



## **Measuring large-scale vertical motion in the atmosphere with dropsondes**

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Large-scale vertical velocity modulates important processes in the atmosphere, including the formation of clouds, and constitutes a key component of the large-scale forcing of Single-Column Model simulations and Large-Eddy Simulations. Its measurement has also been a long-standing challenge for observationalists. We will show that it is possible to measure the vertical profile of large-scale wind divergence and vertical velocity from aircraft by using dropsondes. This methodology was tested in August 2016 during the NARVAL2 campaign in the lower Atlantic trades. Results will be shown for several research flights, the robustness and the uncertainty of measurements will be assessed, and observational estimates will be compared with data from high-resolution numerical forecasts.