) have been captured in the User Requirements Document
  - NVS will serve default users by generating automatically daily validation reports
  - NVS will serve other users in interactive mode
  - NVS will address the MACC-II products corresponding to the NORS target products, from the different MACC model outputs
- The Design Document of the Validation Server has been delivered
- NORS partners work closely together with the MACC-II consortium, and in particular with the MACC-II VAL project
- NORS results and public deliverables are available on the NORS Webpage: http://nors.aeronomie.be
- To start soon:
  - Data User documentation
  - NDACC – TCCON (mid-IR versus near-IR) Cross-calibration of CO
  - better characterisation of NORS data uncertainties