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Stratospheric Aerosol and Gas Experiment III installed on the International Space Station (SAGE III/ISS): Science Data Product Validation-Initial Findings

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Validation of science data products from the Stratospheric Aerosol and Gas Experiment (SAGE) III, installed on the International Space Station (ISS) in March 2017, requires intercomparisons with validated data sources. The SAGE III/ISS mission is actively utilizing in-situ profile measurements from balloon packages, consisting of a standard meteorological radiosonde, ozonesonde and frost-point hygrometer, launched during SAGE III/ISS overpass opportunities. Some packages also include an aerosol sonde. This provides regional correlations of ozone, water vapor and aerosol extinction between the in-situ measurement data and the SAGE III/ISS profile products. When possible, the timing of the launch is modified to increase the temporal and spatial coincidence between the measurements. In addition, ground-based LIDAR measurements and aircraft-based measurements of ozone, water vapor, aerosol extinction and nitrogen dioxide will provide additional validation data for correlation with the SAGE III/ISS data products. Initial results of the mission directed validation program will be presented.