The University of Saskatchewan OMPS-LP Data Products

Daniel Zawada[1], Adam Bourassa[1], and Doug Degenstein[1]

[1] *Institute of Space and Atmospheric Studies, University of Saskatchewan, Saskatoon, Canada*

The Ozone Mapping and Profiler Suite Limb Profiler (OMPS-LP) on-board the Suomi-NPP satellite began taking routine measurements in early 2012. OMPS-LP obtains a vertical image of the atmosphere every 19 s with three horizontally spaced slits in the 280—1000 nm spectral region using a prism disperser. Recently, the University of Saskatchewan has begun producing stratospheric ozone and sulfate aerosol data products from the OMPS-LP radiance measurements. Processing is done with a new algorithm that directly retrieves structure along the orbital track taking advantage of the fact that successive images overlap. The full 6+ years of data from OMPS-LP has been processed and is publicly available. The ozone data product has recently been used in the creation of two merged datasets (SAGI-CCI-OMPS and SAGE-OSIRIS-OMPS) which have been used to estimate stratospheric ozone trends in the SPARC Long-term Ozone Trends and Uncertainties in the Stratosphere (LOTUS) activity. This paper will provide an overview of the USask OMPS-LP data products and their potential applications. The quality of the data will also be discussed with comparisons to other datasets presented. Future planned improvements and potential uses will also be discussed.

Key words: OMPS-LP, Remote Sensing, Ozone, Stratospheric Aerosol, Trends