

ABSTRACT

The engulfment of Pioneer V with solar plasma on March 30, 1960, and the later measurement of high interplanetary magnetic field (IMF) by the probe were interpreted as of solar origin. Studies and analysis of that event showed that the maximum IMF was measured six hours after that engulfment and two hours after been measured by Honolulu earth station. Such IMF is thought to be produced at around 12.5RE within the magnetosheath in form of an external magnetic field (ExMF). A suggestion which can easily be tested by two probes such as NASA THEMIS satellites, as it is crucial for the current human knowledge, which is seeking such mechanism for related energization process. Fig.1. Re-analysis of March 30/31, geomagnetic storms, by combining Fig.2.a&b Coleman et al. [1961], with Fig.2-A Fan et al. [1960]. The figure shows the following sequence: Starts of the solar flare, plasma arriving at Pioneer V (no detection of an embedded solar field), arrival to the earth, registration of Horizontal field at Honolulu, and high magnetic field measured 6 hours later at Pioneer V satellite.