

## Remark on paper by Y.I.Feldstein "Magnetospheric sources of auroral luminosity during the steady magnetospheric convection"

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There are several points in the paper by *Y.I.Feldstein* (this issue) which could be disputed, but here I would like to make only a short remark related to interpretation of Fig.1k from paper by [*Yahnin et al.* 1997]. That figure showed the particle data from the part of the NOAA-6 satellite orbit 12542 for interval 20:41-20:46 UT of Nov. 24, 1981. The precipitation of low energy electrons registered at latitudes  $72.5^{\circ} < \Phi < 76^{\circ}$  ( $76^{\circ}$  was the upper limit of invariant latitude shown in Fig 1k by Yahnin et al) has been interpreted by *Feldstein* (this issue) as a specific structure -- PDAZ.

Figure 1 represents the same data, which have been discussed by *Y.I.Feldstein*, but for the whole northern polar region crossing. One can see that in fact a flux of low energetic electrons of the same intensity has been registered *across the whole polar cap*. Main contribution to the energy flux inside the polar cap was due to precipitation of the  $<1$  keV electrons (data not shown). There was no detectable low-energy proton precipitation associated with this electron flux. Thus, it can not be the PDAZ. More likely it is the "polar rain" precipitation that is a signature of open field lines. The particle spectrograms from the DE-2 satellite (courtesy of D.Winningham, data not shown) for several polar cap crossings during the day of Nov 24, 1981 also show clear evidence of the existence of the polar rain.

In this respect, the credit to the paper by *Y.I.Galperin and J.-M.Bosqued* who considered just the same SMC interval using Aureol-3 data seems to be also inappropriate.

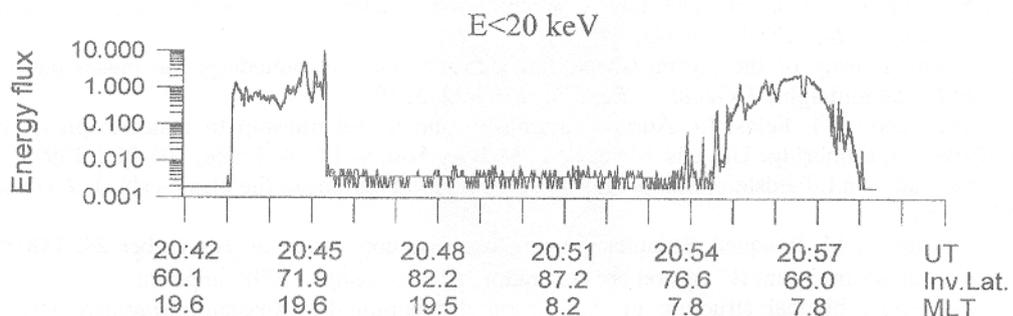


Figure 1