

Total Hour: 16 hours of EISCAT

UHF radar and Tromsø heater for the SEE campaign.

Name:

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Purpose:

The O-mode SEE experiment aims to develop remote sensing tool for ionospheric plasma parameters based on the SEE spectrum.

Requirement:

1. Low solar activity;
2. $F0f2 > 3f_{ce} = 4.04$ MHz;
3. 2 hours per day, 4 Times;
4. 1 hour as 1 cycle;
5. Universal time (UT) 10-12; (Check dynsonsd data for foF2) [1]
6. Check Galileo Satellite flyover time

Instrument:

1. HF heater (8 hour)
2. UHF incoherent radar (8 hour)
3. Ionosonde (2 minute)
4. SEE receiver
5. Coordinated ALOS-2 SAR or GNSS or EM Satellite. Check availability of GNSS receivers.

HF Heater:

1. Pump beam O-mode polarized.
2. Pointed field aligned (12 degrees south of zenith).
3. Full power
4. The pump was cycled 22 min on, 8 min off. One 30 min cycle contains:
 - a. 22 minutes on: The frequency stepping from 3.9 MHz to 4.3125 MHz; Step upwards by 3.125 kHz every 10s
 - b. 8 minutes off
5. Repeat 4 times continuously for two hours in a day.
6. Repeat the same experiment at the same local time for another three days.

Ref:

[1] https://dynserv.eiscat.uit.no/DD/Iono_form.php