



Changes of the magnetopause locations as a consequence of the IMF BZ component variations.

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We have collected data set of more than 7000 crossings of the subsolar and flank low-latitude magnetopause observed by five Themis spacecraft in course of the 2007-2009 years and analyzed the difference between observed magnetopause radial distances and those predicted by an empirical magnetopause model. The empirical models usually scale a second order surface with respect to the solar wind dynamic pressure and IMF Bz component but the spread of observed magnetopause locations with respect to predicted values is rather large.. The data propagated from the L1 point as well as the measurements of the near-Earth solar wind monitors (whenever available) were used as model inputs. We discuss the influence of upstream parameters and mainly a role of the IMF BZ component and compare these effects in different local times.