

Driftsonde

The driftsonde was developed by NCAR primarily in response to needs of the World Meteorological Organization THORPEX (The Observing System Research and Predictability Experiment) program (e.g., Shapiro and Thorpe 2004). The effort is a technical collaboration between CNES providing the ballooning expertise and NCAR providing the sounding (including deployment) expertise. The driftsonde operations during the AMMA SOP will be based in N'djamena, Chad with daily launches during periods of interest. This location is well-suited to cover the West African region and also regions of hurricane genesis in the tropical Atlantic. Currently the driftsonde is funded for 8 missions carrying 40 sondes each. This AMMA-THORPEX collaboration will be the first driftsonde research deployment and will be useful for several AMMA and THORPEX research and forecast topics including: (i) characterization of the SAL and the ability of models to represent its evolution, (ii) numerical and observational studies of the impact of dry air on convection and tropical cyclogenesis, (iii) investigation into the interactions between convection and African easterly waves, (iv) studies of tropical cyclone genesis and efforts aimed to extend the accurate prediction of tropical cyclones in the medium range, and (iv) studies of the impact of targeted observations on weather system prediction.

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