Geophysical Research Abstracts
Vol. 20, EGU2018-5361, 2018
EGU General Assembly 2018
© Author(s) 2018. CC Attribution 4.0 license.

First results of TROPOMI validation using Environment and Climate Change Canada ground-based remote sensing network

Vitali Fioletov, Chris McLinden, Xiaoyi Zhao, David Tarasick, Yves Rochon, and Richard Menard
Environment and Climate Change Canada, Toronto, Canada

The purpose of this study is to use ground-based measurements of total columns of NO_2, SO_2, ozone, HCHO, UV index, AOD by Brewer, Pandora, and CIMEL instruments, as well as ozonesonde profiles collected by the Environment and Climate Change Canada networks, co-located measurements from other satellites and the operational air quality forecast model GEM-MACH to validate TROPOMI data products. The presentation will show first results of comparison TROPOMI NO_2 data product with Pandora NO_2 measurements at two sites in the Toronto area (44N, 79W) and one site at Fort McKay (57N, 112W). Comparisons for HCHO and SO_2 are also planned, although the measurements uncertainties are likely too high to draw any conclusions. Results of comparison of Brewer total ozone measurements from eight sites in Canada, Hawaii, and South Pole with TROPOMI data will be also shown.