

## **Re-evaluations of the 400-Year Sunspot Record**

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The sunspot record is the longest continuous directly-observed solar record in existence and gives indications of solar variability on daily, solar-rotational, solar-cycle, and multi-century timescales with commensurate resulting inputs for studies of solar activity, the solar dynamo, and Earth climate. Creating a composite sunspot record by merging the many hundreds of observers contributing to the 400-year observational time range requires correcting for offsets, trends, and non-linearities in the individual time series. In creating the Sunspot Indices and Long-term Solar Observations (SILSO) V2.0 sunspot number and a new group sunspot number composite, released in July 2015, several new composite-creation methods were explored and many observer's historical sunspot records were recovered and updated. The methods, approaches, and results were described in a topical collection of *Solar Physics* (**291**, 2016) and have applicability to the creation of other time-series composites, such as solar irradiances and Earth-climate records.

With work continuing subsequent to the release of the SILSO V2.0 series, these newly-recovered observational records and composite-creation methodologies will provide even further improvements to future sunspot-record versions. An International Space Science Institute (ISSI) team (<http://www.issibern.ch/teams/sunspotnosser>) is coordinating these future-version updates. We present a summary of this ISSI team's efforts, giving an overview of the advantages of and differences between various methodologies for creating sunspot-record composites, progress on newly-recovered observational records, and recommended composite-creation approaches for both imminent and more distant future data versions.