

acve

→ ATMOSPHERIC COMPOSITION VALIDATION AND EVOLUTION

18–20 October 2016 | ESA–ESRIN | Frascati (Rome) Italy





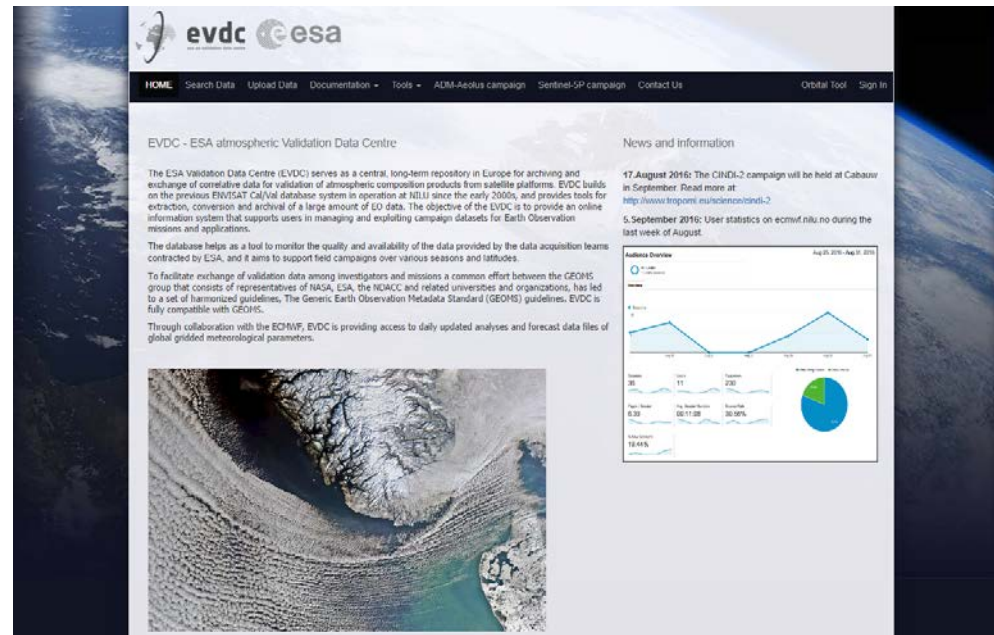
EVDC – ESA atmospheric Validation Data Centre

The official and final data archive for all Cal/Val data from ESA campaigns

New portal under development –
new URL:

<https://evdc.esa.int>

(<http://evdc.nilu.no>)



Benefits of having a central data centre:

- ensure long term, backed-up archive
- harmonised data and metadata formats
- avoid multiple file versions
- data displayed to more users
- larger contribution rate in publications

Currently more than 370 000 individual files in the EVDC archive.

New data soon to be made available:

- CINDI-2 campaign (S5P) - ~December 2016
- WindVal campaign (ADM) - ~March 2016

(Meta)data to BIRA and others



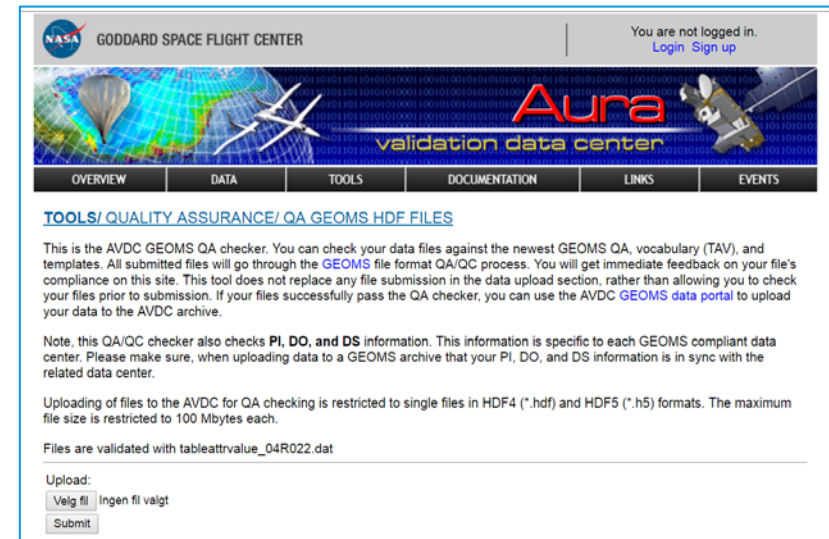
Adapted system for both data submitter and data user

EVDC provides

- online templates for data formatting
- online file format checker
- data upload via web and ftp
- user support

→→ streamlined data submission,
low threshold, less (manual) effort.

Harmonised with AVDC



NASA GODDARD SPACE FLIGHT CENTER

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Aura
validation data center

OVERVIEW DATA TOOLS DOCUMENTATION LINKS EVENTS

[TOOLS/ QUALITY ASSURANCE/ QA GEOMS HDF FILES](#)

This is the AVDC GEOMS QA checker. You can check your data files against the newest GEOMS QA, vocabulary (TAV), and templates. All submitted files will go through the [GEOMS](#) file format QA/QC process. You will get immediate feedback on your file's compliance on this site. This tool does not replace any file submission in the data upload section, rather than allowing you to check your files prior to submission. If your files successfully pass the QA checker, you can use the AVDC [GEOMS data portal](#) to upload your data to the AVDC archive.

Note, this QA/QC checker also checks **PI, DO, and DS** information. This information is specific to each GEOMS compliant data center. Please make sure, when uploading data to a GEOMS archive that your PI, DO, and DS information is in sync with the related data center.

Uploading of files to the AVDC for QA checking is restricted to single files in HDF4 (*.hdf) and HDF5 (*.h5) formats. The maximum file size is restricted to 100 Mbytes each.

Files are validated with tableattrvalue_04R022.dat

Upload:



New features in the portal

- Improved search and download functionality

HOME Search Data Upload Data Documentation Tools ADM-Aerolu campaign

Variable

Variable Name

 AEROSOL ASYMMETRY FACTOR
 AEROSOL BACKSCATTER RATIO
 AEROSOL DEPOLARIZATION RATIO
 AEROSOL POLARIZATION ANGLE

Variable Mode

 A442
 ABSORPTION
 POLARIZATION ANGLE

Variable Descriptor

Data

Location

Data Source Type

Data Discipline
 Field

Data Discipline
 Class

Data Originator

Data Supplier

Other

Campaign

Principal Investigator

AO ID

Time and Location

EVDC
 THESEO
 GEOMON
 NDACC
 SPARC04
 COSE
 AVDC
 HYMN
 SHADOZ
 WOUDC



New features in the portal

- Improved search and download functionality

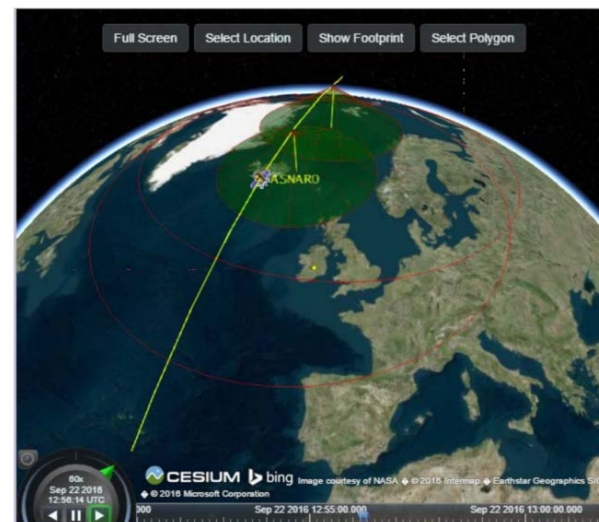
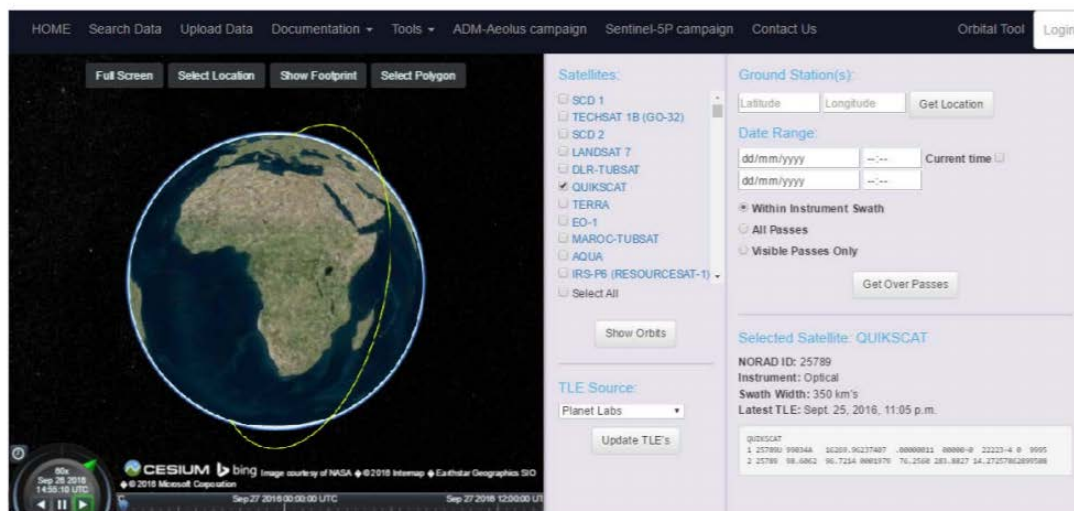
<input type="checkbox"/>	File name	File size	Submission date	Pi	Campaign
<input type="checkbox"/>	balloon_sonde.o3_cnrs.latmos000_dumont.d.urville_20150926t041142z_20150926t060400z_003.h5	331384	2016-03-10 06:49:16.000	Marchand, Marion	AVDC, NDACC
<input type="checkbox"/>	balloon_sonde.o3_cnrs.latmos000_dumont.d.urville_20151015t011044z_20151015t030354z_003.h5	333544	2016-03-10 05:54:00.000	Marchand, Marion	AVDC, NDACC
<input type="checkbox"/>	balloon_sonde.o3_cnrs.latmos000_dumont.d.urville_20151105t012252z_20151105t030938z_003.h5	299200	2016-03-10 05:52:48.000	Marchand, Marion	AVDC, NDACC
<input type="checkbox"/>	balloon_sonde.o3_cnrs.latmos000_dumont.d.urville_20151211t130054z_20151211t151642z_003.h5	360184	2016-03-10 04:11:00.000	Marchand, Marion	AVDC, NDACC
<input type="checkbox"/>	balloon_sonde.o3_cnrs.latmos000_dumont.d.urville_20160114t054120z_20160114t073827z_003.h5	321304	2016-03-10 03:21:45.000	Marchand, Marion	AVDC, NDACC
<input type="checkbox"/>	balloon_sonde.o3_cnrs.latmos000_dumont.d.urville_20150914t011110z_20150914t030535z_003.h5	329584	2016-03-10 02:43:24.000	Marchand, Marion	AVDC, NDACC
<input type="checkbox"/>	balloon_sonde.o3_cnrs.latmos000_dumont.d.urville_20151004t011316z_20151004t025909z_003.h5	306184	2016-03-10 01:12:01.000	Marchand, Marion	AVDC, NDACC
<input type="checkbox"/>	balloon_sonde.o3_cnrs.latmos000_dumont.d.urville_20150816t005038z_20150816t024237z_003.h5	340744	2016-03-10 00:59:27.000	Marchand, Marion	AVDC, NDACC

- Satellite segment (subsets of level1 and level2 data)



New features in the portal

- Orbit predictor and overpass tool



Test user group for the Beta-version of the Orbit predictor

10-12 persons -

still open for a few more participants, see information in distributed flyer



evdc
esa eo validation data centre

The ESA Validation Data Centre (EVDC) serves as a central, long-term repository in Europe for archiving and exchange of correlative data for validation of atmospheric composition products from satellite platforms. EVDC builds on the previous ENVISAT Cal/Val database system in operation at NILU since the early 2000s, and provides tools for extraction, conversion and archival of a large amount of EO data.

The objective of the EVDC is to provide an online information system that supports users in managing and exploiting campaign datasets for Earth Observation missions and applications. It is currently undergoing major upgrades to meet the needs of the upcoming Atmospheric Composition missions.

Atmospheric Cal/Val Data

EVDC contains a large variety of data and tools used for validation of satellite atmospheric composition products:

- Aircraft data
- Assimilation data
- Ground based and balloon data from a wide range of stations and measurement principles
- Datasets mirrored from existing Cal/Val networks, e.g. NDACC
- ECMWF data provision and tool
- Data Center Inter-Operability

Upcoming Features

- Orbital Prediction and Overpass Tool for selected EO Satellite Missions
- Improved EVDC database query performance
- Cal/Val data from current and upcoming campaigns related to ADM-Aeolus and Sentinel-5P (e.g. CINDI-2)
- Level 1 and 2 Satellite data: tailored subsets for Cal/Val analysis

GEOMS

The Generic Earth Observation Metadata Standard (GEOMS) is implemented at the EVDC data centre in order to ensure harmonised specification and reporting of data and metadata.

All EVDC data, available in different formats, are submitted according to this GEOMS standard, to enhance the usability of correlative data in Cal/Val and ensure an extensive quality control. GEOMS is developed in collaboration between ESA, NASA and NDACC.

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<http://evdc.esa.int>