

V&V Reference Report

L2 ASCDS Version : 7.6.7.2

Observation 5316 - L2 Version 001
Chandra X-Ray Center

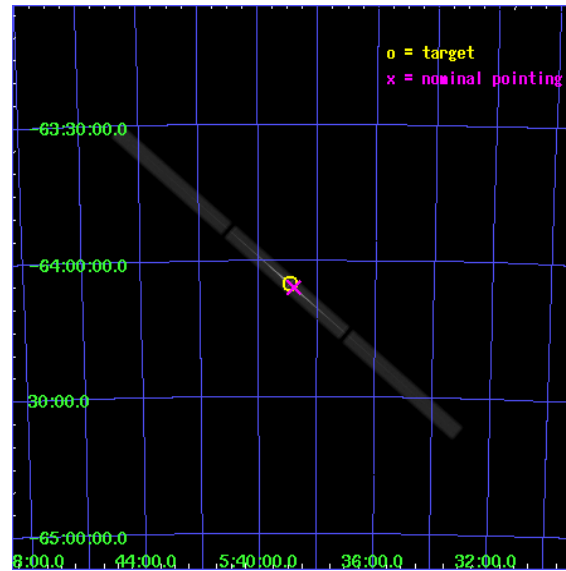
L2 Processing Date : May 22 2006

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1 Front

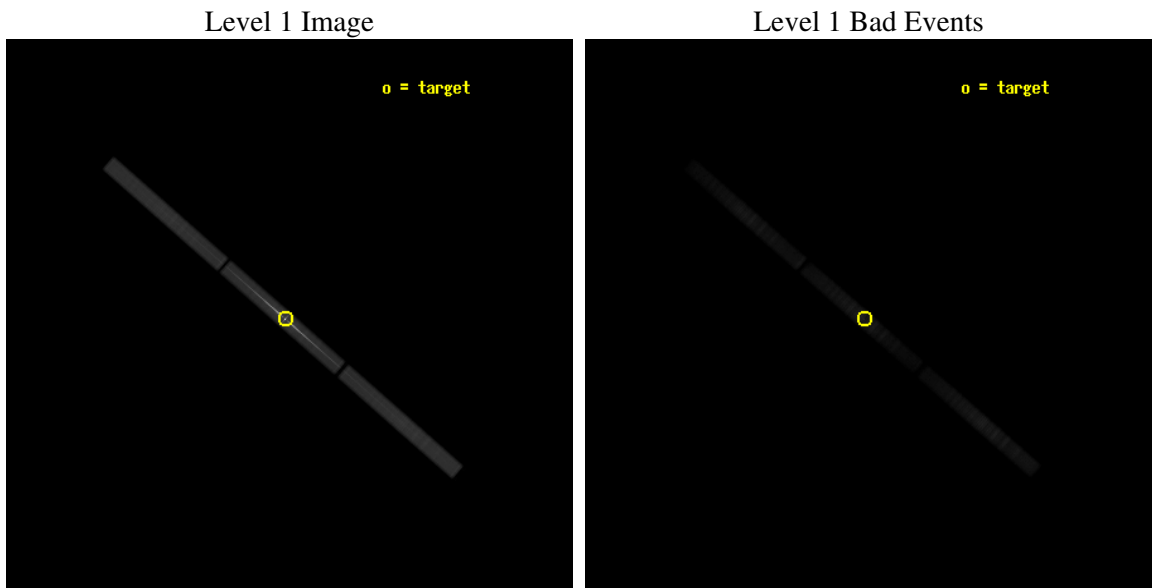
| | |
|----------|--|
| seq_num | 400357 |
| obs_id | 5316 |
| title | High Resolution Spectroscopy of LMC X-3: Probing Local Hot X-ray Absorbing Gas |
| observer | Dr. Taotao Fang |
| object | LMC X-3 |
| ra_targ | 84.734583 |
| dec_targ | -64.084167 |
| ra_nom | 84.700481513297 |
| dec_nom | -64.096938466413 |
| roll_nom | 221.05662182713 |
| revision | 4 |
| ontime | 41714.683089375 |
| livetime | 41685.106027636 |
| l2events | 2750645 |



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

| | |
|----------|---------------------|
| obi_num | 0 |
| ascdsver | 7.6.7.2 |
| caldbver | 3.2.2 |
| date | 2006-05-22T15:27:16 |
| revision | 4 |

| | |
|----------------|-----------------|
| sched_exp_time | 41860.000000 |
| ontime | 42019.108102798 |
| l1events | 3746164 |

2.1.3 Events

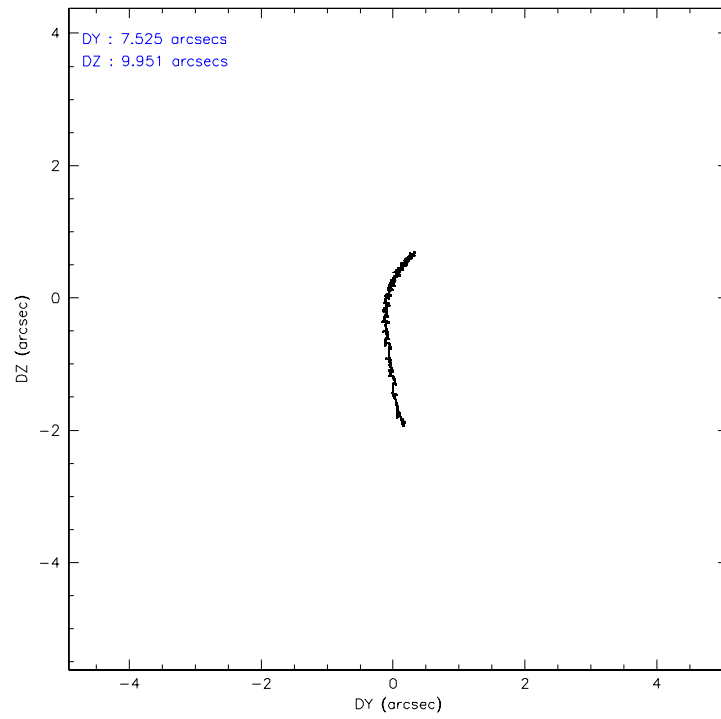
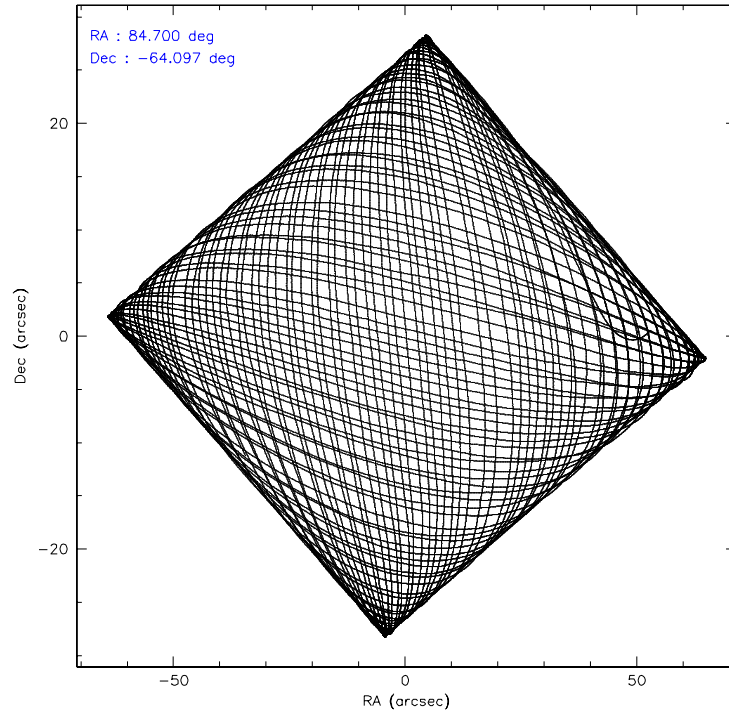
Level 1 Events

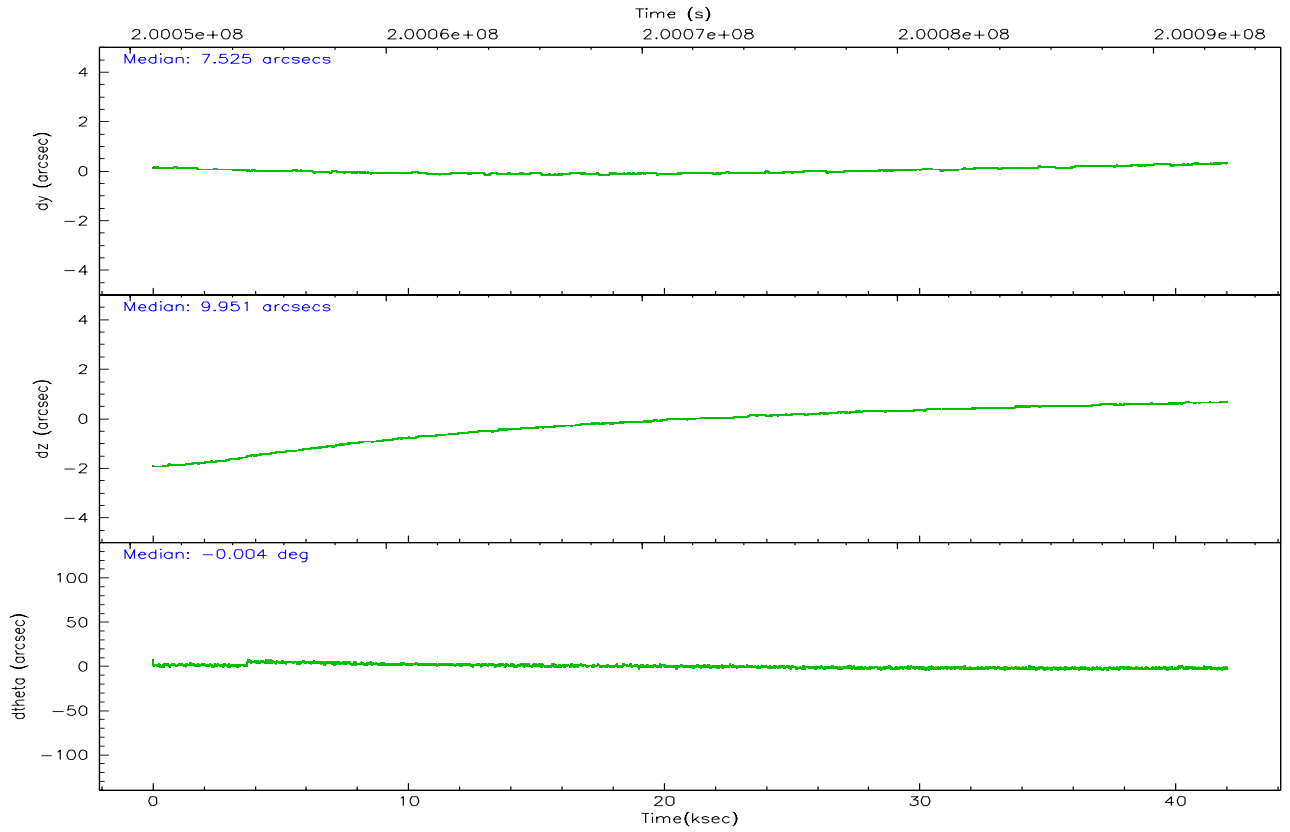
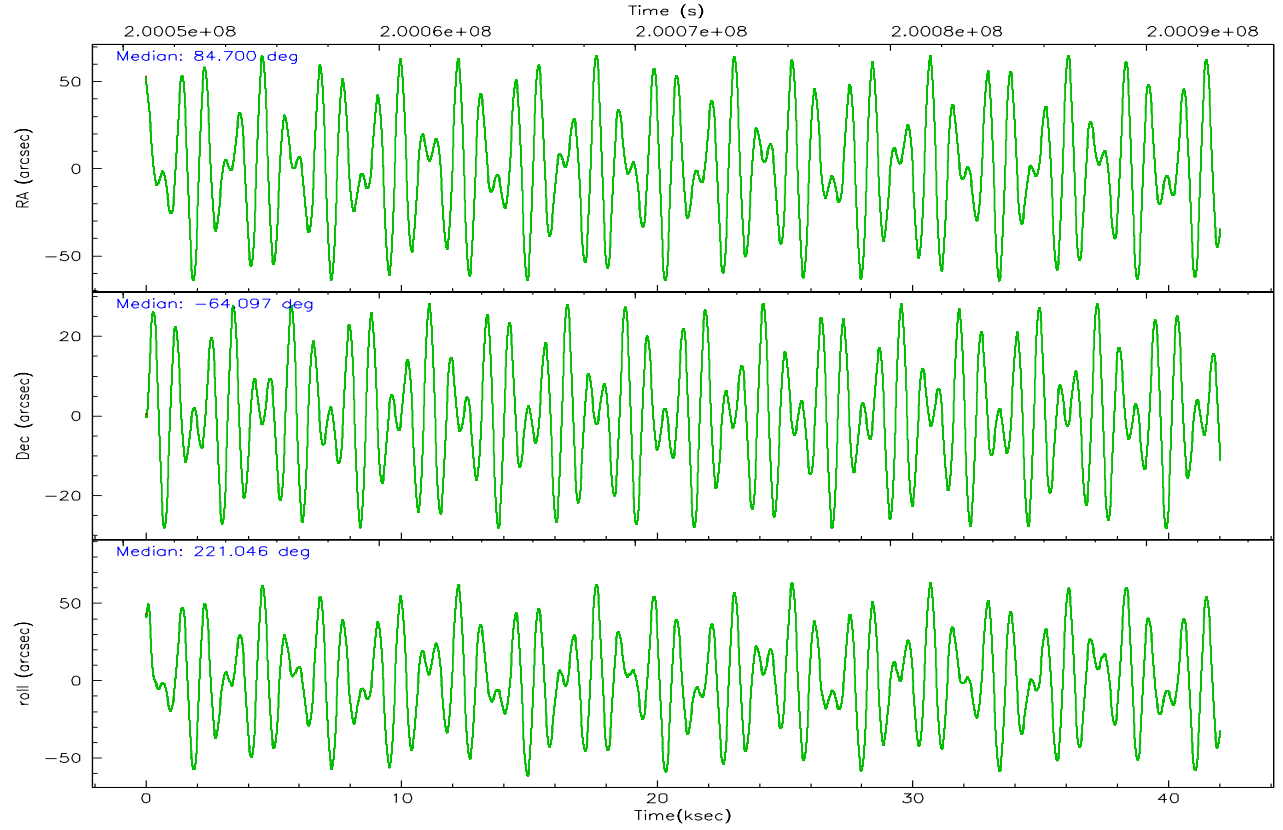
| | segment 1 | segment 2 | segment 3 |
|--------------------|----------------------|----------------------|----------------------|
| level 1 events | 1032778 | 1680578 | 1032808 |
| rejected events | 208851 | 237851 | 255723 |
| rejected % | 20% | 14% | 24% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|------------------------------|-----------|---------|
| Instrument | HRC | HRC | Obspar format version number | 6 | 6 |
| Detector | HRC-S | HRC-S | Obspar file type | PREDICTED | ACTUAL |
| Grating | LETG | LETG | Obspar update status | NONE | UPDATED |
| Data mode | OBSERVING | OBSERVING | | | |
| Observation mode | POINTING | POINTING | | | |
| Pointing RA | 84.718546 | 84.70048151329694 | | | |
| Pointing Dec | -64.069491 | -64.09693846641299 | | | |
| Pointing Roll | 221.005544 | 221.0566218271264 | | | |
| SIM focus pos (mm) | -1.429586 | -1.428180813131781 | | | |
| SIM defocus (mm) | 0.1037507710433287 | 0.1051558262725154 | | | |
| SIM translation stage pos (mm) | 250.455976 | 250.466033080201 | | | |
| SIM translation stage offset (mm) | 0 | -0.01005468664627074 | | | |
| Observation start time | 200051042.184000 | 200049983.31893 | | | |
| Observation start date | 2004-05-04T09:42:58 | 2004-05-04T09:26:23 | | | |
| Observation end time | 200092902.184000 | 200093771.83336 | | | |
| Observation end date | 2004-05-04T21:20:38 | 2004-05-04T21:36:11 | | | |

2.3 Aspect



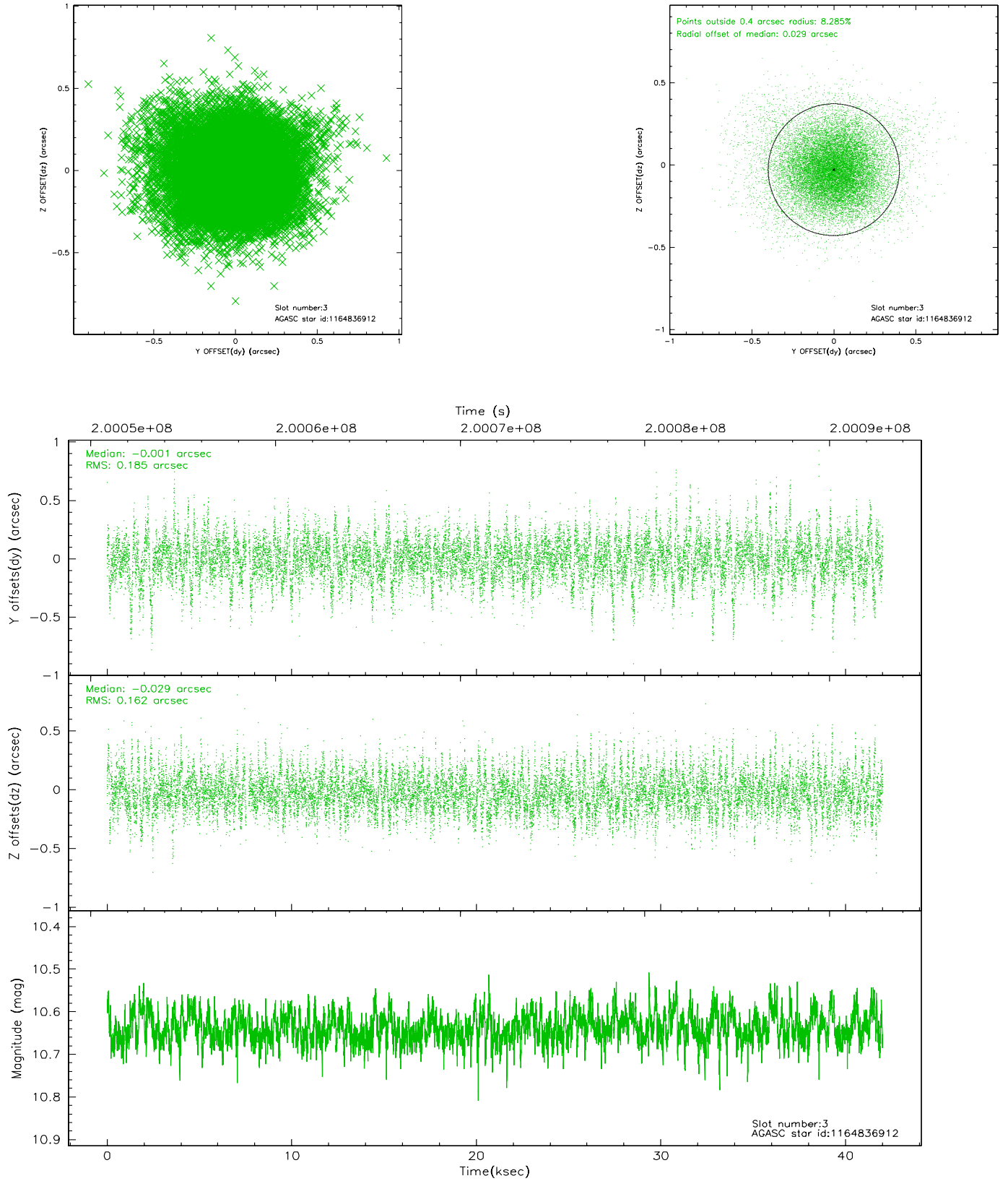


Slot Statistics

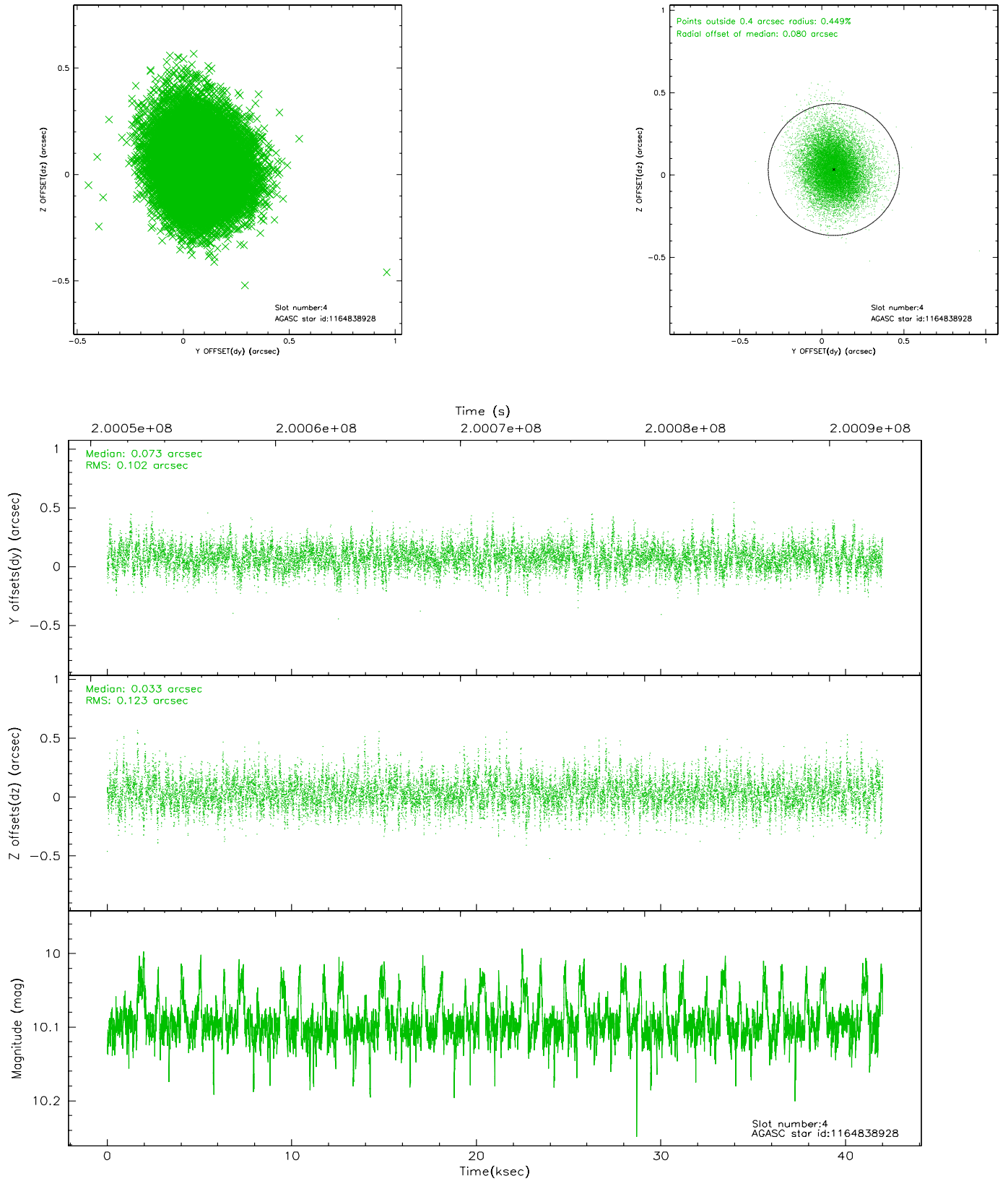
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|-------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | HRC-S-1 | 6.98 | 10249 | 0.099 | -0.129 | 0.005 | 0.009 | 0.000000 | 0.000000 | -1161.74 | -458.39 |
| 1 | FID | HRC-S-2 | 6.98 | 10249 | 0.106 | -0.128 | 0.023 | 0.051 | 0.000000 | 0.000000 | 1237.84 | -451.04 |
| 2 | FID | HRC-S-4 | 6.95 | 10249 | 0.197 | -0.047 | 0.024 | 0.048 | 0.000000 | 0.000000 | 1236.73 | 573.76 |
| 3 | GUIDE | 1164836912 | 10.64 | 20327 | -0.001 | -0.029 | 0.250 | 0.452 | 84.021163 | -64.549238 | 1951.44 | 600.55 |
| 4 | GUIDE | 1164838928 | 10.10 | 20477 | 0.073 | 0.033 | 0.167 | 0.280 | 84.147245 | -63.840751 | 147.25 | -1213.13 |
| 5 | GUIDE | 1164841384 | 10.49 | 20458 | -0.095 | 0.086 | 0.190 | 0.340 | 83.492551 | -63.902402 | 1082.95 | -1713.18 |
| 6 | GUIDE | 1166544016 | 9.68 | 20471 | 0.016 | -0.173 | 0.150 | 0.247 | 86.089673 | -64.349585 | -935.68 | 2179.98 |
| 7 | GUIDE | 1166548256 | 8.77 | 20491 | 0.009 | 0.076 | 0.093 | 0.159 | 85.738698 | -64.074093 | -1192.27 | 1075.87 |

2.4 Star Slots

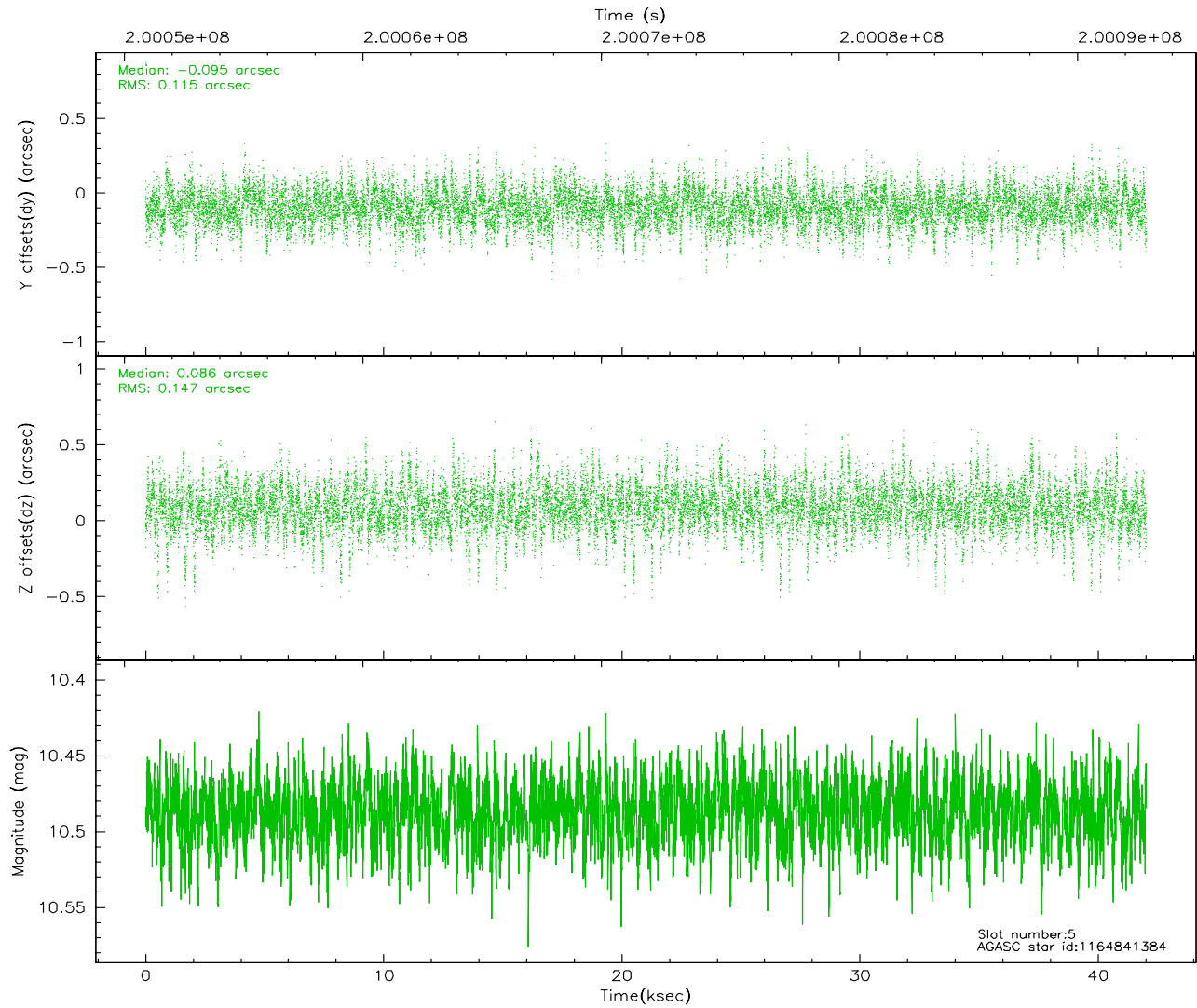
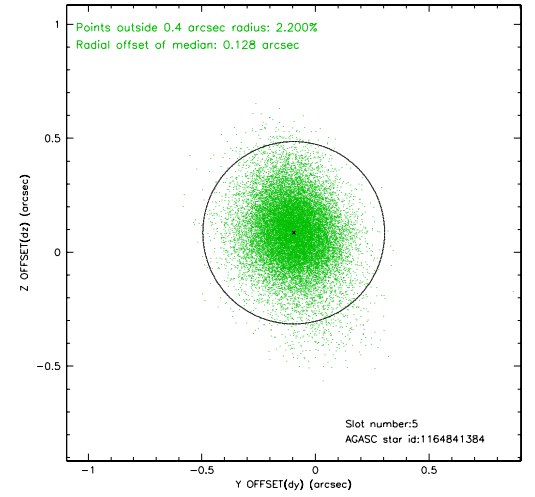
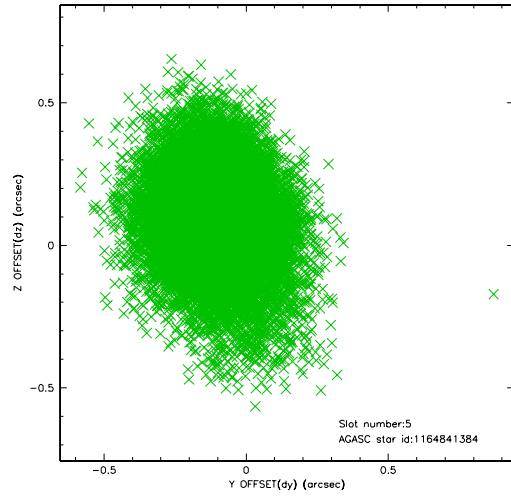
2.4.1 Slot 3



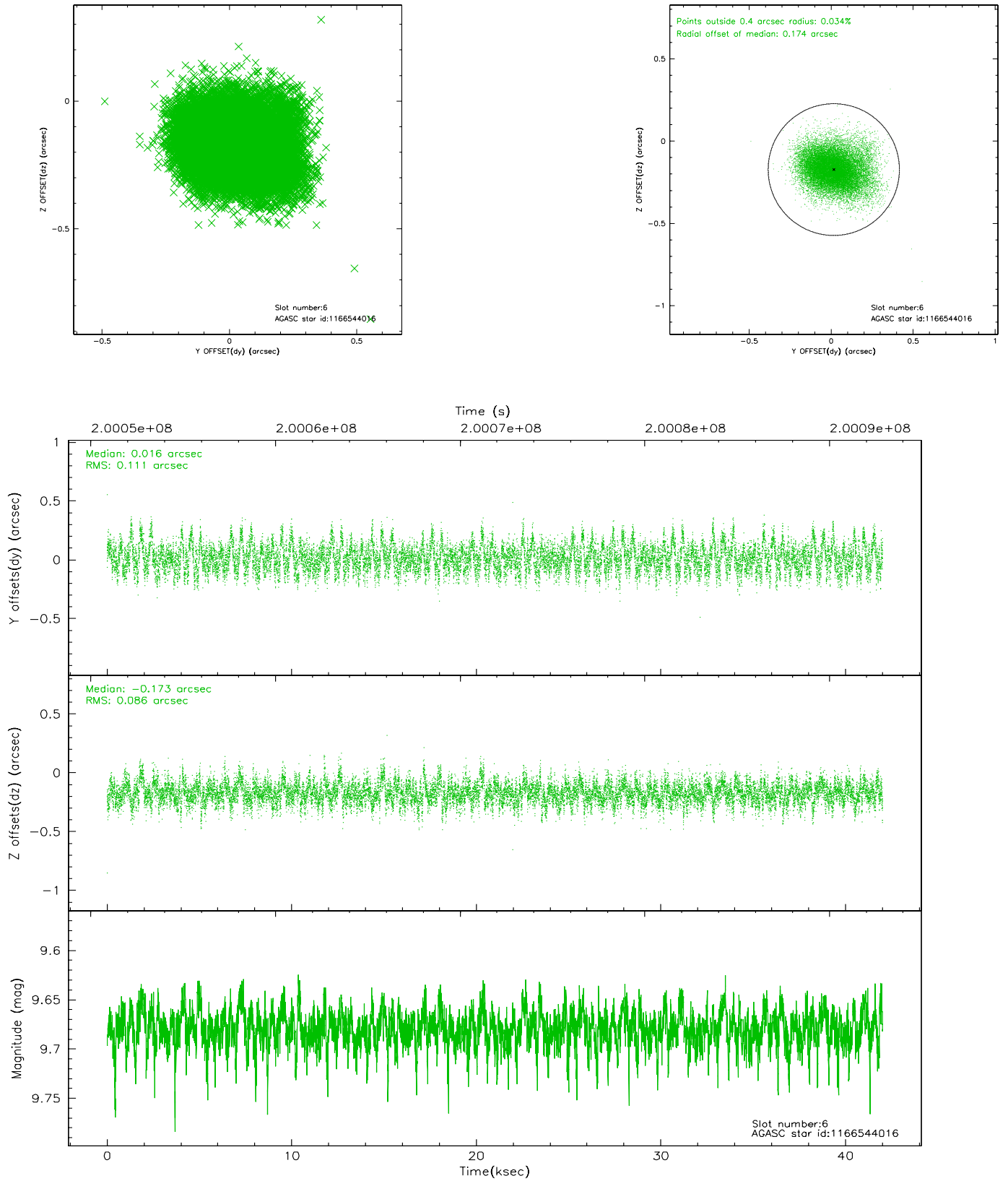
2.4.2 Slot 4



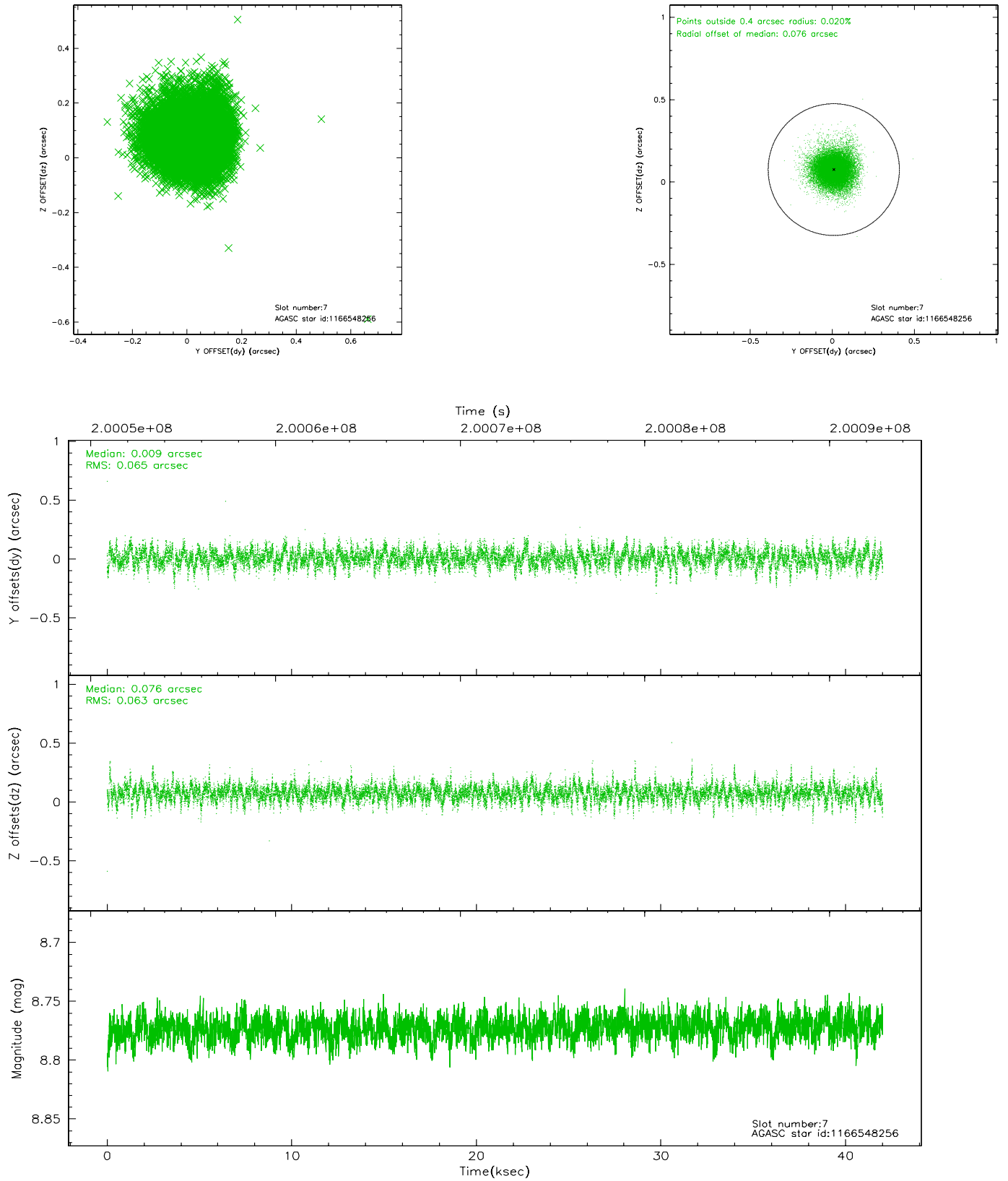
2.4.3 Slot 5



2.4.4 Slot 6

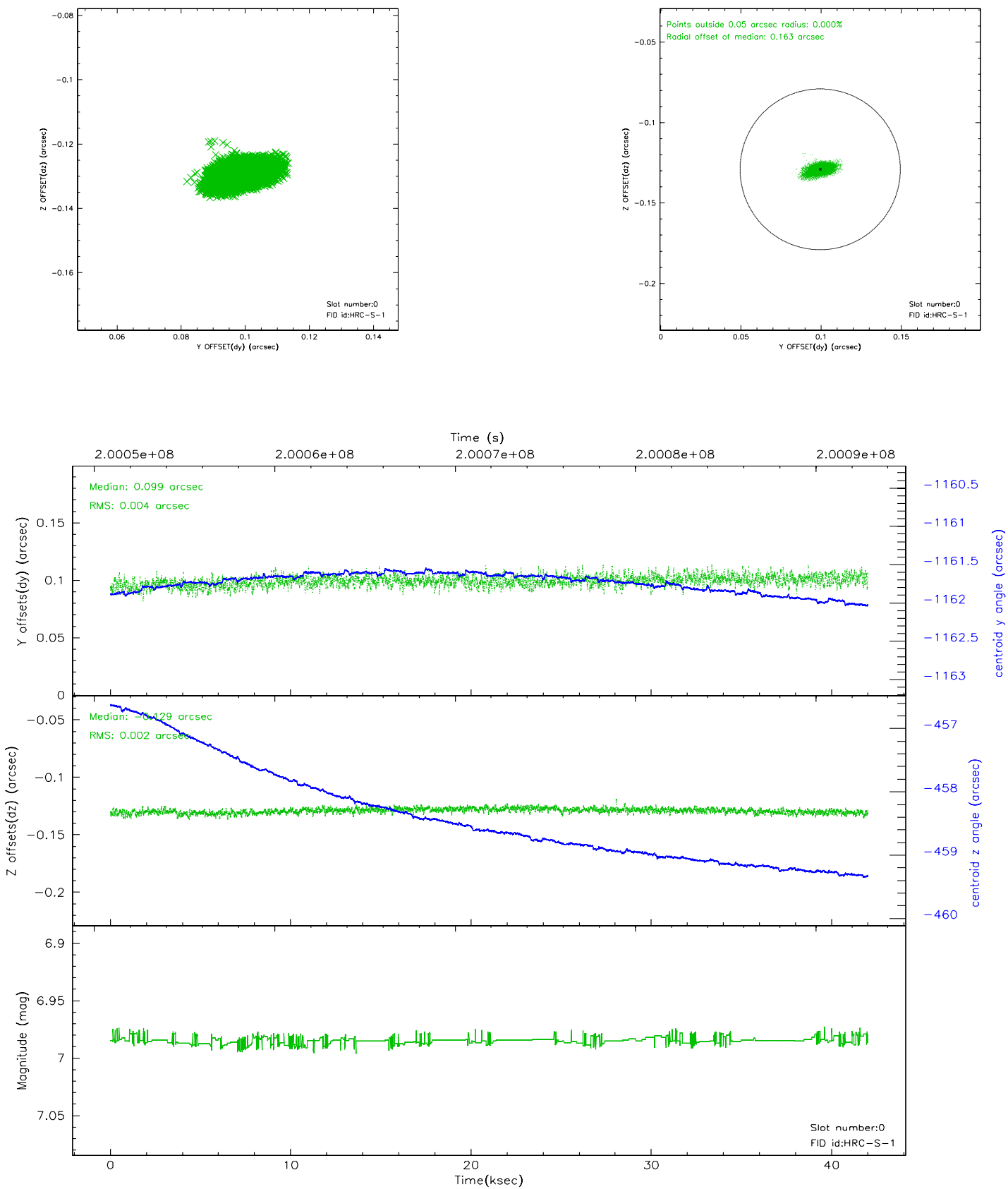


2.4.5 Slot 7

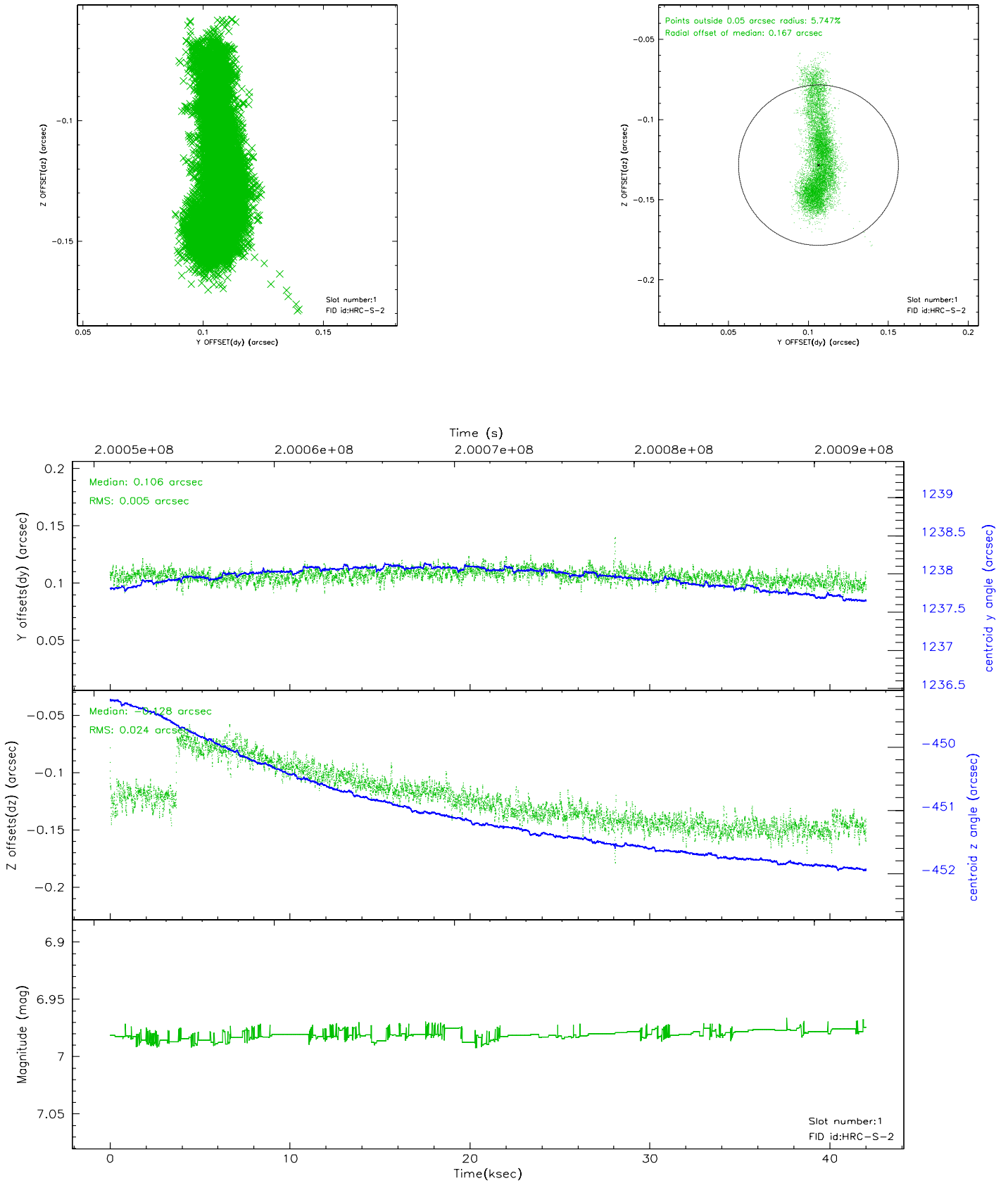


2.5 FID Slots

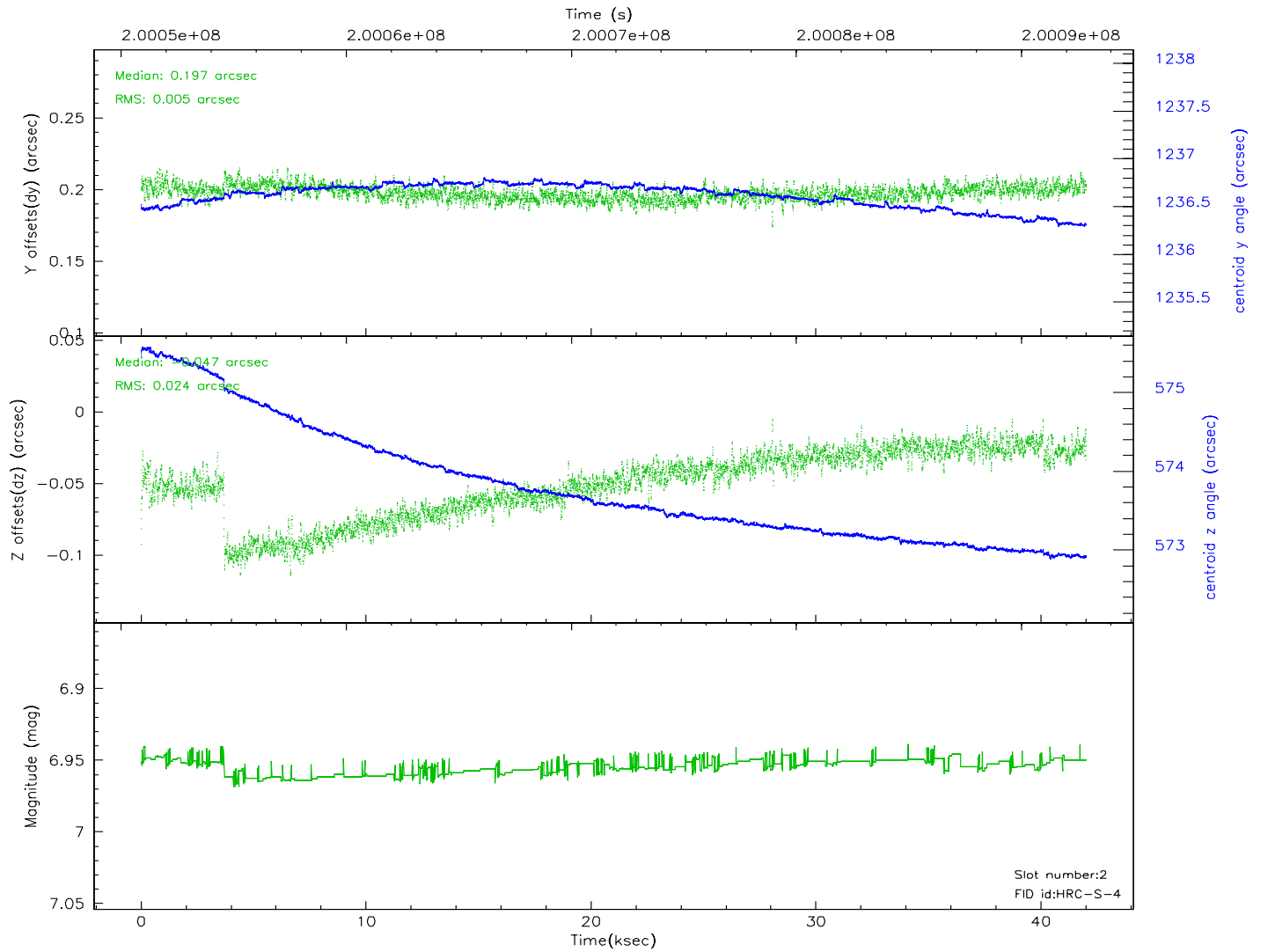
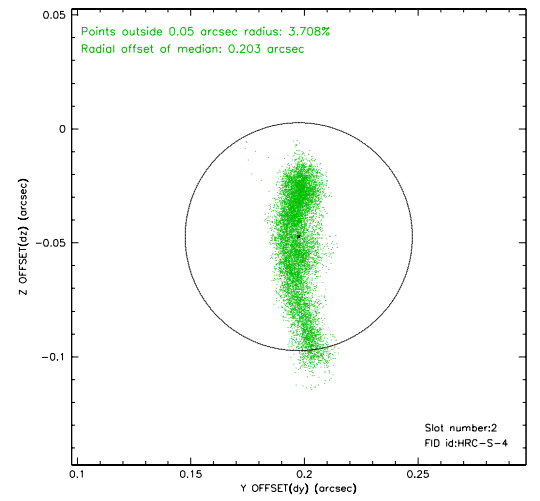
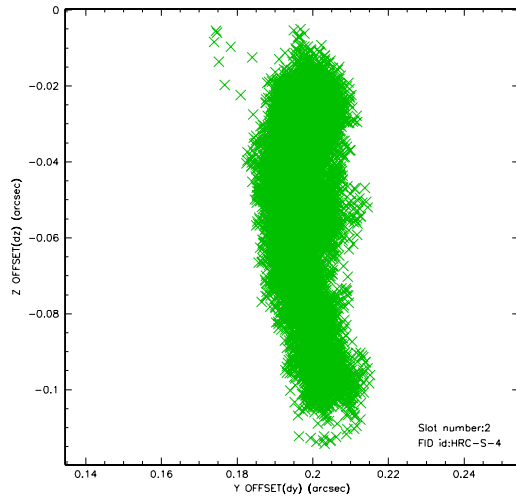
2.5.1 Slot 0



2.5.2 Slot 1

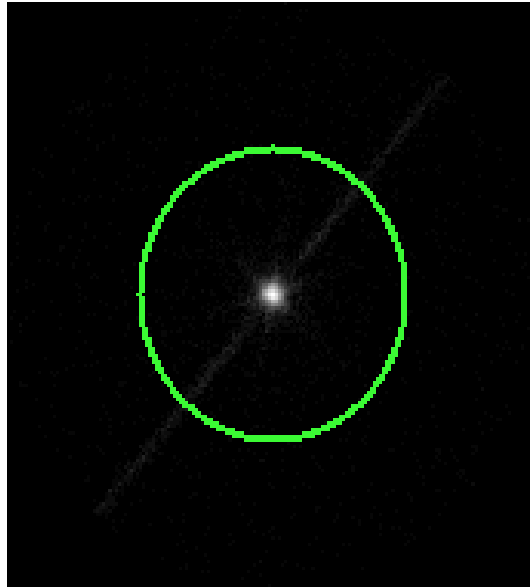


2.5.3 Slot 2



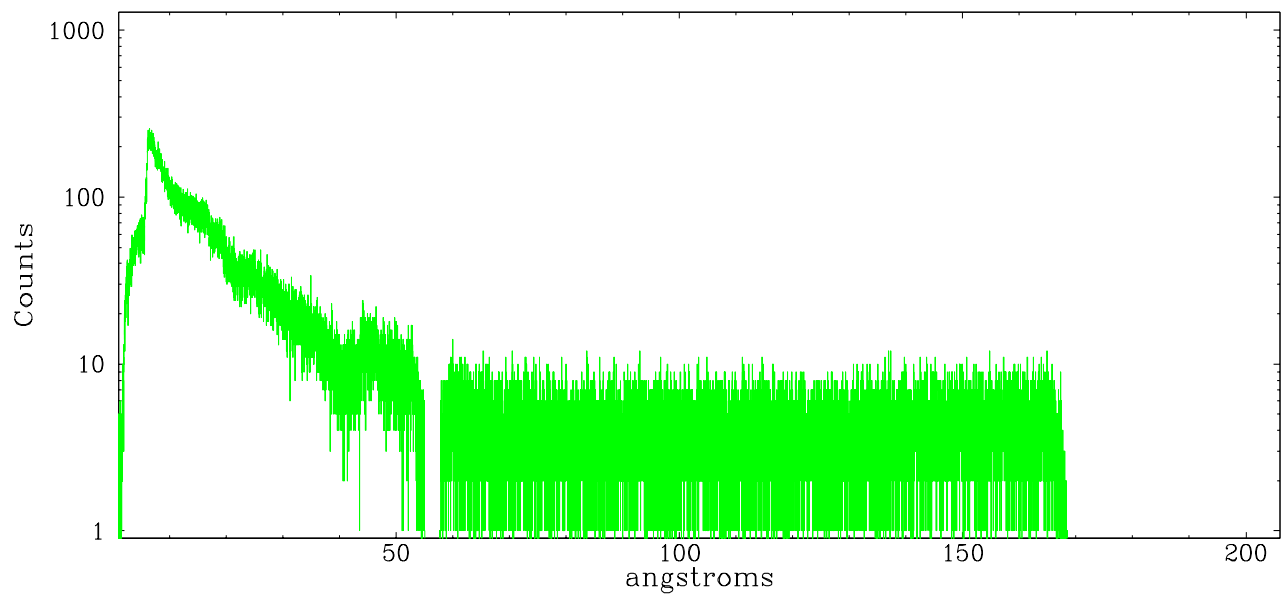
3 Gratings

3.1 LETG Arm

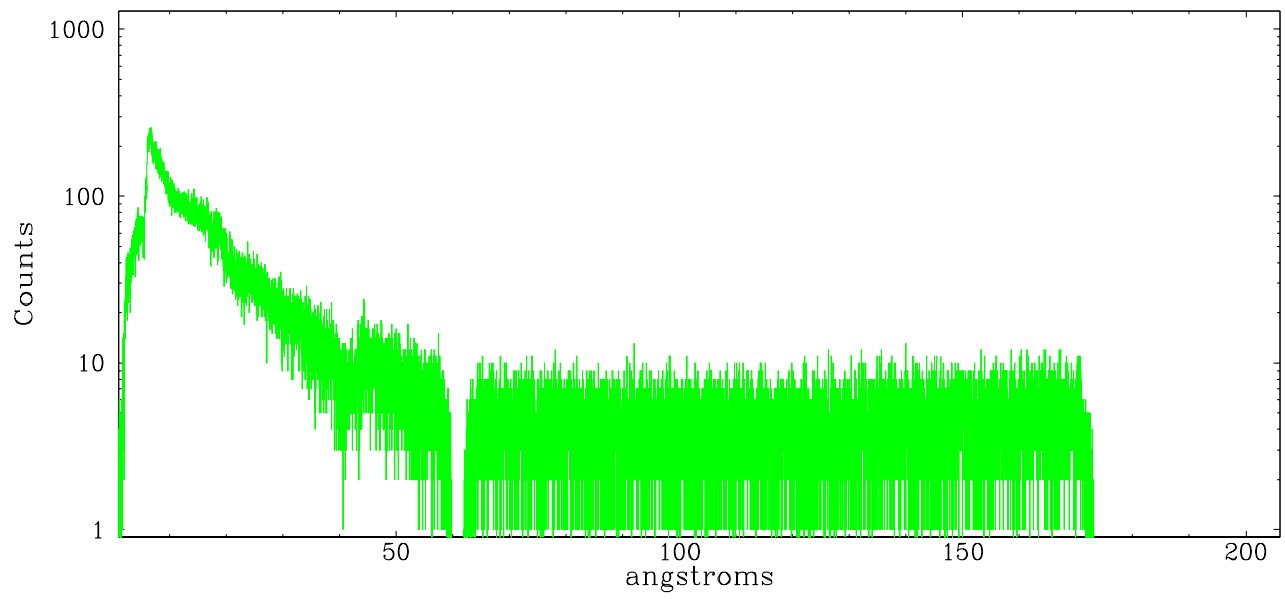


LETG Zero Order

leg order -1



leg order $+1$



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2006.05.23 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 41.714 |

A.2 Comments

The zeroth-order source is slightly elongated due to instrumental effects.

The keywords DTCOR, EXPOSURE, and LIVETIME in the Level 2 event file and the keyword DTCOR in the Level 1 event file have been incorrectly determined due to a software bug. The correct value of DTCOR can be found in the file DTFSTATS file that can be obtained by downloading the Secondary Data Products. In most cases, the difference between the correct DTCOR value and the incorrect DTCOR value in the Level 2 event file is very small and does not affect the data analysis. However, there are cases of significant differences and the user is advised to use the DTCOR in the DTFSTATS file for analysis. Corrected data products will be made available in the archive as soon as feasible.