Terrestrial Gamma-ray Flashes as Seen by RHESSI

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NASA's Reuven Ramaty High Energy Solar Spectroscopic Imager (RHESSI) satellite has been detecting terrestrial gamma-ray flashes (TGFs) since its launch in February, 2002. These data have allowed us to confirm that TGFs are the result of relativistic runaway of electrons; to constrain the production altitude to between roughly 10 and 20 km; and to associate the TGFs that are seen from space with intracloud lightning. I will review these results, describe the status of current work with the RHESSI data, compare RHESSI's capabilities to past and future missions, and describe RHESSI's direct observation of an electron beam associated with a TGF on January 17, 2004.