

## KST UHF/VHF radars operation memorandum for an experiment on 17-18 November 2010

### [General information]

Experiment name & PI : Reimei\_UHF/Reimei\_VHF; Prof. M. Hirahara  
Scheduled start/end time : 2010-11-17 22:00 – 2010-11-18 02:00 UT  
Pulse scheme (so-called type if any such as “CP1”) : CP1 tristatick for UHF; vertical for VHF  
elan file : beata for both (but employed F14 for the UHF instead of F12)

operator(s) : S. Oyama/K. Kubota  
experiment before us : N/A  
experiment after us : N/A

Recording start at : 22:06 on 17 November 2010 for UHF; 22:00 on 17 November 2010 for VHF  
Recording stop at : 01:59:50 on 18 November 2010 for the both radars

### [Weather information]

cloudy

### [Heating operation]

no

### [Co-operated instruments]

- Optical instruments at Tromsø
  - STEL: FPI, ASCs (ASC12, Proton), photometer, DC
  - NIPR: DC

### [Description of the experiment]

We conduct coordinated EISCAT-Reimei observations of nightside auroral phenomena. We will also run several optical instruments (e.g., All sky and wide view TV imagers) in the EISCAT Tromsø site. CP-1/CP-3 mode (with beata code) will be used for the UHF radar.

### [Memorandum]

time	comment
21:30	The kiruna site had something trouble. Call an engineer. He is driving to the site from home.
21:44	@VHF: <b>runexp /kst/exp/beata/beata 21:50 zenith NI</b>
21:53	@VHF: <b>at 22:00 enablerec</b>
22:04	@UHF: <b>rem ksu runexp /kst/exp/beata/beata fmcpl NI 250</b>
22:06	@UHF: <b>rem ksu enablerec</b>
22:08	@UHF: <b>kir webtg</b>
22:08	@UHF: <b>sod webtg</b>
22:15	VHF/UHF guisdap analysis start
01:15	@UHF: <b>rem ksu stopexp 01:59:50</b>
01:15	@VHF: <b>stopexp 01:59:50</b>

### [Data directory]

- @EISCAT
- @STEL
- @personal HD

### [Brief summary of the experiment]

The ionosphere got to be in active around 23:20UT, although it was very quiet before that. The UHF and VHF radars detected these signals very clearly. After that, the E-region enhancement remained by the end of experiment. From 01:15 to 01:45 UT, the electron temperature and the LOS ion speed have an interesting signature on the VHF radar data.