



Biomass burning plumes in the vicinity of Moscow as seen by OMI during summer 2010

Deborah Claire Stein-Zweers, Pepijn Veefkind, and Pieterernel Levelt
(stein@knmi.nl)

The dense plumes of both fresh and stagnated smoke in the vicinity of Moscow resulting from devastating forest fires were easily detected using OMI aerosol index and aerosol optical thickness measurements. Extended drought and heat waves set the stage for some of the most intense fires seen in the region for decades. Stagnant synoptic patterns increased the atmospheric lifetime of the smoke which led to the formation of dense smog layers in and around Moscow. Several examples are shown of very high values observed by OMI for AI and AOT as well as the height of the plume analyzed using CALIPSO data. Additionally, the single scattering albedo values obtained from the OMI OMAERO algorithm are evaluated to detect any changes due to smoke aging over the timeline of this event which spanned several weeks.