3rd VERSIM Workshop 2008 Tihany, Hungary 15th – 20th September 2008

Satellite and ground based observations of a large-scale electron precipitation event – preliminary results

R.J. Gamble¹, C.J. Rodger¹, M.A. Clilverd², N.R. Thomson¹, M. Parrot³, J.-A. Sauvaud⁴ and J-J. Berthelier⁵

¹Department of Physics, University of Otago, Dunedin, New Zealand ²Physical Sciences Division, British Antarctic Survey (NERC), Cambridge, United Kingdom ³LPCE/CNRS, Orléans, France ⁴CESR, Toulouse, France ⁵CETP, Saint Maur des Fosses, France

In this study we compare DEMETER electron spectra with AARDDVARK measurements of relativistic electron precipitation (REP) during the 21 January 2005 storm period. Augmenting large-scale regional observations from an array of ground-based VLF measurements with detailed in situ measurements from the satellite allows us to determine the spatial extent of the precipitation in addition to its energy distribution, providing a more complete picture of the impact that this precipitation has on the upper atmosphere.