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1. Abstract

The Ozone Monitoring Instrument (OMI) flown on the EOS Aura spacecraft (launched July 2004) is designed to monitor stratospheric and tropospheric ozone, aerosols and smokes from biomass burning, SO₂ from volcanic eruptions, and key tropospheric pollutants & surface UV radiation that are a threat to human health (Levelt et al., 2000).

Monitoring of air pollution over the globe from satellite measurements is of great importance since ground-based measurements are very limited in space and time, and the pollution from the source regions are transported over great distances and affect areas far from the source.

Satellite measurements of ozone, aerosols and other trace gases from TOMS, SBUV, GOME and SCIAMACHY have been used in monitoring air pollution around the globe, and found to be useful in air quality forecast models. OMI, with better measurement accuracy and better spatial resolution relative to previous sensors, is expected to provide better estimates of total and tropospheric ozone, aerosols, and other precursors of tropospheric ozone, such as HCHO, NO₂, SO₂, BrO, and OCIO. OMI is a contribution of the Netherlands Agency for Aerospace Programs (NIVR) and the Finnish Meteorological Institute (FMI) to NASA's EOS Aura mission.

This presentation will highlight the unique characteristics of OMI data products (Ahmad et al., 2003), and provide brief details of how the Standard and Near Real Time data products may be used in: air quality forecast models, identifying the sources of air pollution over the globe, and understanding the transport of air pollution across the oceans and continents.

OMI data are processed at the OMI Science Investigator-led Processing System (OSIPS) at NASA/GSFC, the OMI Dutch Processing System (ODAPS) at KNMI, the Netherlands, and at FMI, Finland. After quick validation of the OMI products with in-situ measurements by the validation team, the standard OMI derived products will be available free to

the public and scientific community from the NASA Goddard Earth Sciences (GES) Data Active Archive Center (<http://daac.gsfc.nasa.gov>). The Near Real Time (NRT) global products will be available from the KNMI (<http://www.knmi.nl>) and the Very Fast Delivery (VFD) regional products from the FMI (<http://www.fmi.fi>).

2. Acknowledgements

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3. References

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