

TLEs: Combining Observations, Simulations, Theory and Instrument Technical Aspects

Torsten Neubert¹

¹ National Space Institute, Technical University of Denmark, Denmark

European research groups have been through a period of increased collaboration and focus on the topic of thunderstorm coupling to the upper regions of the atmosphere above the troposphere. In particular the studies of electrical discharges in the mesosphere have taken a leap forward. Several observational campaigns fielding a variety of instrumentation have been conducted, supported by development of models of important parameters. The efforts have led to the definition of two European satellite projects planned for launch in 2012: the ASIM and the TARANIS missions. The talk will give highlights of the studies undertaken during the past years, lessons learned from these and some suggestions for preparations by the community for the coming space missions.