P-1-086

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

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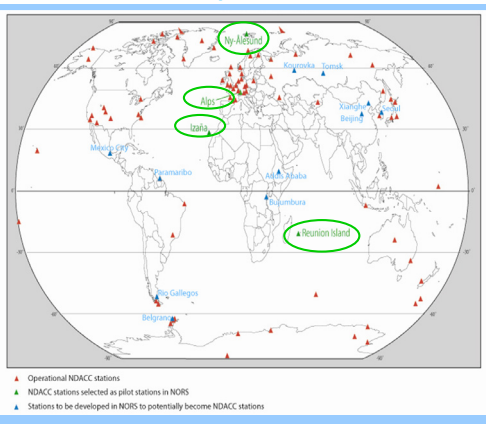
NORS:
- EU FP7 project
- **Start**: Nov. 1, 2011
- **Duration**: 33 months
- **Objective:**
  - **To perform the required research and developments for optimizing the NDACC data for the purpose of supporting the quality assessments of the future GMES Atmospheric Service (GAS ⇔ MACC-II)**
  - **To develop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

Partner	Participant organisation name / Short name in the proposal	Country
1	Belgian Institute for Space Aeronomy / BIRA-IASB	BE
2	Eidgenoessische Materialpruefungs- und Forschungsanstalt	CH
3	Instituto Nacional de Tecnica Aeroespacial	ES
4	Universitaet Bern	CH
5	Karlsruher Institut fuer Technologie	DE
6	Centre National de La Recherche Scientifique	FR
7	Universitaet Bremen	DE
8	Université de Liège	BE
9	Max Planck Gesellschaft zur Foerderung der Wissenschaften	DE
10	Ruprecht-Karls-Universitaet Heidelberg	DE
11	Science and Technology B.V.	NL

NDACC: Network for the Detection of Atmospheric Composition Change;
NORS pilot stations
Stations under development



NORS data products:

target NORS data products
- tropospheric and stratospheric ozone columns and vertical profiles up to 70 km altitude;
- tropospheric and stratospheric NO_2 columns and profiles;
- lower tropospheric profiles of NO_2, HCHO, aerosol extinction;
- tropospheric and stratospheric columns of CO
- tropospheric and stratospheric columns of CH_4

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 prooducts, 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

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