Ozone data assimilation based on GOME, SCIAMACHY and OMI data

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Brief Abstract:

Since 2000 the KNMI is providing operational ozone analyses and forecasts based on the assimilation of GOME and SCIAMACHY ozone measurements. These forecasts are currently coupled to UV-index and dose calculations in several countries. In our talk we will give an overview of the KNMI ozone data assimilation work, including first results for the OMI instrument. Numerical weather prediction centres have become interested in ozone over the past 6 years, connected to the extension of several NWP model to include the full stratosphere. In the future weather and atmosheric composition will become even more tightly integrated. One prominent example is the EU funded GEMS project, with activities concerning greenhouse gases, reactive chemistry, aerosols and regional air-quality modelling. We will briefly discuss the contribution of KNMI to GEMS.