



## **First results from the THOR experiment imaging thunderstorm activity from the ISS.**

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Video imaging from the THOR experiment conducted on International Space Station by the Danish astronaut Andreas Mogensen has been analyzed. The observations we report in this paper were taken with a color camera from the vantage point of the Cupola, tracking thunderstorm activity over the Bay of Bengal. Among many lightning, the observations contain a sprite, a blue jet and numerous small blue discharge regions at the top of a tall cumulonimbus cloud. The latter are interpreted as electric discharges between layers at the uppermost layers of the cloud and to the screening layer formed at the very edge between the cloud and the surrounding atmosphere. The observations are the first of their kind and give new insights into the charge structure at the top of clouds in the tropical tropopause regions, a region that is difficult to observe and to access.