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## **Characteristics of Two Ground Grids Potentials By a Triggered Lightning Stroke**

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### **Abstract**

The ground grid potentials were rise significantly and very dangerous when the lightning currents are flowing through the grid. This paper analyzes the characteristics of the ground potential rise (GPR) and the transient responses of the ground grid when lightning current impulse the grid A (the active grid which injected with lightning currents), Analysis found that the impulse grounding resistance is about 86.5% of the DC resistance for larger currents such as 25.84 kA, and 1.4 times of the DC resistance for smaller currents such as 9.23 kA. The paper also Compared the voltage waveform characteristics of grounding grid A and grid B(the passive grid which is 40m apart to grid A) ,The transfer potential of grid B caused by return strokes due to grid A can reach tens of kilovolts, and the voltage peak is about 5% of the corresponding voltage peak of grid A

### **Topic Areas**

Lightning Safety, Protection, and Casualty Occurrence

### **Submission Format**

Oral