

V&V Reference Report

L2 ASCDS Version : 7.6.7.1

Observation 6219 - L2 Version 002
Chandra X-Ray Center

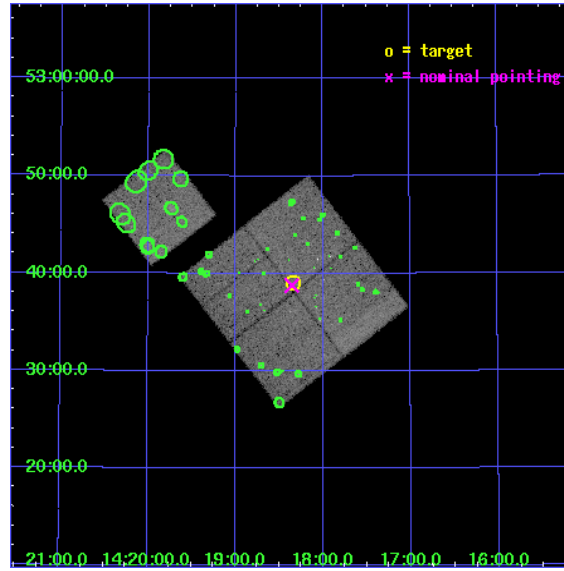
L2 Processing Date : Mar 25 2006

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1 Front

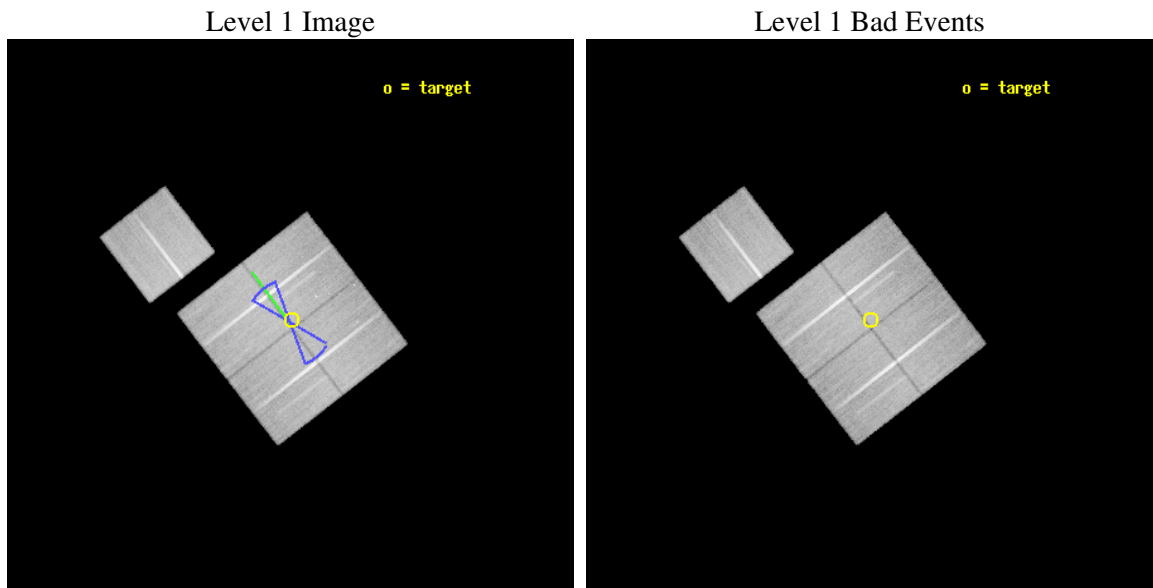
| | |
|----------|--|
| seq_num | 900352 |
| obs_id | 6219 |
| title | Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies |
| observer | Professor Kirpal Nandra |
| object | EGS-5 |
| dtcycle | 0 |
| cycle | P |
| ra_targ | 214.584915 |
| dec_targ | 52.65052 |
| ra_nom | 214.5886447337 |
| dec_nom | 52.64647956621 |
| roll_nom | 322.29547278228 |
| revision | 2 |
| ontime | 50130.058933377 |
| livetime | 49475.0728082 |
| ontime0 | 50126.917973101 |
| ontime1 | 50120.635962844 |
| ontime2 | 50130.058943361 |
| ontime3 | 50130.058933377 |
| ontime6 | 50130.058923334 |
| l2events | 128081 |



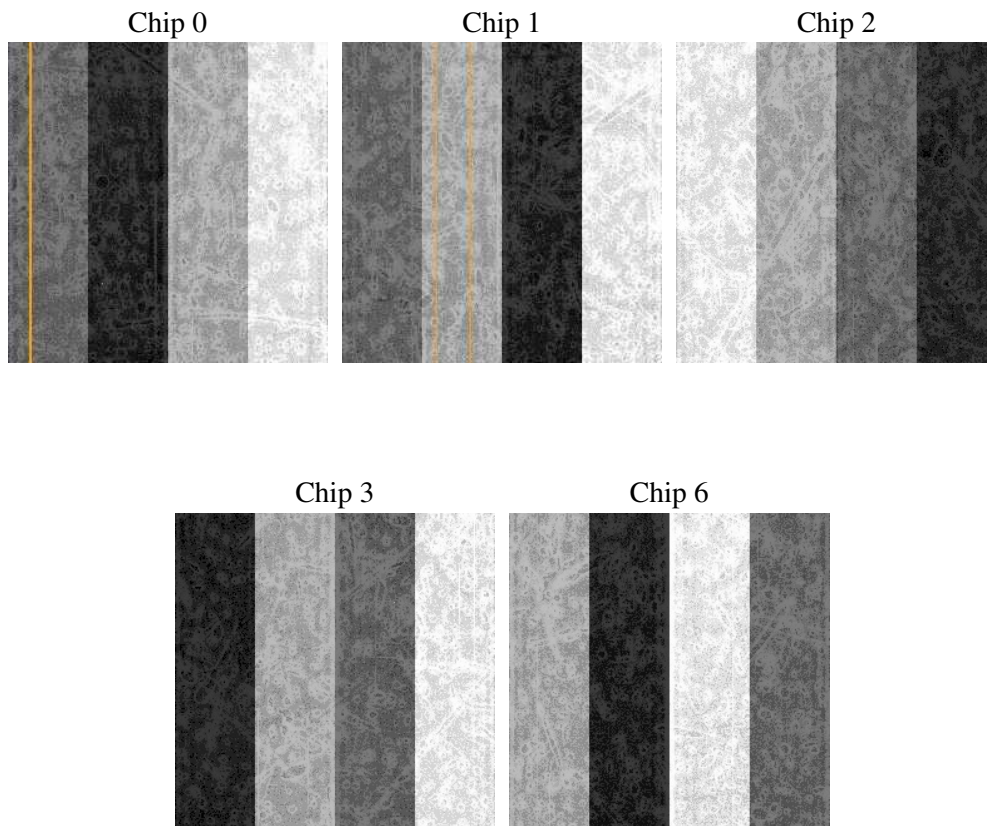
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 0 |
| ascdsver | 7.6.7.1 |
| caldbver | 3.2.1 |
| date | 2006-03-26T00:15:50 |
| revision | 2 |

| | |
|----------------|-----------------|
| sched_exp_time | 50000.000000 |
| ontime | 50560.722945601 |
| ontime0 | 50557.581985325 |
| ontime1 | 50551.299945116 |
| ontime2 | 50560.722955585 |
| ontime3 | 50560.722945601 |
| ontime6 | 50560.722935557 |
| l1events | 1444846 |

2.1.4 Events

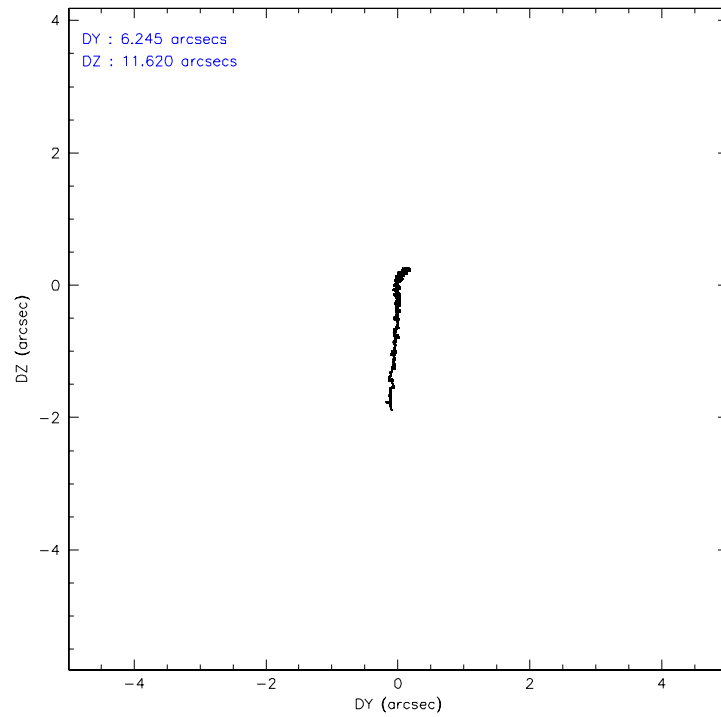
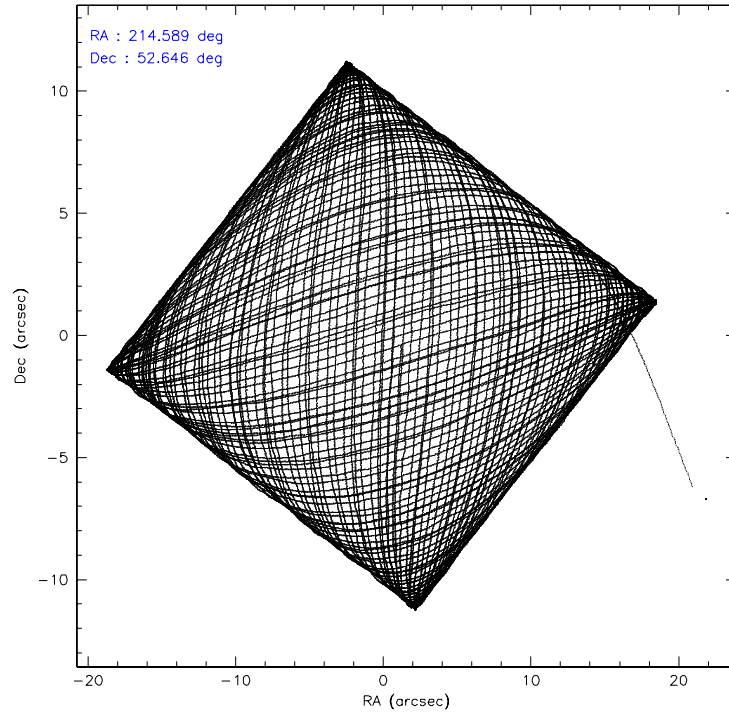
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 282790 | 276668 | 308644 | 284315 | 292429 |
| rejected events | 253060 | 241862 | 279597 | 255207 | 261640 |
| rejected % | 89% | 87% | 90% | 89% | 89% |

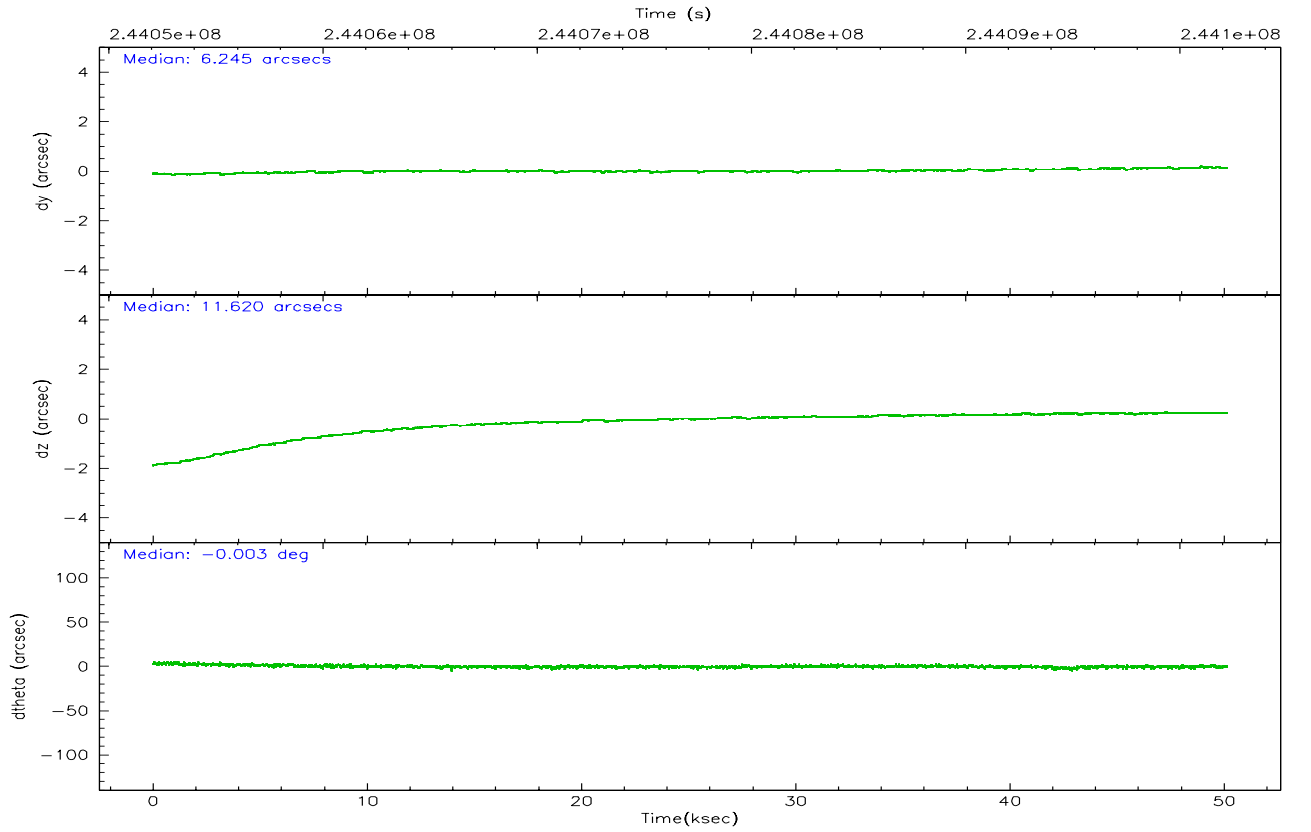
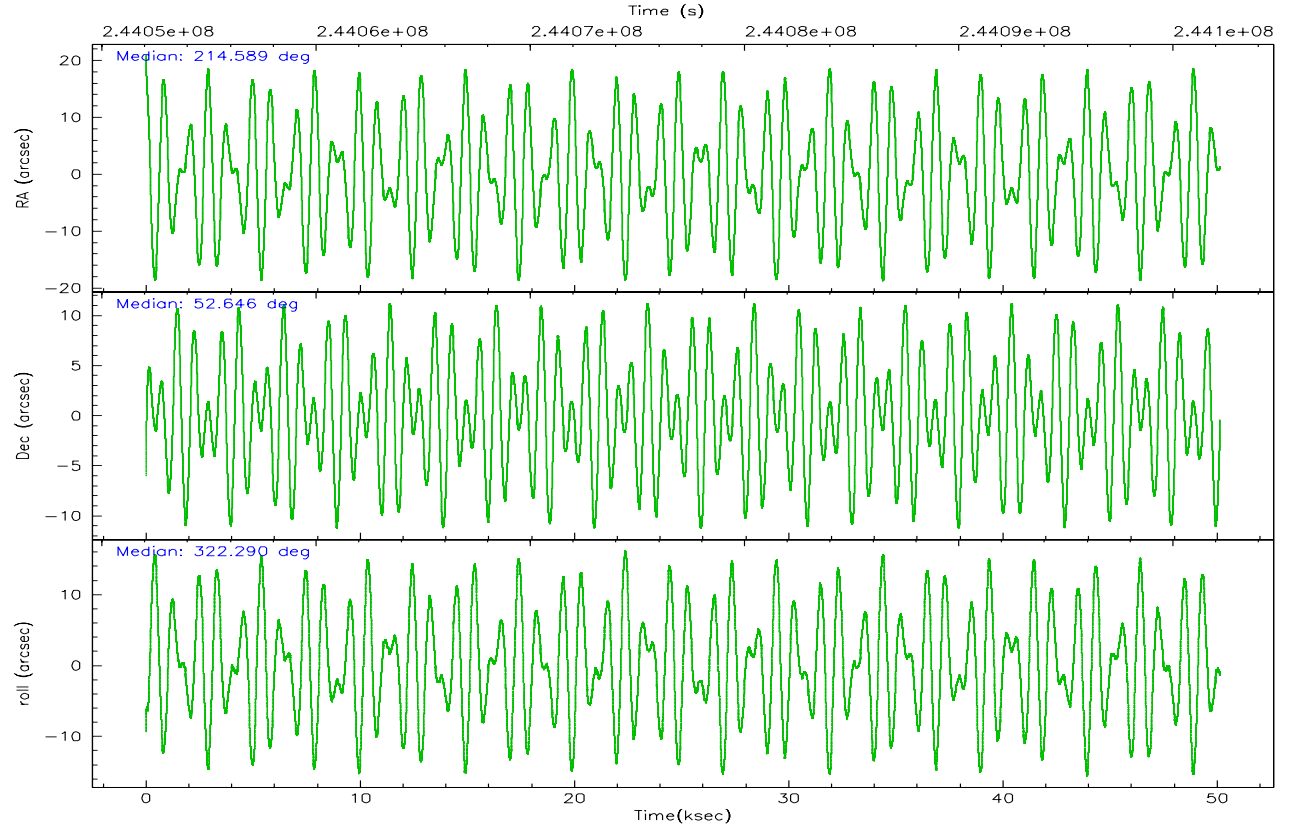
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 10152 | 12991 | 10347 | 10778 | 10623 |
| | 3% | 4% | 3% | 3% | 3% |
| grade 1 events | 130 | 163 | 172 | 191 | 138 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 7425 | 7589 | 7074 | 6179 | 6822 |
| | 2% | 2% | 2% | 2% | 2% |
| grade 3 events | 3439 | 3825 | 3289 | 3354 | 3510 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 3238 | 3781 | 3153 | 3332 | 3418 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 10444 | 11686 | 9923 | 11913 | 12115 |
| | 3% | 4% | 3% | 4% | 4% |
| grade 6 events | 5752 | 6897 | 5432 | 5718 | 6703 |
| | 2% | 2% | 1% | 2% | 2% |
| grade 7 events | 242210 | 229736 | 269254 | 242850 | 249100 |
| | 85% | 83% | 87% | 85% | 85% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|--------------------------------------|---------------------|-----------------------|---------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 6 | 6 |
| Detector | ACIS-01236 | ACIS-01236 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | On-chip summing requested | N | N |
| Observation mode | POINTING | POINTING | Subarray requested | NONE | NONE |
| Pointing RA | 214.543917 | 214.5886447336998 | Alternating exposures requested | N | N |
| Pointing Dec | 52.650037 | 52.64647956620978 | Primary exposure time | 0.000000 | 3.1 |
| Pointing Roll | 322.122340 | 322.2954727822781 | | | |
| Roll angle | 50.756000 | 50.756000 | | | |
| Roll tolerance | 20.000000 | 20.000000 | | | |
| Roll constraint allows 180D rotation | Y | Y | | | |
| SIM focus pos (mm) | -0.782348 | -0.7809083437167272 | | | |
| SIM defocus (mm) | 0 | 0.001439871863259334 | | | |
| SIM translation stage pos (mm) | -233.592463 | -233.5874344608287 | | | |
| SIM translation stage offset (mm) | 0 | -0.005018542100998502 | | | |
| Observation start time | 244052206.184000 | 244051024.37778 | | | |
| Observation start date | 2005-09-25T16:15:42 | 2005-09-25T15:57:04 | | | |
| Observation end time | 244102206.184000 | 244103796.50521 | | | |
| Observation end date | 2005-09-26T06:09:02 | 2005-09-26T06:36:36 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



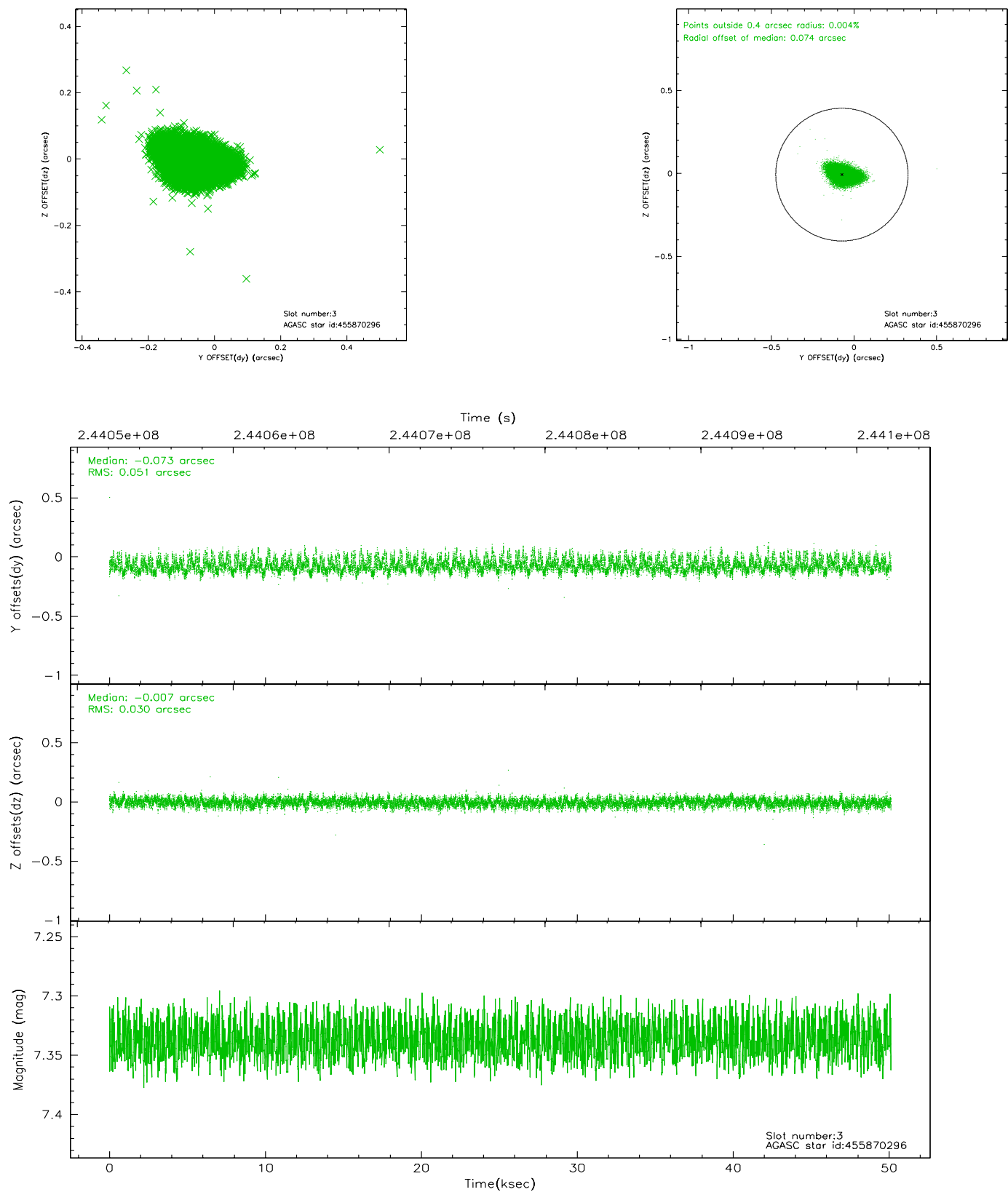


Slot Statistics

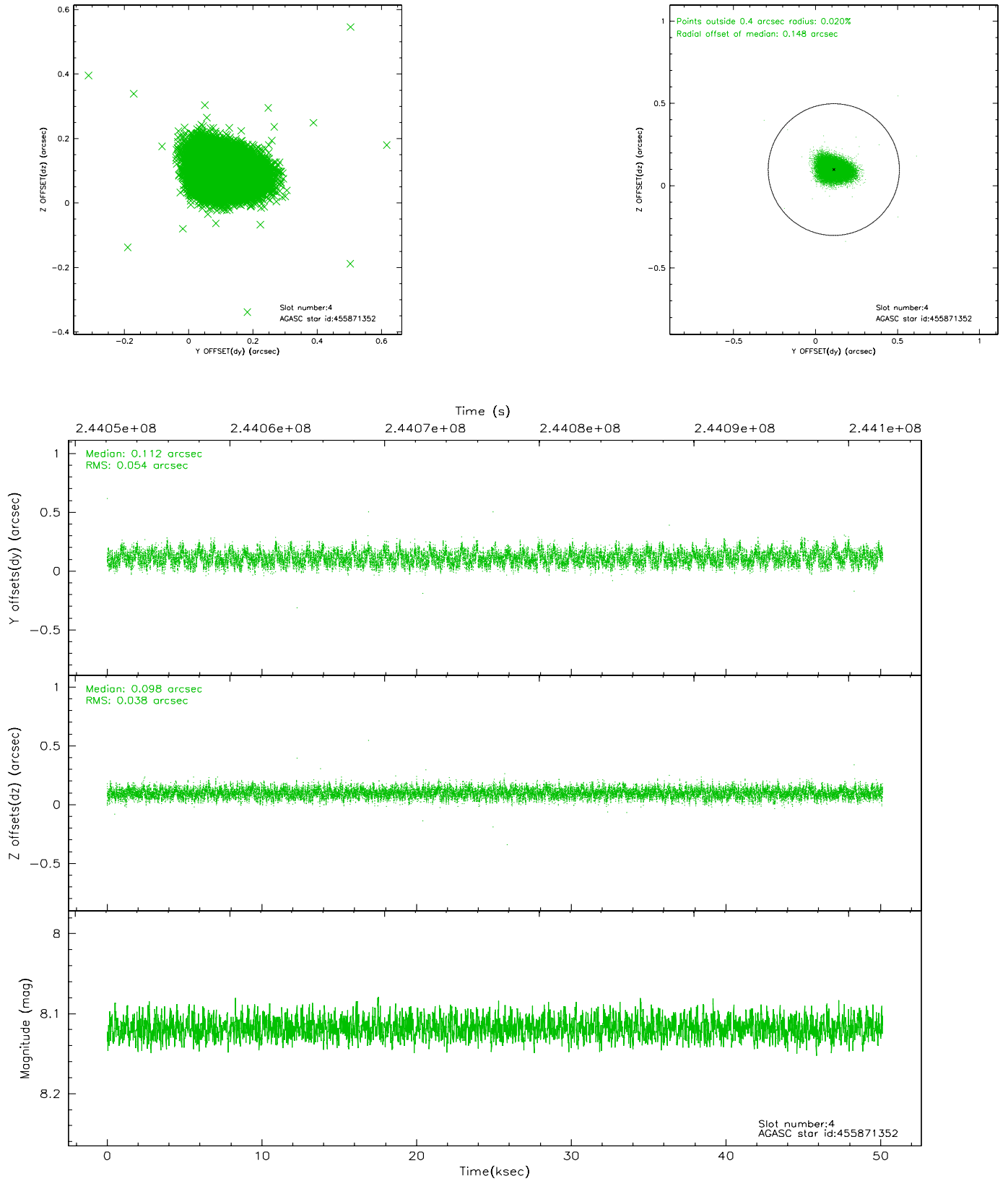
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.24 | 12229 | -0.041 | -0.003 | 0.015 | 0.073 | 0.000000 | 0.000000 | 933.42 | -834.90 |
| 1 | FID | ACIS-I-2 | 7.14 | 12228 | -0.100 | -0.019 | 0.010 | 0.030 | 0.000000 | 0.000000 | -760.74 | -841.38 |
| 2 | FID | ACIS-I-4 | 7.17 | 12227 | 0.042 | 0.089 | 0.009 | 0.046 | 0.000000 | 0.000000 | 2153.37 | 1065.01 |
| 3 | GUIDE | 455870296 | 7.34 | 24450 | -0.073 | -0.007 | 0.062 | 0.104 | 214.629779 | 52.033323 | 1513.52 | -1635.21 |
| 4 | GUIDE | 455871352 | 8.12 | 24455 | 0.112 | 0.098 | 0.070 | 0.113 | 215.099961 | 52.172669 | 2021.73 | -598.52 |
| 5 | GUIDE | 505806936 | 7.00 | 24459 | -0.051 | -0.009 | 0.053 | 0.082 | 213.820815 | 52.535927 | -1002.08 | -1290.00 |
| 6 | GUIDE | 505812088 | 8.15 | 24454 | 0.160 | 0.075 | 0.057 | 0.091 | 214.186617 | 53.263562 | -1964.32 | 1272.66 |
| 7 | GUIDE | 505812376 | 7.69 | 24456 | -0.154 | -0.163 | 0.053 | 0.085 | 214.039537 | 52.937930 | -1502.47 | 149.24 |

2.4 Star Slots

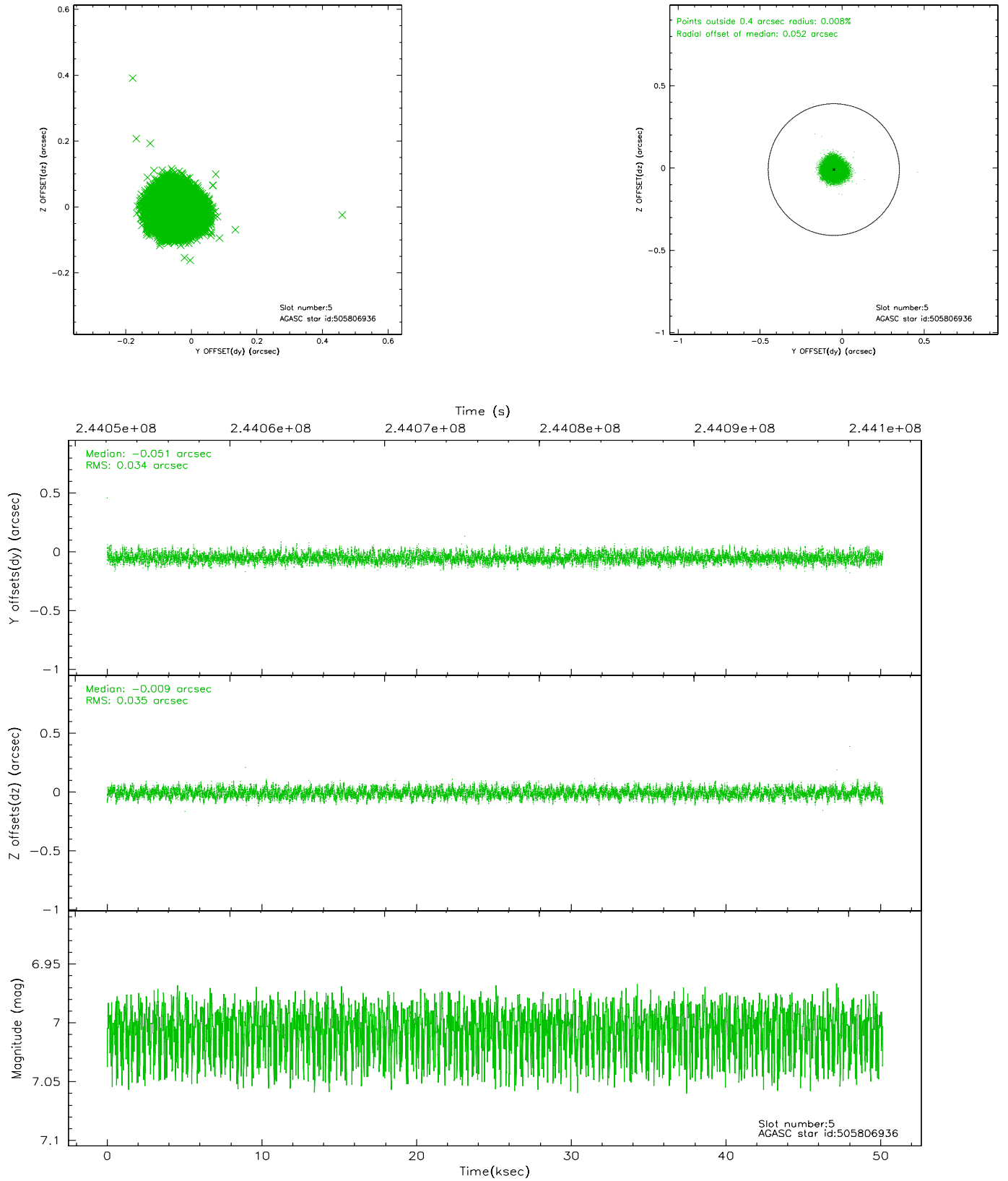
2.4.1 Slot 3



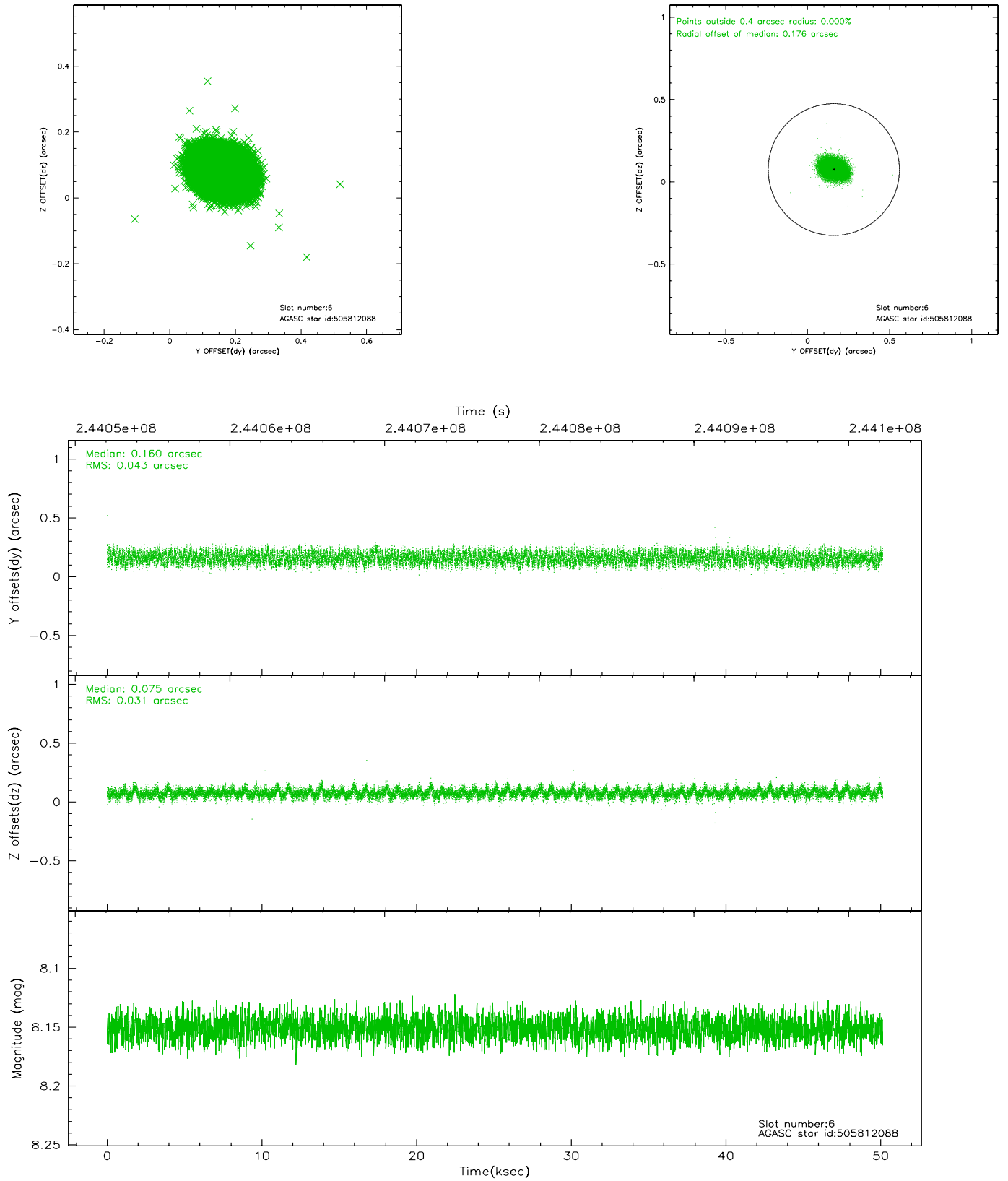
2.4.2 Slot 4



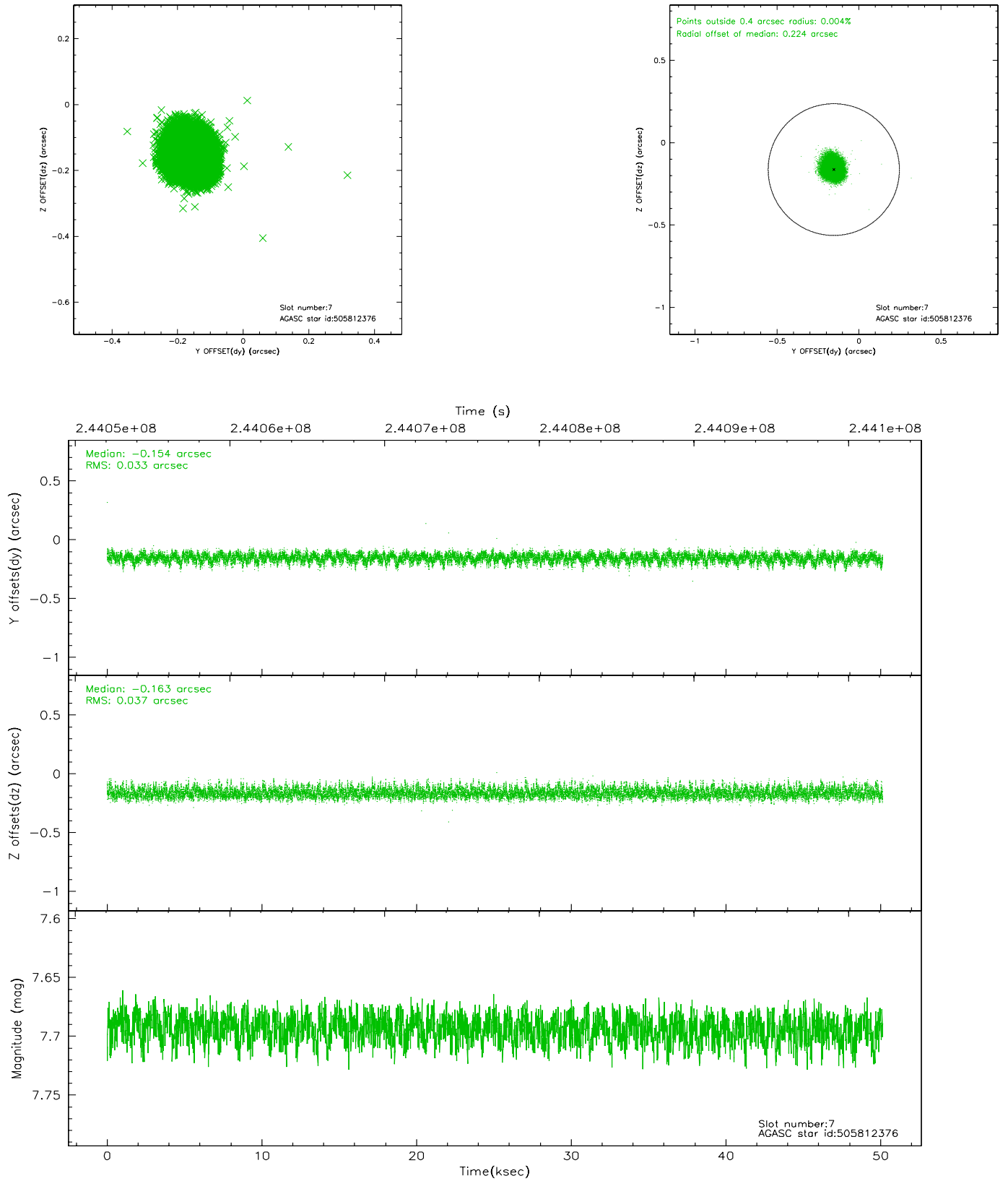
2.4.3 Slot 5



2.4.4 Slot 6

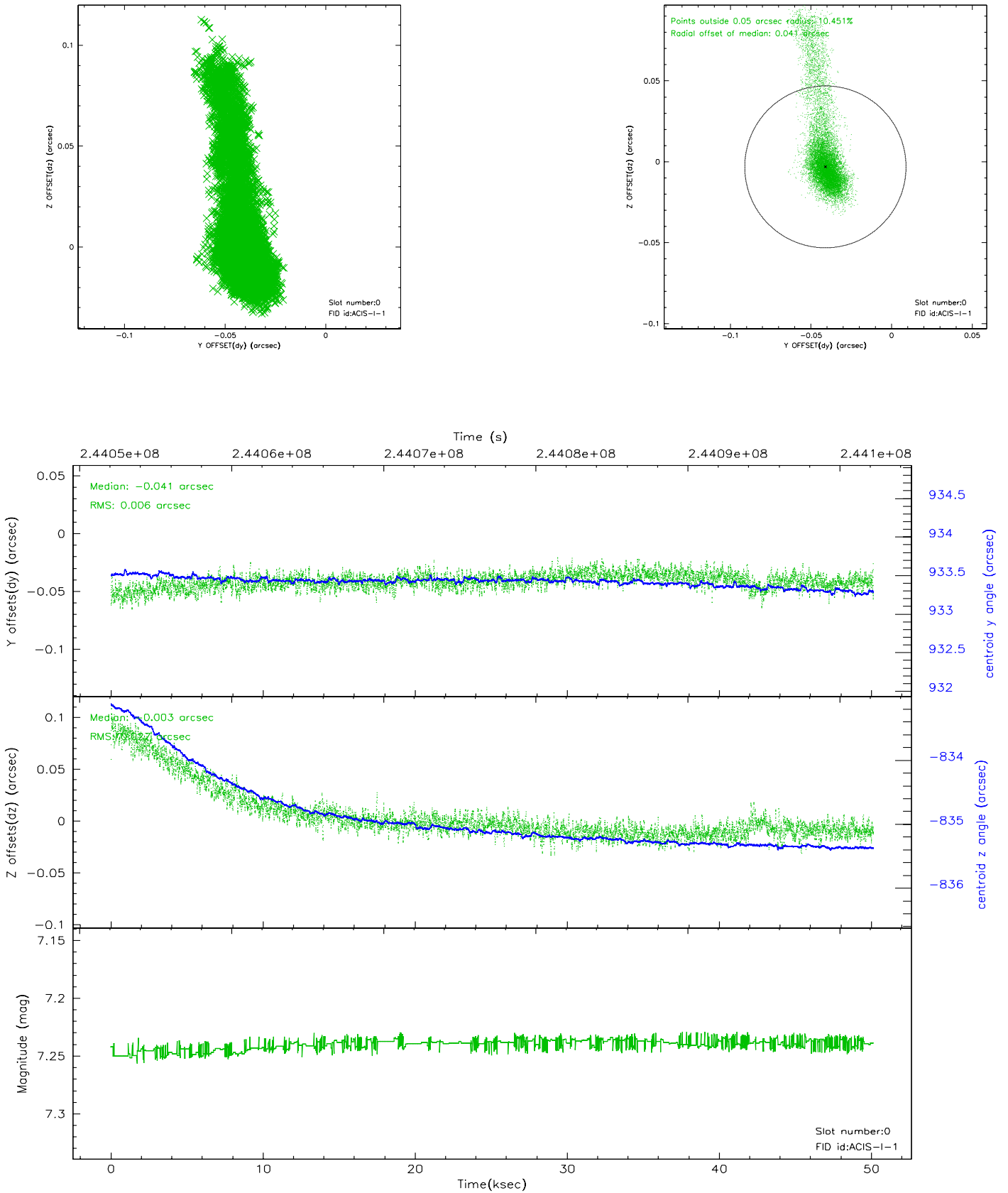


2.4.5 Slot 7

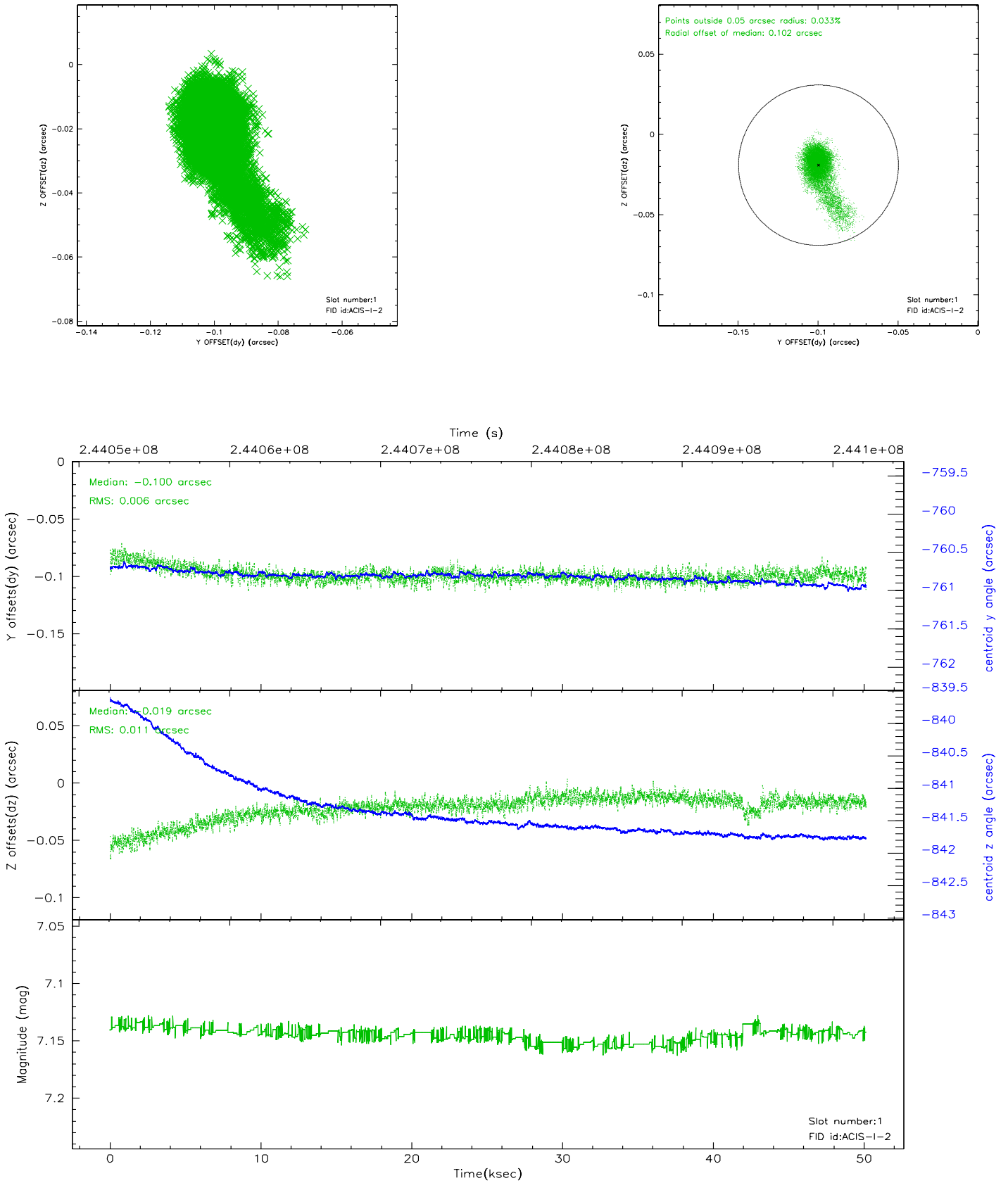


2.5 FID Slots

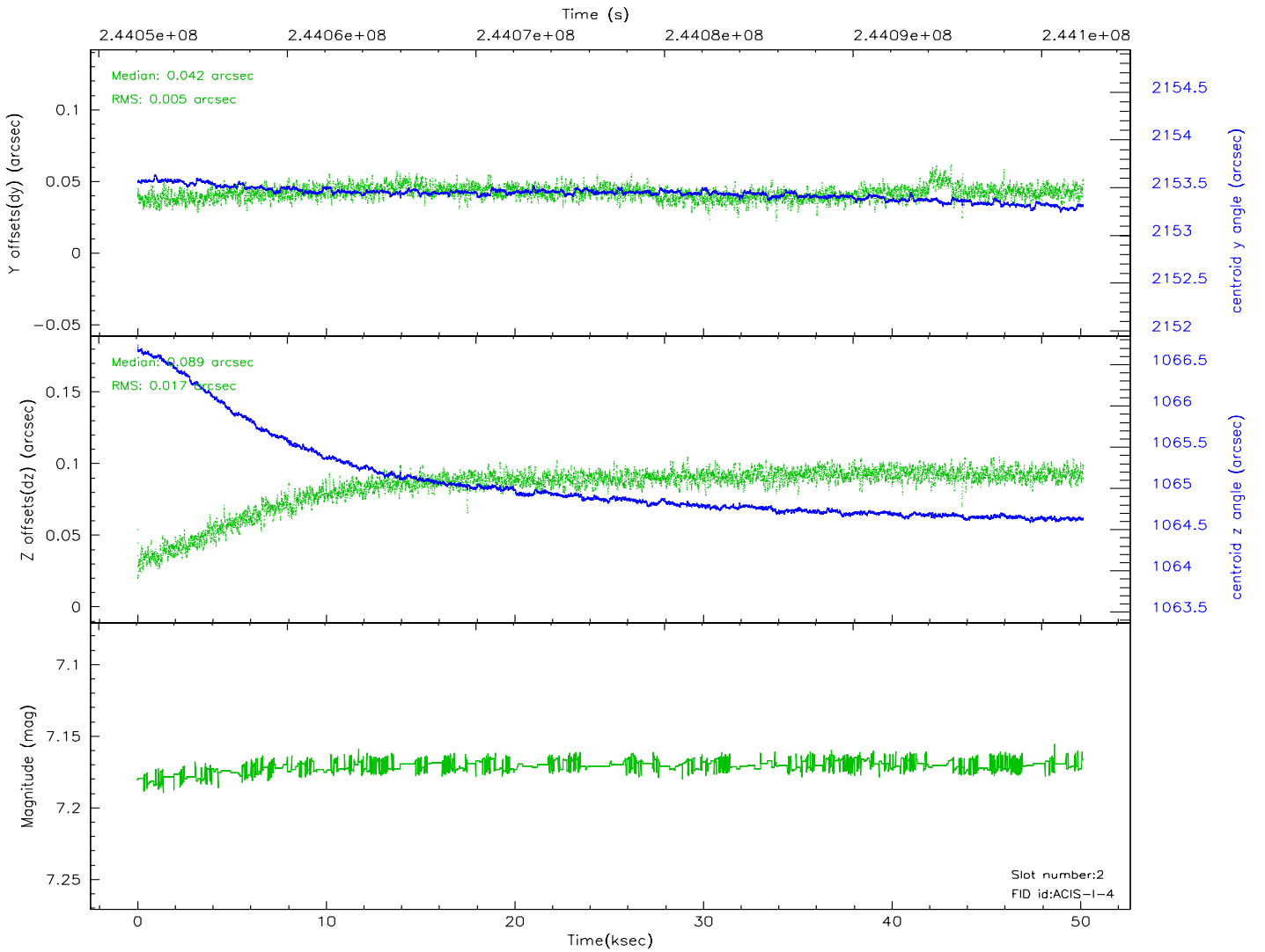
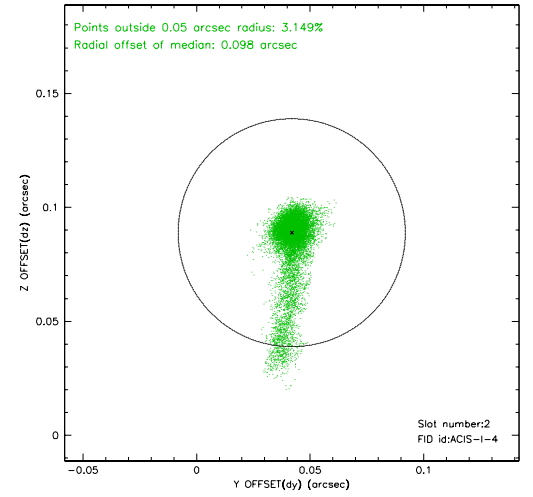
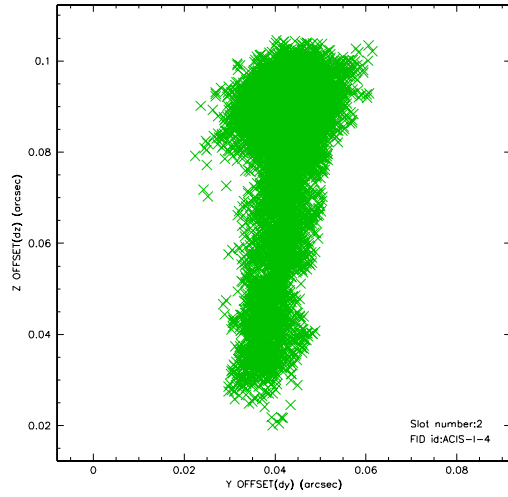
2.5.1 Slot 0



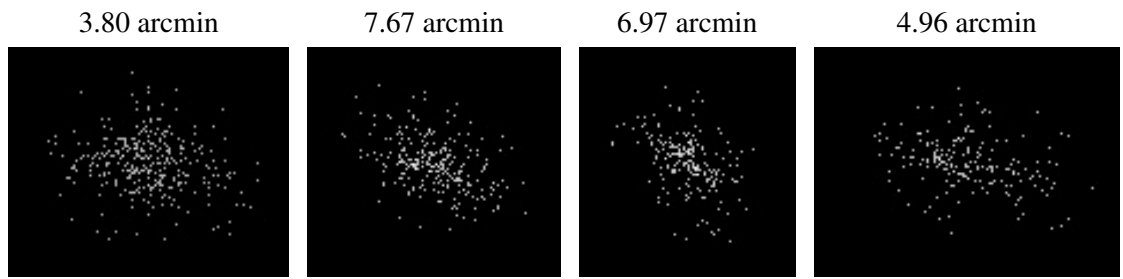
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2006.03.26 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 50.13005 |

A.2 Comments

Roll constraint met.

As a consequence of the DEA-A shutdown anomaly on Sep 15th (DOY258), the the reported value of the ACIS FP temperature was ~1.3 degrees warmer than the actual temperature. GOs should subtract 1.3 degrees from the reported temperature to determine the true temperature. In addition the FP temperature was not regulating during this period. The FP temperature fluctuated between -121.3 C and -118.8 C during this time. For analysis of line-dominated spectra from the FI CCDs, GOs might notice a systematic gain shift by up to 0.5%, either towards higher/lower energies depending on if the FP temperature was colder/warmer than -119.7 C. Analysis of line-dominated spectra on S3 are mostly unaffected (where mostly unaffected means that the changes are smaller than the current uncertainties in the calibration). Analysis of continuum-dominated spectra on both the FI and BI CCDs are mostly unaffected. Imaging analysis on both the FI and BI CCDs are mostly unaffected.