VALIDATING LINE-OF-SIGHT WINDS CALCULATED FROM ACE-FTS SOLAR OCCULTATION MEASUREMENTS

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The Atmospheric Chemistry Experiment Fourier Transform Spectrometer (ACE-FTS) measures infrared transmittance spectra of the atmosphere from low Earth orbit using the Sun as a light source (solar occultation). These spectra are used to derive altitude abundance profiles of more than 40 molecules, and properties of clouds and aerosols. The Doppler shifts on atmospheric lines can be used to determine line-of-sight winds. Line-of-sight winds are a new data product for version 5.0 of ACE-FTS processing. These winds are being validated through comparison with independent winds observations from meteor radars and from the ICON-MIGHTI satellite instrument.

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