



First results of the TROPOMI UV Aerosol Index compared to the OMI Aerosol Index

Deborah Stein Zweers, Maarten Sneep, Gijsbert Tilstra, Piet Stammes, Martin de Graaf, and Pepijn Veeffkind
KNMI, R&D Satellite Observations, Netherlands (deborah.zweers-stein@knmi.nl)

The earliest data from the TROPOMI instrument on board the Sentinel-5 Precursor indicate that the UV Aerosol Index (UVAI) can be used to capture both large and fine scale plume structures from known UV-absorbing aerosol sources including fires and dust regions. A summary of the TROPOMI UVAI data quality and error characterization will be presented along with several examples from the recent California fires (December 2017) and other regions of interest. The TROPOMI UVAI includes aerosol index calculated for two wavelength pairs, namely, the 354-388 nm pair consistent with OMI heritage and the 340-380 pair from other instruments including GOME-2. A comparison between these two TROPOMI pairs will be given. Finally, since TROPOMI has a similar overpass time with OMI, a comparison will be presented between the OMI and TROPOMI datasets to address differences in spatial resolution and the type of features that can now be resolved by TROPOMI as compared to its predecessors.