

The Climatic Context of Lightning Storms, Associated to Electric Systems Power Outages in Eastern Amazonia

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ABSTRACT:Operational records of power outages of the electric energy distribution systems of CELPA Rede Energia, attributed to lightning strikes, were analyzed for the 2006 to 2009 period. The Company's data were compared to actual lightning observations made by SIPAM's LDN system, over areas where three operational sub systems of transmission lines are installed. An attempt was made to relate the monthly lightning occurrence density, the number of power outages of the electric systems and the surface temperatures anomalies of the Pacific and Atlantic Oceans. The results showed that, although with some delays, the number of power disruptions has a tendency to follow the lightning occurrence densities variations. Additionally, evidence was found, that the SST may be used to prognosticate the periods of electric storms, as well as, those of power outages of electric systems over eastern Amazonia.

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