



The IAGOS information system

Damien Boulanger (1), Benoit Gautron (2), Martin Schultz (3), Björn Brötz (4), Armin Rauthe-Schöch (5), and Valérie Thouret (2)

(1) Observatoire Midi-Pyrénées, CNRS, SEDOO, Toulouse, France (damien.boulanger@obs-mip.fr), (2) Laboratoire d'Aérodynamique, CNRS, Université Paul Sabatier, Toulouse, France, (3) Forschungszentrum Jülich GmbH (FZJ), IEK-8, Jülich, Germany, (4) Deutsches Zentrum für Luft- und Raumfahrt (DLR), Oberpfaffenhofen, Germany, (5) Max Planck Institute for Chemistry, Mainz, Germany

IAGOS (In-service Aircraft for a Global Observing System) aims at the provision of long-term, frequent, regular, accurate, and spatially resolved in situ observations of the atmospheric composition. IAGOS observation systems are deployed on a fleet of commercial aircraft. The IAGOS database is an essential part of the global atmospheric monitoring network. Data access is handled by open access policy based on the submission of research requests which are reviewed by the PIs. The IAGOS database (<http://www.iagos.fr>, damien.boulanger@obs-mip.fr) is part of the French atmospheric chemistry data centre Ether (CNES and CNRS).

In the framework of the IGAS project (IAGOS for Copernicus Atmospheric Service) interoperability with international portals or other databases is implemented in order to improve IAGOS data discovery. The IGAS data network is composed of three data centres: the IAGOS database in Toulouse including IAGOS-core data and IAGOS-CARIBIC (Civil Aircraft for the Regular Investigation of the Atmosphere Based on an Instrument Container) data since January 2015; the HALO research aircraft database at DLR (<https://halo-db.pa.op.dlr.de>); and the MACC data centre in Jülich (<http://join.iek.fz-juelich.de>). The MACC (Monitoring Atmospheric Composition and Climate) project is a prominent user of the IGAS data network.

In June 2015 a new version of the IAGOS database will be released providing improved services such as download in NetCDF or NASA Ames formats; graphical tools (maps, scatter plots, etc.); standardized metadata (ISO 19115) and a better users management. The link with the MACC data centre, through JOIN (Jülich OWS Interface), will allow to combine model outputs with IAGOS data for intercomparison. The interoperability within the IGAS data network, implemented thanks to many web services, will improve the functionalities of the web interfaces of each data centre.