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# The First Results From the New TCCON Station at Réunion Island

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In September of 2011, measurements for the Total Carbon Column Observing Network (TCCON) began at Réunion Island (Ile de La Réunion, 55°E, 20°S). The island is located East of Madagascar in the Indian Ocean, it undergoes strong influences from biomass burning in Africa and Madagascar during the months September to December.

Since 2002, we have been performing remote-sensing measurements for the Network for the Detection of Atmospheric Composition Change (NDACC) using a high-resolution Fourier-transform infrared spectrometer at the island, and now it is also home to the fourth operational TCCON observatory in the Southern Hemisphere. The TCCON observatory is located on the campus of the Université de La Réunion in St. Denis, next to the ocean. The station is operated remotely from the Belgian Institute for Space Aeronomy in Brussels, with technical support from the Laboratoire de l'Atmosphère et des cyclones at La Réunion. The observatory houses a high-resolution Bruker 125/HR Fourier-transform infrared spectrometer (operating in the near-infrared for the TCCON), and a home-built solar tracker. The same infrastructure is also used for measurements for the NDACC (operating in the mid-infrared). Our remote sensing measurements are supplemented by in-situ measurements with a PICARRO system at the same site.

In this presentation, we show the first results of the TCCON measurements of the total columns of $CO_2$ and $CH_4$ from Réunion Island.