

Solar wind control of the intensity of the emission observed by IMAGE/LENA in the direction of the high-latitude sheath

Akira Nakao[1]; Satoshi Taguchi[1]; Keisuke Hosokawa[1]; Atsushi Yamazaki[1]; Michael R. Collier[2]; Thomas E. Moore[2]

[1] Univ. of Electro-Communications; [2] NASA GSFC

The emission intensity observed by IMAGE/LENA in the direction of the high-latitude sheath has been examined in connection with ACE solar wind observations. We first took intervals during which LENA observed significant emission in the direction of the high-latitude sheath. For each case, we estimated the time lag between ACE and the Earth by comparing the ACE solar wind dynamic pressure with the ground SYM-H index. The detailed comparison revealed that there are good correlations of the LENA intensity with several functions of the solar wind number density, and that the correlations can be higher when IMF Bz is considered.