



Transport and transformation of pollutants in the outflow of megacities: the EMERGe project in Asia

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The evaluation of the impact of emissions from major population centres, MPC, which comprise megacities, large conurbations and agglomerations, in the atmosphere requires the identification of receptor areas and an accurate knowledge of the transformation processes of the emissions along the transport pathways.

EMERGe (Effect of Megacities on the Transport and Transformation of Pollutants on the Regional to Global Scales, <http://www.iup.uni-bremen.de/emerge/>) is a research project coordinated by the Institute of Environmental Physics of the University of Bremen and funded by a variety of national agencies.

Within EMERGe the transport and transformation processes of pollution plumes originating from selected MPC in Europe and Asia are investigated. Two airborne measurement campaigns comprising a total of 180 flight hours using an optimised payload on board the HALO aircraft research platform (www.halo.dlr.de) were carried out in summer 2017 and spring 2018 as times where polluted flows are large in two world regions with significantly different pollution control strategies.

After a brief overview of the EMERGe project this presentation will focus on the preliminary results obtained during the investigation of the MPC targets in China, Taiwan, Japan, Korea and Philippines within the campaign in Asia with HALO airbase in Tainan, Taiwan.