



Tropical cyclone real-time monitoring using Aeroclipper sondes

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The Aeroclipper is an instrumented streamlined balloon following quasi-Lagrangian trajectories and providing in situ measurements in the atmospheric surface layer. A guide rope keeps the balloon close to the ocean surface. Two Aeroclipper balloons were captured by the tropical cyclone Dora in the Indian Ocean in February 2007 and remained in the cyclone eye for several days. The Aeroclipper appeared therefore as a potentially very useful system, in particular to continuously follow cyclone intensity in real time. The Aeroclipper development was reactivated in 2016, in particular for the definition of the deployment strategy and for the study of the potential impact of the assimilation of Aeroclipper measurements in numerical weather prediction models. The poster will present the full Aeroclipper system and the results of the different preliminary studies.