

Electrical characteristics of the lightning discharges generating long-recovery VLF events

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In this paper, we focus on the special type of early/fast VLF event so-called long-recovery VLF event to study its generation mechanism. We identify many long-recovery VLF events by using UEC's VLF/LF transmitter signal receiving network. Electrical properties of causative lightning discharges of the long-recovery events are presented based on both the peak current and electrical charge moment changes by the ELF waveform observations.

Keywords: long-recovery event, ionospheric perturbations, charge moment, early/fast event, lightning discharge