

Improved Long-Term Spectral Irradiance Record from Aura/OMI

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The Ozone Monitoring Instrument (OMI) on the Aura satellite provides global measurements of atmospheric trace gases, also collecting daily solar spectral irradiance measurements over 265-500 nm wavelength range. The long lifetime (13+ years) and exceptional stability of OMI has enabled us to develop a high quality SSI record covering all of the solar cycle 24. We have recently revised the OMI degradation model by utilizing data from multiple on-board diffusers and assuming consistency between solar minima. The improved OMI SSI data now resolve solar variability at the 0.1% (or better) level on both solar rotational and solar cycle time scales. These highly accurate and spectrally resolved (0.5 nm grid) measurements offer new opportunities for evaluating model assumptions.