



Envisat Quality Assessment with Lidar (EQUAL): a project to support the long-term validation of ozone and temperature profiles

Y.J. Meijer (1) for the EQUAL team

1. National Institute for Public Health and the Environment, Bilthoven, Netherlands
(yasjka.meijer@rivm.nl, +31-30-228 7531)

In 2004 ESA started several new projects to support the long-term validation of ENVISAT's three atmospheric chemistry instruments. The Envisat Quality Assessment with Lidar (EQUAL) project is one of them and involves the data of eleven lidar stations around the world measuring ozone and temperature profiles. The participating stations are (from north to south) located in Eureka, Ny Alesund, Alomar, Esrange, Hohenpeissenberg, OHP, Tsukuba, Table Mountain, Mauna Loa, La Reunion, and Lauder. In 2003 in total over 800 files were submitted resulting from these lidar observations, and in 2004 already over 700 files. Besides the required coordination of the data acquisition, this project involves dedicated validation activities to assess the data quality. The data under investigation are the ozone and temperature profiles of the Global Ozone Monitoring by Occultation of Stars (GOMOS), Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) and Scanning Imaging Absorption Spectrometer for Atmospheric Chartography (SCIAMACHY) instruments. The main focus will be on the quality of the operational ESA products, but the focus might sometimes be changed toward products of scientific institutes exploring retrieval algorithms of (potential) future operational products. The vast amount of lidar data covering several latitudinal regions allows the analysis for possible dependencies of these data on several geophysical (e.g., latitude) and observational (e.g., star characteristics) parameters. In this presentation the aim, set-up and first results of the EQUAL project will be presented.