

Solar storm effects on the induced magnetospheres of Venus and Mars

A. Opitz (1), O. Witasse (1), K. Szego (2), D. Vech (2) and H. Opgenoorth (3)
(1) European Space Agency / ESTEC, Noordwijk, The Netherlands, (2) Wigner RCP, Space Department, Budapest, Hungary, (3) Swedish Institute of Space Physics, Uppsala, Sweden (aopitz@rssd.esa.int)

Abstract

We compare in detail the effects of coronal mass ejections on the plasma environment of Venus and Mars. These are unmagnetized planets with ionosphere that interacts directly with the solar wind. This interaction creates their induced magnetosphere that is highly dependent on the solar wind variations. We aim to differentiate the effects of the interplanetary coronal mass ejection shock front, its sheath and the magnetic cloud. The planets' bow shock is studied both at the nose and the flank.