

Committee on Earth Observation Satellites (CEOS)
Working Group on Calibration and Validation (WGCV)
Atmospheric Composition Subgroup (ACSG)

Terms of Reference

June 2026

The ACSG Mission is to ensure the accurate and traceable calibration of remotely-sensed atmospheric composition radiance data and validation of higher level products for application to atmospheric composition, land, ocean, and climate research.

Approved at the 15th CEOS Plenary meeting in November, 2001, the objectives of this subgroup, beyond those of the WGCV, are to:

- Promote international collaboration and technical exchange to ensure the efficient use and maintenance of calibration/validation resources required for atmospheric composition and other missions
- Verify accurate scientific products by encouraging an end-to-end approach to the calibration and validation of Level 1 and Level 2 data products, and any subsequent re-calibration and reprocessing using established best practice procedures
- Ensure that validation sensors are calibrated to traceable national standards, with documented statements of accuracy and repeatability
- Encourage interaction between calibration scientists and data users to enable a better understanding of data uncertainties and user requirements
- Recommend a network of validation sites and to encourage continuous observation and quality control of data through the use of standard procedures and inter-comparison
- Develop comprehensive data validation methods that employ ground, aircraft, balloon, and satellite measurements and with models
- Specify a comprehensive, consistent and quality-controlled multi-mission validation database in an accepted format and employing user-friendly tools

Action Plan

To accomplish its objectives, this subgroup initiates and supports the process of approaching agencies, through CEOS, for partial sustained support for ground validation networks and the maintenance of these networks between missions. It also actively pursues long-term data validation archival and retrieval across present and future mission applications. The subgroup meets regularly to review and coordinate upcoming validation activities, discuss results, and pursue its main objectives, which are reviewed and updated as necessary. Whenever possible, the ACSG makes every effort to add to the membership of this subgroup by including relevant agencies and organisations that are not yet represented.

Chair

[Dr. Jean-Christopher Lambert](#)

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