

KST UHF radar operation memorandum for an experiment on 30 January 2014

[General information]

Experiment name & PI : MIT_Aurora; K. Shiokawa, Y. Miyoshi, S. Oyama
Scheduled start/end time : 0000 – 0600 UT
Pulse scheme (so-called type if any such as “CP1”) : CP1
elan file : beata

operator(s) : Shin-ichiro Oyama
experiment before us : FR
experiment after us : N/A

Recording start at : 00:05
Recording stop at : 05:59:59

[Weather information]

Clear sky all the night

[Heating operation]

NO

[Co-operated instruments]

- VHF radar
 - manda vertical under CP
- ESR 32 m
 - SP_NI_PCA
- ESR 42 m
 - SP_NI_PCA
- Optical instruments at Tromsø
 - Run all instruments

[Description of the experiment]

This experiment focuses on causality to produce hard-particle precipitation and its effects on the ionosphere and thermosphere after substorm onset and in pulsating aurora. UHF and VHF collaborate with optical instruments at the site. Auroral activity in the clear sky is desirable. VHF keeps looking vertical to measure mainly lower ionosphere, and UHF covers whole ionosphere.

[Memorandum]

time	comment
00:01	pointdirection 186.20 77.50
00:02	setacu standby ← by engineer
00:01	pointdirection 186.20 77.50
00:04	runexp /kst/exp/beata/beata fm cp1 NI
00:05	rtg
00:05	enablerecording
00:10	real time guisdap analysis
02:05	temporally transmitter stopped
02:07	fixed
02:48	temporally transmitter stopped
02:50	fixed
05:40	stopexp 05:59:59
05:46	temporally transmitter stopped
05:48	fixed
05:40	stopexp 05:59:59
06:00	UHF stopped as on schedule

[Brief summary of the experiment]

At the first half of experiment, geomagnetic activity was relatively low; but the C-form can be seen. At the second half, from 03UT, hard particle had precipitated for a couple of hours in association with IMF Bz turning to south. Pulsating aurora was measured with optical instruments. The sky was clear all the night.