Swift Observations of GRB 110827A

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1 Introduction

At 00:01:52 UT on 2011-08-27, the Swift Burst Alert Telescope (BAT) triggered and located GRB 110827A (trigger=501520). Swift could not slew to this burst due to a sun-constraint until 2011-09-05. No observations with the narrow-field instruments are planned.

2 BAT Observation and Analysis

At 00:01:52 UT on 2011-08-27, the Swift Burst Alert Telescope (BAT) triggered and located GRB 110827A (trigger=501520, Zhang et al., *GCN Circ.* 12310). Using the data set from T-61 s to T+242 s, the BAT ground-calculated position is RA, Dec = 164.059, 53.817 deg which is

RA(J2000) = 10h 56m 14.2s

Dec(J2000) = $+53^\circ\ 49'\ 01.2''$

with an uncertainty of 2.2 arcmin, (radius, sys+stat, 90% containment). The partial coding was 100% (Sakamoto et al. *GCN Circ.* 12312).

The mask-weighted light curve shows a single peak starting at T-15 s, peaking at T+5 s and returning to background by T+35 s. At T+195 s, a pre-planned slew moved the source out of the field of view. T_{90} (15-350 keV) is 8.5 ± 1.1 s (estimated error including systematics).

The time-averaged spectrum from T-2.9 s to T+6.3 s is best fit by a simple power-law model. The power law index of the time-averaged spectrum is 1.24 ± 0.27. The fluence in the 15-150 keV band is $1.8 \pm 0.3 \times 10^{-7} erg\ cm^{-2}$. The 1-sec peak photon flux measured from T+2.12 s in the 15-150 keV band is $0.4 \pm 0.1\ ph\ cm^{-2}\ s^{-1}$. All the quoted errors are at the 90% confidence level.

3 XRT and UVOT Observations

Because of the Sun constraint Swift did not observe the burst with its narrow field instruments. No further observations of this burst are planned.

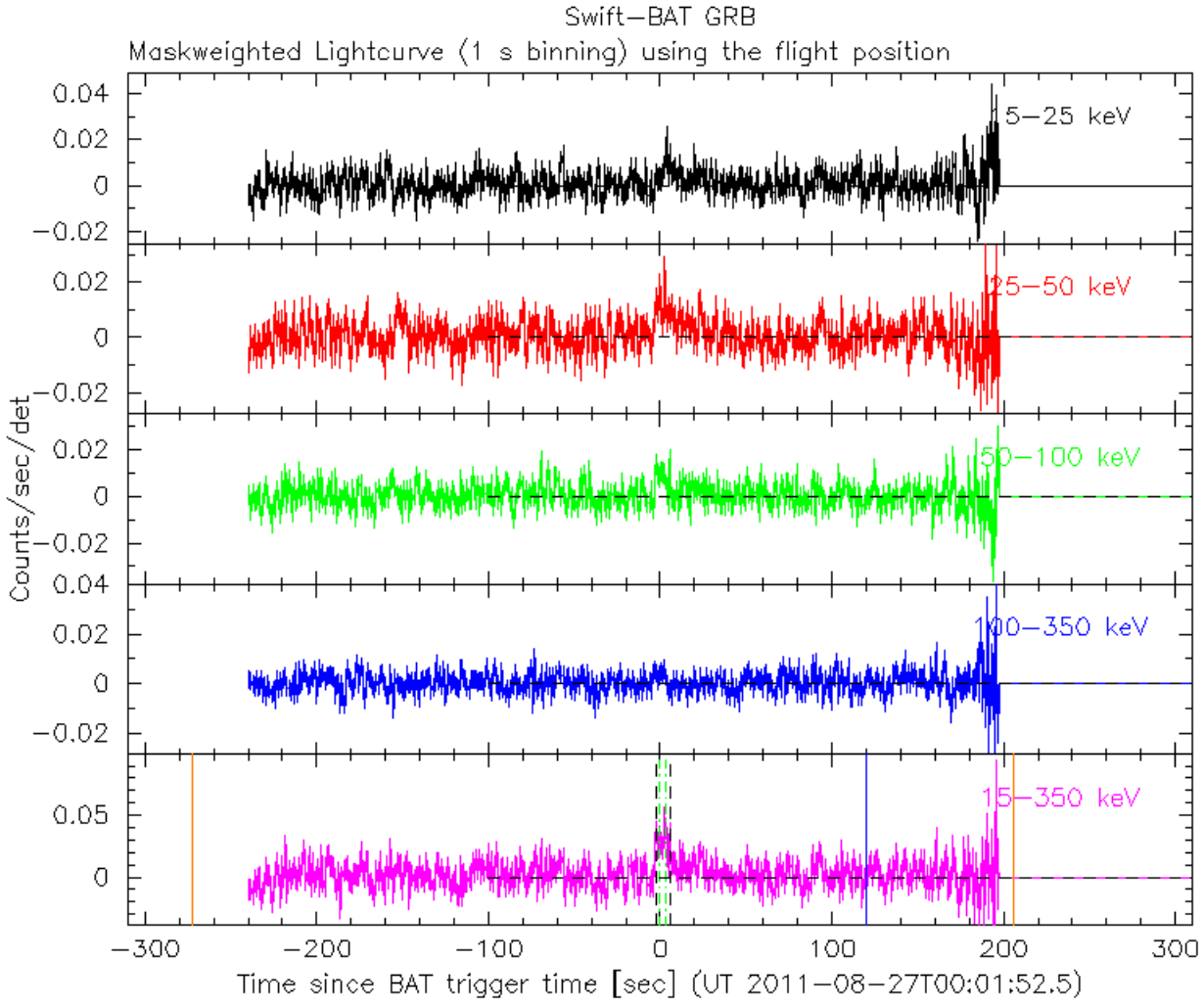

Figure 1: BAT Light curve of GRB 110827A. The mask-weighted light curve in the 4 individual plus total energy bands. The units are $counts\ s^{-1}\ illuminated-detector^{-1}$ and T_0 is 2011-August-27 00:01:52 UT.