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TGF dependence on magnetic latitude and solar zenith angle

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Terrestrial Gamma Ray Flashes (TGF) are short lived gamma rays associated with lightning events, but exactly where and how they are produced is not known.
TGFs are most likely bremsstrahlung produced by relativistic electrons accelerated in a run-away process, which requires a seed population of relativistic electrons.
Some theories suggests that cosmic rays can provide this seed population. As the cosmic rays are affected by the magnetic field of the Earth the TGF occurrence should have a magnetic dependence.
The altitude of the TGF production is not known either. If the production is inside the thunderclouds we expect a dependence between TGF detection from space and tropopause altitude. We are using the mid day solar zenith angle of the TGF detection as an estimation of the tropopause altitude. We have examined 976 TGFs from the RHESSI catalogue detected from 3 March 2002 to 6 September 2010 to look for any relation between TGF occurrence and both magnetic latitude and solar zenith angle.