**AGU Abstract**

Preliminary Results from the SERSIO Experiment  
P. Kintner and E. Klatt, Cornell University  
K. Lynch, M. Lessard, and K. Frederick-Frost, Dartmouth College  
J. Moen and K. Oksavik, University of Oslo  
D. Lorentzen. F. Sigernes, and J. Holmes UNIS  
Y. Ogawa, Nagoya University  
M. Lester, University of Leicester  
B. Denig, AFRL  
D. Evans, NOAA  
  
  
The SERSIO (Svalbard EISCAT Rocket Study of Ion Outflows) was conducted during the month of January 2004 and culminated with the launch of the SERSIO sounding rocket from Svalbard on January 22, 2004 at 08:57 UT. "The launch conditions consisted of pulsed auroral emissions dominated by a strong 630.0 nm [OI] aurora located just equatorward of the LYR and NYA zenith, ion upflows exceeding 500 m/s and naturally enhanced ion-acoustic lines in the radar echoes. The event began at approximately 0850 UT and lasted for about one hour. The event followed by eight hours the arrival of a CME at 0105 UT and the event began with a period of strongly northward IMF (25 nT). The payload reached an altitude of 780 km encountering regions of ELF and VLF waves along with electron fluxes mostly below 1 keV. The particle measurements were supported by nearby passes of two DMSP spacecraft (F-14 and F-14), two NOAA spacecraft (NOAA-15 and NOAA-16) and the CUTLASS radar. We present the preliminary results from the imagers, EISCAT radars, CUTLASS radars, satellites, and rocket experiment.