



Interplanetary shock passed through the Earth's magnetosphere

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An interplanetary shock passed through the Earth's magnetosphere. It is fortunately that five satellites GOES10, GOES12, TC-1, Cluster and Geotail gradually observed the responses of magnetosphere to the shock. The IMAGE satellite took a series of aurora pictures which clearly show the dayside aurora then the expansion of midnight aurora. The five satellites, locating in the equatorial plane, displayed the propagation of interplanetary shock into the Earth's magnetosphere. The particles were accelerated in the near-Earth tail and formed the strong BBFs. The responses of the plasma sheet to the shock are asymmetric at dawn and dusk side.