

Anti-SCA caused by sudden magnetospheric expansions

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The sharp decrease of the solar wind pressure and its influence on the magnetosphere and ionosphere are investigated. This event is quite different from usual SC increase and is defined as a negative sudden impulse SI^- . During the event the behavior of low- and high-latitude magnetic variations and auroral absorption are investigated. Several successive negative impulses with periodicity of 45min were observed at low-latitude magnetic observatories. Simultaneously several gaps have been observed in the ionospheric absorption level. The shape of absorption gaps has an appearance different from that of sudden commencement absorption (SCA). We called them anti-SCA. The nature of these gaps may be connected to rotational electric field changes caused by sudden decreases of magnetospheric magnetic field. Some simulations related to oscillations of the magnetosphere as a whole are presented.