

EISCAT_3D Norway Newsletter

Newsletter Introduction

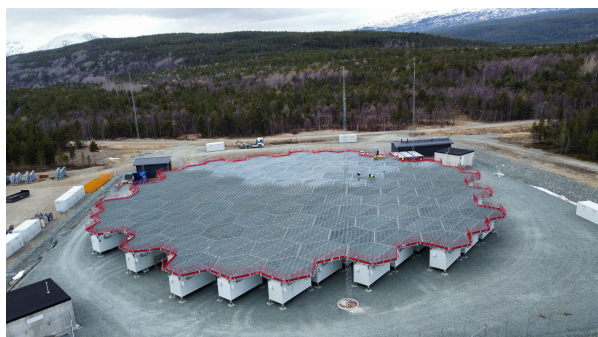
This newsletter is released every 3 months and covers recent space science contributions and developments involving the Norwegian EISCAT_3D community. Norwegian EISCAT news and contributions are also included. If you wish to be included in the mailing list for the newsletter distribution, please use the contact details at the bottom of the page. Previous newsletters are available on the EISCAT_3D Norway website.

EISCAT_3D Update

EISCAT_3D construction is progressing well. The EISCAT Scientific Association is currently installing the EISCAT_3D antennas at the transmitter site in Skibotn, Norway and at the receiver sites in Kaiseniemi, Sweden and in Karesuvanto, Finland. The current schedule is to start EISCAT_3D operations in 2023, first in the monostatic mode.

In parallel, EISCAT is planning to develop the legal status of the organisation in order to achieve long-term stability. The goal remains non-military scientific operations of the radar to study the Arctic upper atmosphere and ionosphere as well as geospace phenomena. Efforts will be made to reduce any negative impact of these changes on the EISCAT user community, allowing uninterrupted use of the facilities. Follow the updates of EISCAT_3D on <https://eiscat.se/category/eiscat3d/>

The picture below is of the Skibotn array, posted on May 10, 2023. Approximately 3/4 of the antennas are populated on the array. Electricity and fiber cable installations are expected to be currently underway.



Credit: EISCAT

EISCAT Norway Radar Time Allocation

The procedure to apply for radar time has been updated, with the following application deadlines.

70% of time is available for the **Feb. 1, 2023** deadline
30% of time is available for the **Sept. 14, 2023** deadline

Note that 30% of the radar time for 2023 will be reserved for initial EISCAT-3D operations for trigger modes. This data will be available to the full Norwegian EISCAT community.

These details are also available in a presentation posted under “Discussion and Newsletters” on the EISCAT_3D Norway website:
<https://uit.no/eiscat3dnorway>

INFRASTRUKTUR Project Outline for

EISCAT_3D

A project outline was submitted on behalf of the Norwegian EISCAT consortium for the 21 June 2023 deadline regarding funding from the National Financing Initiative for Research Infrastructure (INFRASTRUKTUR). This is a prerequisite for submitting applications. The project outline includes a 5-year extension of the EISCAT membership to secure Norwegian participation through the early implementation phase of EISCAT_3D, thereby ensuring that Norway benefits from its investments. It also includes a pre-study to ensure the future energy efficient ESR operation. This sketch was prepared on behalf of the Norwegian EISCAT consortium by the project manager, the project administrator, and the project board of the RCN project 245683 including representation from UiB, UiO, UiT, NTNU, UNIS and Andøya Space.

International EISCAT Radar School

The International EISCAT Radar School will be held August 14–18, 2023 in Kilpisjärvi, Finland and is hosted by Sodankylä Geophysical Observatory (SGO). For more information, please visit the following link:

<https://www.sgo.fi/Events/RS2023/>

47th Annual European Meeting on

Atmospheric Studies by Optical Methods

The 47th Annual European Meeting on Atmospheric Studies by Optical Methods will be held in Stockholm, Sweden, on August 20-24, 2023.

Meeting topics include:

- (1) New developments in optical instrumentation from the ground, space and other platforms.
- (2) Optical science from the troposphere to the thermosphere/ionosphere, including:
 - atmospheric composition, aerosols and clouds
 - airglow
 - aurora
 - noctilucent clouds
 - meteors
 - sprites, jets etc.
- (3) Optical calibration techniques.
- (4) Analysis techniques.
- (5) Optical atmospheric measurements in education.

More information will be posted on the meeting website:
<http://www.su.se/misu/opticalmeeting>

EISCAT Symposium 2024

The EISCAT Symposium is held every 2 years and there are plans for Norway to host the meeting in the late summer or autumn of 2024. The Space Physics group at UiT has agreed to organize. Exact dates and details are still to be determined.

Recent EISCAT Norway Publications

Ma, Y.-Z., Zhang, Q.-H., Lyons, L., Oksavik, K., Xing, Z.-Y., Hairston, M., et al. (2023). A comparative study on the hot dense plasma and cold patch by using multi-instrument observations. *Journal of Geophysical Research: Space Physics*, 128, e2022JA031166. <https://doi.org/10.1029/2022JA031166>

Zhang, D., Zhang, Q.-H., Oksavik, K., Xu, T., Xing, Z.-Y., Lyons, L. R., et al. (2023). Do the throat auroras create polar cap patches? *Geophysical Research Letters*, 50, e2022GL102263. <https://doi.org/10.1029/2022GL102263>

Future International EISCAT 3D Meetings

Information about EISCAT and EISCAT_3D User Meetings is distributed via the mailing list moderated by EISCAT. To subscribe, email listmaster@eiscat.se. A Slack account is also organized for EISCAT_3D Discussions. To receive an invitation for the Slack channels, email channelmaster@eiscat.se.

Questions, Suggestions, Changes?

The next newsletter will be released in September, 2023. If there are any questions about EISCAT_3D, suggestions for the format of this newsletter, or changes that should be implemented, please let us know with the contact information at the bottom of the page. Thank you.

