## GCN Report 127.1 21-Apr-08 Swift Observation of GRB 080408

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## 1 Introduction

SuperAGILE triggered on and localized GRB 080408 on 2008 Apr 8 at 18:12:48 UT (Soffitta et al., 2008, GCN Circ. 7571. The observed duration of the burst in the 20–60 keV band was  $\sim$ 20 s, with a single pulse structure. Swift started observing this field  $\sim$ 25 ks after the trigger. A source was detected inside the SuperAGILE error circle by the XRT, but no UVOT source was seen (Page 2008, GCN Circ. 7576). GROND detected a fading optical and near-infrared afterglow (Krühler et al., 2008, GCN Circ. 7581) at the location of the X-ray source. The best position for this burst is the GROND position at RA, Dec (J2000.0) = 114.66496 (07h38m42.68), +33.30414 (+33.18/16.77).

The Burst Advocate for this burst is Stephen Holland (Stephen.T.Holland@nasa.gov). Please contact the Burst Advocate by e-mail if you require additional information regarding Swift follow-up observations of this burst. In extremely urgent cases, after trying the Burst Advocate, you can contact the Swift PI by phone (see the Swift ToO Web site for information: http://www.swift.psu.edu/too.html).

## 2 XRT Observations and Analysis

The Swift/XRT began observations at approximately T+25 ks and detected a source at RA, Dec  $(J2000.0) = 114^{\circ}.66547 (07^{\rm h}38^{\rm m}39^{\circ}.71), +33^{\circ}.30341 (+33^{\circ}18'12''.3)$ . with an uncertainty of  $\pm 8''.6$  (radius, 90% containment). This is 2''.4 from the GROND position. The observations were interrupted after ~800 s by the BAT detection of GRB 080409 (Holland, et al., 2008, GCN Circ. 7573). The XRT source had a count rate of  $0.010 \pm 0.004$  count s<sup>-1</sup>. Assuming a standard power-law spectrum with  $\Gamma = 2$  and Galactic  $N_{\rm H} (4.33 \times 10^{20} \ {\rm cm}^{-2})$ , the corresponding 0.3–10 keV observed (unabsorbed) flux is  $5.2 \times 10^{-13} (5.9 \times 10^{-13})$  erg cm<sup>-2</sup> s<sup>-1</sup>.

## 3 UVOT Observation and Analysis

The Swift/UVOT observed the field of GRB 080408 starting at approximately T+25 ks after the BAT trigger. No source is detected in any of the UVOT observations inside the XRT error circle

The 3-sigma upper limits for detecting a source are listed in Table 1. The quoted upper limits have not been corrected for the expected Galactic extinction along the line of sight corresponding to a reddening of  $E_{B-V} = 0.04$  mag (Schlegel *et al.*, 1998, ApJS, 500, 525). All photometry is on the UVOT flight system described in Poole et al. (2008, MNRAS, 383, 627).

Filter	$T_{\rm start}$ (hr)	$\operatorname{Exp}(s)$	UL
b	7.12	185	20.0
u	7.06	200	19.6
uvw1	6.95	399	20.0

Table 1: UVOT 3- $\sigma$  upper limits.