Meteorological Context of RHESSI Terrestrial Gamma-ray Flashes

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The Reuven Ramaty High Energy Solar Spectroscopic Imager (RHESSI) has detected over 750 Terrestrial Gamma-ray Flashes (TGFs). The RHESSI data provide a large database for statistical studies of TGF characteristics and production environments, such as location and storm type and evolution. We present a statistical comparison of the spectral characteristics and brightness of RHESSI TGFs detected over land and sea. We also examine the timing of TGF events with respect to the storm evolution. The development stage of the storm is estimated from the time sequence of cloud to ground sferics measured by the World Wide Lightning Location Network (WWLLN). Finally we attempt to localize a few TGFs by identifying isolated thunderstorm events that occur in the RHESSI footprint.