The Impact of Sampling Corrections on Derived Long-term Ozone Trends

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Recent years have seen a flurry of activity related to the use of numerous satellite data records spanning the last four decades to assess the status of stratospheric ozone and its potential recovery. Amongst those studies was the realization that non-uniform sampling patterns present in the constituent data sets could lead to biased trend results based on the analysis technique. Damadeo et al. (2018) made use of a recently demonstrated technique for accounting for sampling biases in trend analyses (Damadeo et al., 2014) to create sampling-corrected versions of several occultation-based data sets. This sampling-corrected data was then incorporated into the recent SPARC-sponsored LOTUS (Long-term Ozone Trends and Uncertainties in the Stratosphere) effort to improve the fidelity of derived long-term trends in stratospheric ozone. Herein we discuss the sampling-corrected data, their features, and subsequent impact on trend results.

Key words: LOTUS, ozone, trends, sampling, SAGE

References

Damadeo, R., and Coauthors, 2014, ACP, **14**, 13455-13470.

Damadeo, R., and Coauthors, 2018, ACP, **18**, 535-554.