

Lightning Detection in the VLF/LF Regime and Sprite Observation
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During several nights numerous sprite observations from Sopron have been made in 2007. In all cases, distinct thunderstorms have been detected and located by LINET. As is widely known, sprites can be correlated with specific lightning events, mostly with strong positive cloud-to-ground strokes. In this contribution, we study the evolution of lightning events within the cells that have given rise to the observed sprites. Since the considered storms produced thousands of strokes during the observation-time of the sprites, the variation of stroke number, intra-cloud fraction and amplitude distribution can be investigated as a function of time, and for distinct storm areas. As an example, the storm on July 20-21, 2007, delivered more than 70 sprites that could be correlated with lightning strokes. The corresponding lightning statistics of the storm will be presented. The general features of LINET will be detailed, with all its advantages and limitations. Since LINET operates in large parts of Europe, sprite observations in other part of Europe can also be handled. In the central areas of the 16 covered European countries, good correlations between lightning events and sprites can be extracted, but for storms in the far border areas of the network, or over the sea (Biscay, Medi-terranean), the lightning detection efficiency is reduced and some sprites will be observed without finding a corresponding stroke, and vice versa.