

3-Dimensional Global MHD Simulation of Earth's Magnetosphere on the Event on November 17, 1996

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Event on November 17, 1996 has been studied by using a 3-dimensional global magnetohydrodynamic (MHD) simulation of interaction between the solar wind and the earth's magnetosphere when the WIND observation in the upstream was used as input of simulation. The IMF z component changed its sign for a few times on the event. The WIND satellite observation of the solar wind and magnetic field every 1 minute were used as input of the simulation. The input data are the solar wind number density, x-component of velocity, plasma pressure and IMF y and z components in the GSM coordinates. We try to compare the simulation results with SuperDARN observations.