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Halocarbon measurements in the North Atlantic from the FAAM BAe-146 Aircraft during the ITOP field campaign.

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Air samples collected during the Intercontinental Transport of Ozone and Precursors (ITOP) field campaign, have been analyzed by NICI-GCMS for around 20 halocarbons. The air samples were collected using a whole air sampling system onboard the new UK FAAM (facility for airborne atmospheric measurements) BAe-146. The aircraft was flown out of Horta Airport on Faial Island in the Azores (38N, 28W) during the summer of 2004.

During the 6 week operating period samples were obtained primarily from air masses originating in North America, but also from air originating over Africa, and on two separate occasions from Alaskan forest fire plumes. In addition during low level flying a number of samples were collected from the marine boundary layer.

Halocarbons are useful tracers of air mass origin, and this data along with data from other instruments onboard the BAe-146 including ozone, carbon monoxide, and altitude data is being used to study the differences in composition between polluted air masses primarily from North America and clean air masses. Halocarbon data will also be used to look at the input of species from the Ocean. There is also a possibility that some samples from the CARIBIC experiment can be used to supplement the data obtained from ITOP.