

Visit to Kilpisjärvi, Finland

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I visited Kilpisjärvi, Finland, to attend the EISCAT Radar School 2026 held at the Biological Station, Kilpisjärvi, from 17-21 August 2026. The school was attended by 19 students from across the world and 10 instructors who are associated with the EISCAT Radar system. The lectures consisted of detailed discussions on Plasma physics, Earth's ionosphere, Radar systems, analysis, signal processing, and data interpretation.

We, the students, were divided into 4 working groups of 4-5 members, and each group was allowed to run a 1.5-hour experiment that we proposed using the EISCAT VHF Radar, located in Tromsø, Norway. I was part of Group 1, and we proposed an experiment to observe the changes in the D- and E-regions occurring during the late sunset in summer over the North Pole. Our experiment was scheduled from 22:30 Finnish time to midnight. Incidentally, during this period, the Earth was experiencing a G1 geomagnetic storm. We observed signatures of auroral precipitation superimposed over the local sunset, which were observed as electron density, electron temperature, and ion drift velocity enhancements. Hands-on training on handling the EISCAT Radar data was provided by the experts. Interpretations and discussions using other available datasets, such as solar wind parameters, ground-based magnetic field, convection maps by SuperDARN radar, and ionosonde observations, were carried out, and a group presentation was delivered.

A visit to the EISCAT 3D Radar site in Skibotn, Norway, and the KAIRA (Kilpisjärvi Atmospheric Imaging Receiver Array) site was carried out.

Beyond the lectures and experiments, I also had the opportunity to experience local Finnish culture, interact with experts and fellow participants from different backgrounds, and exchange scientific ideas and perspectives.



Photo from the EISCAT 3D site in Skibotn, Norway