

Satellite-Based Halogen Oxide Measurements in Support of the ARCTAS Campaign and Tropospheric Science

Abstract

We will use our expertise in satellite measurements, data analysis, and photochemical modeling to provide satellite measurements that include tropospheric bromine oxide (BrO), in support of the ARCTAS science objectives. BrO column abundances will be provided in near-real-time from the OMI and GOME-2 satellite instruments to aid in aircraft mission planning. More accurate measurements will then be determined off-line, incorporating meteorological analyses for improved retrievals to use in scientific studies.

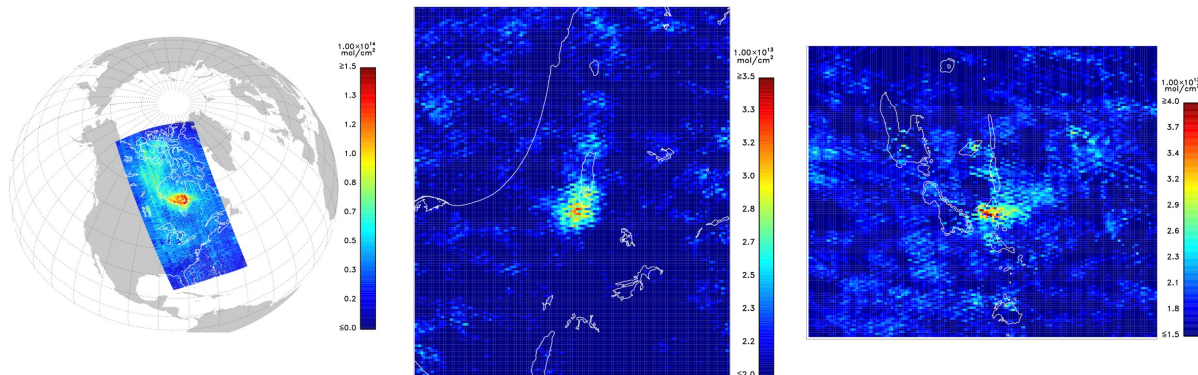


Figure 1. Examples of tropospheric BrO from OMI. **(a)** BrO in the planetary boundary layer over the ice pack in high-latitude springtime: Hudson Bay, March 11, 2005; **(b)** BrO in the planetary boundary over the Dead Sea. Prevailing northeasterly winds concentrate the bromine species, limited by their photochemical lifetimes, in the southwest; **(c)** BrO from Ambrym Volcano, Vanuatu.