

European Coordinated Programme For SAGE III Validation: Status and Plans

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Since our EOS validation proposal has been accepted there have been several meetings held that are interesting for the validation program :

- a first meeting on October 29-30, 1998, involving all european laboratories participating to the proposal,
- then a meeting on April 13, 1999, between only french teams involved in balloon-borne measurements,
- followed by another meeting on May 11-12 involving many european teams,
- and also the COSE meeting, on April 29, between european teams participating in this EC contract.

During the first meeting all participants described the instruments and measurements they use for their research, and they explained the kind of study they achieve for the understanding of the ozone loss.

Among the various types of measurements one can distinguish between (i) regular measurements obtained with routinely working instrument, such as those of ground-based stations (SAOZ, DOAS, several lidars : ozone, aerosol, water vapor and temperature) or sondes (ozone sondes) and (ii) measurements performed by instruments operating occasionally to support atmospheric research, some of these instruments are flown on board stratospheric balloons launched by CNES.

The data derived from these measurements at high and mid latitudes can be made available for validation of SAGE III solar occultation measurements as well as lunar occultation measurements. For each atmospheric species a coordinator has been chosen to conduct the cross-validation with the help of many contributors (see annex).

The scientists intended to organize scientific ground-based and balloon campaigns in 2000-2001 (at mid-latitudes and at high latitudes), these campaigns could provide correlative measurements.

The second and third meetings were devoted to the elaboration of the plans about the ground-based and balloon campaigns. It was finally decided that at least:

- a campaign could be planned in winter 1999-2000 from Kiruna, during SOLVE,
- campaigns could also take place in 2000-2001 from high or/and mid-latitudes.

The measurements obtained during these campaigns could be combined to the measurements provided by SOLVE campaign and by satellite experiments, and will serve for atmospheric studies. They will be useful for validation purposes.

These projects are still rather uncertain since financial supports from EC are currently requested in the frame of the 5^e PCRD, among them two projects are referred under the acronyms EuroSOLVE (Improved understanding of stratospheric ozone loss by collaboration with the SAGE III Ozone Loss and Validation Experiment, coordinated by G. Braathen) and NOMISS (NOcturnal MInor Stratospheric Species, coordinated by M. Pirre). The eventual agreements from the European Commission will be only known in fall 1999.

The COSE (Compilation of atmospheric Observations in support of Satellite measurements over Europe, coordinated by M. de Mazière) will end in September 2000, all the measurements collected will be available for coordinated studies.

ANNEX : coordinator and contributors for validation studies

OZONE : J. de la Noé, Observatoire de Bordeaux, France (B. Arlander, C. Camy-Peyret, S. Godin, F. Goutail, H. Jäger, K. Kreher, E. Kyrö, J.C. Lambert, R. Neuber, M. Pirre, G. Vaughan, G. Visconti).

NO₂ : J.P. Pommereau, Service d'Aéronomie, France (C. Camy-Peyret, K. Kreher, J.C. Lambert, M. Pirre).

NO₃ : M. Pirre, Laboratoire de Physique et Chimie de l'Environnement, France (K. Kreher).

OCIO-BrO : J.P. Pommereau (M. Pirre).

H₂O : J. de la Noé (C. Camy-Peyret, H. Jäger, K. Kreher, J. Ovarlez, M. Pirre, P. Pruvost).

Aerosols : C. Brogniez, Laboratoire d'Optique Atmosphérique, France (C. Camy-Peyret, K. Fricke, D. Fussen, G.P. Gobbi, S. Godin, H. Jäger, K. Kreher, J. Ovarlez, M. Pirre, J.P. Pommereau).

Temperature : K. Kreher, National Institute of Water and Atmospheric Research, New Zealand (G.P. Gobbi, P. Keckhut).