

ABSTRACT

Upward lightning observations from towers in São Paulo, SP, Brazil and comparison with Lightning Location Systems data

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We report on upward lightning observations from two tall towers (90 and 130 m) in São Paulo city, SP, Brazil and compare with data from several Lightning Location Systems (LLS) that were in operation during the recordings. Several upward flashes were observed from 2012–2013 using GPS time-stamped optical sensors and electric field measurements. Time-correlated analysis shows the detection efficiency, misclassification percentage, and location accuracy for different LLS. We will also show how different upward flash processes (leader initiation, recoil leaders, return strokes) are detected and classified by the several LLS.