KST UHF operation memorandum for the January 25, 2009 experiment
$12^{\text {th }}$ day DELTA-2 campaign: LAST DAY!!!! Launched !!!!

Experiment name: DELTA2: beata (CP2)
pointrheight 185.877 .4299 .6
elan files:puny :/kst/exp/ni/beata/beata

Pulse scheme: beata
Start time: 17:00 UT on January 25, 2009
End time:05:00 UT on January 26, 2009
Participants: Satonori Nozawa, Yasunobu Ogawa, and Shi-ichiro Oyama.

Before our experiment: ip2
After our experiment: Nothing

Other instruments.
Photometer, STEL digital camera (1-min interval), STEL proton imager (1-min interval).

Note: (time in UT)
January 25, 2009
Clear sky, and -7 deg.

Today, use cp 2 w where two beams are pointed westward instead of eastward directions

16:43 run /kst/exp/ni/beata/beata 16:48 cp2w NI
16:59 Tx up

17:00 enablerec
at EROS5 console (UHF)
17:05 1.4 MW

18:03 Tx down
17:56 recovered
1.36 MW

The ionosphere is quiet.

20:10 stopexp
20:13 restart " 12 min cycle"
run /kst/exp/ni/beata/beata 20:00 cp2w_12 NI
enablerec

### 1.34 MW

The ionosphere is still quiet. The faint aurora appeared in the north.

22:19 stopexp

22:20 The aurora activity gets higher!
22:25 run /kst/exp/ni/beata/beata 22:12 cp2w NI enablerec
1.3 MW

January 26, 2009

00:15 The rocket was launched
00:25 AURORA BREAKUP

02:02 Tx off
02:04 recovered

04:59:59 stopexp

## Summary

The activity of the ionosphere was low for 5 hrs from the beginning. After 2200 UT, the ionosphere above Tromso exhibited an activity.

At 00:25 aurora break up!
cp2w
Cycle time $=6 \mathrm{~min}$
V(180, 90) 1'10"
W (193.5, 64.0) 1'00"
WM (226.7,61.6) $0^{\prime \prime} 55^{\prime \prime}$
FA (185.8, 77.4) 0'50"
cp2w_12
Cycle time $=12 \mathrm{~min}$
V(180,90) 2'45"
W (193.5, 64.0) $2^{\prime} 35^{\prime \prime}$
WM (226.7,61.6) $2^{\prime} 30^{\prime \prime}$
FA $(185.8,77.4) 2^{\prime 2} 2{ }^{\prime \prime}$
cp2_12
Cycle time $=12 \mathrm{~min}$
FA $(185.8,77.4) 2^{\prime} 45^{\prime \prime}$
E ( $166.5,59.4$ ) 2'40'
EM (133.3, 56.8) 2'30
V(180, 90) 2"30"

