Japan Geoscience Union Meeting 2013

(May 19-24 2013 at Makuhari, Chiba, Japan)

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PEM06-06 Room:304 Time:May 21 12:30-12:45

MIT: a Chinese Space Mission in Pre-study Phase

Yong Liu^{1*}, Chi Wang¹, Jiyao Xu¹

MIT is short for Magnetosphere-Ionosphere-Thermosphere Coupling Constellation Mission. It is designed to study the coupling between magnetosphere, ionosphere and thermosphere. The scientific objective of the mission is to focus on the outflow ions from the ionosphere to the magnetosphere. The constellation is planning to be composed of four spacecrafts, each spacecraft has its own orbit and crosses the polar region at the nearly the same time but at different altitude. With different payloads onboard each spacecraft, we will be able to track the polar upflow ions and study the acceleration mechanism at different altitude. Currently the we are investigating the orbit, the payloads and the strategy for the spacecraft. This phase will end in Oct, 2014, then it will compete for next phase selection.

Keywords: Ion upflow, magnetosphere-ionosphere coupling, space mission

¹State Key Laboratory of Space Weather, National Space Science Center