

## KST UHF radar operation memorandum for an experiment on 29 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 : 00:01  
Recording stop at : 05:59:59

### [Weather information]

overcast at the beginning of the SP; later getting better

### [Heating operation]

NO

### [Co-operated instruments]

- VHF radar
  - manda vertical under CP
- ESR 32 m
  - runexp /kst/exp/ipy/ipy 8:00 ip2
- ESR 42 m
  - runexp /kst/exp/ipy/ipy 8:00 ip2
- 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
23:29	<b>pointdirection 186.20 77.50</b>
23:44	<b>runexp /kst/exp/beata/beata fm cp1 NI</b>
23:55	rtg
00:01	<b>enablerecording</b>
00:10	real time guisdap analysis
00:59	guisdap analysis stopped; “Vizu: No new data!”
01:10	restart guisdap → fixed
05:40	<b>stopexp 05:59:59</b>
06:00	UHF stopped as on schedule

### [Brief summary of the experiment]

The experiment started after a substorm onset. At the first half of the experiment, the sky was overcast; but at the second half, sky condition was getting better. Aurora activity was moderately high.