Geophysical Research Abstracts, Vol. 7, 07198, 2005

SRef-ID: 1607-7962/gra/EGU05-A-07198 © European Geosciences Union 2005



## Validation of OMI Results with Groundbased Data

**E.J. Brinksma** (1), D. Balis (2), A.J.C. Berkhout (3), M. Kroon (1), D.P.J. Swart (3), P.F. Levelt (1)

(1) Royal Netherlands Meteorological Institute, De Bilt, The Netherlands, (2) Aristotle University of Thessaloniki, Greece, (3) National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands. (brinksma@knmi.nl).

The Ozone Monitoring Instrument (OMI) is one of four instruments on the NASA EOS-Aura satellite, that was successfully launched on July 15th, 2004. OMI is a compact nadir viewing, wide swath, ultraviolet-visible (UV/Vis) imaging spectrometer that was contributed to the Aura mission by The Netherlands and Finland. With its unprecedented spatial resolution and daily global coverage, OMI promises highly interesting scientific results that could make a major contribution to our understanding of stratospheric and tropospheric chemistry and climate change.

In this contribution we present first validation results of OMI ozone, and possibly also nitrogen dioxide. The ozone data are compared with groundbased Brewer measurements. The preliminary results, that were limited to Northern Hemisphere stations, show an average bias of less than 1.8% between OMI ozone column (preliminary data) and Brewer instrument ozone (made available near-real-time). On our poster, we intend to show these comparisons in much more detail, and also including the tropics and Southern Hemisphere.

We also present the plans to validate OMI  $NO_2$  columns over the Netherlands using groundbased data, which includes a tropospheric  $NO_2$  lidar and  $NO_2$  ground measurements provided by the Dutch national air quality network. Possibly, preliminary lidar or OMI results will be shown. The NO2 validation work is done in the framework of a nationally funded project, called DANDELIONS.