

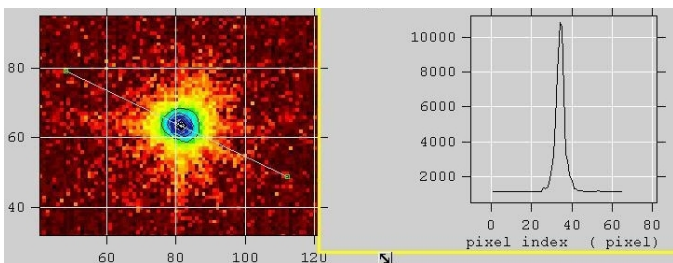
Swift is a dedicated GRB afterglow satellite mission to be launched in October 2004 by NASA. Contributions from MPE include (1) the calibration of the X-ray telescope at PANTER, (2) the development of software for analysing the Burst-Array-Telescope all-sky survey data, and (3) the participation in the decision about Swift's non-autonomous response to individual GRBs.

XRT Calibration at PANTER

The X-ray telescope of Swift has been tested at PANTER twice: in July 2000 for the performance of the X-ray mirror, and in September 2002 for the end-to-end test.



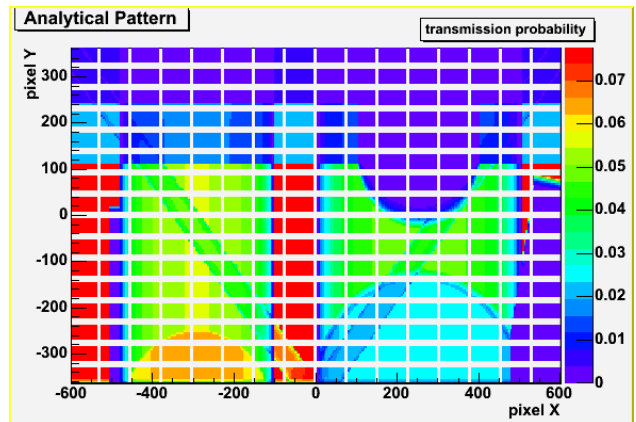
The Swift XRT pointing to the 1m aperture of PANTER's 130m long X-ray tube (right back).



Swift-XRTs first light at PANTER on 23 Sep 2002: left the central part of the X-ray image (in pixel units), right the profile of the point spread function (18'' HPD at 1.5 keV). Subsequent end-to-end calibrations have concentrated on measuring the PSF, the effective area, and the focus. Furthermore, the various operating modes of the detector have been tested and verified.

Software development for BAT

MPE is providing 2 programs to be used in the analysis software of the Burst-Array-Telescope (BAT): (1) For each 5-min integration of BAT the shadow cast by the brightest X-ray sources outside the field of view of BAT through various structural and detector units of SWIFT onto the BAT detector is computed. (2) A sum of many BAT exposures with different pointing directions and roll angles under various background conditions will be computed by unfolding all the available data at once.



Computed shadows of the Swift X-ray and UV/optical telescopes onto the BAT detector plane at 100 keV.

Participation as Burst Advocate

There will be one Burst Advocate for each GRB who is responsible for the data integrity, quick-look results, archiving, the organization of ground-based follow-up observations and the non-autonomous pointings of Swift to that GRB. MPE is providing BAs to work within the Leicester BA-group.