

# Earth/CXB observations

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INTEGRAL User Group Meeting  
ESTEC – 19 January 2012

# Recap: Requirements

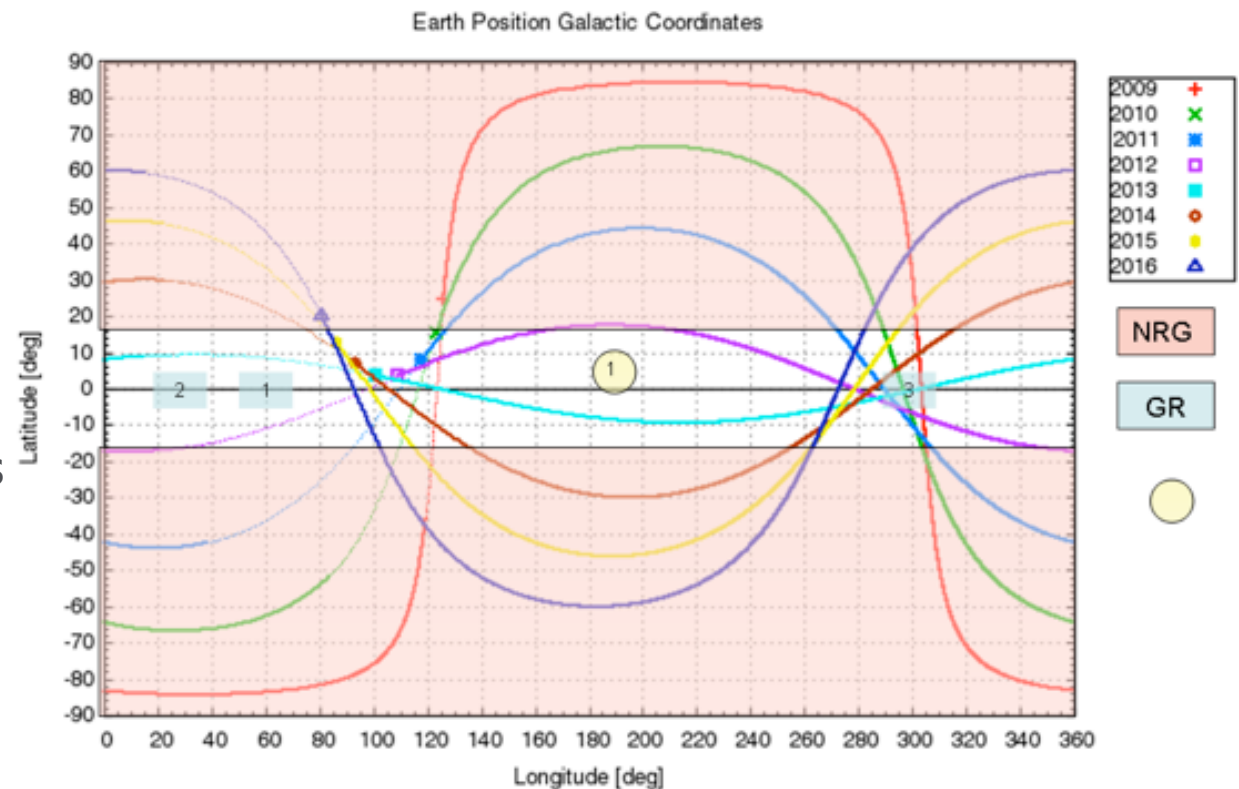


- Three regions defined as interesting around galactic longitude 30, 60 and 300 degrees, with a latitude limit of 5 degrees [GR1, GR2 & GR3].
- Also region outside Galactic Ridge at  $|l| > 15$  [NGR].
- Avoid bright sources: Sco X-1, Crab Nebula, Cyg X-1, Vela X-1 and GRS 1915+105.
- On/Off pointings starting with Earth outside SPI FOV.
- Observe close to solar maximum for minimal particle background.

# Recap: Study Results



- New ideas like observations at apogee or observing before perigee entry, too complex to set up and/or unsafe.
- NGR not possible before mid 2014. In Galaxy only GR3 ( $l \sim 300$  deg) observable on perigee exit.
- Not possible to begin with Earth outside SPI FOV.
- Duration limited to  $\sim 13$  hours plus overhead of 5 hours, limited by star trackers.
- 5 observations of 18 hours each for a total of  $\sim 324$  ks in 2012 (AO-9).



# Earth/CXB observations during AO-9



- 5 observations foreseen in 2012, more in 2013. Dates mainly driven by visibility, safety and manpower constraints (very non-standard operations!):
  - Rev 1169 (10-13 May)
  - Rev 1197 (01-04 Aug)
  - Rev 1206 (28-31 Aug)
  - Rev 1215 (27-30 Sep)
  - Rev 1234 (20-23 Nov)
- Setup similar to first set of observations in 2006. Will need to work on request from OMC team (see OMC presentation) for flatfield calibration by scattered light. **Could more TM be assigned to OMC for these?**
- Work on observation definition is just beginning.

