



Supplement of

Consistency of total column ozone measurements between the Brewer and Dobson spectroradiometers of the LKO Arosa and PMOD/WRC Davos

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Figure S1. Left panels: total column ozone relative differences between Brewer B163 to Dobson D101 for the five investigated cross-sections for the period 1 January 2016 to 30 June 2020. The black line represents the impact of the linear temperature coefficient calculated from this data using the effective ozone temperature, as shown on the corresponding panels on the right. The yellow curves represent a sine function fit to the data with a period of one year. The average offset and amplitude of the fitted sine curve are shown in the panels. Right panels: the same data shown with respect to the effective ozone temperature. The black line is a linear fit, and the value of the gradient is shown in the panels.



Figure S2. Left panels: total column ozone relative differences between Brewer B040 to Dobson D101 for the five investigated cross-sections for the period 1 January 2016 to 30 June 2020. A stray-light correction has been applied to the data. The black line represents the impact of the linear temperature coefficient calculated from this data using the effective ozone temperature, as shown on the corresponding panels on the right. The yellow curves represent a sine function fit to the data with a period of one year. The average offset and amplitude of the fitted sine curve are shown in the panels. Right panels: the same data shown with respect to the effective ozone temperature. The black line is a linear fit, and the value of the gradient is shown in the panels.



Figure S3. Left panels: total column ozone relative differences between Brewer B072 to Dobson D101 for the five investigated cross-sections for the period 1 January 2016 to 30 June 2020. A stray-light correction has been applied to the data. The black line represents the impact of the linear temperature coefficient calculated from this data using the effective ozone temperature, as shown on the corresponding panels on the right. The yellow curves represent a sine function fit to the data with a period of one year. The average offset and amplitude of the fitted sine curve are shown in the panels. Right panels: the same data shown with respect to the effective ozone temperature. The black line is a linear fit, and the value of the gradient is shown in the panels.



Figure S4. Relative difference in total column ozone between Brewer B040 and Dobson D101 (red points) and B072 versus D101 (blue points) with respect to ozone slant path. The data was restricted to conditions with effective ozone temperature between 225 ± 2 K. The error bars represent the standard deviation of the datapoints at selected ozone slant paths \pm 50. The data from B040 and B072 were corrected for stray light.