



The IAGOS Information System

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IAGOS (In-service Aircraft for a Global Observing System) is a European Research Infrastructure which aims at the provision of long-term, regular and spatially resolved in situ observations of the atmospheric composition. IAGOS observation systems are deployed on a fleet of commercial aircraft and do measurements of aerosols, cloud particles, greenhouse gases, ozone, water vapor and nitrogen oxides from the surface to the lower stratosphere. The IAGOS database is an essential part of the global atmospheric monitoring network. It contains IAGOS-core data and IAGOS-CARIBIC (Civil Aircraft for the Regular Investigation of the Atmosphere Based on an Instrument Container) data. The IAGOS Data Portal (<http://www.iagos.org>, damien.boulanger@obs-mip.fr) is part of the French atmospheric chemistry data center AERIS (<http://www.aeris-data.fr>).

In 2016 the new IAGOS Data Portal has been released. In addition to the data download the portal provides improved and new services such as download in NetCDF or NASA Ames formats and plotting tools (maps, time series, vertical profiles, etc.). New added value products are or will be soon available through the portal: back trajectories, origin of air masses, co-location with satellite data, etc. Web services allow to download IAGOS metadata such as flights and airports information. Administration tools have been implemented for users management and instruments monitoring.

A major improvement is the interoperability with international portals or other databases in order to improve IAGOS data discovery. In the frame of the IGAS project (IAGOS for the Copernicus Atmospheric Service), a data network has been setup. It is composed of three data centers: the IAGOS database in Toulouse, the HALO research aircraft database at DLR (<https://halo-db.pa.op.dlr.de>) and the CAMS (Copernicus Atmosphere Monitoring Service) data center in Jülich (<http://join.iwk.fz-juelich.de>). The link with the CAMS data center, through the JOIN interface, allows to combine model outputs with IAGOS data for inter-comparison. The CAMS project is a prominent user of the IGAS data network.

During the year IAGOS will improved metadata standardization and dissemination through different collaborations with the AERIS data center, GAW for which IAGOS is a contributing network and the ENVRI+ European project. Metadata about measurements traceability and quality will be available, DOI will be implemented and interoperability with other European Infrastructures will be set up through standardized web services.