Highlights of Field Project OTREC2019

The OTREC (Organization of Tropical East Pacific Convection) field project took place from August 5 to October 3, 2019. The operational center was in Liberia, Costa Rica. During OTREC, we performed 127 research flight hours in the area of the Eastern Pacific and Southwest Caribbean. We deployed 665 dropsondes in a grid to evaluate mesoscale thermodynamic and vorticity budgets. We also used the Hiaper Cloud Radar to determine the characteristics of cloud populations. Both of these tools were deployed from the NSF/NCAR Gulfstream V aircraft.

The Eastern Pacific has a strong meridional gradient in sea surface temperature. The southwest Caribbean exhibits uniform ocean temperatures. The two regions together provide a broad range of atmospheric conditions and a great deal of diversity in convective behavior.

The main goal of the project was to study deep convection in diverse environments to improve global weather and climate models. In this talk we will present an overview of OTREC, the highlights of the field project and the preliminary results that include the thermodynamics of the environment and the vertical mass flux profiles.

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Zoom Link: https://utah.zoom.us/j/480887682