



## **The First Fermi Gamma-ray Burst Monitor (GBM) Terrestrial Gamma-ray Flash (TGF) Catalog**

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We present summary results from the first catalog of Terrestrial Gamma-ray Flashes (TGFs) detected with the Gamma-ray Burst Monitor (GBM) on the Fermi Space Telescope. The catalog reports parameters for over 2700 TGFs. Since the launch of Fermi in 2008 the TGF detection sensitivity of GBM has been improved several times, both in the flight software and in ground analysis. Starting in 2010 July individual photons were downloaded for portions of the orbits, enabling an off-line search that found weaker and shorter TGFs. Since 2012 November 26 this telemetry mode has been extended to continuous coverage. The TGF sample is reliable, with cosmic rays rejected using data both from Fermi GBM and from the Large Area Telescope on Fermi. The online catalog include times (UTC and solar), spacecraft geographic positions, durations, count intensities and Bayesian Block durations. The catalog includes separate tables for bright TGFs detected by the flight software and for Terrestrial Electron Beams (TEBs).