

## 1.061 Airborne Air Pollution Assessment around London UK, During EMeRGe-EU .

Early Career Scientist

Presenting Author:

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Abstract:

In July 2017, measurements were made using the UK's Facility for Airborne Atmospheric Measurement (FAAM) as a part of the Effect of Megacities on the Transport and Transformation of Pollutants on the Regional to Global Scales (EMeRGe) project. In a combined effort with the DLR-HALO aircraft, plumes from several cities across Europe were measured for a variety of chemical species relevant to air pollution. The FAAM aircraft's seven flights focused on measuring the inflow and outflow around London, and providing vertical structure of the plume.

We present these data, examining the structure of the London plume. Some of the flights lend themselves to mass balance calculations, in these cases this has been performed to quantify bulk emission. Through the comparison of measured data with air quality and transport models (GEOS-Chem and WRF-CMAQ) we gain an insight into the emission, transport and processing of air pollutants ( $\text{NO}_x$ , CO,  $\text{O}_3$ ) in South East UK.