



Modification of the LLBL structure under radial IMF conditions

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A clear dependence of a basic structure of two sublayers of the low-latitude boundary layer (LLBL) on northward and southward interplanetary magnetic field (IMF) orientations was presented. The outer part of the LLBL is present under northward IMF conditions, however, it is missing during a southward pointing IMF. This behavior can be understood in terms of a motion of reconnection spots due to the changes of the orientation of the magnetosheath magnetic field in the vicinity of the magnetopause. However, the other IMF orientations have not been studied in detail up to now. This paper is devoted to the structure of the LLBL and an evolution its outer and inner parts under a radial IMF orientation. We argue that the LLBL structure is determined by magnetosheath magnetic field direction that is affected by IMF draping.