Actions & Reactions

- Problem noted in ad-hoc Telemetry working group meeting in April 2006. Led to two actions:
 - TWG/03 (Apr 2006) P.Ubertini & J.-P. Roques: Discuss within their teams and report on possible set up for observations of very bright transients.
 - Co/11-07 (Nov 2006), P. Kretschmar: Draw together TN with astrophysical cases for bright sources and possible reaction strategies.
- Some email exchanges with ideas.
- Preliminary study of source cases at ISOC.

Clear plan of action still missing.

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Example cases



1-2 Crab at low energies, ~8 Crab at few 10 keV, steeply falling off above 20-30 keV.

Nova Muscae:

~8 Crab at soft energies, 1-2 Crab at 40-150 keV. What was brightest X-ray source in hard band? A0620-00? Scaled naively, factor ~10 brighter.

Bright outburst of Sgr A*: Muno et al. (2007), Inui et al. (2008): 10³⁸⁻³⁹ erg/s (2-200 keV) ⇒ >10-100 Crab in Integral range!

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Possible Reactions

• IBIS:

- TLB buffer setup (up to 5 Crab, 1000 cps)
- switch off modules (from 5-15 Crab)
- consider switch-off VETO, (above 15 Crab)
 At 15 Crab, source flux ≈ background.

• SPI:

- No modes to play with, 'grey filter' by telemetry saturation.

• JEM-X:

- Grey filter mechanism, reduction up to factor 30.
- Point off source (special dithering?).
- Switch off anode sections.

Is this sufficient, should ISOC/MOC create plan of action?

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