



## **Motions of the Earth's magnetotail at the distance of the Moon: multi-spacecraft observations**

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Artemis two-probe plasma and magnetic field observations are analyzed in the distant magnetotail on 19-20 November 2010, when the solar wind speed direction changed slowly and the orientation of the interplanetary magnetic field changed from northward to southward under IMF  $B_y < 0$  nT. Artemis observations compared to Geotail and Cluster data in the post-terminator magnetosheath provide evidence for successive large-scale motions of the distant magnetotail accompanied by the motion of magnetopause boundary over the Artemis spacecraft. The consecutive events last  $\sim 18$  hours, during which time repeatedly reappearing strahl electrons indicate the crossing of open/closed magnetic field lines. The large-scale motions are associated with increased upstream static pressure and directional changes of the solar wind speed.