



## **In-flight calibration of the Ozone Monitoring Instrument**

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The Ozone Monitoring Instrument (OMI) was successfully launched in July 2004 on board of NASA's EOS-AURA platform. OMI is a UV-VIS imaging spectrometer that observes the back-reflected light from the Earth's atmosphere in the 270-500nm wavelength range in nadir. It uses two dimensional CCD detectors to simultaneously record the entire field of view and the spectrum of each pixel in the swath. The 114 degree wide field of view provides daily global coverage and its high spatial resolution (24x13km<sup>2</sup> ground-pixel size) enables to observe atmospheric trace gas abundances on an urban scale. Since its launch the OMI instrument has been operating flawlessly and is producing high quality data. This paper presents results from the calibration measurements that are performed in-flight and how these contribute to improving the calibration of the instrument. It will be shown how based on the in-flight dataset the azimuth and elevation angle correction algorithm for the irradiance calibration has been adjusted which resulted in an improvement of the solar irradiance product. Furthermore the influence of inhomogeneous ground scenes on the spectral assignment is discussed. The OMI-measured solar spectrum is compared to a high-resolution solar reference spectrum convolved with the accurately calibrated OMI spectral slitfunction.