Geophysical Research Abstracts
Vol. 13, EGU2011-2095-2, 2011
EGU General Assembly 2011

AMFIC - a web data base for hosting and easy retrieval of atmospheric data from satellites

Konstantinos Kourtidis (1), Aristeidis Georgoulias (1), Evangelos Kosmidis (2), Fanis Despotakis (2), and Panayiotis Symeonidis (3)

(1) School of Engineering, Demokritus University of Thrace, Lab. of Atmospheric Pollution and Pollution Control Engineering of Atmospheric Pollutants, Dept. of Environmental Engineering, Xanthi, Greece (kourtidi@env.duth.gr, +30 25410 79379), (2) DOTSOFT S.A., 3 Kountourioti str., 54625 Thessaloniki, Greece, (3) Draxis Environmental Technologies LtD., 63 Mitropoleos str., 54623 Thessaloniki, Greece

Satellite instruments produce large amounts of high spatial and temporal resolution data. Today, there is an increased demand for satellite data not only from specialized users but also from researchers and public institutions for research, management, information and education purposes. Many of these potential users lack the expertise to extract the data they need from the formats offered by the repositories. The AMFIC web database has been developed to address the need of these users for fast, easy access of atmospheric composition data. The database focuses on the atmospheric environmental monitoring. Together with the web interface, it constitutes an integrated satellite data system, hosting spatially and temporally homogenized satellite products. The main idea behind the AMFIC database (hosted at http://www.amfic.satellite-earth-simulator.com/), is to offer overpass columnar ascii files with atmospheric composition data for every spot within any region of interest through a set of interactive maps. This feature makes the database ideal not only for those interested in global datasets but also for users interested in specific spots on the planet or in a region. Today, four different products from the SCIAMACHY satellite instrument aboard ENVISAT are available at three different resolution modes (10x10deg, 5x5deg and 1x1deg) and two regions of interest (globe and the greater region of SE Asia). WFM-DOAS v1.0 CH4 dry air columnar data (XCH4) for 2003 and 2004, WFM-DOAS v0.6 CO total column data for 2003 and 2004, DOAS v1.0.3 SO2 total column data for the period 2005-2007 and TM4NO2A version 1.10 NO2 tropospheric and total column data for the period 2003-2008 are available. The database is capable of hosting any other atmospheric composition product (level2 or level3) from any satellite instrument (e.g. OMI, GOME-2, GOSAT, MODIS, etc).