

Radiation levels for MOS & PN

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XMM

SCI-SA

Radiation levels for MOS & PN

- **Current definition of Radiation Warning Flags :**
 - MOS RadMon Warning Flag (M5012) :
 - FW closed if $LE0 > 14$ or $LE_{1,2} > 28$ or $HE_{0,1,2} > 42$ for 2 min
 - FW open if $LE0$ and $HE0 < 7$ for 30 min
 - PN RadMon Warning Flag (MD027) :
 - FW closed if $LE0 > 70$ or $HE0 > 28$ for 2 min
 - FW open if $LE0 < 70$ and $HE0 < 28$ for 30 min
 - RGS Warning Flag :
 - MOS closed if RGS1 or RGS2 events above upper threshold in CCD9 node D > 80 cps for 2 min
 - PN closed if RGS1 or RGS2 events above upper threshold in CCD9 node D > 80 cps for 2 min
 - MOS & PN open if below limit for 30 min



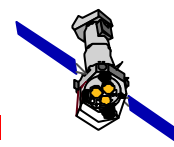
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- **Statistics :**

- Time lost in **CPV** (revs 46-102) and in **routine** (103-111) in ks

| | high radiation at perigee exit | Solar flare inside rev | high radiation at perigee entry | Total |
|-------|-----------------------------------|--------------------------------------|------------------------------------|---------------------------------------|
| MOS1 | 94 / 0 | 328 / 165 | 93 / 29 | 515 (9.0 / rev) 194 (21.6 / rev) |
| MOS2 | 132 / 0 | 314 / 165 | 93 / 27 | 539 (9.5 / rev) 192 (21.3 / rev) |
| PN | 61 / 0 | 141 / 108 | 91 / 21 | 293 (5.1/rev) 129 (14.3 / rev) |
| Total | 287 (5.0 / rev) 0 | 783 (13.7 / rev) 438 (48.7 / rev) | 277 (4.9 / rev) 77 (8.6 / rev) | 1347 (23.6 / rev) 515 (57.2 / rev) |



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