



S-NPP OMPS Nadir Performance and Calibration

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This presentation analyzes the in-flight performance of the S-NPP OMPS Nadir instruments and evaluates sensors' on-orbit calibrations. During the past two year, OMPS has collected all types of orbital calibration and science data that have allowed us to better understand the two Nadir sensors' on-orbit performances, and consequently to establish the baseline calibrations during the early orbital checkout and intensive calibration and validation of the instruments. This presentation evaluates the orbital sensors' performances and verifies the orbital calibration. From studies that we have conducted so far since the sensor launch, the largest term in the sensor calibration uncertainty is the wavelength shift effect of 0.15 nm when the sensor transitioned from ground to orbit. Our results have also demonstrated that sensor on-orbit performance complies with the system specifications, while the final adjustments of stray-light correction are still being made to optimize OMPS Sensor Data Records (SDRs).