

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 4959 - L2 Version 3
Chandra X-Ray Center

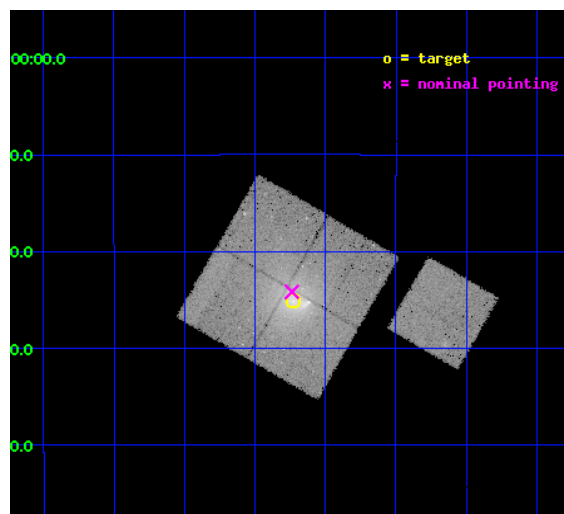
L2 Processing Date : Dec 1 2012

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Bias | 3 |
| 2.1.3 | Parameters | 4 |
| 2.1.4 | Events | 4 |
| 2.2 | Compared Parameters | 5 |
| 2.3 | Aspect | 6 |
| 2.4 | Star Slots | 9 |
| 2.4.1 | Slot 3 | 9 |
| 2.4.2 | Slot 4 | 10 |
| 2.4.3 | Slot 5 | 11 |
| 2.4.4 | Slot 6 | 12 |
| 2.4.5 | Slot 7 | 13 |
| 2.5 | FID Slots | 14 |
| 2.5.1 | Slot 0 | 14 |
| 2.5.2 | Slot 1 | 15 |
| 2.5.3 | Slot 2 | 16 |
| A | Summary | 17 |
| A.1 | Status | 17 |
| A.2 | Comments | 17 |

1 Front

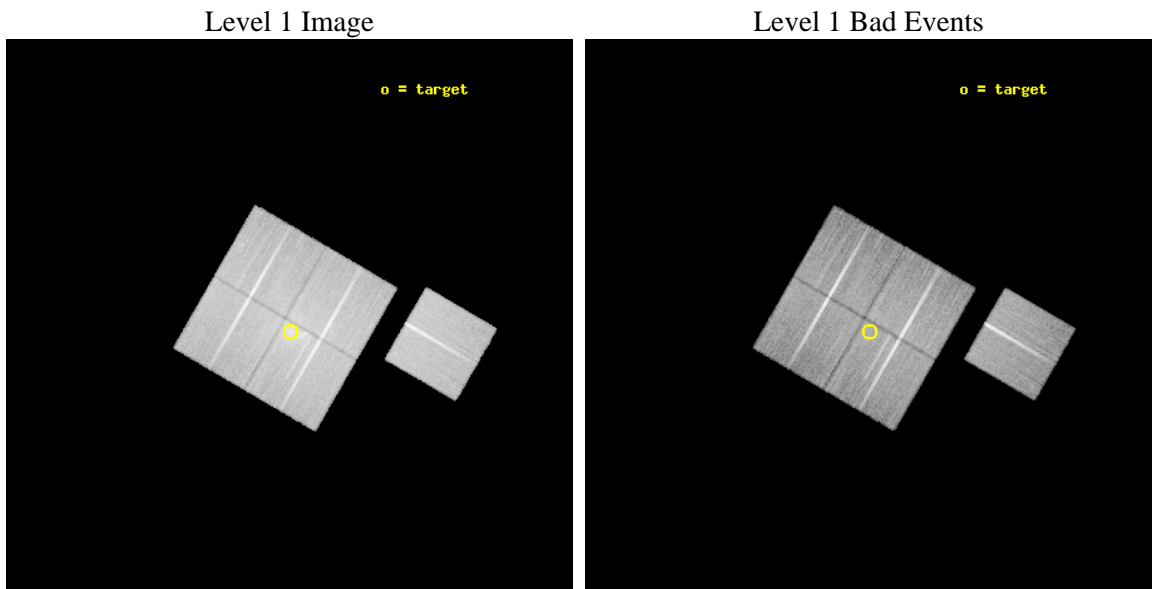
| | | |
|----------|--|---|
| seq_num | 800405 | Sequence number |
| obs_id | 4959 | Observation id |
| title | Chandra Observations of Galaxy Clusters with Large cD Galaxy Peculiar Velocities | Proposal title |
| observer | Dr. CRAIG SARAZIN | Principal investigator |
| object | Abell 2670 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 358.556917 | Observer's specified target RA [deg] |
| dec_targ | -10.418889 | Observer's specified target Dec [deg] |
| ra_nom | 358.5594493244 | Nominal RA [deg] |
| dec_nom | -10.402907605762 | Nominal Dec [deg] |
| roll_nom | 120.10384653546 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 40138.677101731 | Sum of GTIs [s] |
| livetime | 39614.235735733 | Livetime [s] |
| ontime0 | 40141.817972273 | Sum of GTIs [s] |
| ontime1 | 40138.676932335 | Sum of GTIs [s] |
| ontime2 | 40138.67702201 | Sum of GTIs [s] |
| ontime3 | 40138.677101731 | Sum of GTIs [s] |
| ontime6 | 40148.099922776 | Sum of GTIs [s] |
| l2events | 160422 | Number of level 2 events |



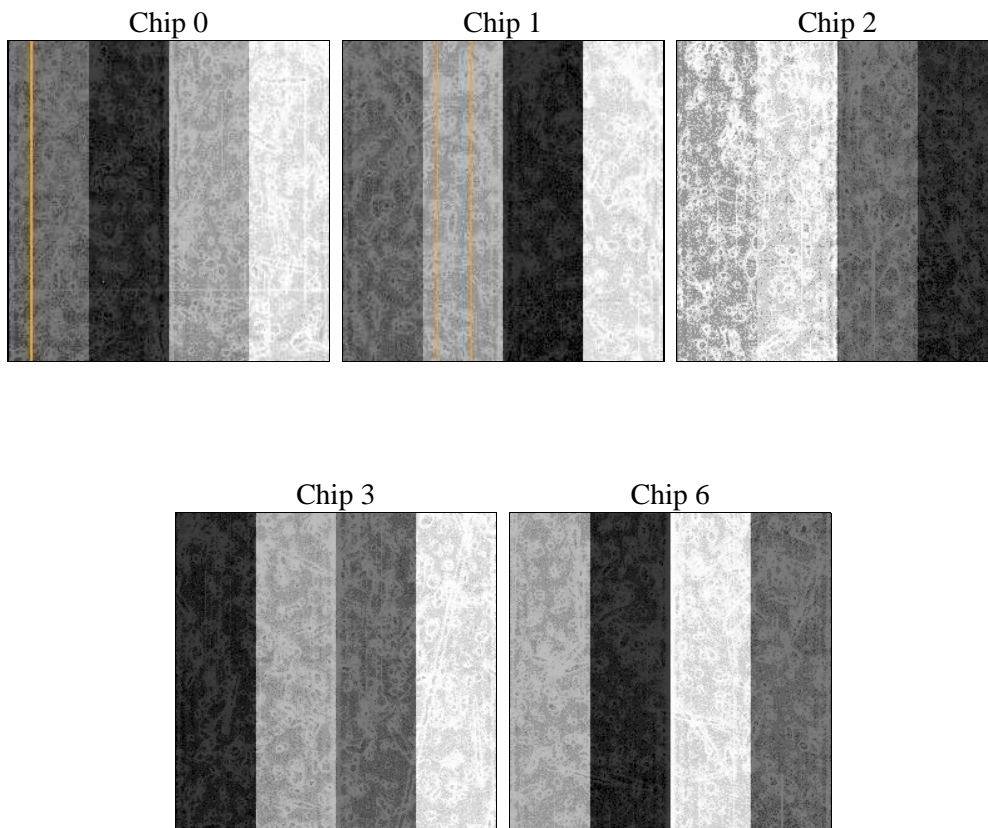
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 40030.249000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 40138.677101731 | Sum of GTIs [s] |
| caldbver | 4.5.2 | | ontime0 | 40141.817972273 | Sum of GTIs [s] |
| date | 2012-12-01T08:02:29 | Date and time of file creation | ontime1 | 40138.676932335 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 40138.67702201 | Sum of GTIs [s] |
| | | | ontime3 | 40138.677101731 | Sum of GTIs [s] |
| | | | ontime6 | 40148.099922776 | Sum of GTIs [s] |
| | | | l1events | 1252183 | Number of level 1 events |

2.1.4 Events

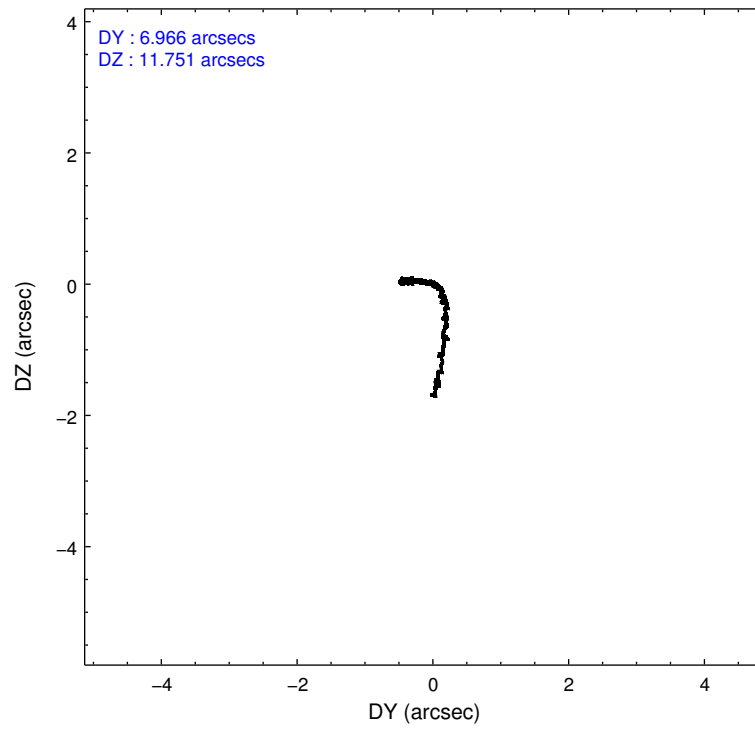
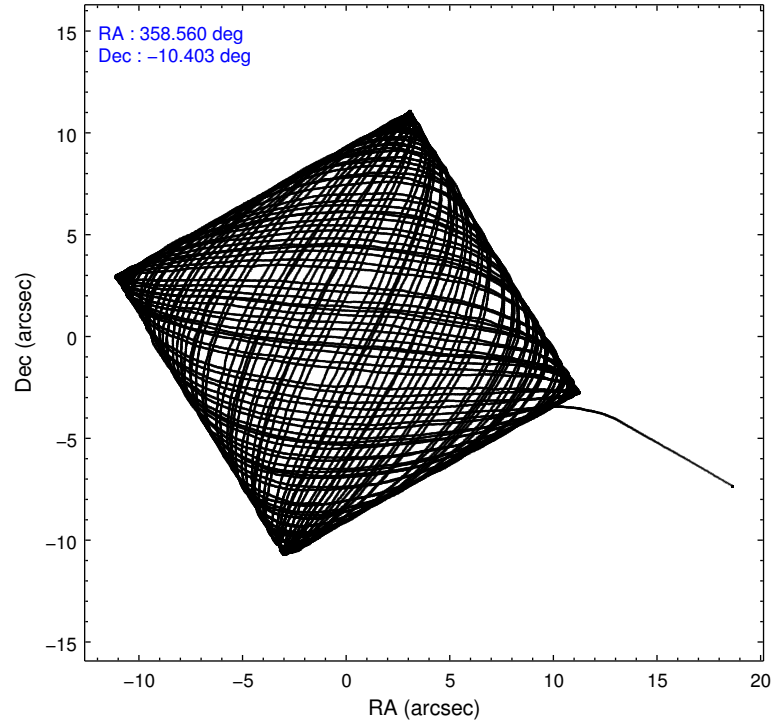
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 228262 | 238024 | 265912 | 273575 | 246410 |
| rejected events | 197017 | 201429 | 230946 | 219648 | 219398 |
| rejected % | 86% | 84% | 86% | 80% | 89% |

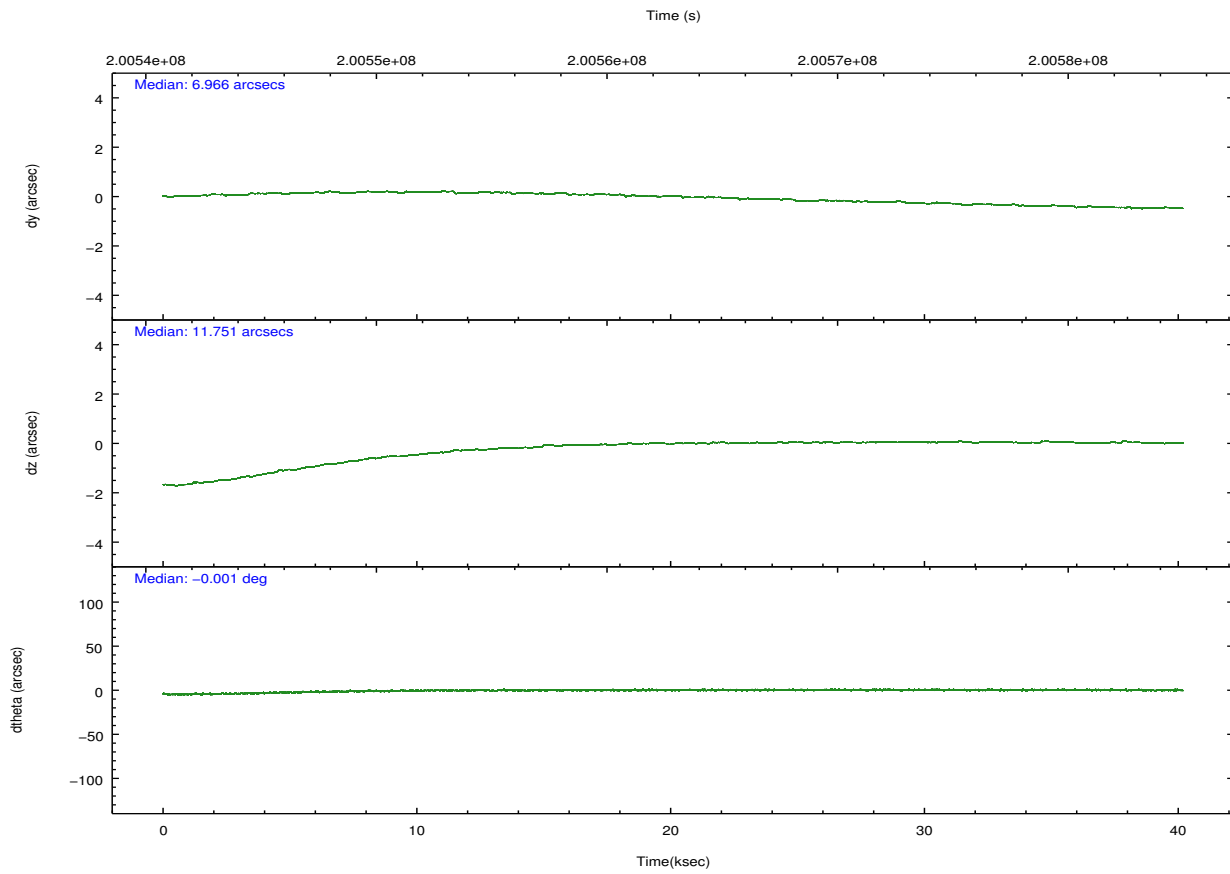
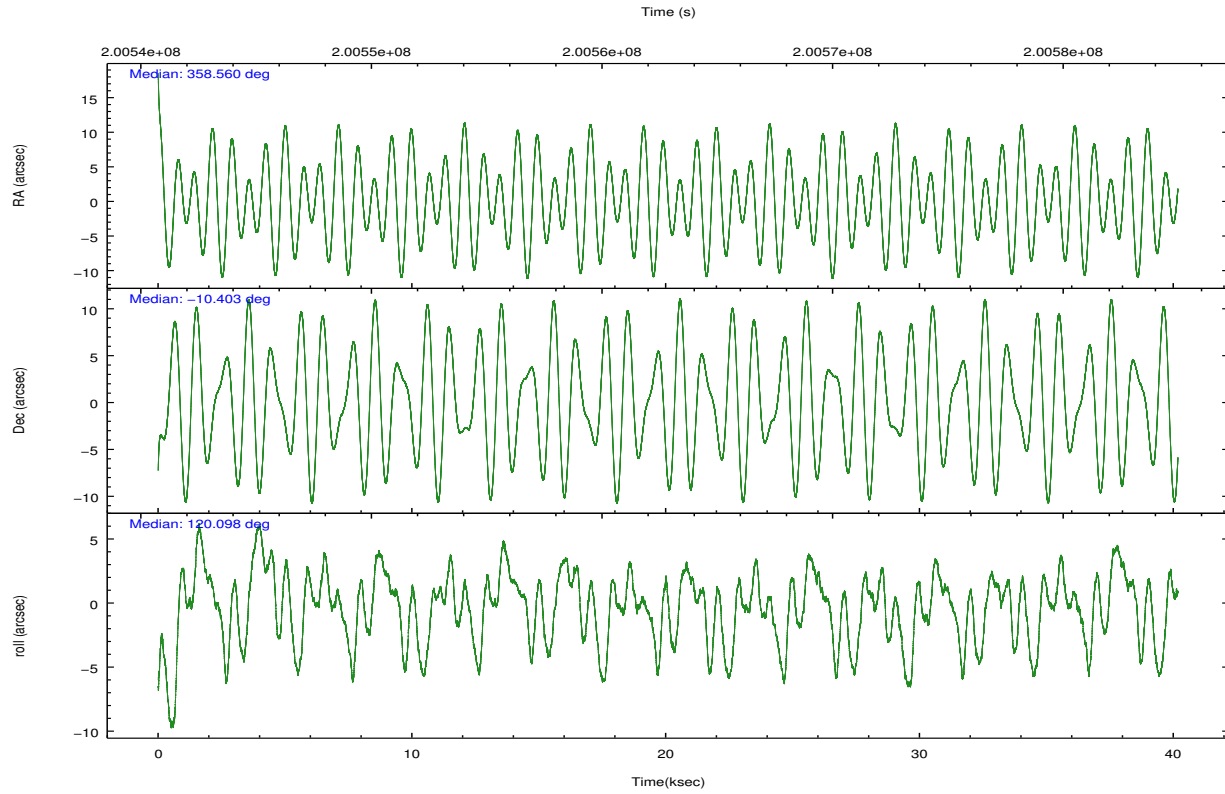
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 14310 | 17941 | 18061 | 33864 | 10480 |
| | 6% | 7% | 6% | 12% | 4% |
| grade 1 events | 135 | 140 | 177 | 276 | 115 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 6271 | 6565 | 6403 | 7774 | 5423 |
| | 2% | 2% | 2% | 2% | 2% |
| grade 3 events | 3037 | 3210 | 2912 | 3553 | 2908 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 2836 | 3167 | 3012 | 3459 | 2820 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 8244 | 9042 | 8079 | 9425 | 9179 |
| | 3% | 3% | 3% | 3% | 3% |
| grade 6 events | 4803 | 5720 | 4589 | 5283 | 5393 |
| | 2% | 2% | 1% | 1% | 2% |
| grade 7 events | 188626 | 192239 | 222679 | 209941 | 210092 |
| | 82% | 80% | 83% | 76% | 85% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-01236 | ACIS-01236 | 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 | 358.583641 | 358.5594493244026 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -10.416463 | -10.40290760576211 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 119.899532 | 120.1038465354563 | [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) | 200542924.184000 | 200541956.69062 | | | |
| Observation start date | 2004-05-10T02:21:00 | 2004-05-10T02:05:56 | | | |
| [s] Observation end time (MET) | 200582954.184000 | 200583268.80495 | | | |
| Observation end date | 2004-05-10T13:28:10 | 2004-05-10T13:34:28 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect





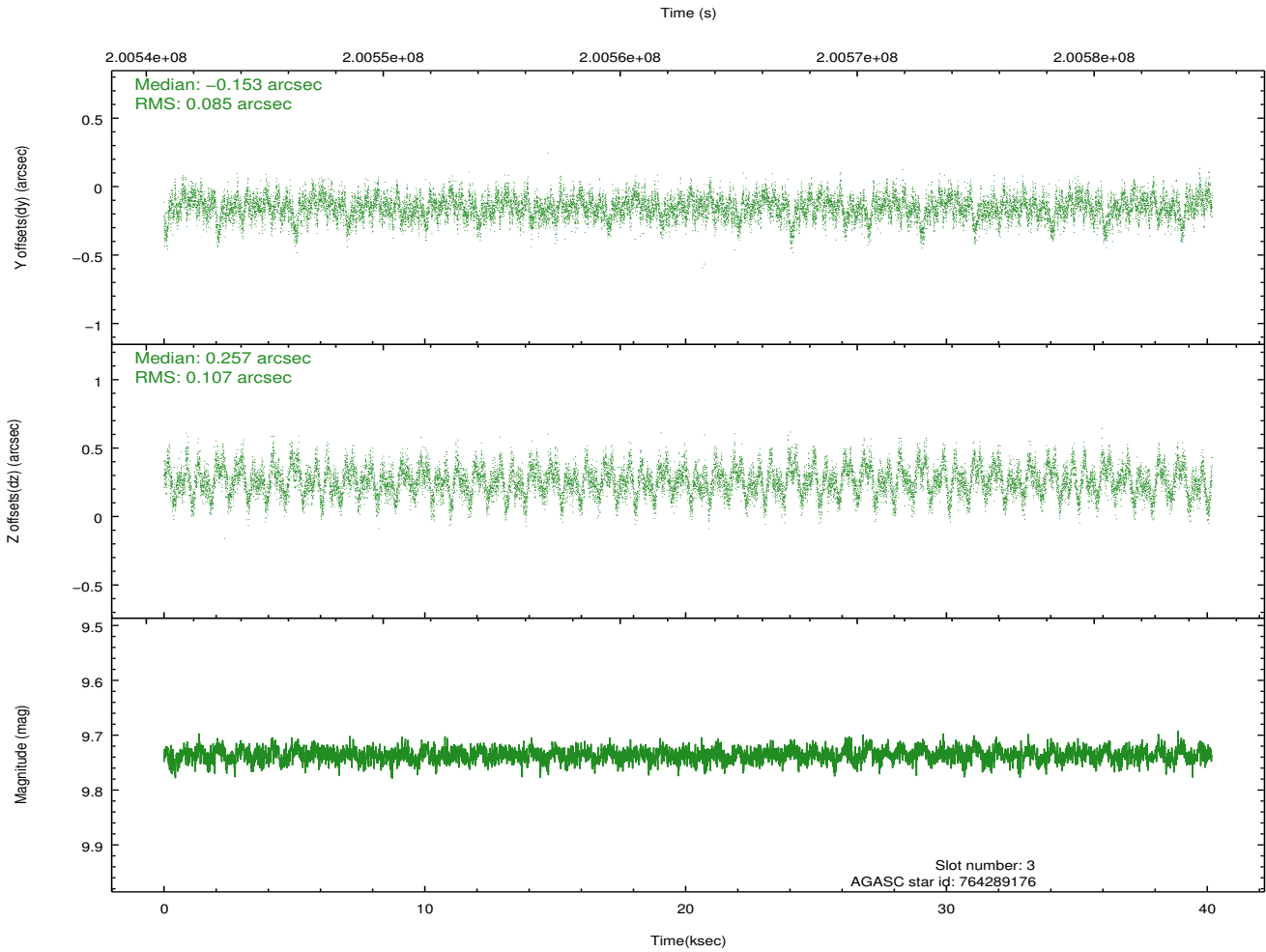
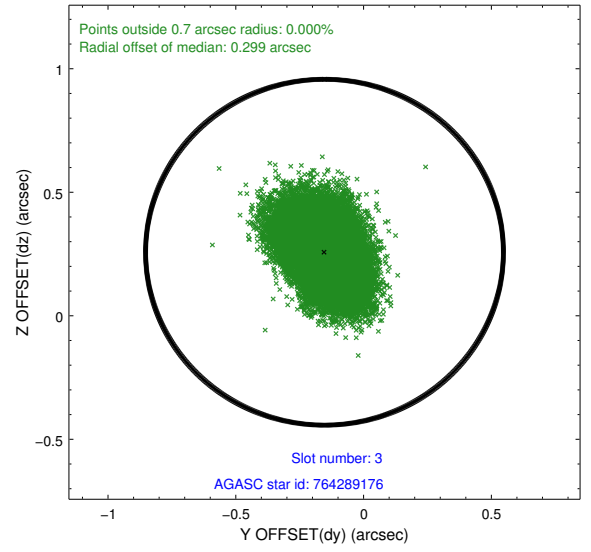
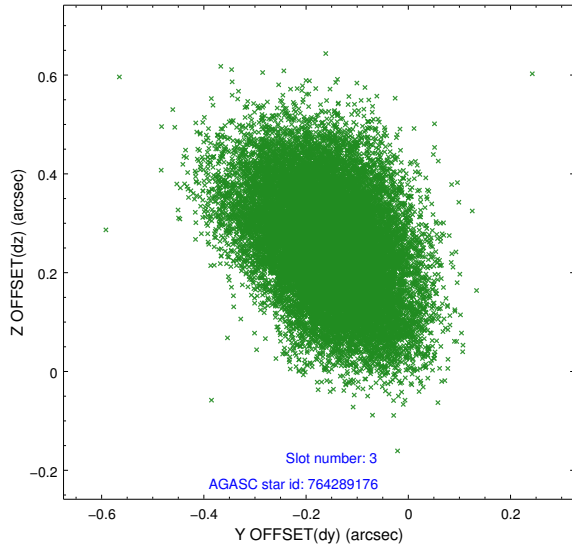
Slot Statistics

| 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 | 9801 | 0.037 | -0.007 | 0.012 | 0.036 | 0.000000 | 0.000000 | 932.80 | -834.99 |
| 1 | FID | ACIS-I-5 | 7.23 | 9799 | -0.153 | 0.059 | 0.012 | 0.029 | 0.000000 | 0.000000 | -1815.45 | 1062.60 |
| 2 | FID | ACIS-I-6 | 7.25 | 9801 | 0.025 | 0.020 | 0.015 | 0.030 | 0.000000 | 0.000000 | 398.38 | 1707.04 |
| 3 | GUIDE | 764289176 | 9.74 | 19583 | -0.153 | 0.257 | 0.145 | 0.239 | 358.916243 | -9.780607 | 1395.87 | -2162.69 |
| 4 | GUIDE | 764674064 | 7.84 | 19599 | -0.252 | 0.150 | 0.062 | 0.101 | 358.377713 | -10.005844 | 1645.20 | -103.44 |
| 5 | GUIDE | 764676096 | 10.28 | 19559 | 0.020 | -0.382 | 0.142 | 0.232 | 358.114809 | -10.840116 | -497.06 | 2197.44 |
| 6 | GUIDE | 764681792 | 8.36 | 19597 | 0.140 | 0.055 | 0.073 | 0.117 | 358.985420 | -10.865799 | -2110.96 | -424.54 |
| 7 | BAD | 764677232 | 10.23 | 18829 | 0.259 | -0.085 | 0.189 | 0.334 | 358.400281 | -11.249271 | -2276.66 | 2055.77 |

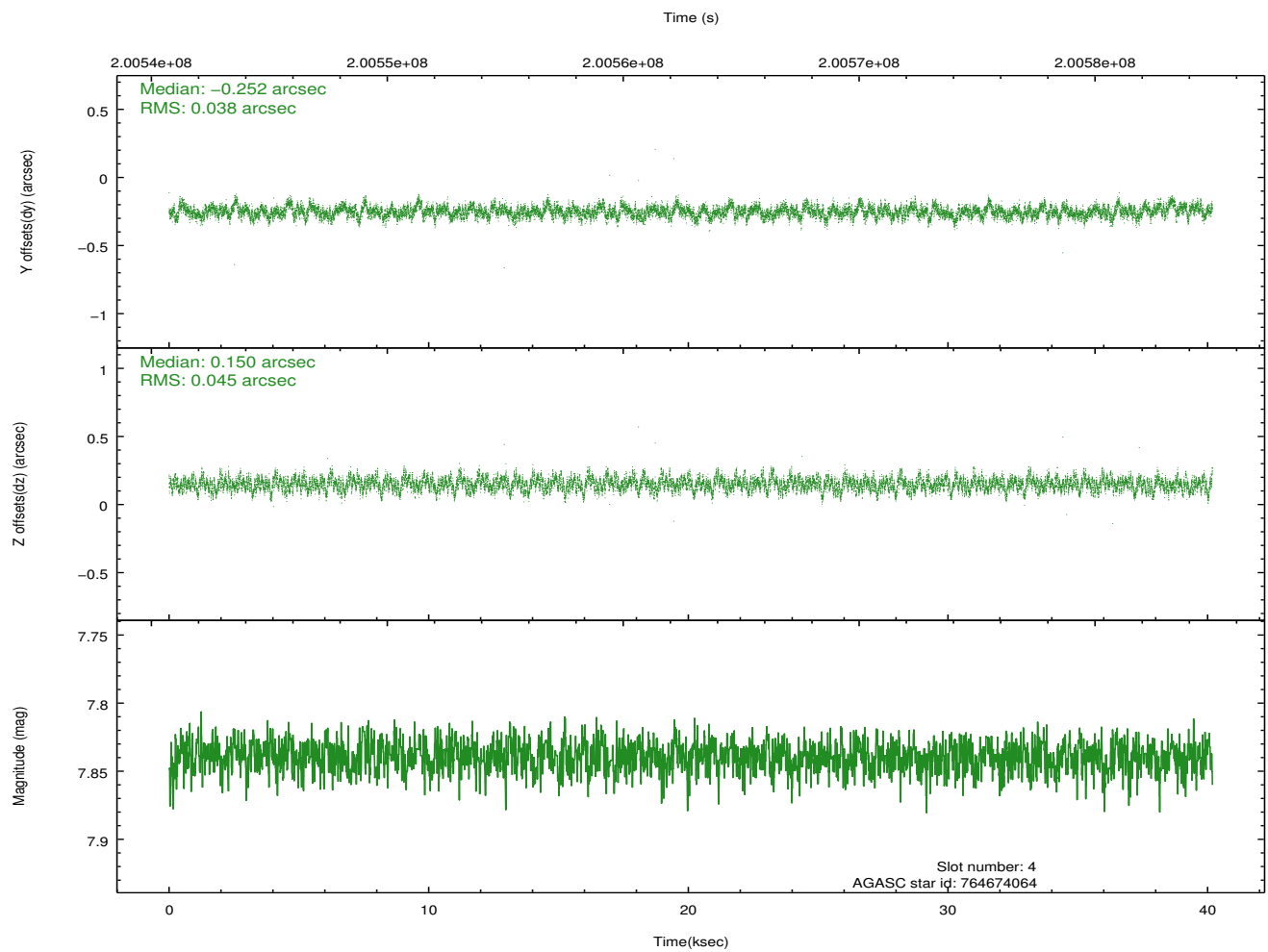
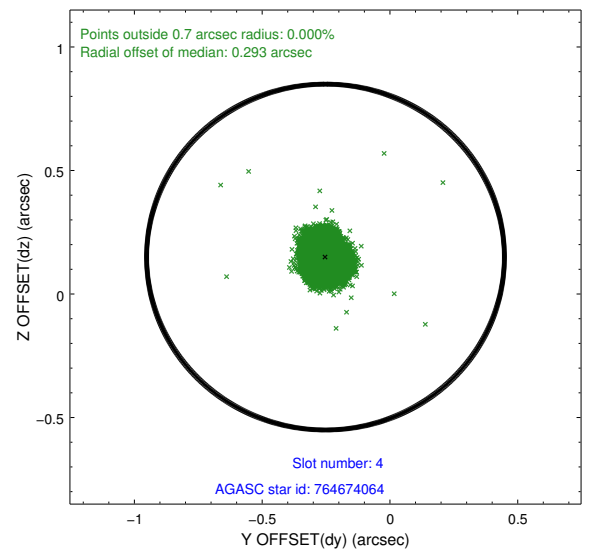
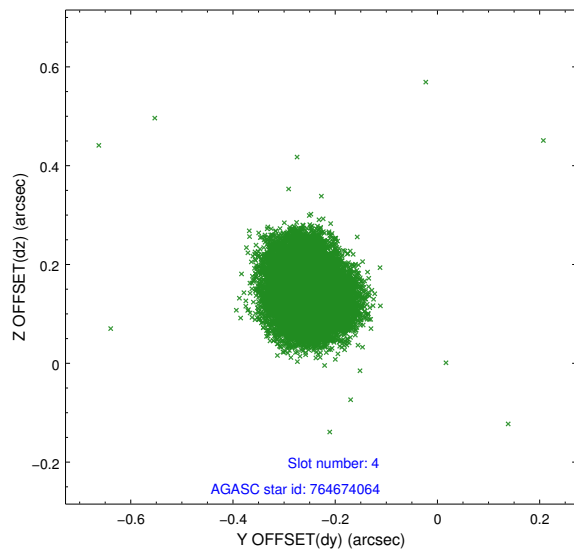
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2.4 Star Slots

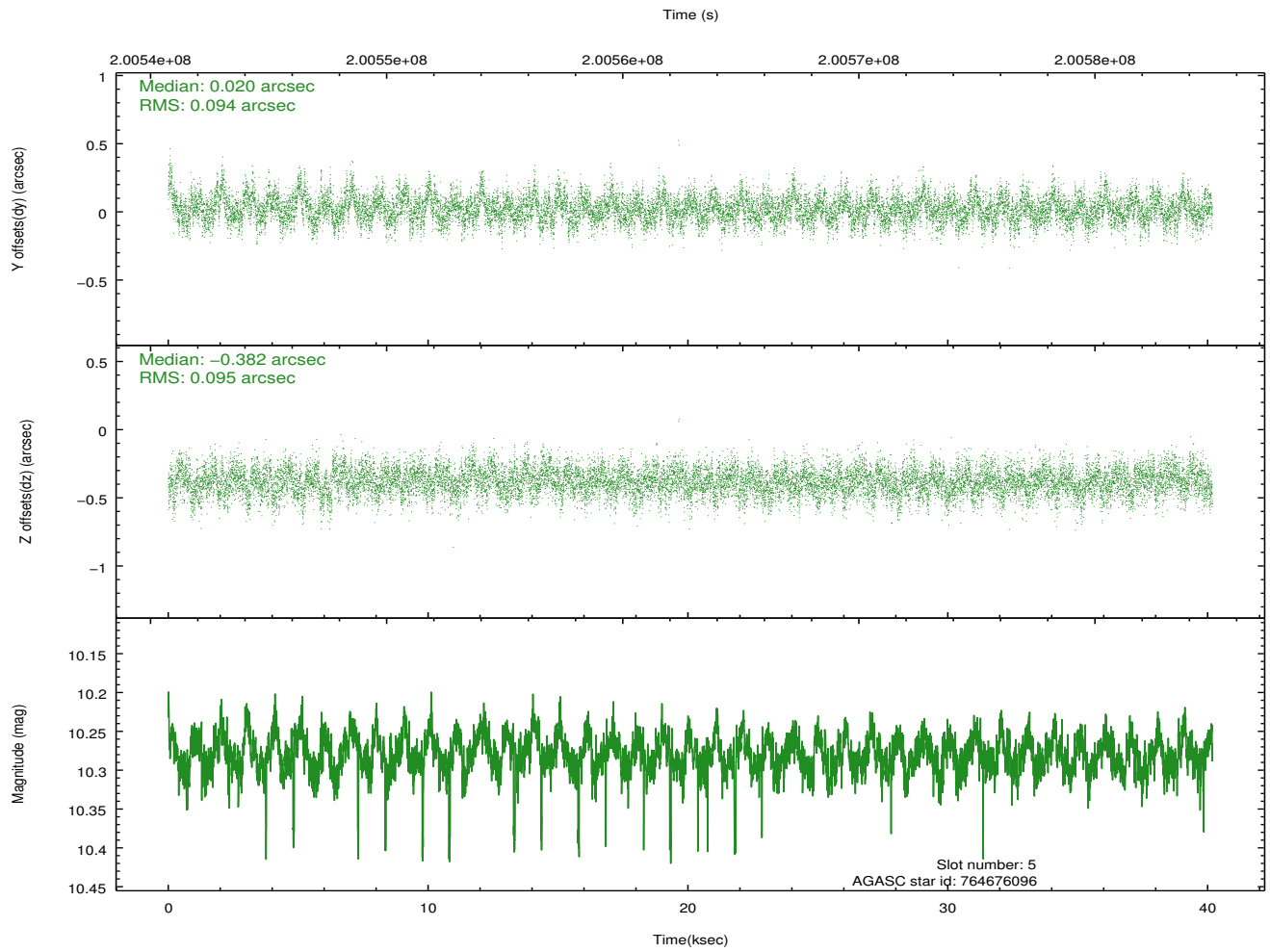
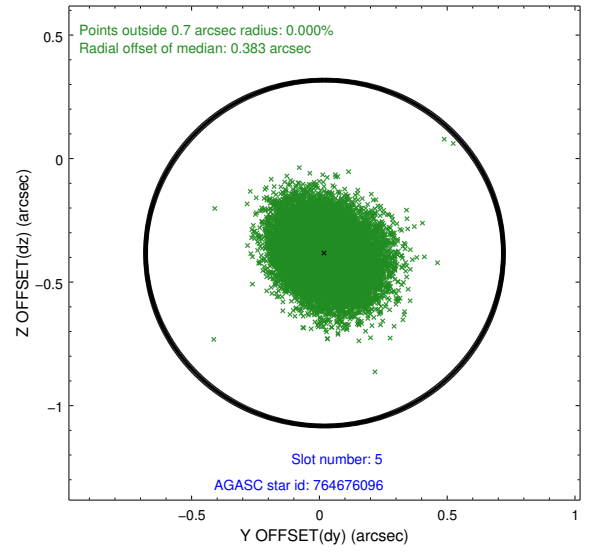
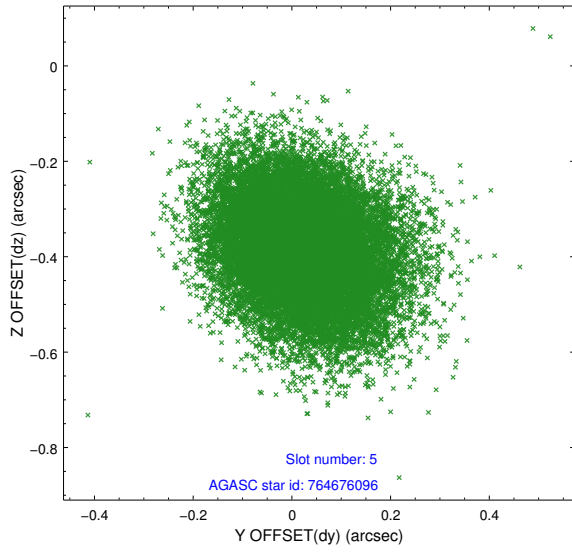
2.4.1 Slot 3



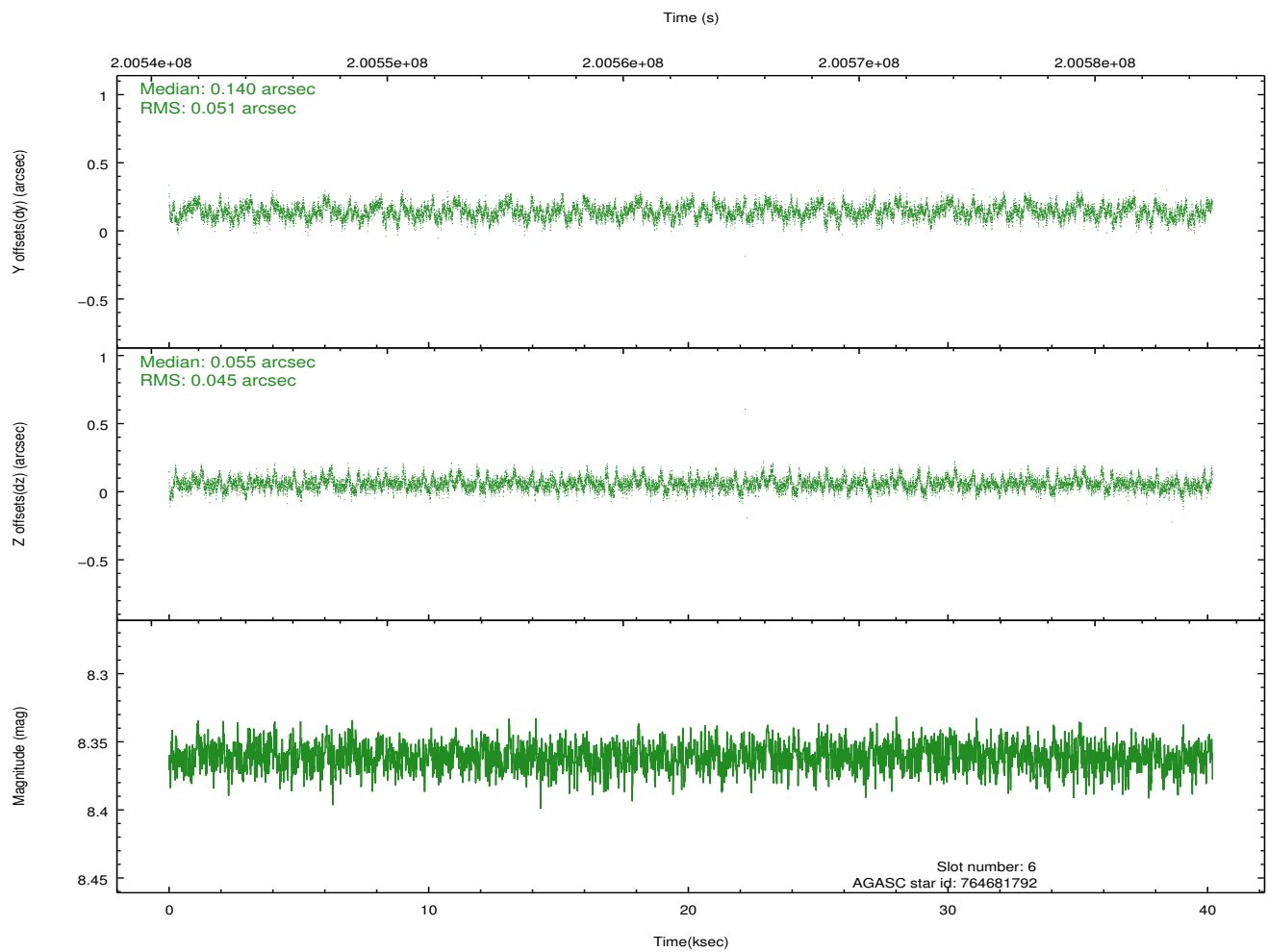
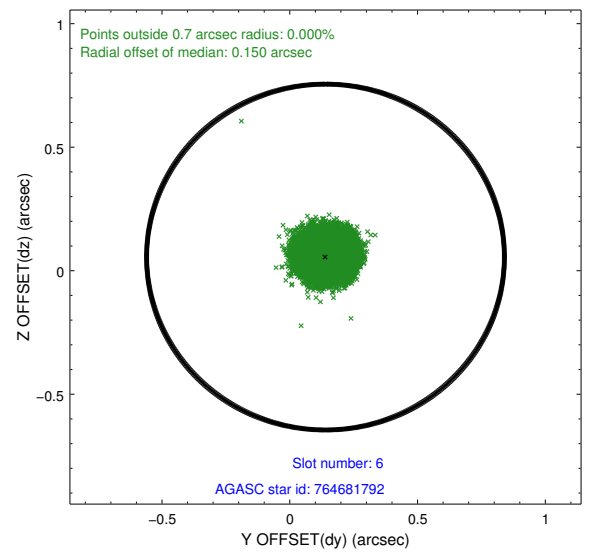
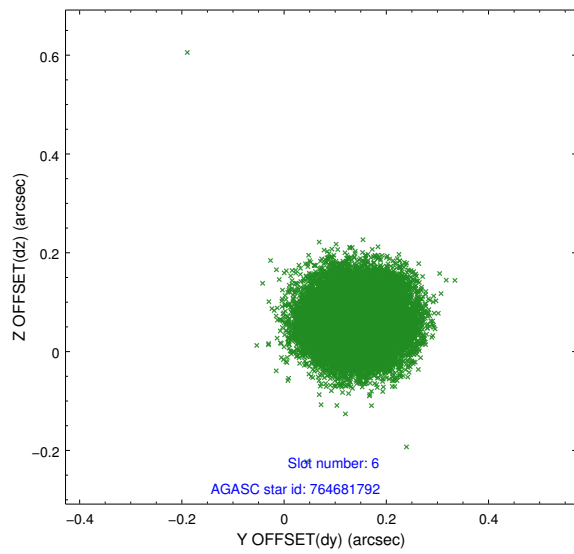
2.4.2 Slot 4



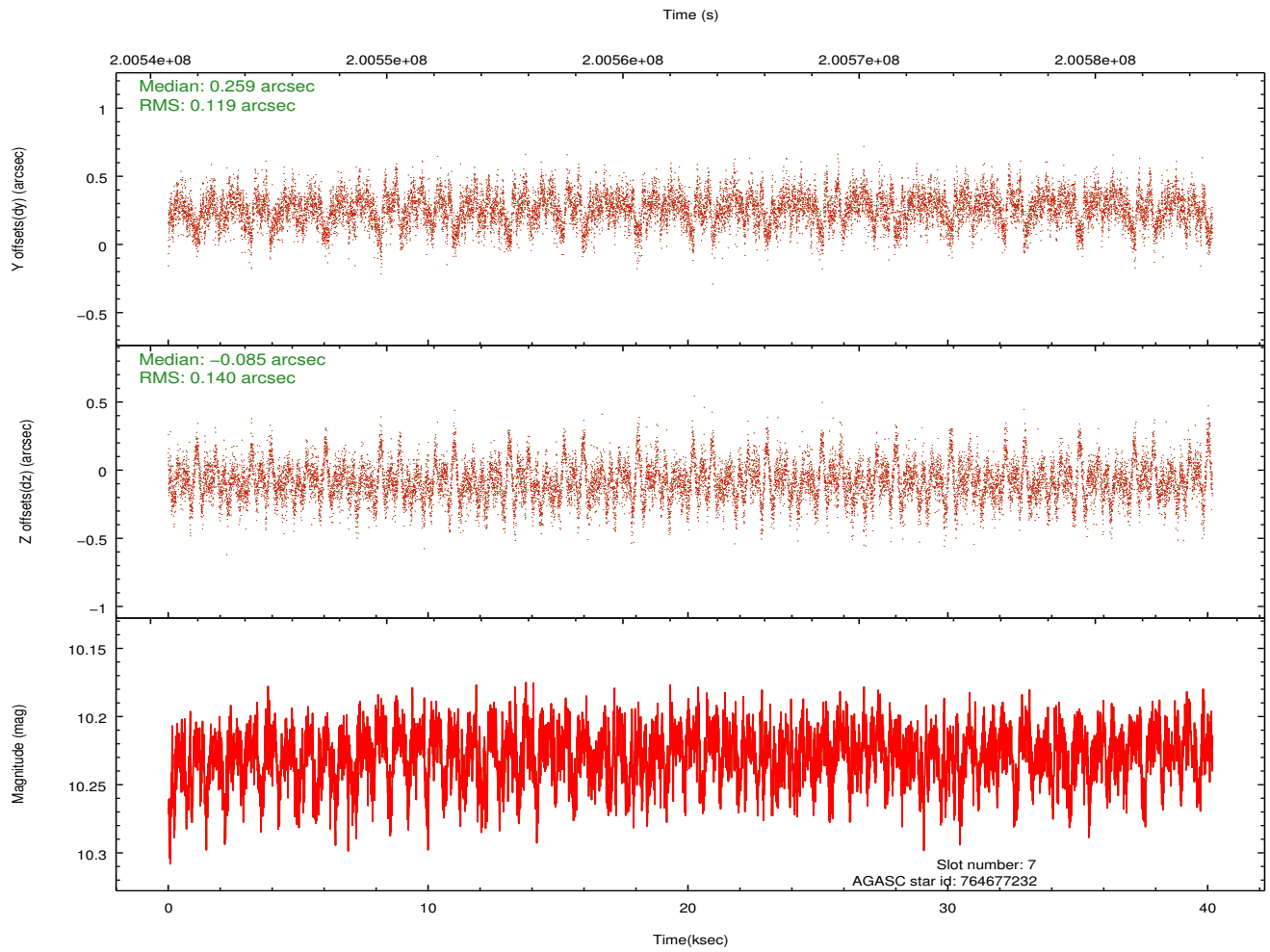
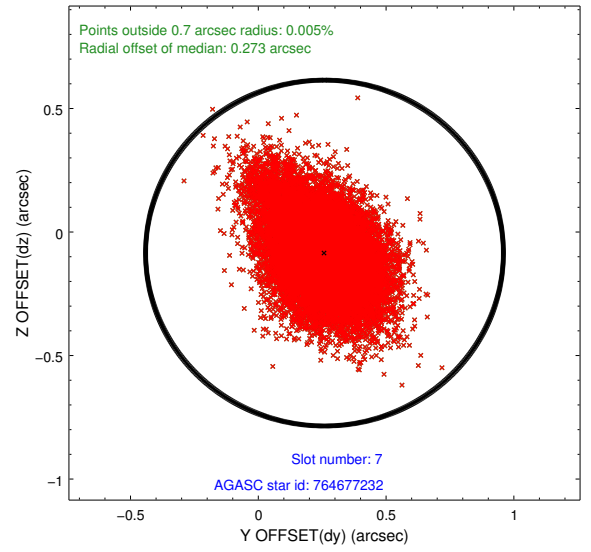
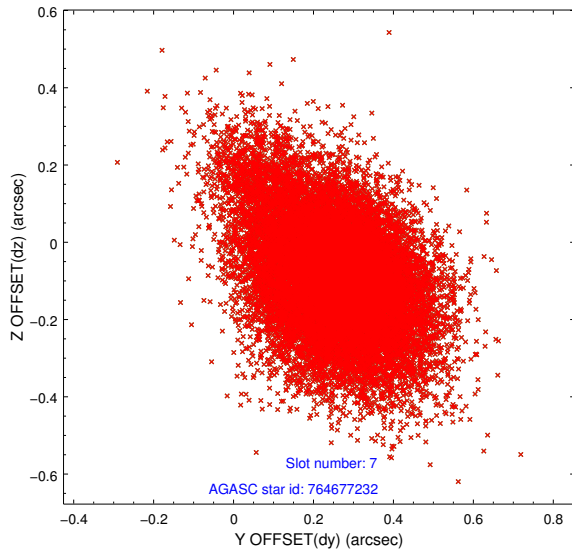
2.4.3 Slot 5



2.4.4 Slot 6

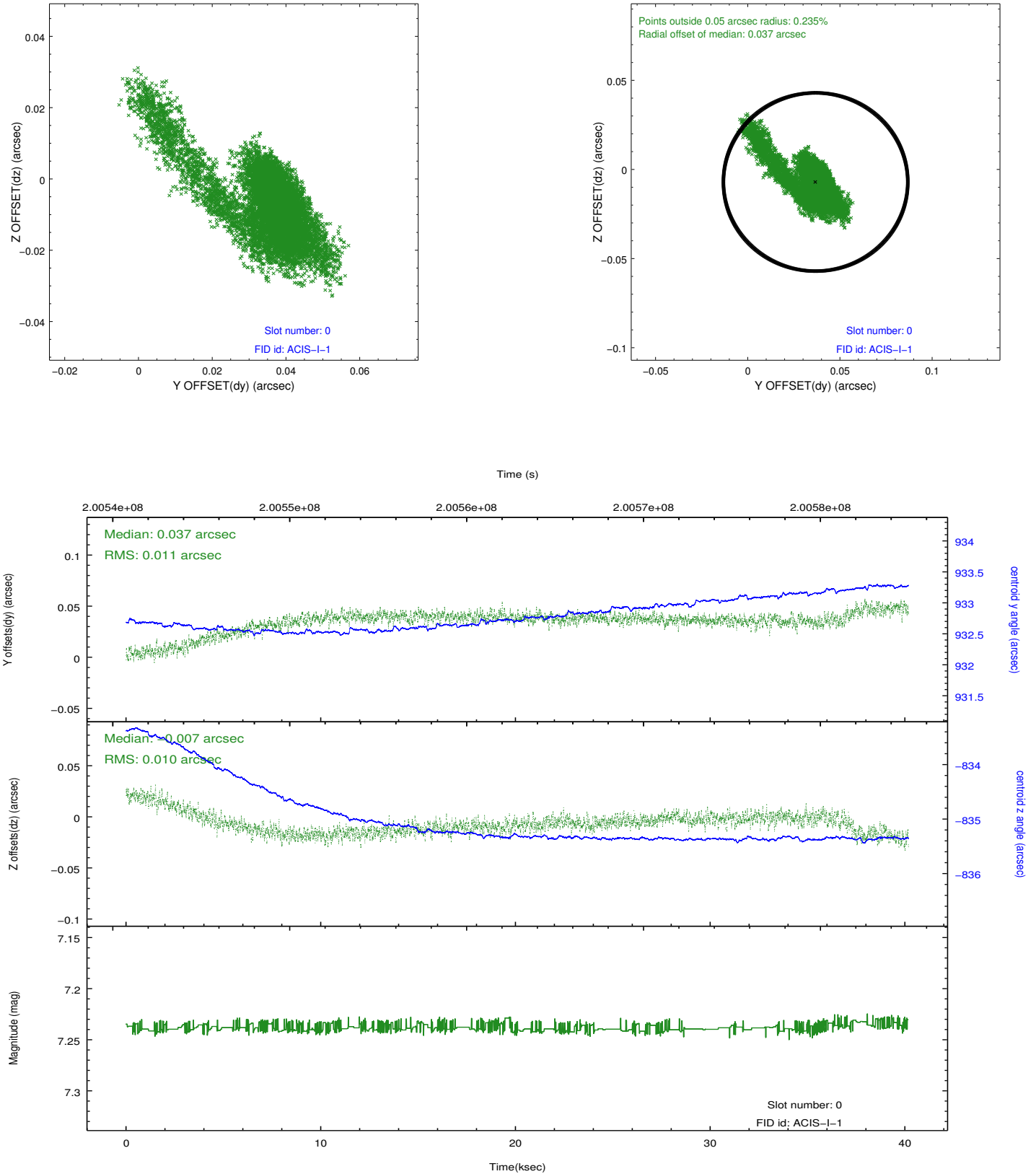


2.4.5 Slot 7

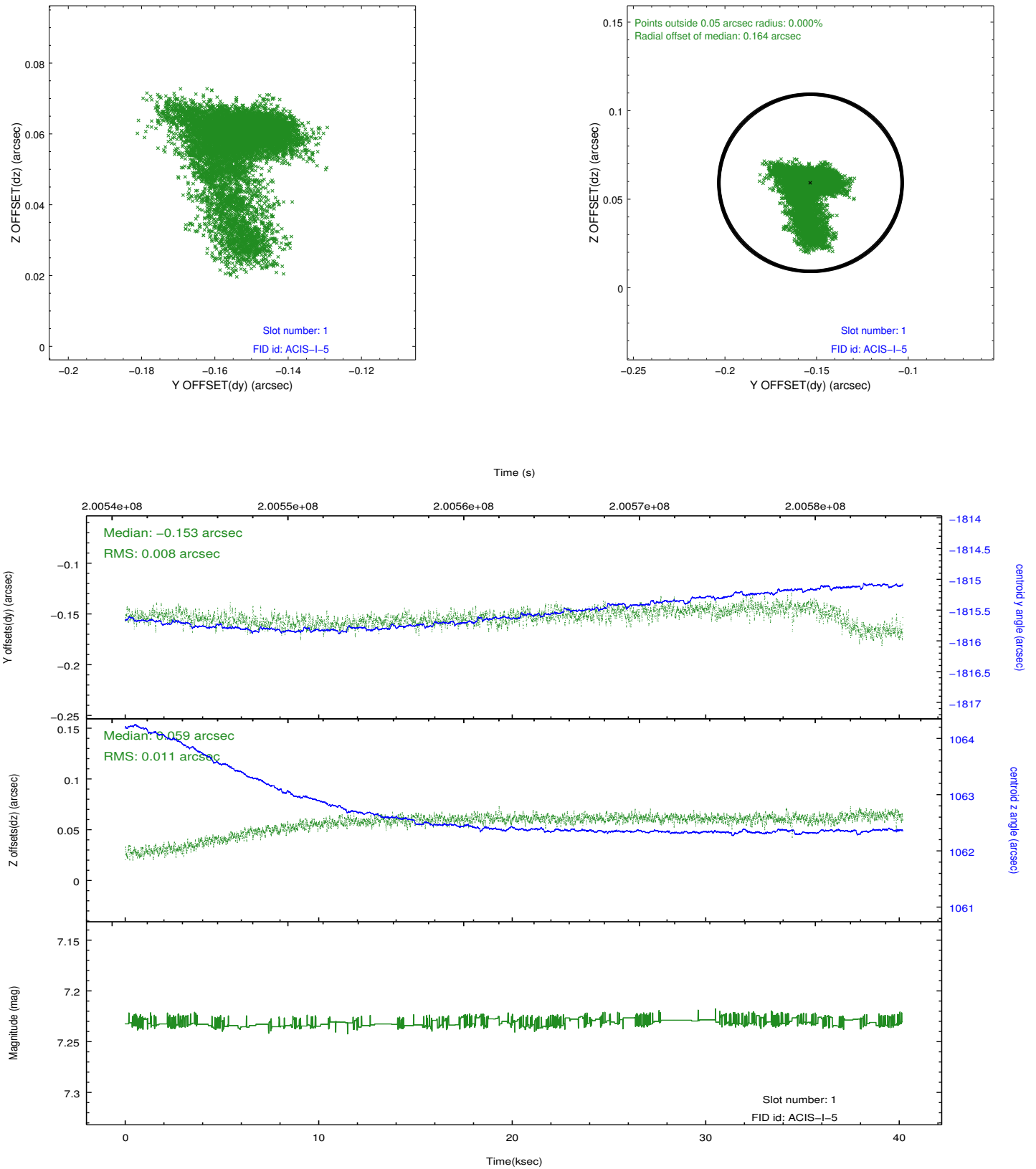


2.5 FID Slots

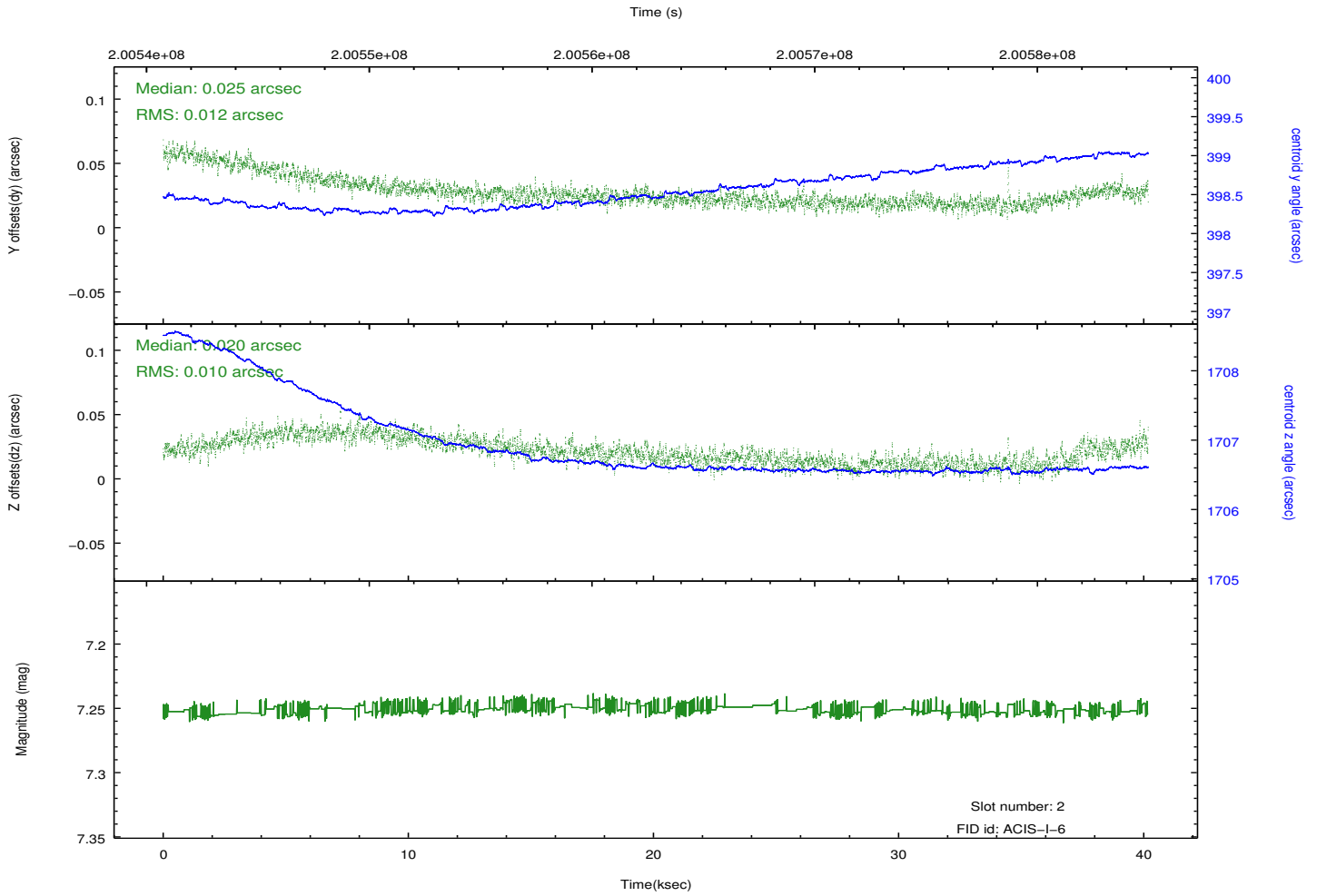
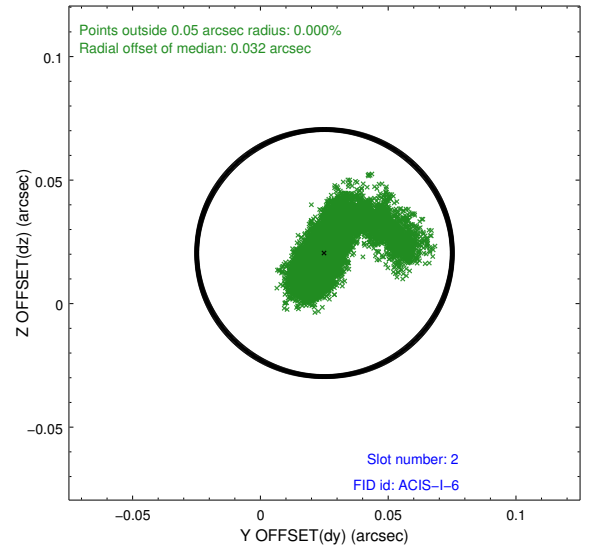
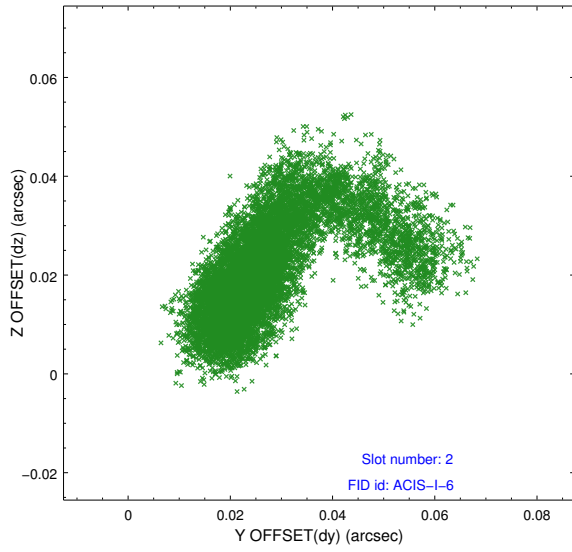
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-------------|
| V&V Scientist | Joy Nichols |
| V&V Date (YYYY-MM-DD) | 2013.02.01 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 40.141 |

A.2 Comments