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Characterization of Tropospheric Ozone in the Tropical West Pacific

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Abstract

The West Pacific warm pool has been identified as the major source region for stratospheric air, coinciding with a tropospheric ozone minimum (Rex et al. 2014). The close coupling of ozone concentration and oxidizing capacity of the clean marine troposphere influences the overall transport of chemical species to the stratosphere. To improve the limited availability of tropospheric ozone profiles from this key region, intensive campaigns and continuous measurements with ECC ozone sondes have been conducted at a new measurement station in Palau (7° N, 135° E) within the scope of the EU-project StratoClim since early 2016. K.Mueller will present insights from four years of balloon-borne measurements regarding the tropospheric ozone seasonality and origin of air masses for specific cases with high/low ozone/water vapor mixing ratios respectively.