

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

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The Stratospheric Aerosol and Gas Experiment III (SAGE III) instrument, installed on the International Space Station (ISS), is the most recently launched of four SAGE instruments. The SAGE III/ISS is a solar and lunar occultation instrument, scanning the light from the sun and moon, through the Earth's atmosphere at the limb, or edge, of the planet. It was launched in February 2017, almost 38 years from the day that the first instrument, SAGE I, was launched. It continues a legacy of long-term ozone, water vapor, and aerosol profile measurements and extends SAGE's lengthy record of monitoring ozone trends. The SAGE III/ISS ozone science data products have recently been released; solar in October 2017, and lunar in January 2018. This poster shows the preliminary validation results of comparing SAGE III/ISS ozone vertical profiles with those of ESRL/GMD and NIWA ozonesondes, of the Atmospheric Chemistry Experiment (ACE), of the Optical Spectrograph and InfraRed Imager System (OSIRIS), and of other SAGE III/ISS coincident overpasses.

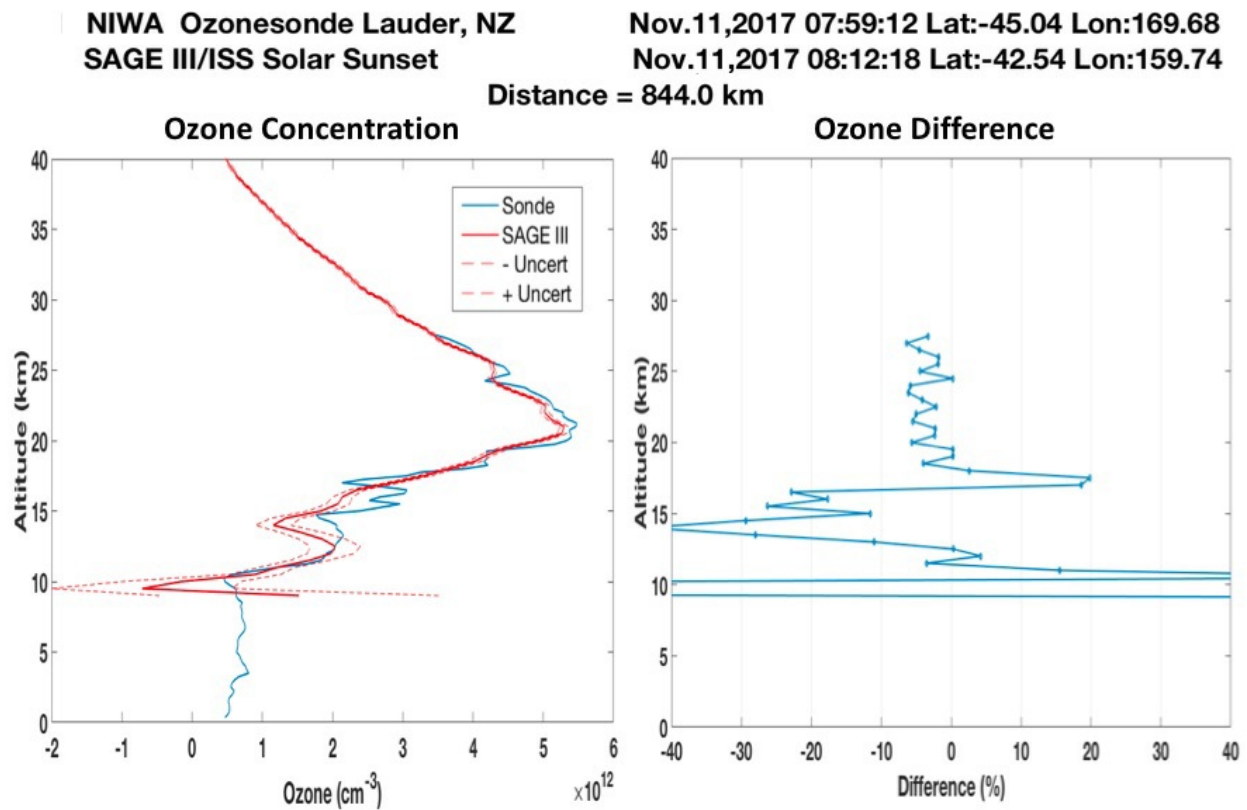


Figure 1. SAGE III/ISS and NIWA ozonesonde ozone profile comparison.