

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13577 - L2 Version 2
Chandra X-Ray Center

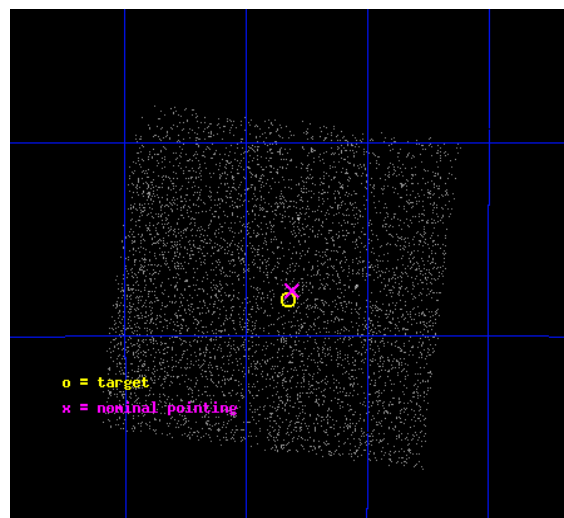
L2 Processing Date : Feb 16 2012

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1 Front

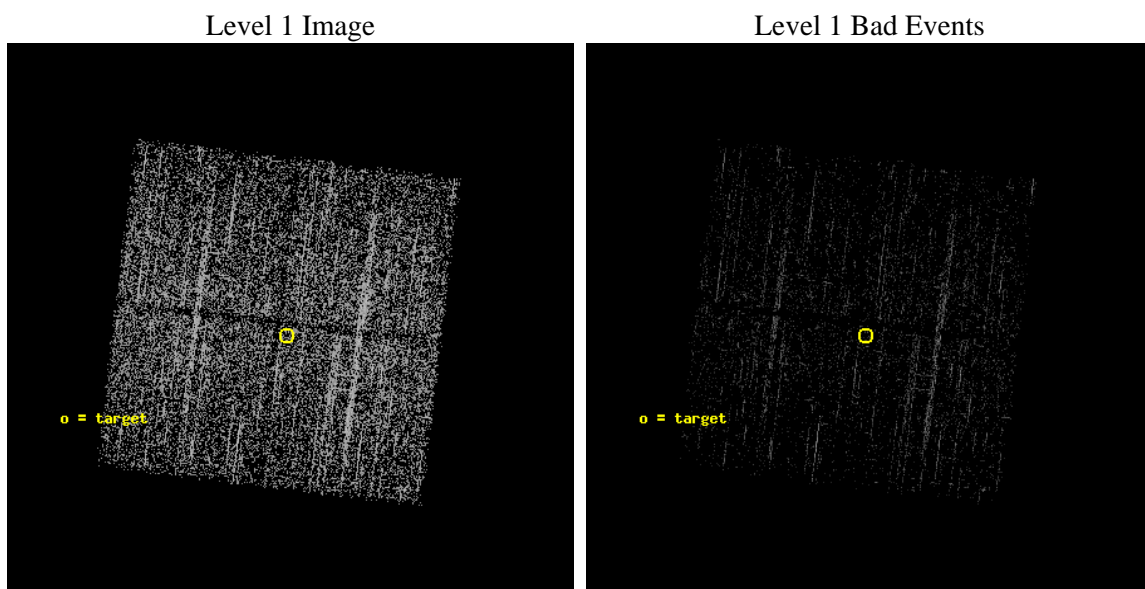
| | | |
|----------|--|--|
| seq_num | 401353 | Sequence number |
| obs_id | 13577 | Observation id |
| title | Completing the Galactic Bulge Survey: categorizing the plethora of faint X-ray sources in the Galactic Bulge | Proposal title |
| observer | dr P Jonker | Principal investigator |
| object | GBS13-5 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 266.331658 | Observer's specified target RA [deg] |
| dec_targ | -32.301929 | Observer's specified target Dec [deg] |
| ra_nom | 266.32785674095 | Nominal RA [deg] |
| dec_nom | -32.294312452495 | Nominal Dec [deg] |
| roll_nom | 96.983576573308 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 1971.1432313919 | Sum of GTIs [s] |
| livetime | 1945.3887939392 | Livetime [s] |
| ontime0 | 1971.020111382 | Sum of GTIs [s] |
| ontime1 | 1971.0611513853 | Sum of GTIs [s] |
| ontime2 | 1967.9612310529 | Sum of GTIs [s] |
| ontime3 | 1971.1432313919 | Sum of GTIs [s] |
| l2events | 5890 | Number of level 2 events |



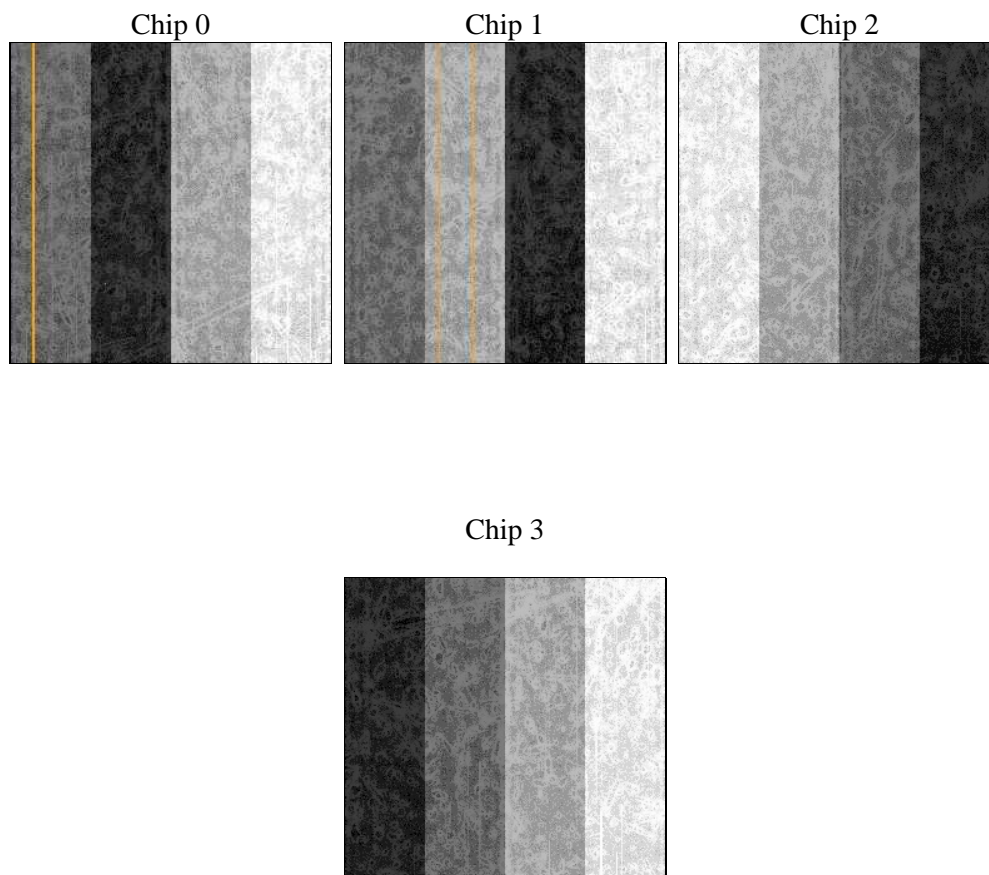
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 2180.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3 | Processing system revision | ontime | 1971.1432313919 | Sum of GTIs [s] |
| caldsver | 4.4.7 | | ontime0 | 1971.020111382 | Sum of GTIs [s] |
| date | 2012-02-16T04:32:18 | Date and time of file creation | ontime1 | 1971.0611513853 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 1967.9612310529 | Sum of GTIs [s] |
| | | | ontime3 | 1971.1432313919 | Sum of GTIs [s] |
| | | | l1events | 45774 | Number of level 1 events |

2.1.4 Events

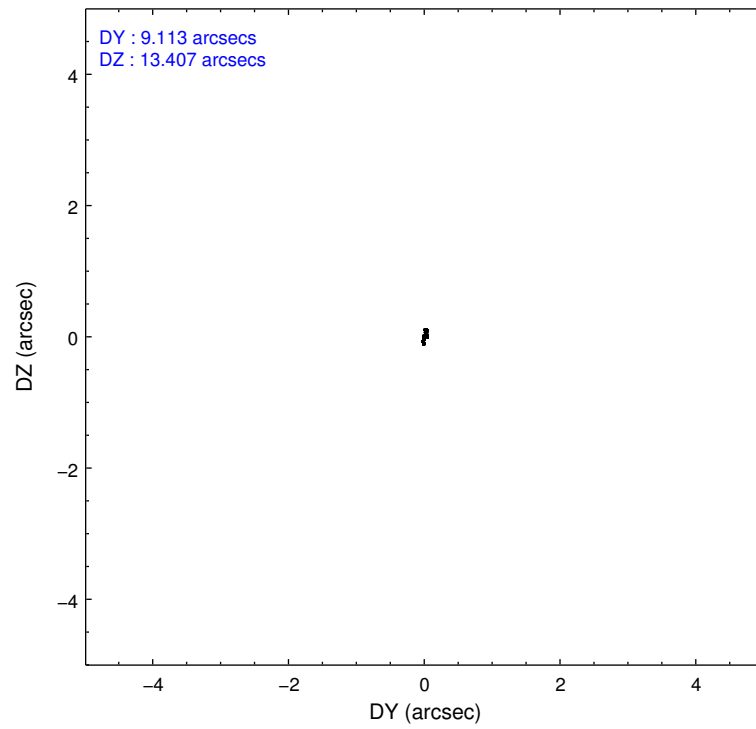
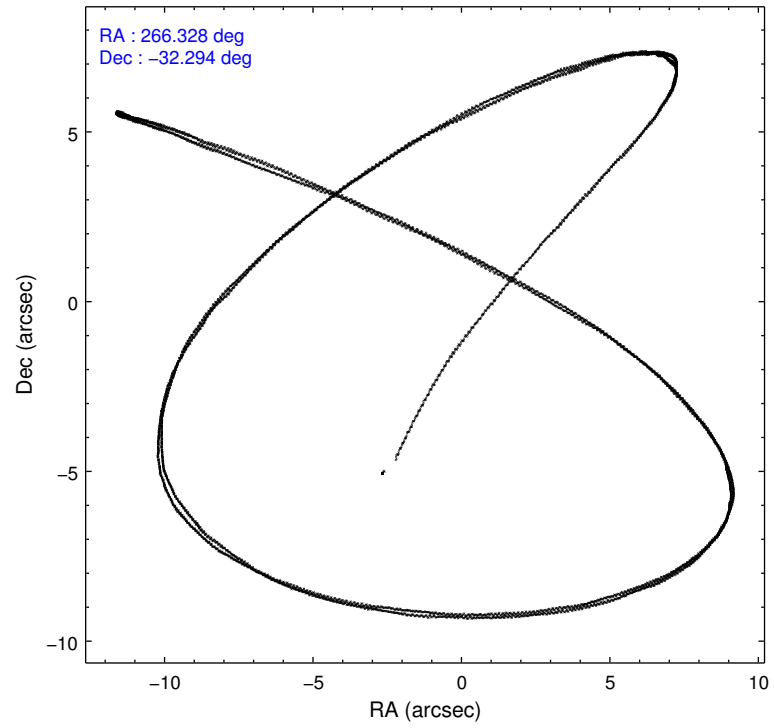
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|-----------------|-------|-------|-------|-------|
| level 1 events | 10890 | 10823 | 11836 | 12225 |
| rejected events | 9138 | 9003 | 10171 | 10593 |
| rejected % | 83% | 83% | 85% | 86% |

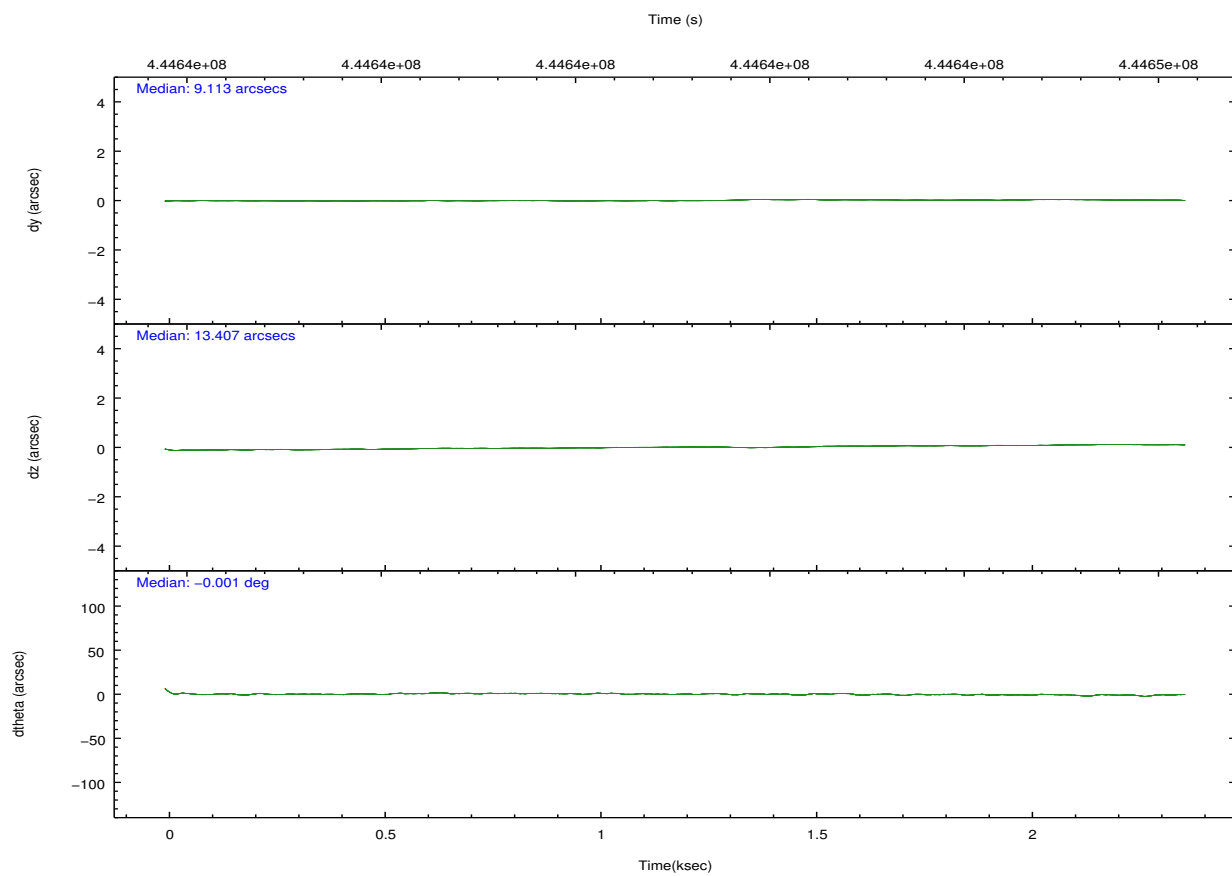
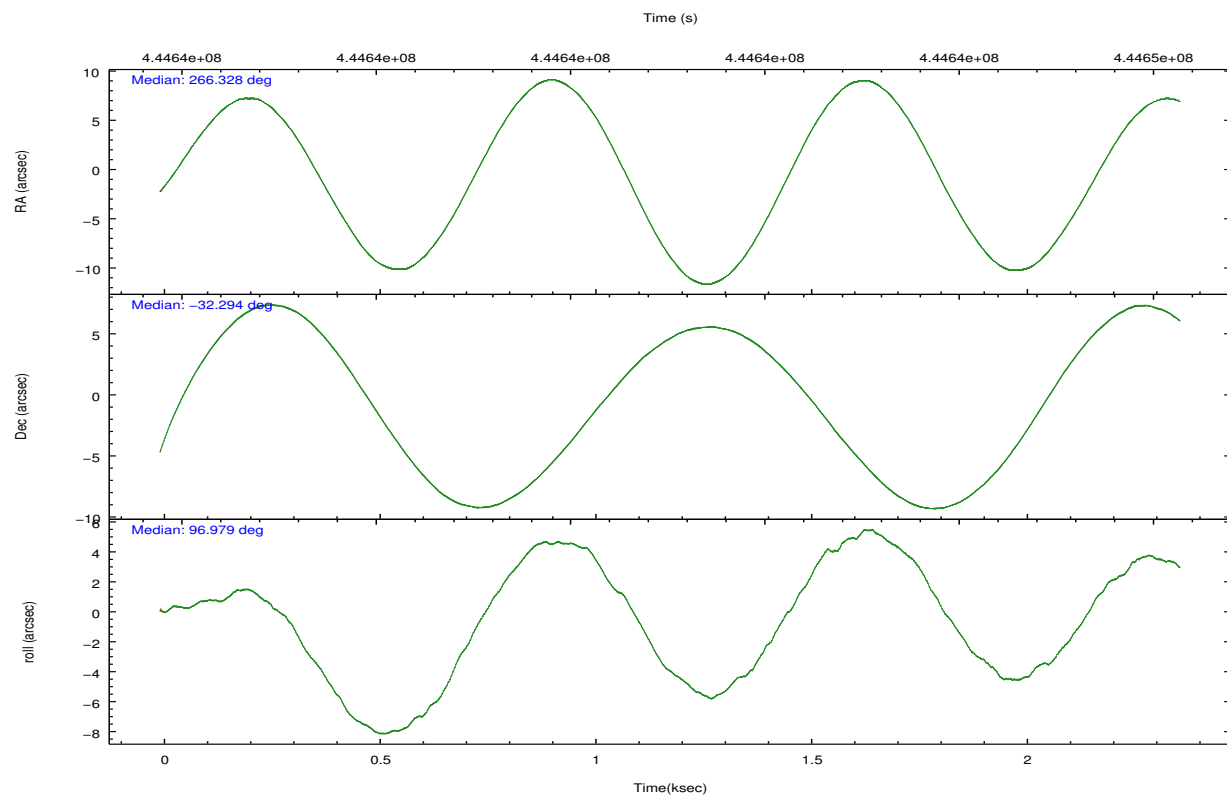
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|----------------|-------|-------|-------|-------|
| grade 0 events | 760 | 746 | 730 | 754 |
| | 6% | 6% | 6% | 6% |
| grade 1 events | 12 | 4 | 9 | 8 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 348 | 425 | 348 | 298 |
| | 3% | 3% | 2% | 2% |
| grade 3 events | 173 | 163 | 170 | 166 |
| | 1% | 1% | 1% | 1% |
| grade 4 events | 162 | 184 | 159 | 144 |
| | 1% | 1% | 1% | 1% |
| grade 5 events | 543 | 595 | 498 | 562 |
| | 4% | 5% | 4% | 4% |
| grade 6 events | 309 | 307 | 260 | 270 |
| | 2% | 2% | 2% | 2% |
| grade 7 events | 8583 | 8399 | 9662 | 10023 |
| | 78% | 77% | 81% | 81% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-0123 | ACIS-0123 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 266.347406 | 266.3278567409484 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -32.316458 | -32.29431245249535 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 96.785328 | 96.98357657330756 | [s] Primary exposure time | 0.000000 | 3.1 |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | | | |
| [mm] SIM defocus | 0 | 0.001439871863259334 | | | |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | | | |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | | | |
| [s] Observation start time (MET) | 444643247.184000 | 444642692.97306 | | | |
| Observation start date | 2012-02-03T07:59:41 | 2012-02-03T07:51:32 | | | |
| [s] Observation end time (MET) | 444645427.184000 | 444645560.92321 | | | |
| Observation end date | 2012-02-03T08:36:01 | 2012-02-03T08:39:20 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



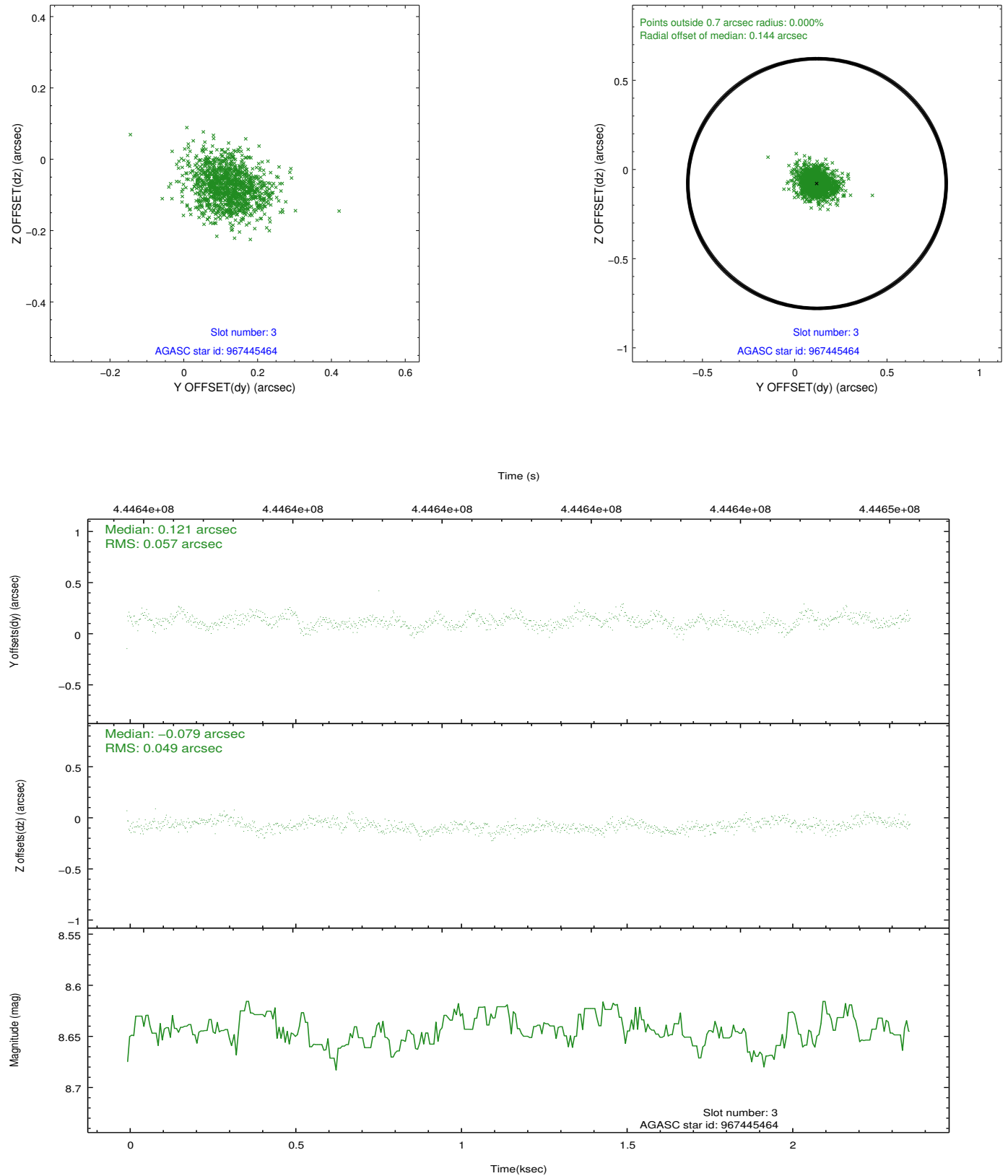


Slot Statistics

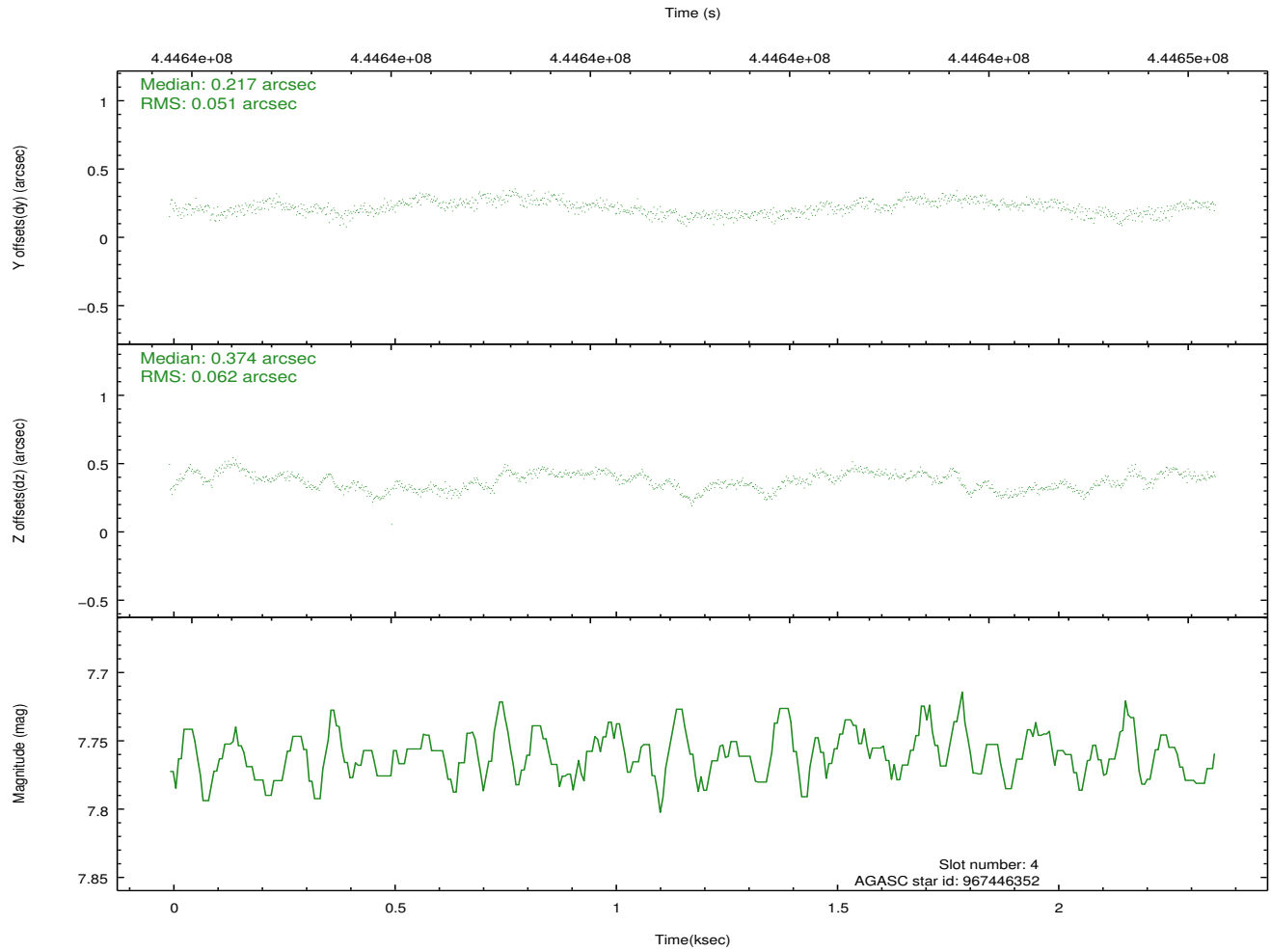
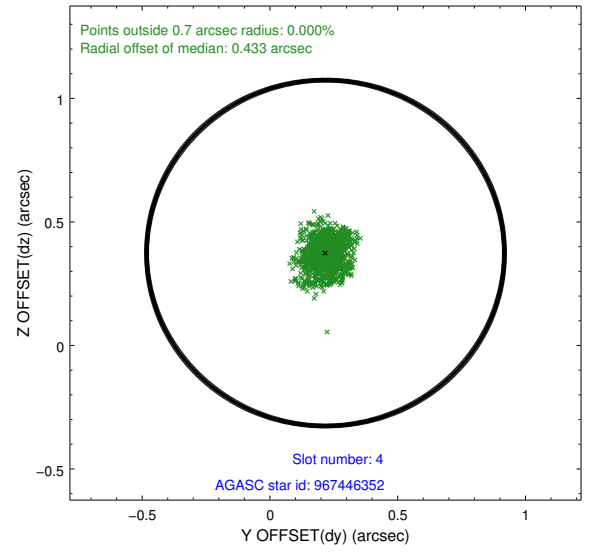
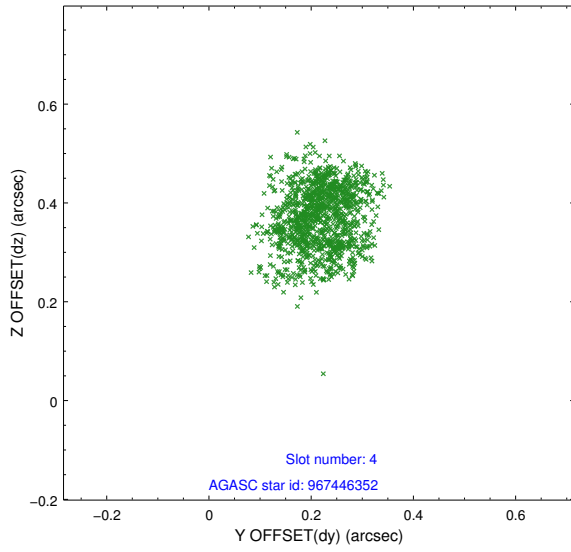
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.08 | 577 | 0.042 | 0.000 | 0.009 | 0.014 | 0.000000 | 0.000000 | 930.52 | -836.99 |
| 1 | FID | ACIS-I-4 | 7.02 | 577 | 0.179 | 0.004 | 0.009 | 0.015 | 0.000000 | 0.000000 | 2152.27 | 1061.42 |
| 2 | FID | ACIS-I-5 | 7.07 | 577 | -0.320 | 0.067 | 0.008 | 0.015 | 0.000000 | 0.000000 | -1814.27 | 1062.54 |
| 3 | GUIDE | 967445464 | 8.64 | 1153 | 0.121 | -0.079 | 0.078 | 0.129 | 265.676970 | -32.968202 | -2097.96 | 2289.16 |
| 4 | GUIDE | 967446352 | 7.76 | 1154 | 0.217 | 0.374 | 0.085 | 0.131 | 267.069988 | -32.671157 | -1536.86 | -2019.47 |
| 5 | GUIDE | 966926896 | 9.19 | 1150 | -0.191 | 0.015 | 0.095 | 0.152 | 266.197771 | -31.663459 | 2385.76 | 176.65 |
| 6 | GUIDE | 967447552 | 8.75 | 1154 | -0.287 | -0.188 | 0.095 | 0.145 | 265.515186 | -32.048669 | 1248.30 | 2409.54 |
| 7 | GUIDE | 967445304 | 8.46 | 1153 | 0.134 | -0.115 | 0.082 | 0.129 | 265.658967 | -32.404354 | -73.51 | 2118.53 |

2.4 Star Slots

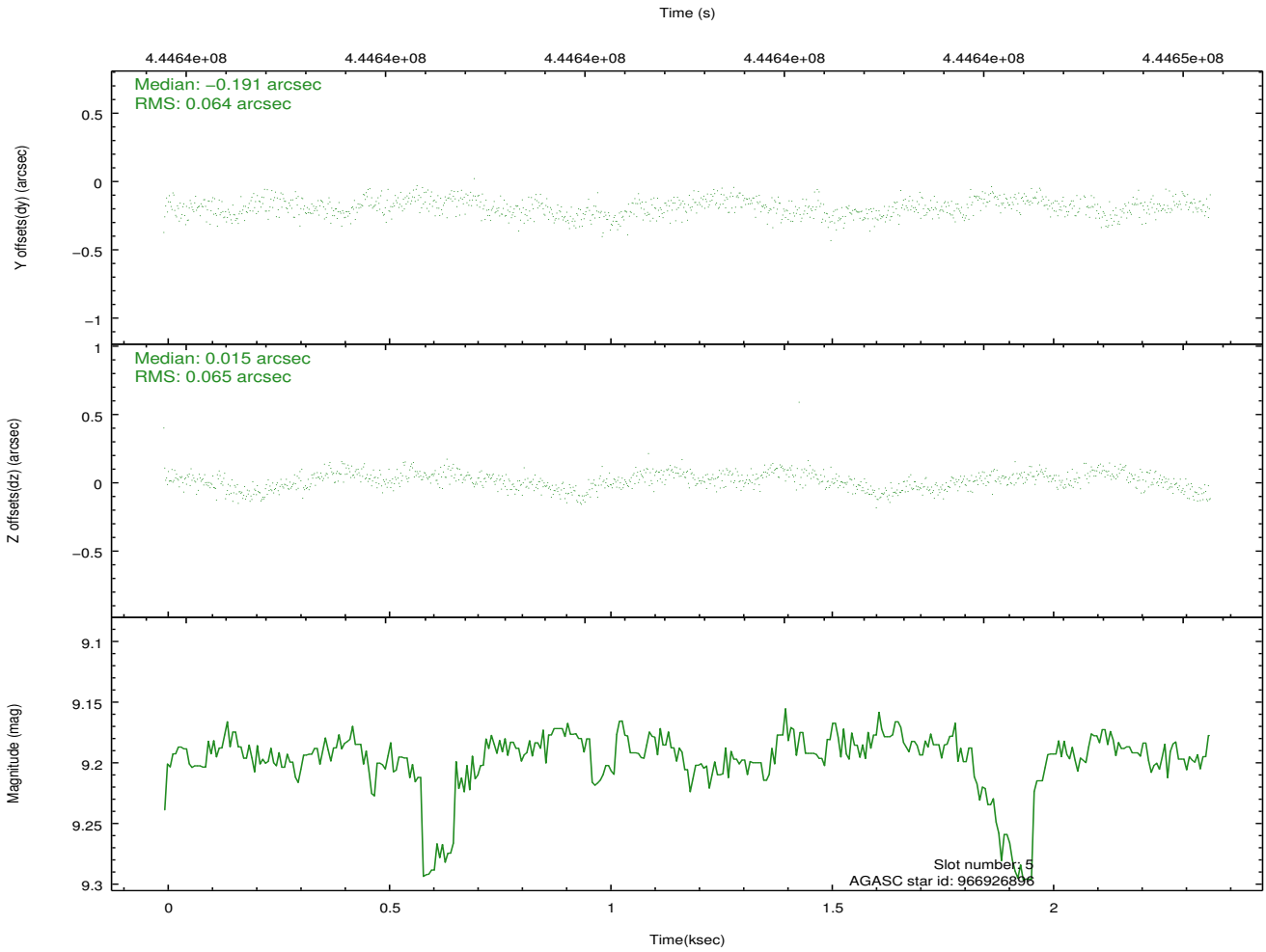
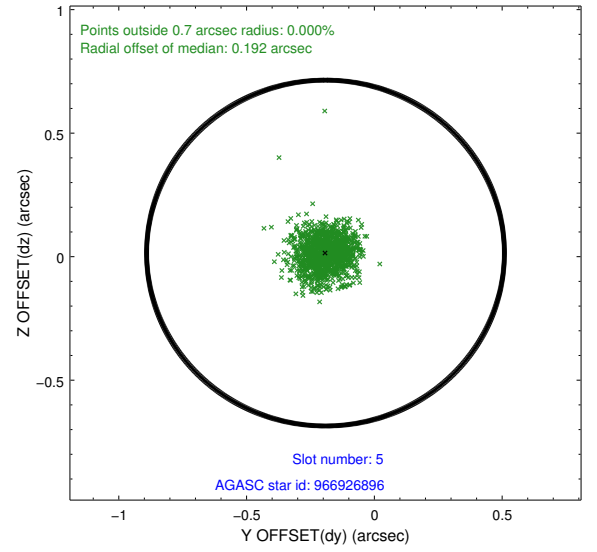
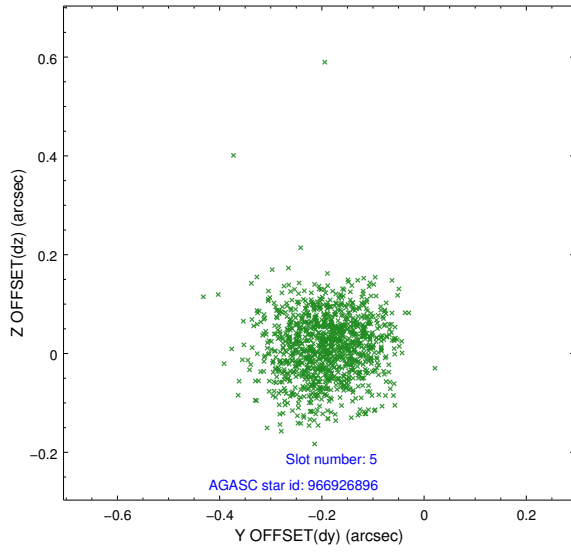
2.4.1 Slot 3



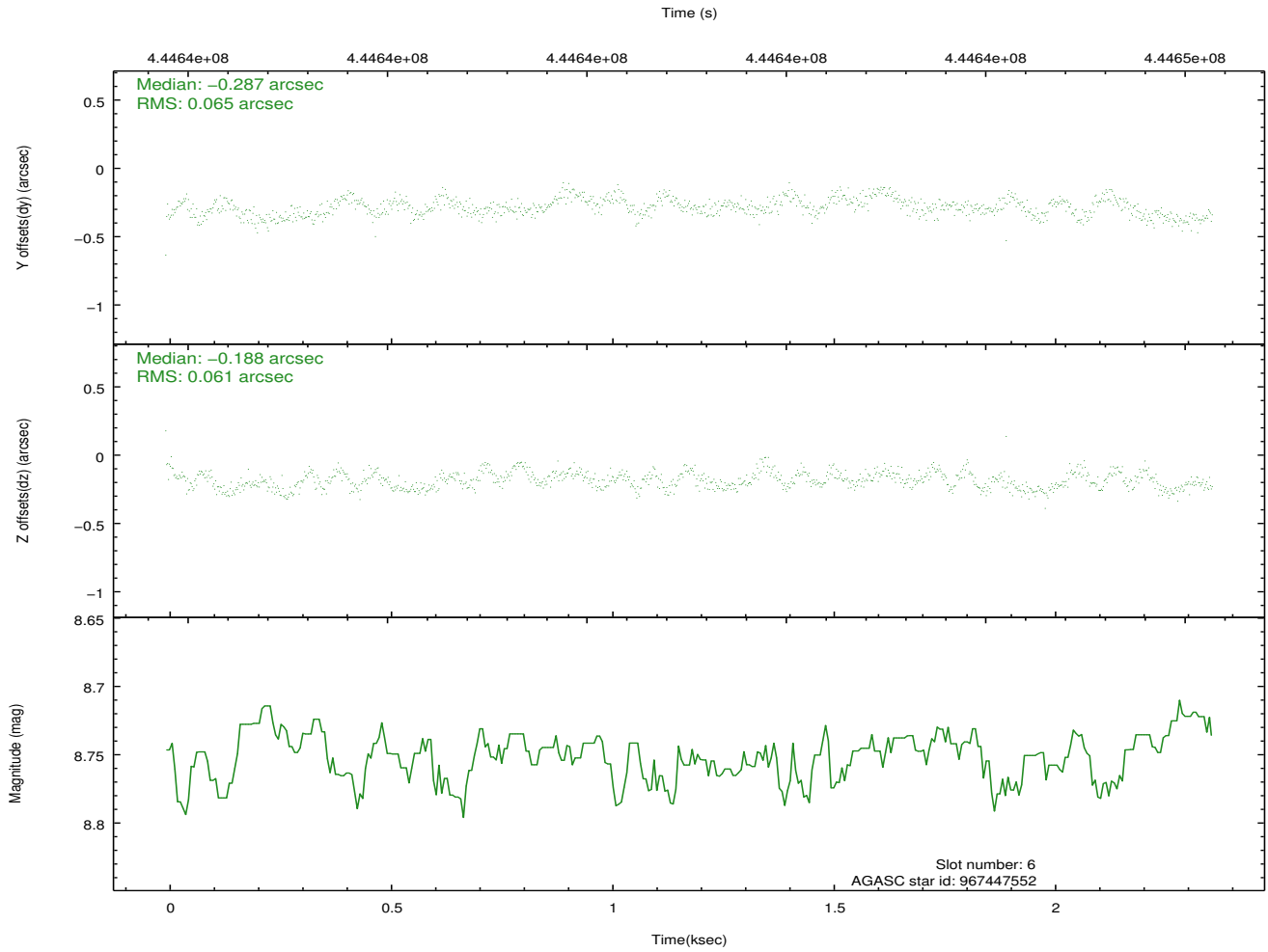
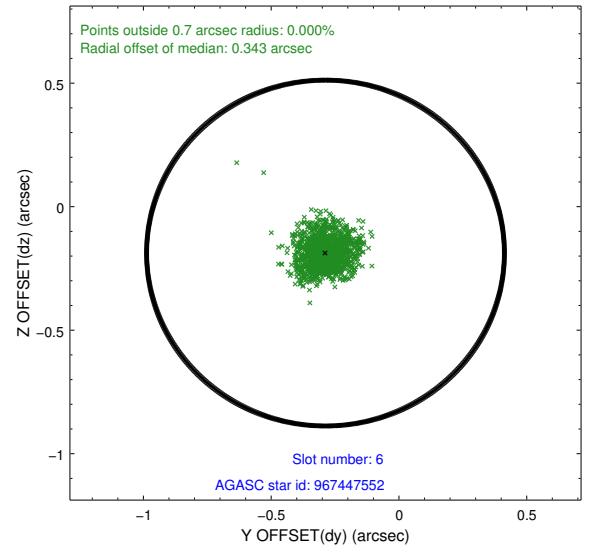
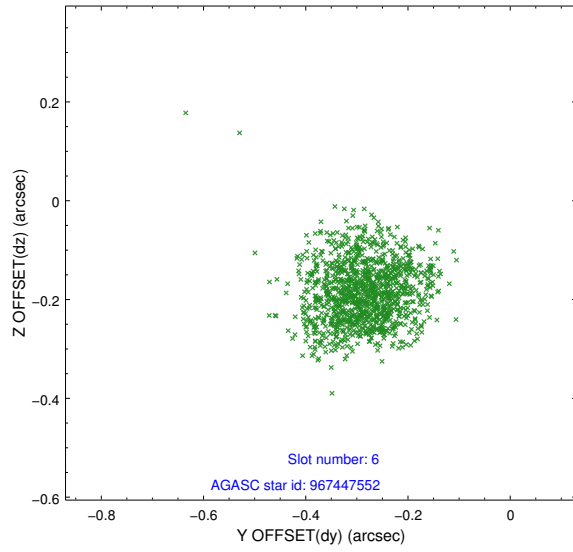
2.4.2 Slot 4



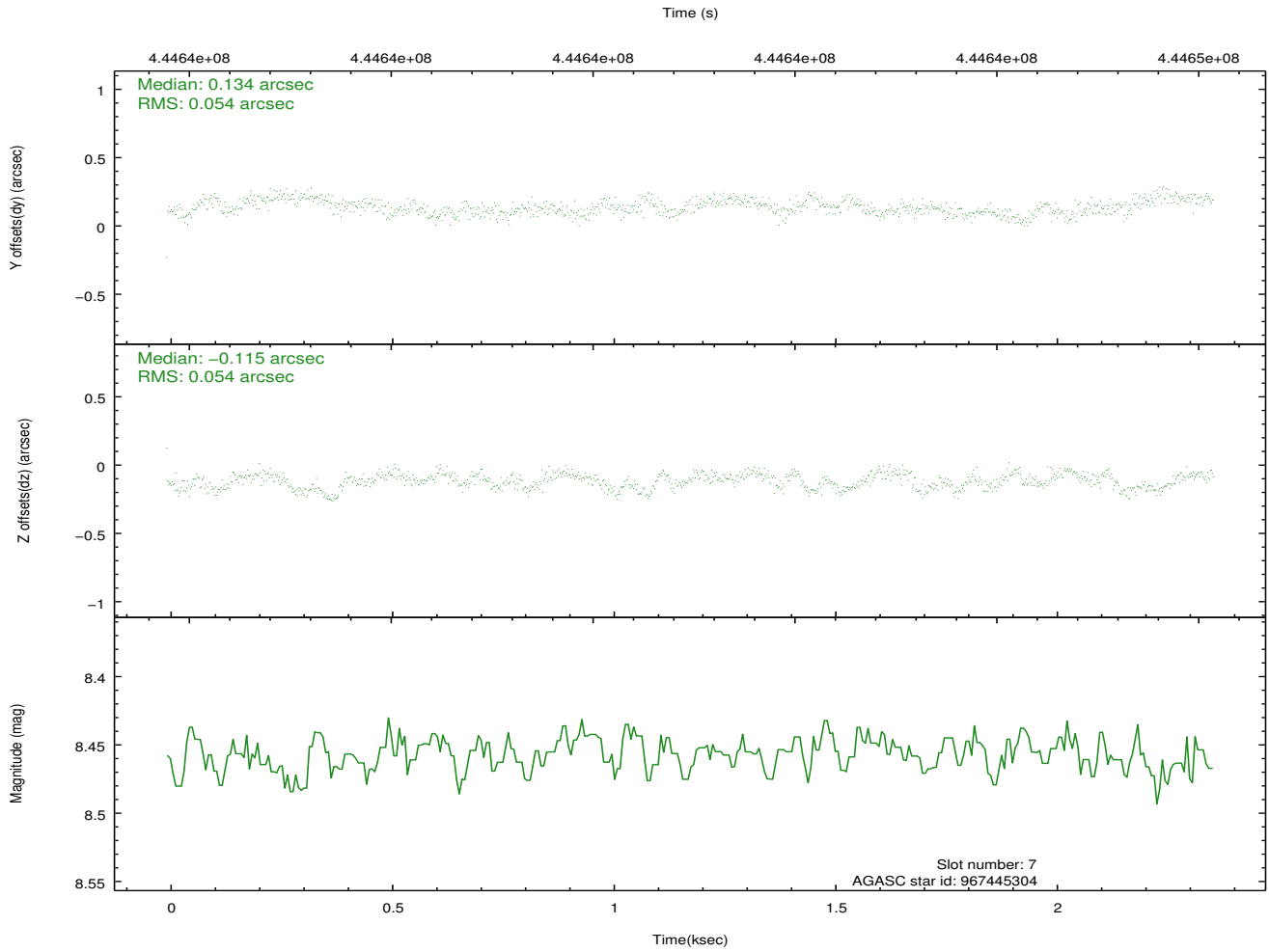
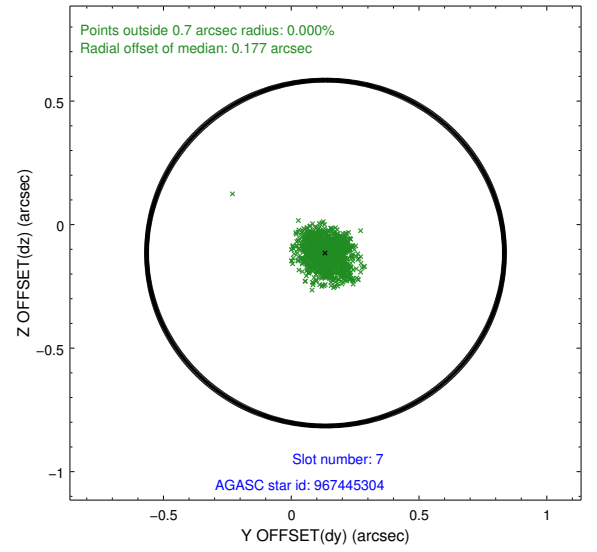
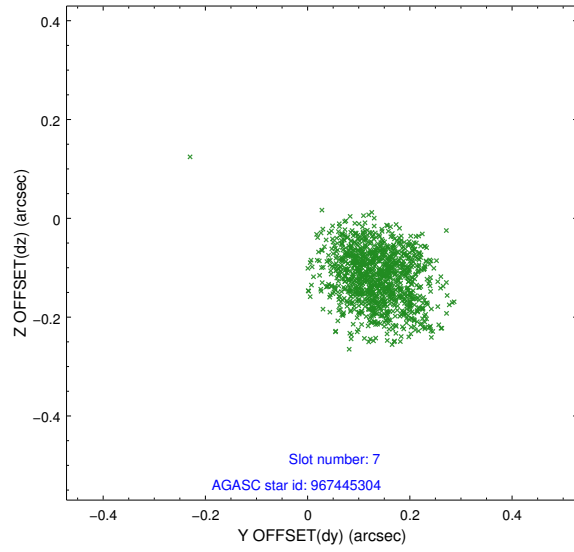
2.4.3 Slot 5



2.4.4 Slot 6

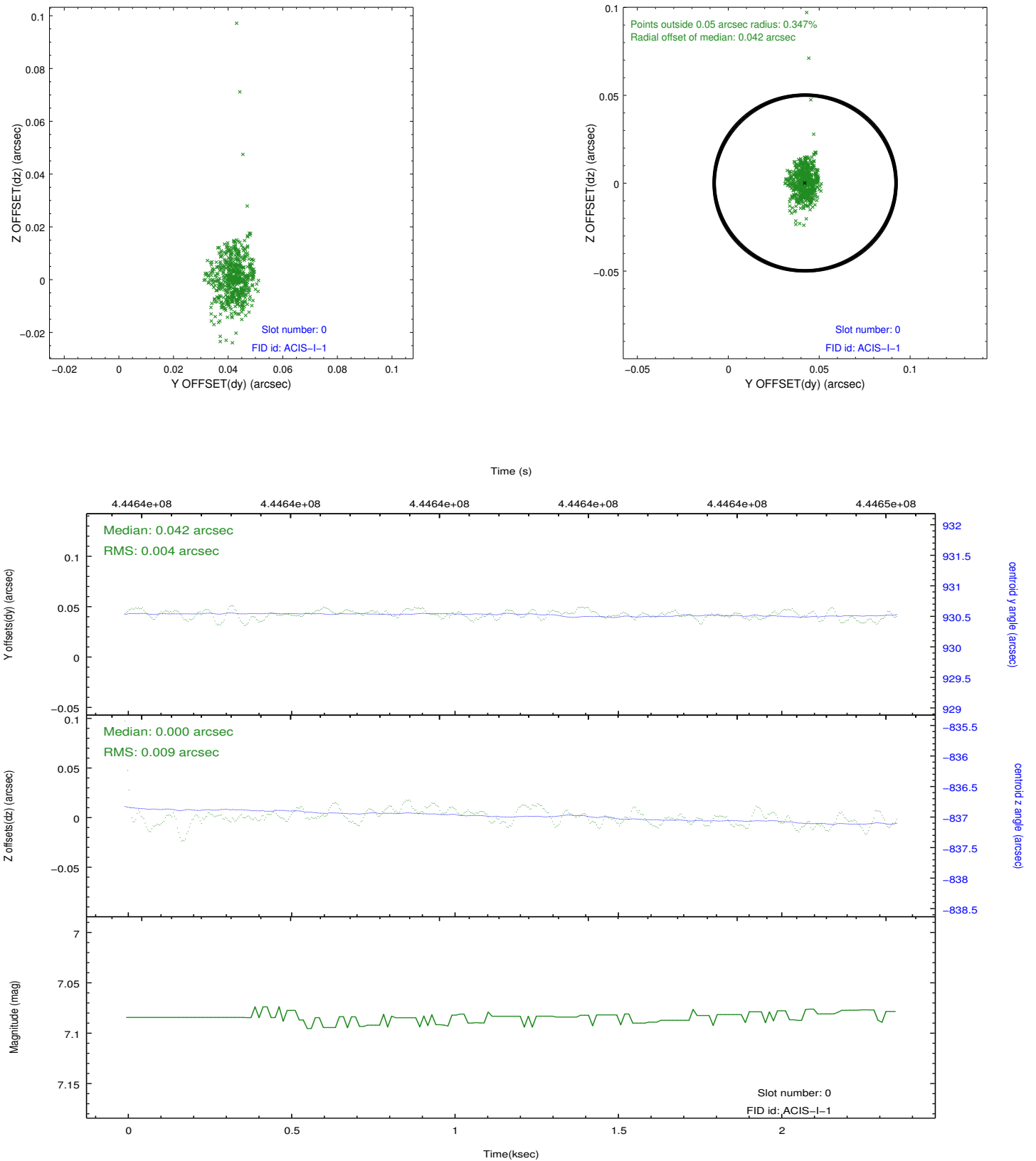


2.4.5 Slot 7

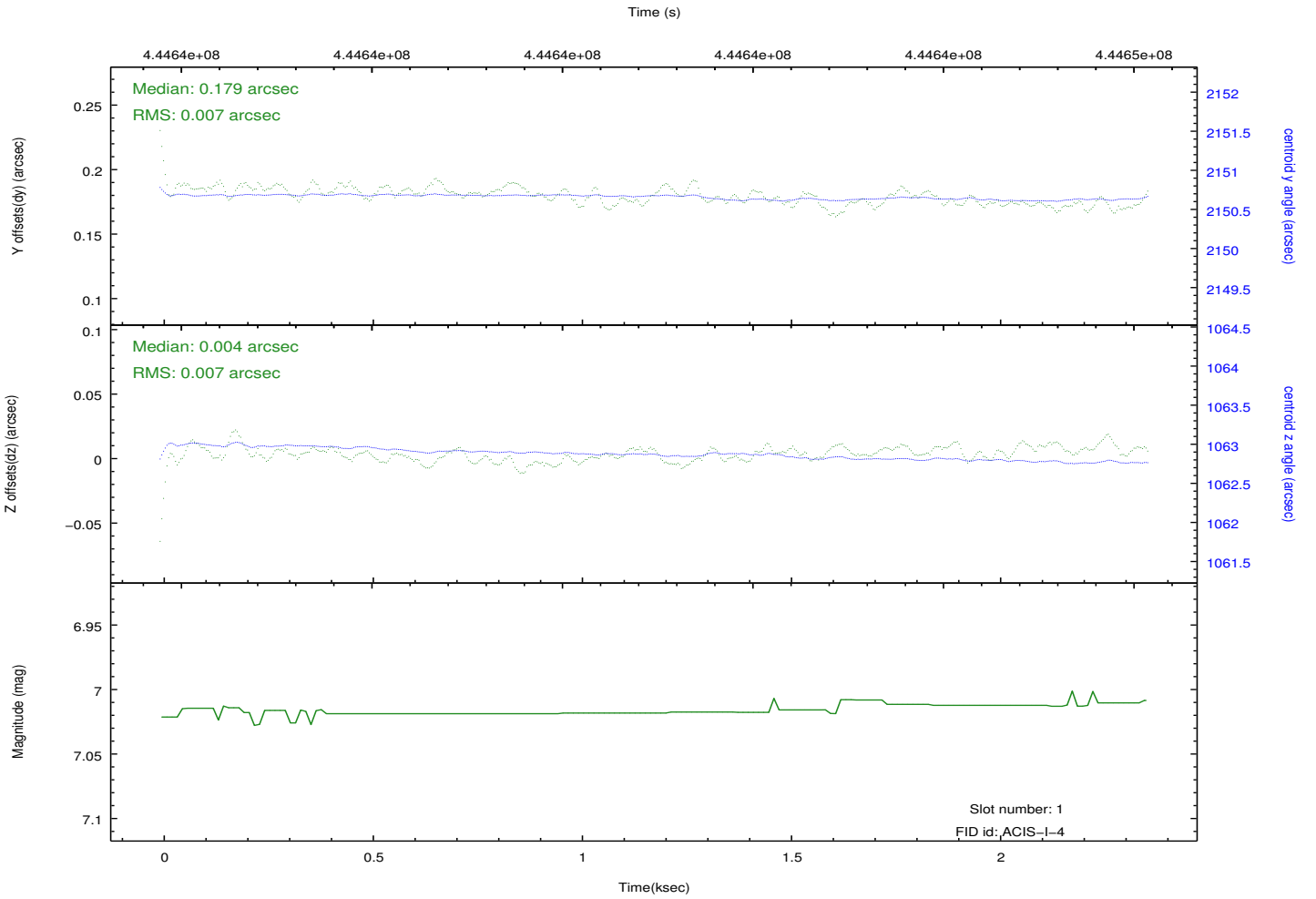
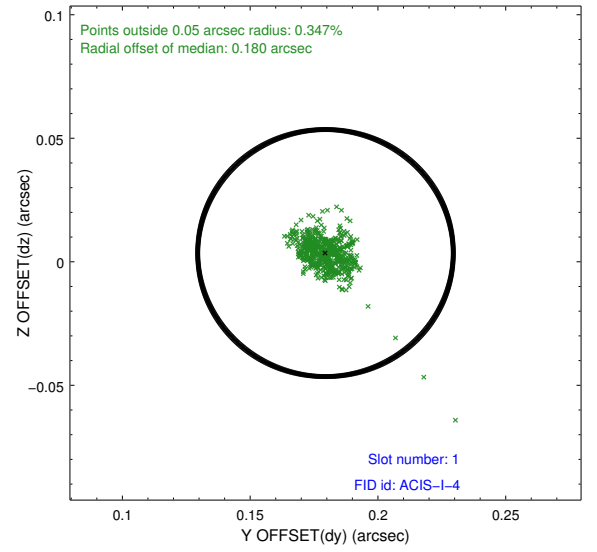
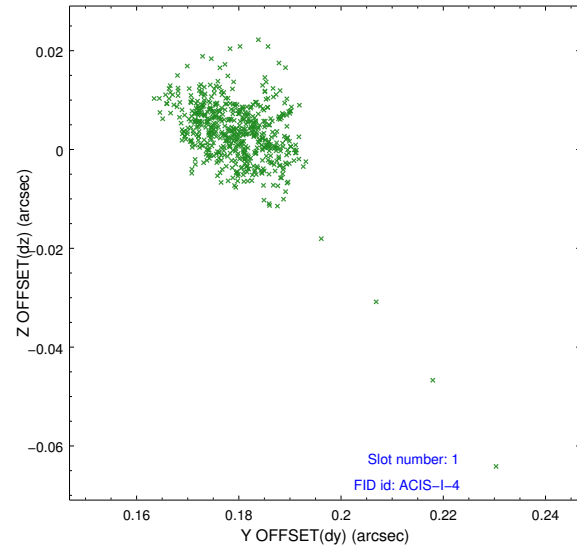


2.5 FID Slots

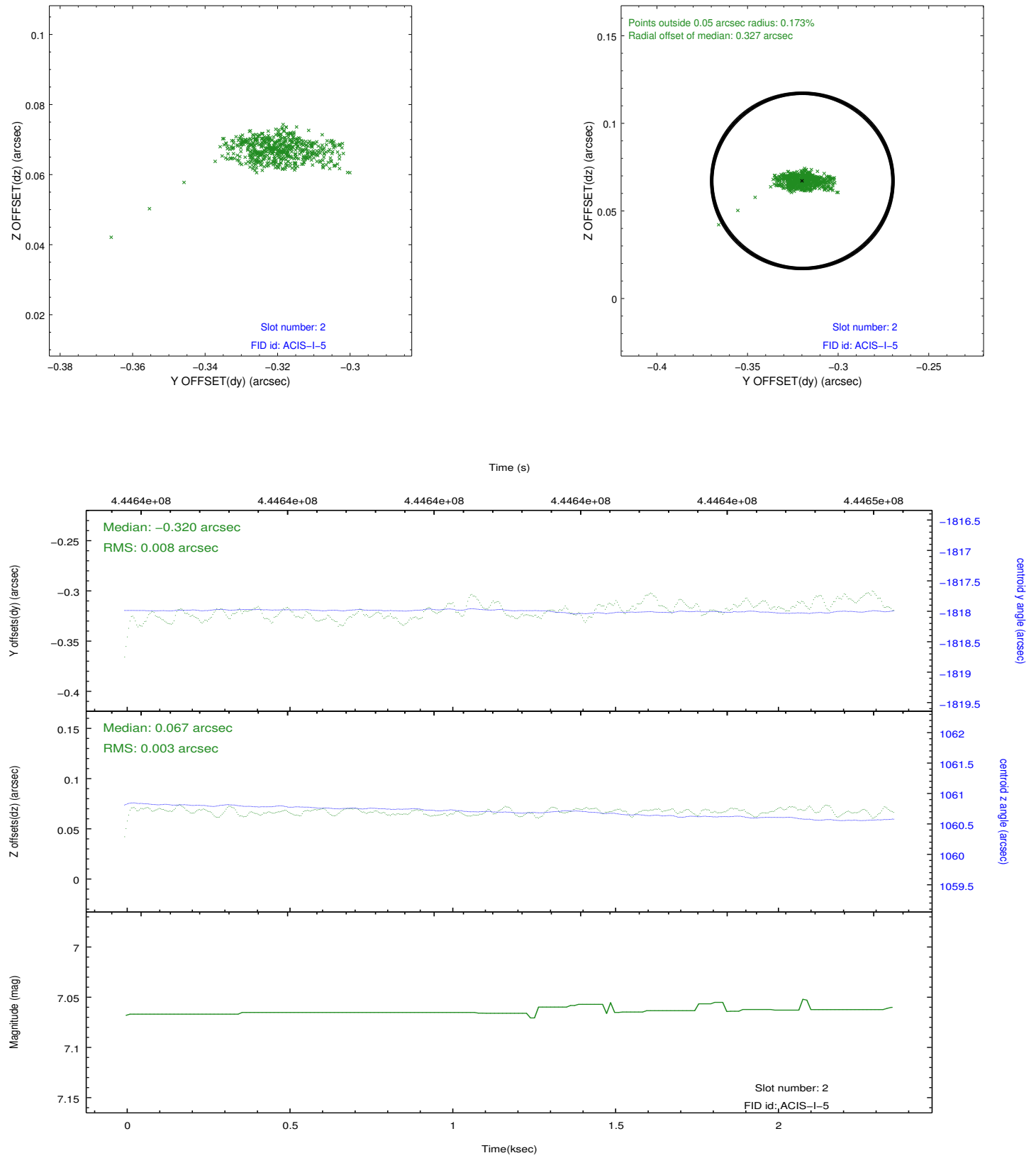
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.02.16 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 1.9711432313919 |

A.2 Comments

A spatial region of the original bias map for CCD = 3 suffered from anomalously high data values. Pixels in the event data that were bias-corrected by one of the original affected bias pixels may have an apparent energy shift. While the change in energy is expected to be small (~ 20 eV), it depends on many parameters that have not yet been fully explored for this bias anomaly. The bias map for CCD = 3 has been reconstructed for this processing to remove this anomaly using scaled data from a comparable bias map from another observation. The pixels affected by the anomaly are bounded by sky coords:
(266.25261,-32.44097),(266.25566,-32.44066),(266.24465,-32.36433),(266.24198,-32.36721)

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Joint Proposal: NOAO