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Abstracts

Assessing GIC Risks in Fennoscandia: Insights from the September 2017 Geomagnetic Storm Using 1D and 3D Ground Conductivity Models

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Geomagnetically induced currents (GIC) are one of the most studied and potentially hazardous form of space weather impacts. Our latest research focuses on GIC estimation during the severe September 2017 geomagnetic storm.

We use IMAGE magnetometer data and 1-dimensional (1D) and 3-dimensional (3D) ground conductivity models for modeling the geoelectric field during the September 2017 storm. Then, we calculate GIC in a simplified model of the Finnish 400 kV power grid, contrasting the results obtained with the 1D and 3D methods. This analysis is important for assessing localized GIC risks across the Fennoscandia region, highlighting regions where the two methods produce the largest differences. We present preliminary findings of this study. This comparative analysis improves our understanding of regional vulnerabilities and the importance of conductivity model accuracy, ultimately contributing to better risk assessment and mitigation strategies for future space weather events.

EISCAT – The Road Ahead

Th Ulich(1,2) and the EISCAT Staff(1)

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At the end of 2024, the EISCAT Scientific Association transferred all their assets into a limited liability company EISCAT AB, which was registered on 25th November 2024. The Scientific Association will formally be closed later this year after the books for 2024 are closed. It is foreseen that EISCAT AB will continue the work of the Association, for the EISCAT users, in much the same way as before. However, due to legal requirements, the governance of EISCAT AB will differ from the Association, and we will outline the most relevant differences.

Furthermore, we will give an update on the status of the legacy systems UHF, VHF, ESR, and Heating. We will discuss the current status of the deployment of EISCAT_3D and speculate on what users may expect in 2025.