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Solar Irradiance observation from Fengyun3 meteorological satellites: recent results and future plan

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The Solar Irradiance Monitors (SIM) on-board Fengyun3 (FY3) satellites have been observing Total Solar Irradiance since June 2008. With the lessons from the first two satellites, the SIM on FY3C has two significant improvements by adding sun tracing system and temperature control system, which is named after SIM-II. The SIM-II measurements are first really traceable to World Radiometric Reference and building an on-orbit aging model. TSI from FY3C/SIM-II has been evaluated by comparing with SORCE/TIM and RMIB composite data. The result shows a good consistency. Monitoring of strong solar activity during Oct. 2014, FY3C/SIM-II and SORCE/TIM showed the similar result about solar energy change. For the future plan, we would like to have cooperation with RMIB and PMOD on TSI observation from FY3 early-morning orbit satellite which is designed to launch in 2018. We also plan to develop a new ability to capture daily variance in solar spectral irradiance on the early-morning orbit.