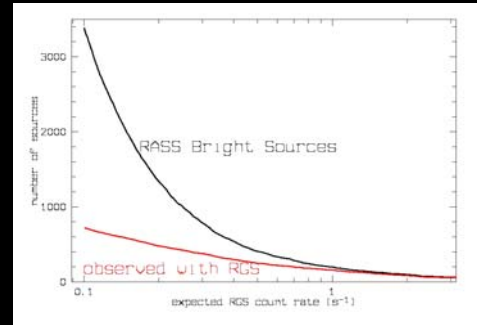
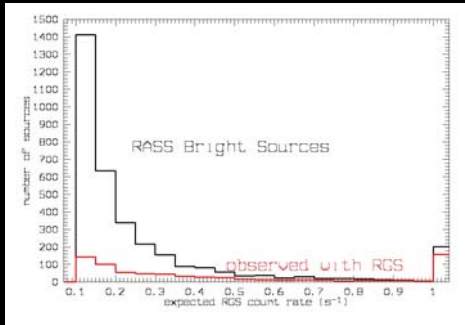


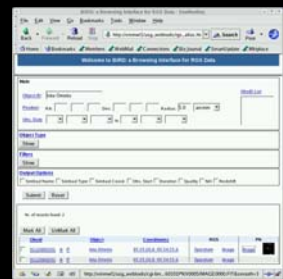
POTENTIAL RGS OBSERVATIONS

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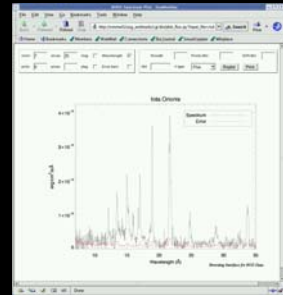
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The plots show a comparison of bright RASS sources (predicted RGS count rate > 0.1 counts/s) with the observed sources. There are 3800 potential sources of which 720 are observed. The left plot shows a histogram and the right plot shows the integrated curves.

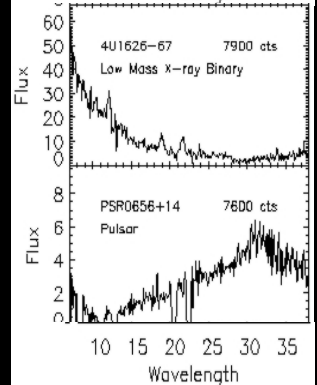
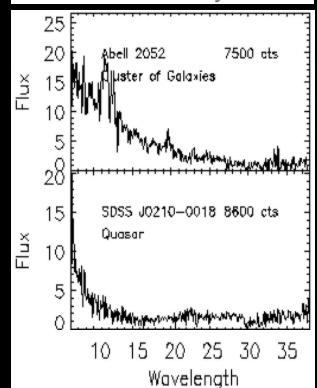
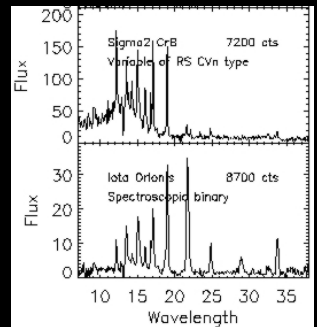


In the response to the last XMM-Newton announcement of opportunity only about 4% of the proposed observations had identified RGS as prime instrument. The average requested time per RGS prime observation was 59.2 ks which is very similar to the average time requested for EPIC prime observations (54.0 ks).



The ROSAT All-Sky Survey Bright Source Catalogue allows excellent predictions of the RGS count rate based on the provided count rate and Hardness Ratio 1. About 3400 sources have an expected RGS count rate > 0.1. Only 720 of them are observed with RGS. There are about 2680 sources which promise excellent RGS spectra within one XMM-Newton revolution (~120 ks).

BiRD is a browsing and visualization tool for XMM-Newton RGS fluxed spectra. The BiRD interface allows to select spectra through a variety of parameters, such as (e.g.) date of observation, level of exposure or type of object. It was developed by Rosario González-Riestra and Pedro M. Rodríguez-Pascual and can be found at http://xmm.esac.esa.int/BIRD/doc/BIRD_help.html



The figures show examples of RGS spectra with a few thousand counts.

What can be done to increase interest on high resolution RGS spectra?



Model	χ^2 or χ^2/ν	Ratio
plow	1.5	0.97
plow	2.0	0.99
plw	0.5	0.97
plw	1.0	0.95
plw	1.5	0.95
plw	2.0	0.94
plw	2.5	0.93
pl	0.5	1.27
pl	1.0	0.94
pl	1.5	0.90
pl	2.0	0.90
pl	2.5	0.90
pl	3.0	0.90
pl	3.5	0.89
pl	4.0	0.89
pl	4.5	0.89
pl	5.0	0.89
pl	5.5	0.89
pl	6.0	0.89
pl	6.5	0.89
pl	7.0	0.89
pl	7.5	0.89
pl	8.0	0.89
pl	8.5	0.89
pl	9.0	0.89
pl	9.5	0.89
pl	10.0	0.89
pl	10.5	0.89
pl	11.0	0.89
pl	11.5	0.89
pl	12.0	0.89
pl	12.5	0.89
pl	13.0	0.89
pl	13.5	0.89
pl	14.0	0.89
pl	14.5	0.89
pl	15.0	0.89
pl	15.5	0.89
pl	16.0	0.89
pl	16.5	0.89
pl	17.0	0.89
pl	17.5	0.89
pl	18.0	0.89
pl	18.5	0.89
pl	19.0	0.89
pl	19.5	0.89
pl	20.0	0.89
pl	20.5	0.89
pl	21.0	0.89
pl	21.5	0.89
pl	22.0	0.89
pl	22.5	0.89
pl	23.0	0.89
pl	23.5	0.89
pl	24.0	0.89
pl	24.5	0.89
pl	25.0	0.89

ROSAT measurements (hard band) allow excellent predictions of RGS count rates. In Table 1 (left) conversion factors for different models are given. The ROSAT ALL-Sky Survey (RASS, compare picture right) provides and large basis of potential sources with can be addressed based on the RASS Bright Source Catalogue.

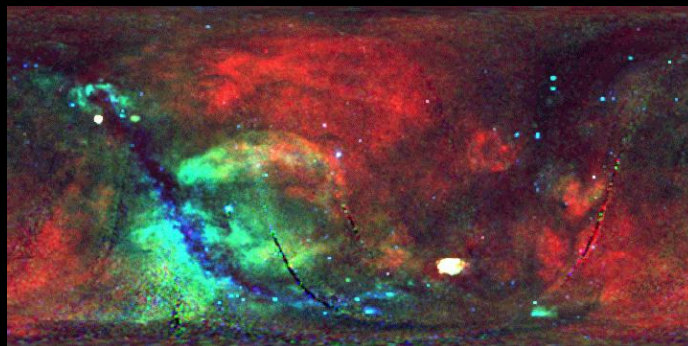


Table 1: Conversion factors between ROSAT PSPC hard band and RGS (both instruments and modes) for different models. The table is available at http://xmm.esac.esa.int/Doc/ROSAT/ROSAT_PSPC/RASS/RASS_models.html