



Particle precipitation at the poles

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Precipitating solar energetic particles ionize the atmosphere and thus influence atmospheric chemistry. This is visible e.g. in the depletion of ozone following a solar energetic particle (SEP) event. The conventional approach in modelling is the assumption that SEPs precipitate homogeneously over the polar cap with a flux corresponding to that in interplanetary space. We use data from the polar-orbiting satellite POES to test this hypothesis and determine intrusion ratios in the polar cap depending on the polarity of the interplanetary magnetic field and spatial location. Possible hemispheric differences will be addressed, too.