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Measurements of HO_x in the outflow of convective systems

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The CAFE-Africa-Campaign (Chemistry of the Atmosphere Field Experiment) aims to study the impact of convective outflow during the 2018 West African Monsoon on the chemistry and composition in the upper troposphere. The HALO aircraft had been equipped with a comprehensive set of gas phase and aerosol instruments. Based on the Cape Verde Islands HALO probed the convective outflow from electrified and not electrified systems with marine or continental inflow during 14 measurement flights. In this presentation, we show the HO_x concentrations based on the origin of the convective inflow and characteristic of the convective system and compare them to CAABA/MECCA box model calculations. Furthermore, we show first results from HO_x levels observed in biomass burning as well as above, inside and below dust plumes.