



Stratospheric Ozone Trends Inferred from the OSIRIS Data Record

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The OSIRIS instrument onboard the Odin platform has been making high quality, vertically resolved ozone measurements since the autumn of 2001. These measurements, that span an altitude range that covers the cloud tops to 60 km, have been used within multiple studies to determine stratospheric ozone trends. In particular the OSIRIS measurements are an important component of the HARMOZ data set produced within the ESA ozone_cci program and the OSIRIS measurements have been merged with similar SAGE II measurements to produce ozone trend results that cover the period from the launch of SAGE II up to the present. As OSIRIS is the longest lived instrument that currently measures vertical ozone profiles, as long as the results remain of sufficiently high quality, its data products become exponentially more important every year.

This paper will detail recent advancements in the OSIRIS ozone retrieval algorithm that have made the results more robust. A recent pointing correction will also be discussed. This correction has resulted in a reduction in magnitude of the positive trends reported recently by groups using the OSIRIS data record. These new results will be verified through comparison with trends derived using MLS measurements merged with SAGE II data where the merging process for the SAGE II – OSIRIS and SAGE II – MLS data sets was done in an identical fashion.