



Halocarbon measurements from the M55 Geophysica high altitude aircraft during the SCOUT-O3 campaigns over Northern Australia and West Africa, and during transit flights from Europe

W.T. Sturges (1), D.A. O'Sullivan (1,2), D.E. Oram (1), T. Röckmann (3), M. Braß (3), A. Engel (4), J. Laube (4), C.A.M. Brenninkmeijer (5)

(1) School of Environmental Sciences, University of East Anglia, UK (w.sturges@uea.ac.uk),
(2) UK Met Office, UK, (3) Institute for Marine and Atmospheric Research Utrecht (IMAU),
Utrecht University, The Netherlands, (4) Institut für Atmosphäre und Umwelt, J.W. Goethe
Universität Frankfurt, Frankfurt, Germany (5) Max-Planck-Institut für Chemie, Mainz,
Germany

We report measurements of selected halocarbon species in whole air samples collected with the M55 Geophysica during the SCOUT-Ozone transit flight from Oberpfaffenhofen, Germany (OPH) to Darwin, Australia during November - December 2005. We compare these measurements with a similar set of samples collected using the CARIBIC whole air sampler on board an in-service Lufthansa Airbus A340-600 flying over a similar latitude range (but lower altitude) from Frankfurt to Manila (via Guangzhou, China) in July 2006. We also show measurements from one of the "Hector" flights above tropical convection north of Darwin, again using the Geophysica. Finally we show preliminary measurements from Geophysica flights out of Ouagadougou, West Africa, during August 2006. The impact of short-lived bromine source gases (principally CHBr₃ and CH₂Br₂) on Br_y in the upper troposphere/lower stratosphere is discussed. The occurrence of significant methyl iodide concentrations (a few tenths of a ppt) was also observed.