

Bright LMXRBs in INTEGRAL's Core Program

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Collaboration among T. Courvoisier, A. Bazzano, F. Carrier, M. Chernyakova, R. Farinelli, F. Frontera, A. Gimenez, P. Goldoni, Diana Hannikainen, F. Mirabel, Tim Oosterbroek, A. Paizis, S. Piraino, A. Santangelo, R. Sunyaev, O. Vilhu and A. Zdziarski



Welcome to our wonderful web-page! :-)

Last Change: September 11th, 2002

We will put on web weekly from Monday morning GPS scans and twice/year deep GC exposures :

- Map of the plane with 72 sources
- Number of sources is increasing
- Fluxes, colors, cc diagrams ...
- V-magnitudes
- Light curves
- variability flags

LMXRBs and scan lines

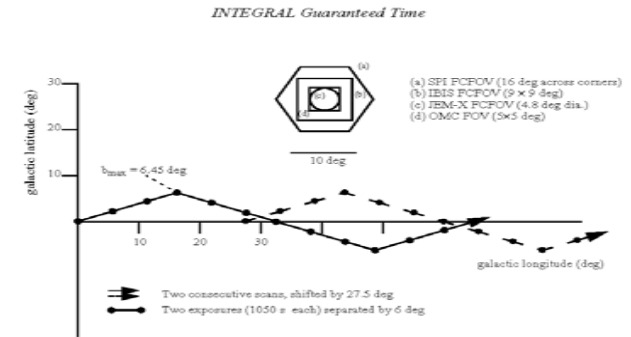
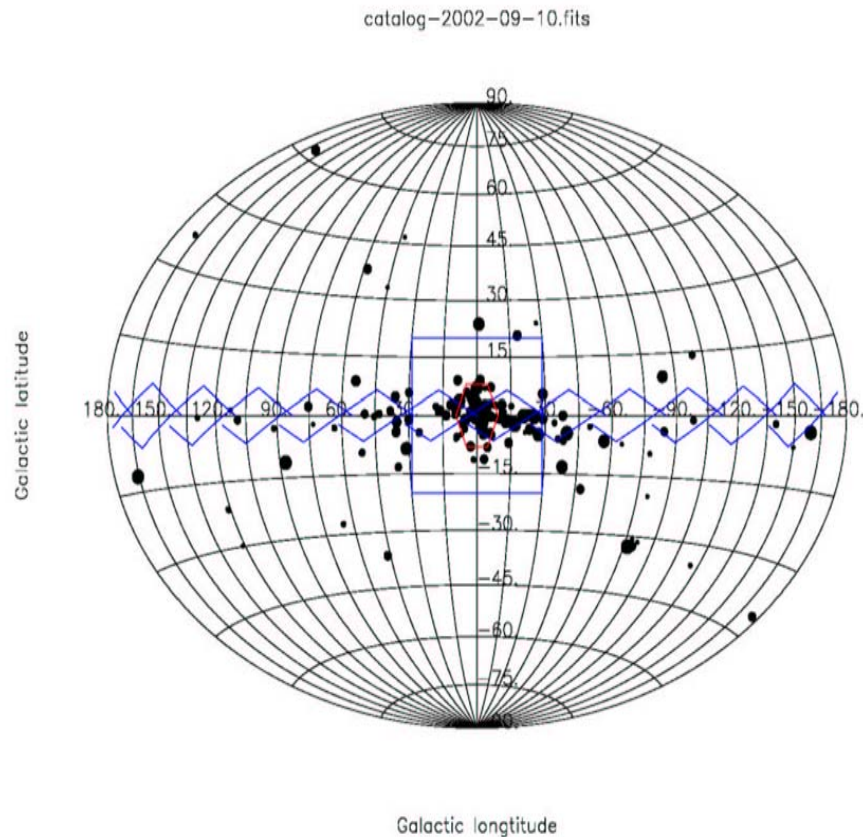


Figure 2. Schematic view of two consecutive GPS scans

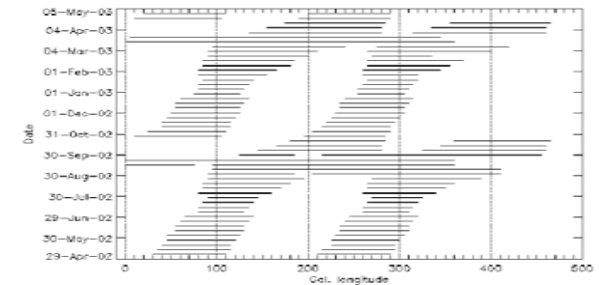
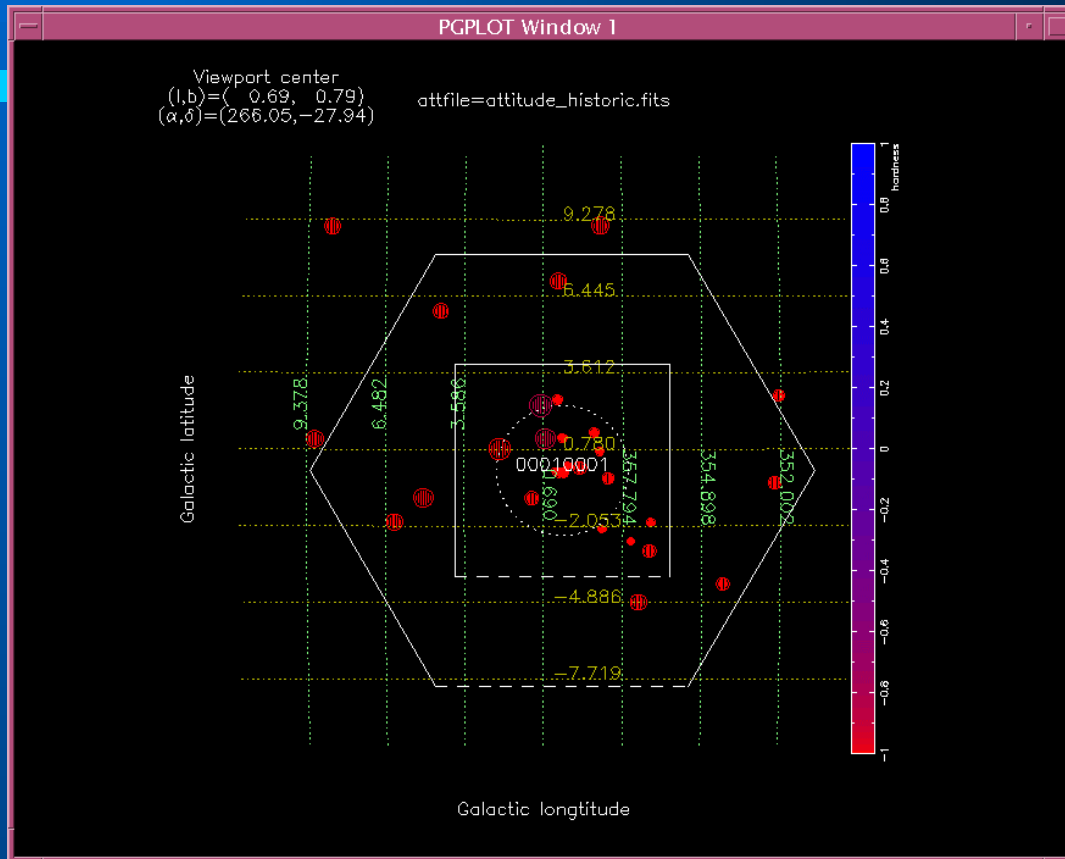


Figure 3. Visibility of the Galactic Plane, year 1 (launch 22 April 2002). The extent of the visible part of the Galactic plane (with $\pm 10^\circ$ in galactic latitude) is shown by the solid lines.

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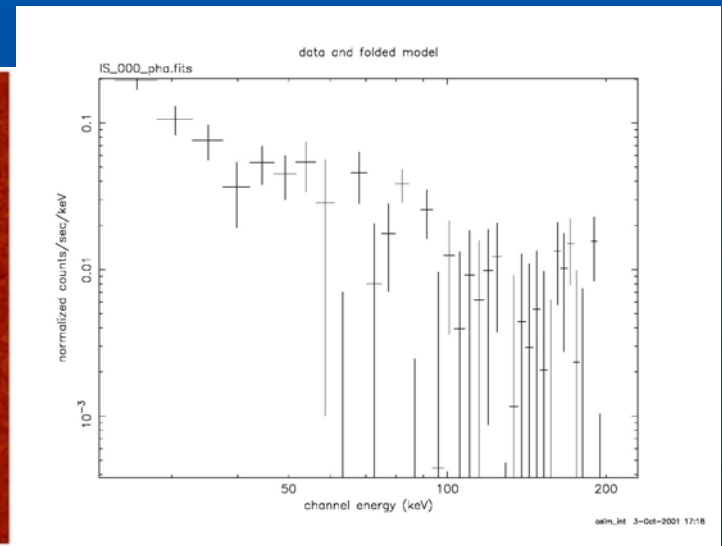
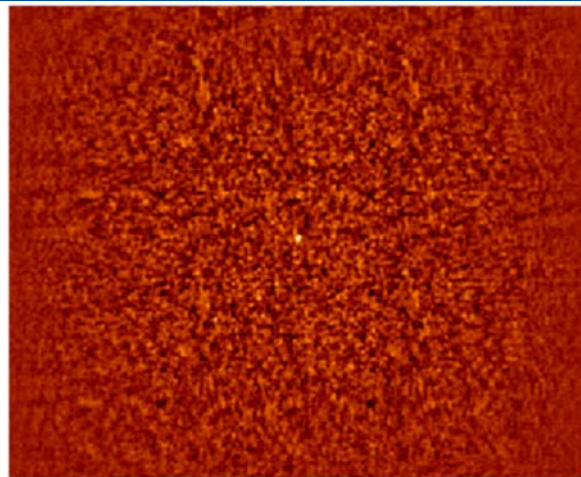
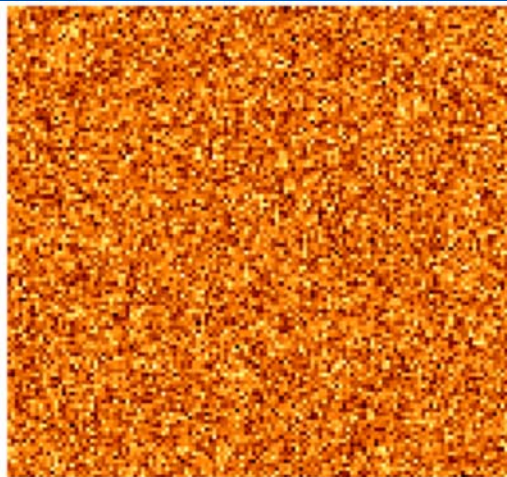
● **NOTE: this is not an all sky monitor**

SPI – IBIS – JemX FOVs



From shadowgram to spectrum.

IBIS 10 mCrab source 3000 sec



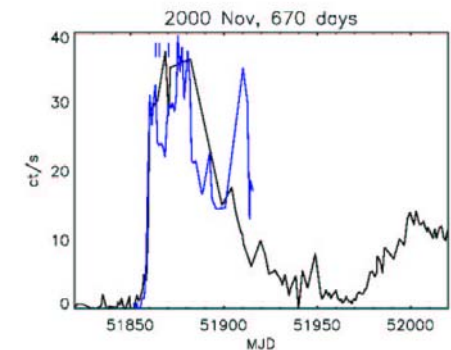
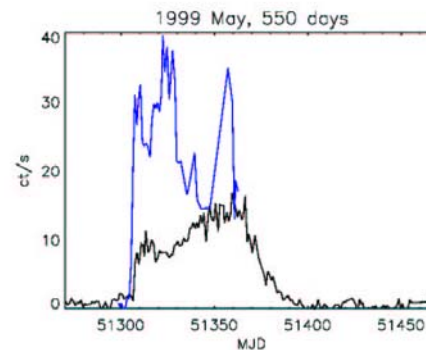
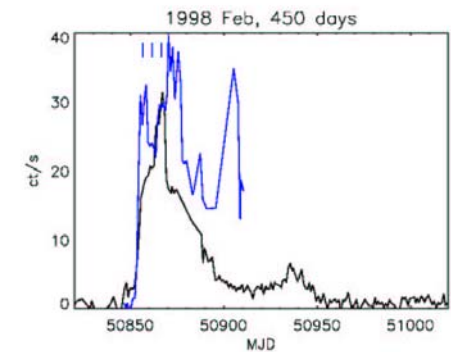
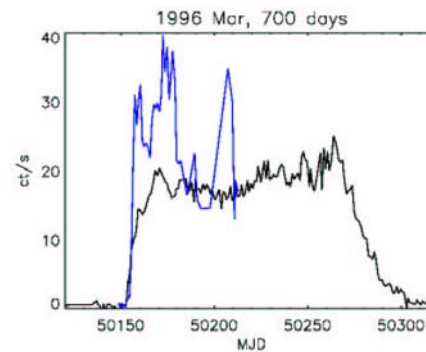
Continuum Sensitivity in GPS

- **6 keV : 2 mCrab**
- **100 keV : 10 mCrab**
- **1 MeV : 350 mCrab**
- **at 100 keV can see:**
 - hard thermal/nonthermal tails of brightest Z-sources (GX17+2, GX349+2)**
 - hard (Comptonized) flux of low state atolls (GS1826-238)**

example: transient 4U 1630-47

$l=337$ deg $b=0.25$ deg

- will be observed 20 times between Feb1 – April 15 and Aug15 – Oct31 compare ASM present=blue



Remarks

- **joint Integral/Chandra/XMM-Newton programs appreciated in future AO's**
- **Integral CP can make good statistics of ccc-behaviour of LMXBs and provide physically meaningful spectral fits of the brightest ones**
- **Integral's triggering capability is limited but will search for transients**
- **Need ASM**