

## Ozone Trends in the Lower Stratosphere from Ozone Sondes.

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Chemistry-Climate-Model simulations indicate that ozone in the mid-latitude lower troposphere should have generally been increasing since about 2000. Satellite data, however, have not confirmed such an increase. Instead, they seem to indicate that the pre-2000 decline of lower stratospheric ozone may have continued at mid-latitudes over the last 20 years as well [1,2]. Altitude resolution and information content of satellite observations on ozone in the lowermost stratosphere are, however, limited. Ozone sondes, on the other hand, provide the most detailed information on ozone in troposphere and lower stratosphere, but are limited to just a few soundings per month at maybe 40 stations worldwide [3].

In this contribution we report on lower stratospheric ozone trends observed by ozone sondes in the last 20 years at about 25 selected stations, with a focus on mid-latitudes. Where possible, we use improved and homogenized ozone sonde data from the recent ozone sonde data quality assessment O3S-DQA [4, 5], and from the Harmonization and Evaluation of Ground Based Instruments for Free Tropospheric Ozone Measurements (HEGIFTOM) activity [6].

### References

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