**Characterising photochemistry in biomass burning plumes: insights from the BORTAS experiment**

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The BORTAS (Quantifying the impact of BOReal forest fires on Tropospheric oxidants using Aircraft and Satellites) experiment was a joint UK-Canadian project with the overarching objective of understanding the chemical aging of air masses emitted by biomass burning and how they impact downwind surface air quality. The central focus of the experiment was a two-week deployment of the UK BAe-146-301 Atmospheric Research Aircraft over eastern Canada in July 2011. BORTAS also included coordinated ground-based measurements at the Dalhousie University Ground Station, enhanced ozone sonde launches organized by Environment Canada, NSF-funded measurements at the Pico Atmospheric Observatory in the Azores, and NASA/ESA satellite overpasses. We used a range of atmospheric chemistry models to interpret the data collected.  In this talk I will present an overview of the science that is still being produced from this project.

**Professor Paul Palmer** is Group Leader and Professor of Quantitative Earth Observation in the School of Geosciences at the University of Edinburgh. Professor Palmer’s research interests are atmospheric chemistry and climate of the Anthropocene. His group studies the physics and chemistry of the atmosphere, and the interactions between the atmosphere and the land surface using a range of models as well as ground-based, airborne and satellite measurements. Specific research interests include understanding past and future climate variability and change; remote sensing of composition in the Troposphere and Stratosphere; Land-Atmosphere interactions; global and regional modelling of climate and atmospheric composition; long-range transport of air pollution; and climate change and air pollution impacts on human health.

This work informs high level reports such as those from the Intergovernmental Panel on Climate Change and the UN Task Force on Hemispheric Transport of Air Pollution.

Professor Palmer has held previous appointments at Harvard University and the University of Leeds, and is currently a Royal Society-Wolfson Research Merit Award holder (2013-2018). He is the previous recipient of the Zeldovich medal awarded by COSPAR and the Russian Academy of Sciences and the Philip Leverhulme Prize. He has held visiting positions at the University of Washington, Microsoft and the National Center for Atmospheric Research, Boulder. He is currently Principal Investigator and Centre Science Director of the Natural Environmental Research Council National Centre for Earth Observation ([NERC NCEO](http://www.nceo.ac.uk/)) and serves on the editorial boards of *Atmospheric Environment* and *Elementa*.