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OMI Validation Results of Aura-AVE Airborne Campaigns

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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 the results of the first of a series of validation campaigns organized by NASA under the name Aura Validation experiment (AVE). The purpose of AVE is to supplement existing campaigns to complete the suite of measurement and to perform measurements dedicated solely to Aura validation. The October 2004 AVE Campaign took place from Ellington Fields AFB, Houston, Texas, USA, out of where the NASA WB-57 aircraft performed 5-6 hour flights up to 20 km altitude over more than 4000 km range, covering the Gulf of Mexico and the Midwest US. The January 2005 AVE Campaign took place from Pease Tradeport, Portsmouth, New Hampshire, USA, out of where the NASA DC-8 aircraft performed 8-10 hour flights up to 12 km altitude over more than 5000 km range, covering Canada and Greenland. Both aircraft carried an impressive suite of in-situ sampling and remote sensing instrumentation.

We are planning to present AVE validation results concerning the OMI data products of O_3 and NO_2 total column, cloud height and cloud fraction, and aerosol properties. Furthermore we plan to present campaign results of measurements of a suite of tropo-

spheric pollution constituents through the polluted outflow over the Atlantic from the East Coast urban areas during winter time.