

Supporting Information for
“Segmentation of Storm Enhanced Density (SED) by Boundary Flows
Associated with Westward Drifting Partial Ring current”

Zihan Wang¹, Shasha Zou¹, Thomas Coppeans¹, Jiaen Ren¹, Aaron Ridley¹, Tamas Gombosi¹

¹Department of Climate and Space Sciences and Engineering, University of Michigan, Ann Arbor, MI, United States

Additional Supporting Information (Files uploaded separately)

1. Captions for Movies S1 to S4

Introduction

Movie S1.

A movie of the polar view of TEC and AMPERE FACs in the geomagnetic coordinates from 2100 to 2400 UT.

Movie S2.

A movie of the polar view of modeled electron density (color contours) at 349.4 km under electric equipotential (contour lines) in geographic coordinate from 2100 to 2400 UT. The black diamond represents the north magnetic pole.

Movie S3.

A movie of the polar view of modeled FACs (color contours) under electric equipotential (contour lines) in the geomagnetic coordinates from 2100 to 2400 UT. The green dashed line represents the open-closed field line boundary.

Movie S4.

A movie of the modeled plasma thermal pressure in the $z=0$ plane in the GSM coordinates from 2100 to 2400 UT.

Corresponding author: Zihan Wang, wzihan@umich.edu