

## Asian monsoon TTL cirrus: observations and simulations

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During the StratoClim campaign with the Russian aircraft Geophysica, that took place out of Khatmandu, Nepal, thin cirrus clouds were detected on August 8, 2017, in the Asian monsoon tropical tropopause layer (TTL). An analysis of the meteorological situation suggests that the air mass containing the cirrus cloud originates from a huge convective system above China that overshooted into the TTL. In this study, model simulations are performed to reproduce the evolution of the observed cirrus. To this end, the large-scale Lagrangian model ClaMS-Ice is operated, following the cirrus evolution along air mass trajectories from the convective event over China to the flightpath on 8 August. First results indicate that cirrus clouds exist continuous cycles of ice particle sedimentation followed by new ice nucleation all the way from China up to the observations above Nepal.