

Anomalously Electrified Storms in Colorado during DC3

Thunderstorm Charges and Currents

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A 15-station LMA network was set up and operated in north-central Colorado in conjunction with Colorado State University during the 2012 Deep Convective Clouds and Chemistry (DC3) field campaign. The observations show that the north Colorado storms have a variety of electrical structures, mostly anomalous. One result of this is that the storms have a noticeable deficit of CG lightning and that a high proportion of the CG discharges that do occur tend to be positive CGs, similar to storms observed during STEPS 2000 in eastern Colorado and western Kansas. In this study we document the kinds of electrical structures that are seen and compare them with those observed during STEPS and normal polarity New Mexico observations.