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Measurements of trace gases above the tropical forests....

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Measurements of trace gases above the tropical forests;
A comparison between ozone levels in the forest and the oil palm
plantation areas using the BAe -146 aircraft.

The atmospheric composition of Sabah region (Borneo) was sampled using the FAAM BAE-146 instrumented aircraft during July 2008 as part of the OP3 (Oxidant particle photochemical processes above a South East Asia tropical rain forest) project.
Tropical forests play an important role in the carbon and energy balance of the Earth (which determine global climate) and are themselves vulnerable to climate change. The tropical biosphere is one of the main sources of reactive trace gas emissions into the global atmosphere, and understanding the role of ozone in these areas is of major importance given the rapid changes in land-use in the tropics.

This poster presents preliminary ozone concentrations results collected using the FAAM BAE 146 instrumented aircraft over some of Malaysia most extended oil palm plantations; comparing these with the results recorded when flying over forest areas. Oil palm is becoming one of the most widespread tropical crops; in Malaysia 13% of the land area (4.3Mha) is now oil palm plantations (MPOCP, 2008) compared with 1% in 1974 (FAO, 2005). This poster is expected to show very significant ozone concentrations over the two different landscapes. The set-up of the instruments, the specific sampling sites, as well as the land cover areas will be described.