

Titel: The MOSES project and the influence of convection on the water vapor mixing ratio in the mid-latitude lower stratosphere

Abstract:

Changes in temperature as well as the distributions and concentrations of radiatively active gases like water vapour in the upper troposphere-lower stratosphere (UTLS) result in particularly large changes in the atmospheric radiative forcing, which feedback to the climate. One part of the MOSES project is to investigate the impact of extreme weather systems with embedded convection on the water budget in the UTLS with the help of balloon sondes.

The concept of the MOSES project, the measurement strategy with balloon instrumentation and first results from a measurement campaign in 2019 will be presented.