



On the Statistics of Lightning Strikes into Towers and Antenna Masts Measured by LINET

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The European lightning detection network LINET, which has been operated and expanded since May 2006, can very accurately detect lightning activity over most parts of Europe. To test the location accuracy we investigated lightning strikes into elevated structures like radio or TV towers, masts or high-rise buildings. Locations of more than one hundred structures were determined and occurrence of lightning strikes at or close to these positions were analyzed for a period of three years. During summer thunderstorms lightning strikes were distributed more uniformly, but during the winter month single "hot spots" around the selected objects were detectable. The position of registered strokes relating to the location of the objects were analyzed for the time period from October to March. At some sites a systematic location offset was found, probably caused by inhomogeneous propagation conditions, requiring certain network corrections. The mean distance before and after correction have been calculated for each structure.