

SFO Solar Indices, Irradiance Variations, and a New TSI Composite – An update

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One of the goals of the solar irradiance community is to produce the most accurate record of Total Solar Irradiance (TSI) possible, created from data supplied by several space-based monitors since 1978. SFO's contribution to this work is a set of solar indices derived from active region elements (light and dark magnetic features). These indices, derived from 30+ years of full-disk, multi-wavelength, photometric images, are used with irradiance data to help determine the causes of irradiance variation, which irradiance values alone cannot tell us. The irradiance community now has a new methodology for creating a TSI composite based on work by Dudok de Wit *et al.* (2017). Recognizing that this composite is not yet the final version, what can be learned from correlations of this new composite and SFO feature-based indices?