



## **Evaluation of O<sub>3</sub> analyses from UARS MLS assimilation by BASCOE between 1992 and 1999**

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Here are presented the analyses of UARS MLS ozone data obtained by the Belgian Assimilation System for Chemical Observation from Envisat (BASCOE)\*. This system, based on the 4D-var method, is devoted to stratospheric chemical observations. It uses a three-dimensional Chemical Transport Model (3D-CTM) including 57 chemical species with full description of stratospheric chemistry. The model is driven by the ECMWF analyses of wind and temperature. The system has a horizontal resolution of 3.75 in latitude and 5 in longitude with 37 pressure levels from the surface to 0.1 hPa. BASCOE has assimilated UARS MLS observations made during the period 1992 - 1999. In the stratosphere, it is shown that BASCOE reproduces accurately UARS MLS data. In this contribution, we focus on the evaluation of ozone analyses using comparisons with independent measurements from HALOE, ozonesondes and ground-based LIDAR. In 1997, one of the MLS radiometers failed. The impact on the posterior ozone analyses is also discussed here.

\* While this system was originally built to assimilate Envisat data, it can be applied to other level2 chemical observations from any other satellite.