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The Odin-OSIRIS record of UTLS ozone in the region of the Asian Monsoon

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The Asian summer monsoon is a dominant feature of the upper tropospheric circulation characterized by strong winds, closed streamlines and effective isolation of air within the anticyclone. Many previous studies using satellite data sets have shown that the Asian monsoon has a substantial effect on the vertical transport in the upper troposphere and lower stratosphere, and results in a region of significantly decreased ozone at these altitudes during the summer season. Here we present the Odin-OSIRIS record of the upper troposphere and lower stratosphere (UTLS) ozone distribution in the region of the Asian monsoon. By using a geopotential height threshold criteria, regions inside and outside the monsoon are quantified and compared. The OSIRIS ozone data set is of relatively high vertical resolution and available from 2002 to the present day affording a unique view the trends and variability in the monsoon region.