



The Committee on Earth Observation Satellites (CEOS) is providing information and data for Calibration (Cal) and Validation (Val) of Earth Observation (EO) data through this portal.

Cal/Val Portal News

The Cal/Val Portal has completed one year of operations. It has grown substantially over the last 12 months; several projects, data and documents have been integrated in the portal, and links are now pointing to a large number of key information. The following list gives an overview of recently added elements:

- Terms and Definitions
A list of frequently used terms and proposed definitions is available within the Information section. This list is still subject to discussion and revision.
- Sites
A questionnaire has been published to collect information about radiometric and geometric calibration sites. You are invited to fill in this [questionnaire](#) and contribute to the process of establishing a set of CEOS reference sites.
- WTF products available
The following former WTF products have been migrated into the Cal/Val Portal: MODIS, AVHRR NDVI and SPOT NDVI
- In situ Database
New in situ databases are accessible, including: METOZ (NASA), GlobColour (ESA), MERMAID (ESA), NOAA NDBC (NOAA), Medspiration (UK Met), Coriolis (Coriolis), TEMS (GTOS)
- Tools
New software tools have been added, including additional radiative transfer codes (MODTRAN, Streamer) and an orbit predictor (ESOV-NG)
- QA4EQ
A section on the Quality Assurance Framework for Earth Observation activities (QA4EO) has been

added. This contains the Framework Document, Key Guidelines and detailed Guidelines/Procedures.

- Documentation
 - *The literature section has received a new structure. Several new sources have been added and are now grouped into "general topics", "IVOS", "Microwave instruments", "SAR" and "projects"*
 - *The links section has also received a new grouping. All links have been reviewed and tested.*
 - *New reference documents on calibration and validation have been added to the documents section.*

Upcoming changes and improvements

- The portal will be further expanded with information on, for example, use case descriptions for the tools, additional documentation on validation, and description of future instruments (e.g. SMOS).
- The site descriptions will become more illustrative
- Methodology for geometry validation will be added
- The portal will be migrated to a content management system

The Cal/Val Portal query interface for EO data now provides access to the former WTF MODIS data.



Events

- GEO/CEOS Workshop on *Quality Assurance of Calibration and Validation Processes: Establishing an Operational Framework*, NIST, Gaithersburg, USA, May 2008

Following the first workshop in Geneva in 2007, a second joint GEO/CEOS meeting on calibration and validation was held in July 2008 in Gaithersburg, USA. This workshop aimed at establishing a strategy and an implementation plan for quality assurance and quality control in calibration and validation activities. The workshop was attended by 60 participants from 9 countries. The main result of the workshop was the formulation of key guidelines for QA/QC (see section QA4EO below). The presentation slides, documents and the minutes of this meeting are available from [here](#).

- Methods for spectral measurements for validation of Case-2 waters, Wimereux, France, July 2008

Scientists from France, United Kingdom and Germany met in the University Littoral to discuss principles for validation of optically complex, so called Case-2, waters. Guidelines for obtaining spectral measurements of water-leaving reflectances and atmospheric optical properties were drafted. Contact: Prof. Richard Santer, richard.santer@univ-littoral.fr

- Upcoming events

30.09 - 03.10.2008: CEOS WGCV-29 Avignon; hosted by INRA and CNES; contact Petya Entcheva Campbell (pcampbel@pop900.gsfc.nasa.gov)

22. - 26.09.2008: 2nd MERIS/(A)ATSR User Workshop, ESA ESRIN, Frascati, Italy; contact: Workshop Co-ordination Earth Observation R & D Team (envmail@esa.int)

- Test Sites

In the framework of CEOS activities, ESA is supporting a study which aims at selecting and characterising sites for radiometric and geometric calibration. The task involves describing the sites by providing general information such as location, size, ground activities at the sites, the methodologies and the equipment employed, if available. This activity is linked to the CEOS proposition as discussed in the IVOS meeting held in Phoenix in February 2008.

A set of questionnaires has been published on the Cal/Val Portal in order to collect characterisation properties of radiometric as well as geometric calibration sites. Experts are invited to fill in the questionnaire. Through this process a comprehensive description of reference sites shall be established.

- QA4EO



As presented in the review of the GEO/CEOS Workshop held at NIST in Gaithersburg (USA), CEOS WGCV has agreed to establish an operational framework to facilitate interoperability and harmonisation within the Earth Observation community. This need stems directly from GEO's visionary goal for a Global Earth Observation System of Systems (GEOSS).

The strategy for the compilation of a Quality Assurance Framework for Earth Observation (QA4EO) is based on a set of key operational guidelines derived from "best practices" for implementation by the community. These key guidelines, collated into three theme areas - Data Quality, Data Policy and Communication & Education - have been drafted and peer-reviewed by experts from around the world.

The final documents will be presented to the CEOS SIT in September 2008, pending approval by the WGCV at their plenary meeting in October 2008. Once approved, it is hoped that the QA4EO will be put forward for formal endorsement by CEOS at the 22nd CEOS plenary in November 2008.

Your comments and feedback on these documents are still welcome and would be highly appreciated. All [documents are accessible online](#) on the Cal/Val Portal.

- GEO

The GEO community has started to develop its next three-year work plan. The plan includes Task DA-09-01b, which relates to a GEO data quality assurance strategy, beginning with space-based observations and evaluating an expansion to *in situ* observations, taking into account existing work in this area. The task is lead by CEOS and IEEE. A first draft of the new plan, together with a description of the development process, links to the current task sheets, as well as other information concerning GEOSS implementation, can be found on the [Geo Website](#).



Supported Projects News

- MERIS QWG

A reference database for validation of marine surface reflectances (MERMAID) has been compiled and is accessible through the Cal/Val Portal. The database is maintained by ACRI-ST and Argans UK.

- ALOS

Consolidated ALOS data are now available for download in the EO data section of the portal. The complete ALOS dataset has been cleaned-up.

- SMOS

In July a rehearsal was successfully conducted to test the data distribution of SMOS data to scientists responsible for calibration and validation. The Cal/Val Portal is the central point to collect, store and distribute SMOS data.

Feedback

The Cal/Val Portal team would like to emphasise that all kinds of feedback (questions, comments, your own contributions for possible integration in the portal, ... etc.) is greatly appreciated. This feedback is essential for the continued development and improvement of the portal as it seeks to find its place as an integral part of the work of the Cal/Val community.

People



Olaf Danne, CalVal Portal Manager



Changyong Cao, WGCV CHAIR



Jeff Morisette is leaving GFSC. Jaime Nickeson and Joanne Nightingale will be leading the validation efforts at GSFC.

Point of Contact

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