

**THE ULYSSES FAST LATITUDE SCAN AT SOLAR MAXIMUM:
COSPIN/LET ENERGETIC PARTICLE OBSERVATIONS**

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Having completed the second survey of the southern polar regions of the heliosphere in late 2000, the Ulysses spacecraft is presently engaged in its second so-called Fast Latitude Scan (FSL). During this phase of the out-of-ecliptic orbit, the spacecraft makes a rapid transit from south to north, covering 140° in solar latitude in less than 230 days at relatively constant radial distance from the Sun. In contrast to the first FSL in 1994/95 that was characterised by near-minimum solar activity conditions, the current south-to-north transit is taking place near solar maximum. Striking differences in the signatures of energetic particles are already apparent when comparing the first and second south polar passes, and it is expected that this will also be the case for the two FSLs. The recurrent, CIR-related particle increases seen in 1994/95 have been replaced by large numbers of transient events, with flux enhancements continuing unabated up to the highest latitudes. In this paper, we follow the progress of the energetic particle events recorded by the COSPIN/LET experiment on board Ulysses as the spacecraft returns to low latitudes, and interpret the observations in the light of the local plasma conditions, associated solar activity, and the changing position of the spacecraft.