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Findings of the SHIVA field campaign in the South China Sea in Nov.-Dec. 2011

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Marine emissions of so-called halogenated very short-lived substances (VSLS) are known to considerably contribute to the ozone destroying halogen loading of the stratosphere. In this context, most crucial are VSLS emissions in regions of large vertical transport, i.e. the tropics and in particular in the warm pool of the Western Pacific during the rainy seasons (November to March).
In order to study the biogenic emissions of halogenated VSLS, their atmospheric transport and transformation, the internationally coordinated field expedition SHIVA (Stratospheric ozone: Halogen Impacts in a Varying Atmosphere) was performed within the margins of the South China Sea in November and December 2011. Partners from 19 institutions from 9 countries participated in the campaign. Funding came from the EU's 7th framework programme and additionally from a larger number of national funding agencies.
The activities included investigations in the laboratory and on the ground, during local ship cruises, the research vessel SONNE, deployments of the DLR (Germany's national research center for aeronautics and space) Falcon aircraft around Borneo, simultaneous satellite observations, the meteorological forecasting and analysis, and numerical modeling of atmospheric transport and photochemistry.
The present talk provides an overview on the performed research activities, reports on joint studies, and some core research results obtained to date.