

Stratospheric Aerosol and Gas Experiment III on the International Space Station (SAGE III/ISS) Science Data Products: Preliminary Validation Results

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The Stratospheric Aerosol and Gas Experiment III (SAGE III) instrument, installed on the International Space Station (ISS), has completed over a year of data collection and production of science data products. The SAGE III/ISS is a solar and lunar occultation instrument, scanning the light from the sun and moon, through the limb of the Earth's atmosphere. It was launched in February 2017 and provides data from June 2017 to the present. It continues SAGE's legacy of ozone, aerosol and water vapor profile measurements and extends the lengthy records for monitoring constituents important for understanding stratospheric ozone trends. This presentation shows the preliminary validation results of comparing SAGE III/ISS ozone and water vapor vertical profiles with those of NOAA ESRL GMD and NIWA mission-funded ozonesondes and frost point hygrometers (FPH), and comparisons with other correlative data.

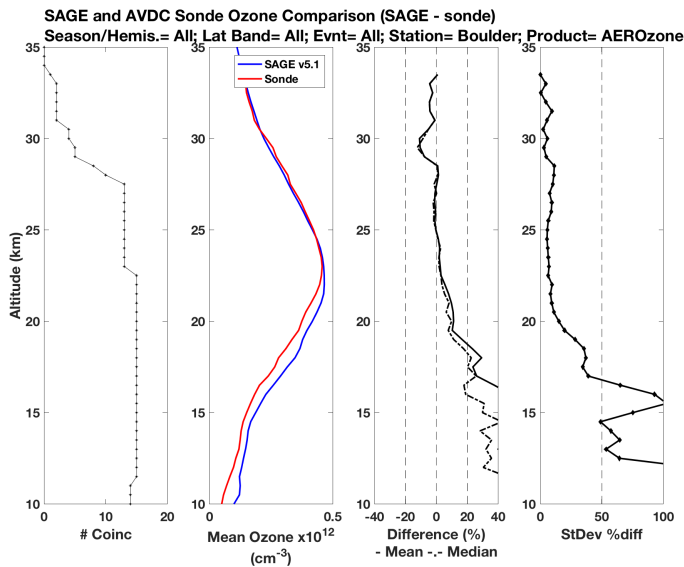


Figure 1. SAGE III/ISS and NOAA ESRL Boulder Ozone Comparison.

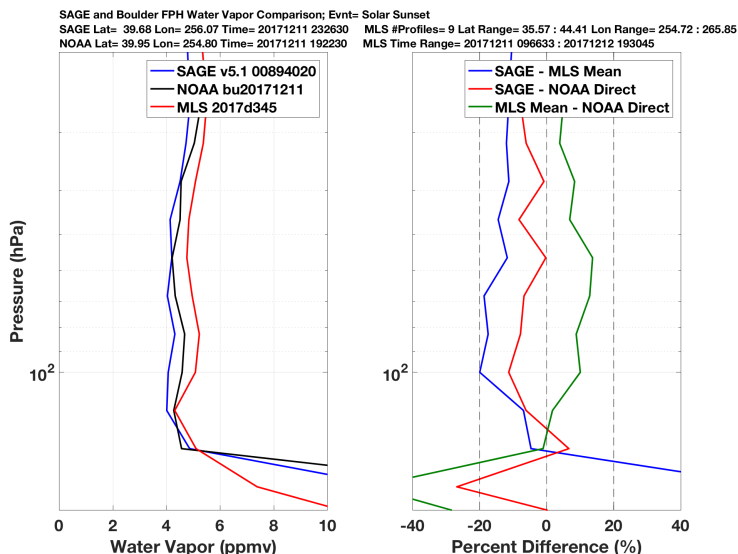


Figure 2. SAGE III/ISS, NOAA ESRL Boulder FPH, Microwave Limb Sounder (MLS) Water Vapor Comparison.