



Relativistic electrons during high speed solar wind streams

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The polar orbiting NOAA 12 and 14 spacecraft are used to monitor relativistic electrons in the outer radiation belt, in the L-range 3 to 7, through several years. The connection between the intensity of relativistic electrons and high-speed solar wind streams seems clear. During the recovery phase of storms, in combination with high-speed solar wind streams, the intensity of the observed relativistic electrons in the outer belt increases. The dynamics of the relativistic electrons in the outer radiation belt is observed through four magnetic local time (MLT) sectors. There is a clear MLT dependence in the intensity of the relativistic electrons. This indicates that the loss processes for relativistic electrons into the atmospheric loss cone has a local time dependence.