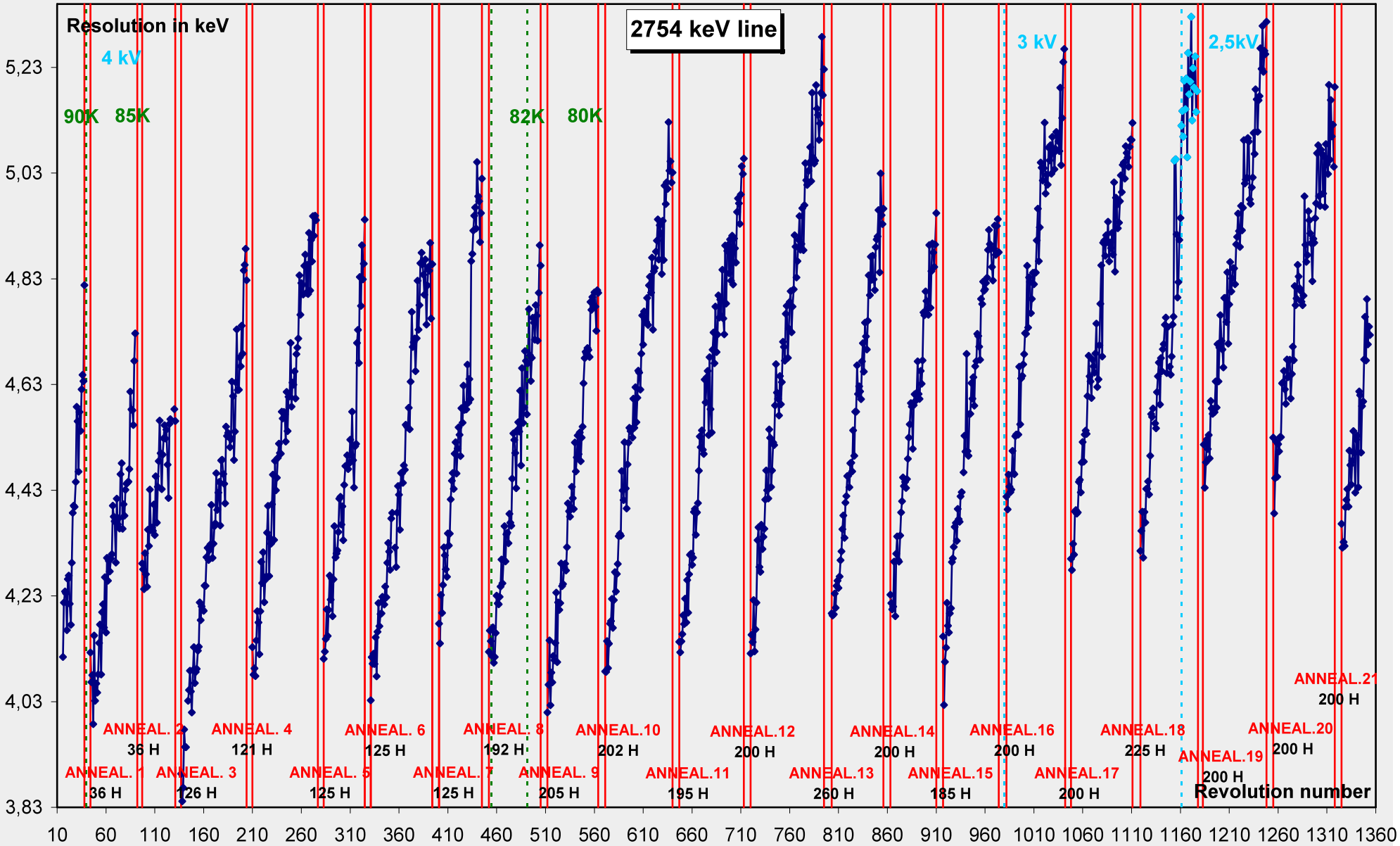
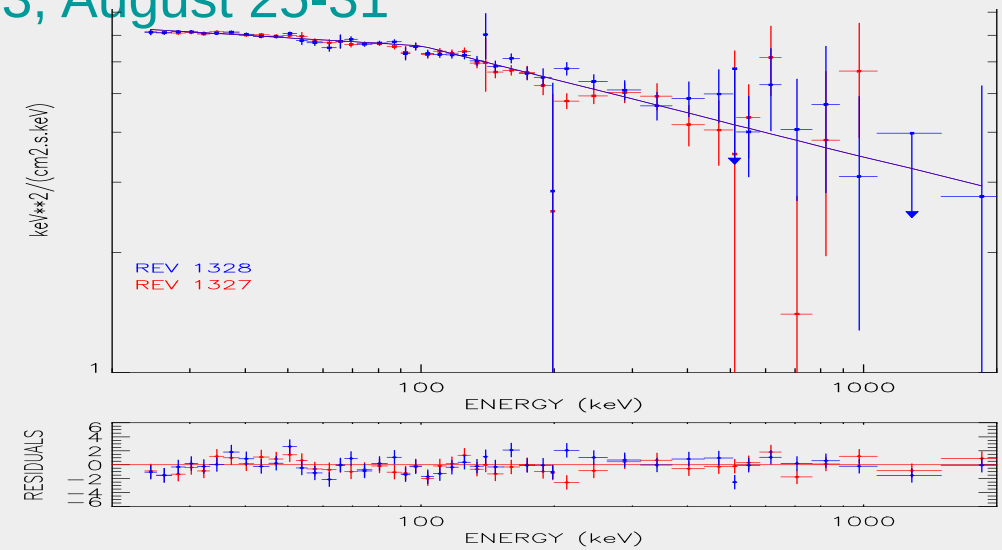
ENERGY RESOLUTION HISTORY: 2754 keV

- Regular annealing (GeD at 105C) restore GeD energy resolution.



CRAB OBSERVATIONS REV 1327 Ð 1328

2013, August 25-31



Rev 1327 ~ 180 ks

Rev 1328 ~ 183 ks

Photon Index 1 : 2.07
Break Energy (fixed) : 100 keV
Photon Index 2 : 2.28

Flux@100 keV:
:6.76 10-4 ph.cm-2 s-1 keV-1

JEM-X calibration – objectives and means

- Maintain stable flux and spectral determination of sources in the fully coded FoV
  - Regular calibrations with Crab on-axis and off-axis to follow time evolution of the detector (typically 10 ks dedicated + SPI 5x5 dither)
- Understand off-axis response (collimator)
  - Crab at various positions (circle, line, or other), best comparable when taken at the same time (complete the 4º started in 239 and 774, considering program in fully coded FoV)
- Updating spatial gain map and monitoring spectral resolution
  - Co-adding Xe line spectra on pixel scale for all data from hundreds of orbits, no dedicated observations

Conclusions

- JEM-X performance is time dependent, requiring regular monitoring calibrations and occasional “engineering” type sessions with special configuration
- On axis Crab: 2 x 10 ks per year
- Other calibration exercises: 10-20 ks per year
- Much data already exist to (in principle) improve calibration by adjusting the parameters in the imaging software
  - Man-power limited