Geophysical Research Abstracts,
Vol. 11, EGU2009-11477, 2009
EGU General Assembly 2009

Towards a new assimilative model for European STP

I. McCrea (1), M Pinnoock (2), and A Aylward (3)

(1) Rutherford Appleton Laboratory, Chilton, Oxfordshire, UK (i.w.mccrea@rl.ac.uk), (2) British Antarctic Survey, Cambridge, UK (mpi@bas.ac.uk), (3) University College London, London, UK (a.aylward@ucl.ac.uk)

We will report on a new initiative to produce an assimilative model for the ionosphere, thermosphere and plasmasphere. In this proposal, which is being brought forward by a consortium of UK groups, University College London's CMAT/CTIP code will be taken as the underpinning model. We plan to assimilate measurements such as GPS TEC values into the model, in order to constrain its predictions to more closely follow the actual development of the ionosphere. The objective is to produce a solar cycle (11 years) of upper atmosphere parameter fields for both the neutral and ionised atmosphere, enabling climatology studies. The consortium is keen to form collaborations with other groups that can assist in validating the model output. We also hope to collaborate in using the model to better inform the physics controlling phenomena such as ionosheric storms and in providing improved field data to better constrain other models.