

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 14355 - L2 Version 1
Chandra X-Ray Center

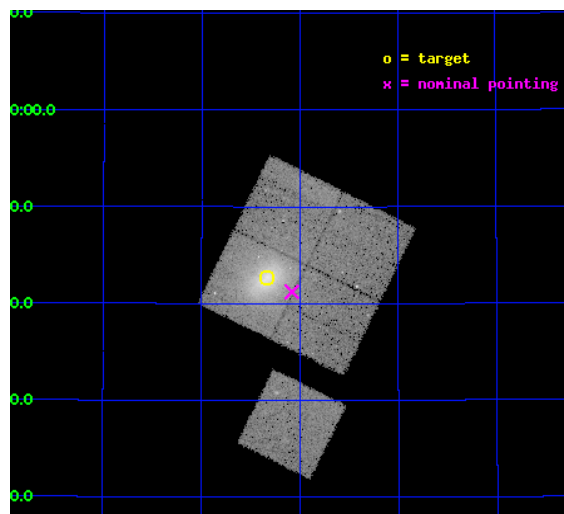
L2 Processing Date : Jun 29 2012

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1 Front

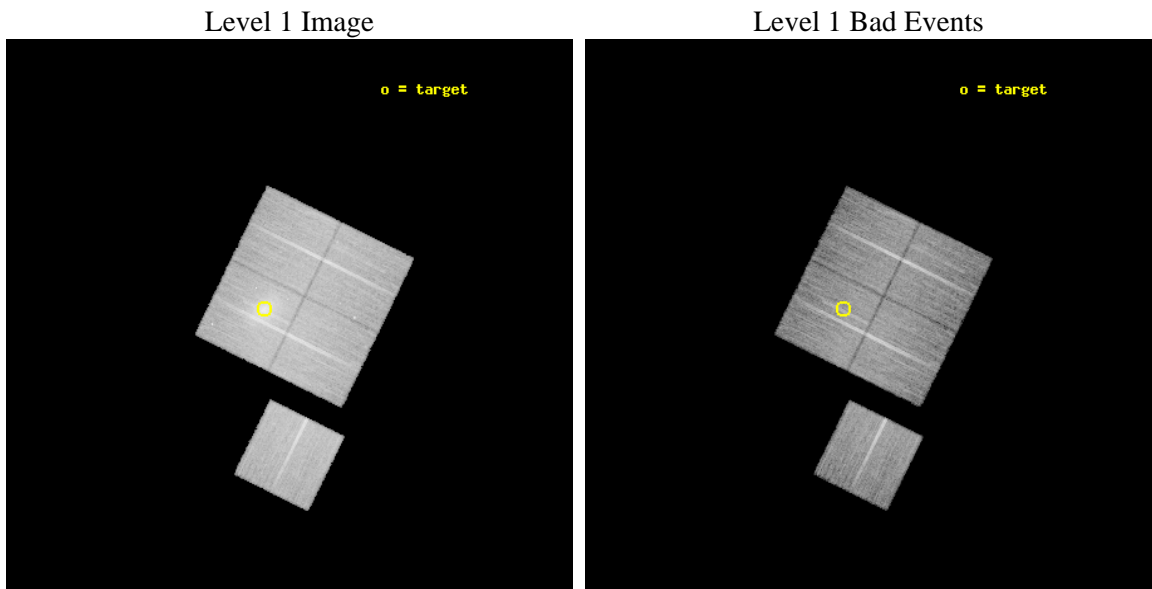
| | | |
|----------|--------------------------------------------------------------|---------------------------------------------|
| seq_num | 801168 | Sequence number |
| obs_id | 14355 | Observation id |
| title | A Chandra Study of the Large-Scale Shock Front in Abell 2219 | Propo |
| observer | Prof. Steven Allen | Principal investigator |
| object | Abell 2219 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 250.083333 | Observer's specified target RA [deg] |
| dec_targ | 46.710833 | Observer's specified target Dec [deg] |
| ra_nom | 250.02019247871 | Nominal RA [deg] |
| dec_nom | 46.687002651873 | Nominal Dec [deg] |
| roll_nom | 206.25462476743 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 30076.159270942 | Sum of GTIs [s] |
| livetime | 29683.192108321 | Livetime [s] |
| ontime0 | 30079.300231338 | Sum of GTIs [s] |
| ontime1 | 30079.300231338 | Sum of GTIs [s] |
| ontime2 | 30066.736290157 | Sum of GTIs [s] |
| ontime3 | 30076.159270942 | Sum of GTIs [s] |
| ontime6 | 30073.007462978 | Sum of GTIs [s] |
| l2events | 136484 | Number of level 2 events |



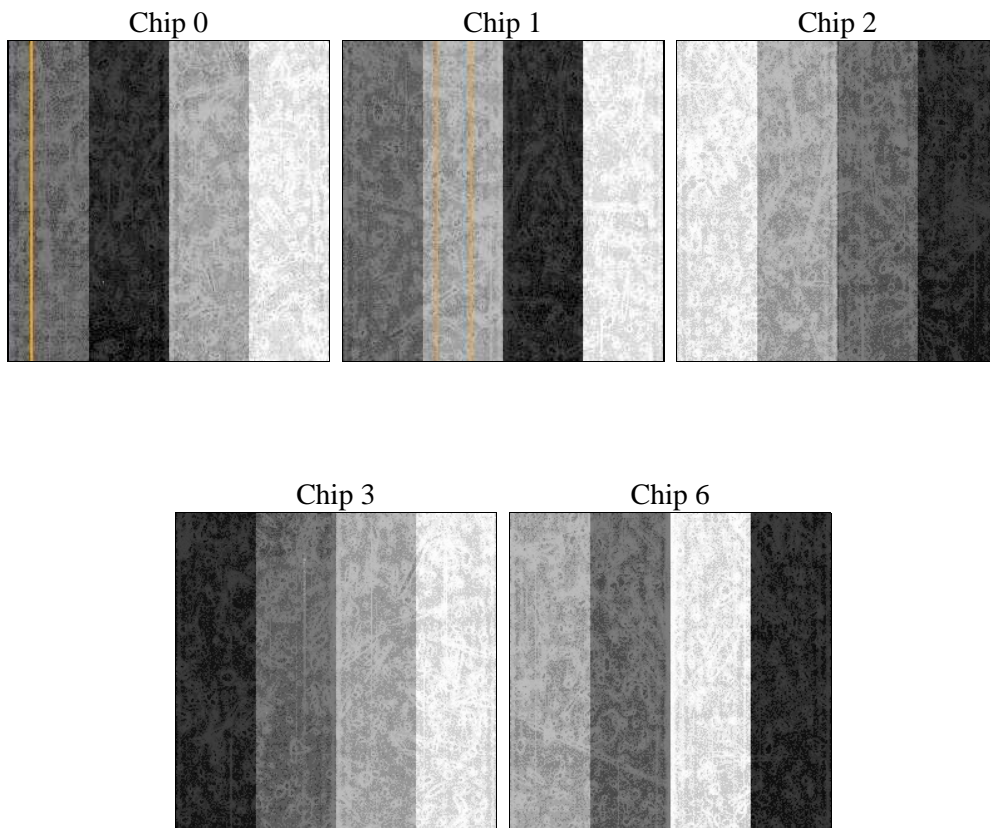
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|-----------------------------------------|
| obi_num | 0 | Obi number | sched_exp_time | 30000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 30076.159270942 | Sum of GTIs [s] |
| caldbver | 4.5.0 | | ontime0 | 30079.300231338 | Sum of GTIs [s] |
| date | 2012-06-29T15:40:23 | Date and time of file creation | ontime1 | 30079.300231338 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime2 | 30066.736290157 | Sum of GTIs [s] |
| | | | ontime3 | 30076.159270942 | Sum of GTIs [s] |
| | | | ontime6 | 30073.007462978 | Sum of GTIs [s] |
| | | | l1events | 895502 | Number of level 1 events |

2.1.4 Events

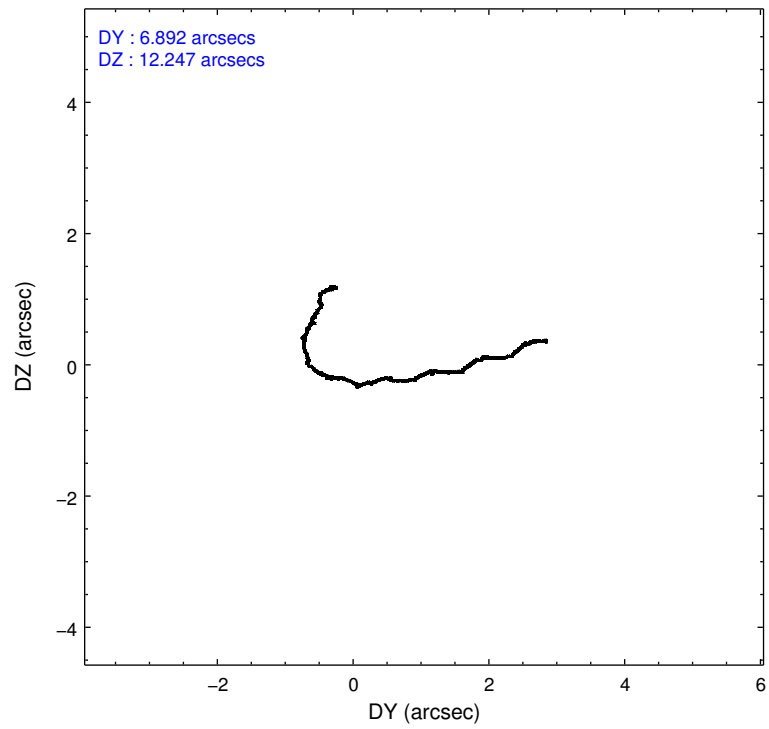
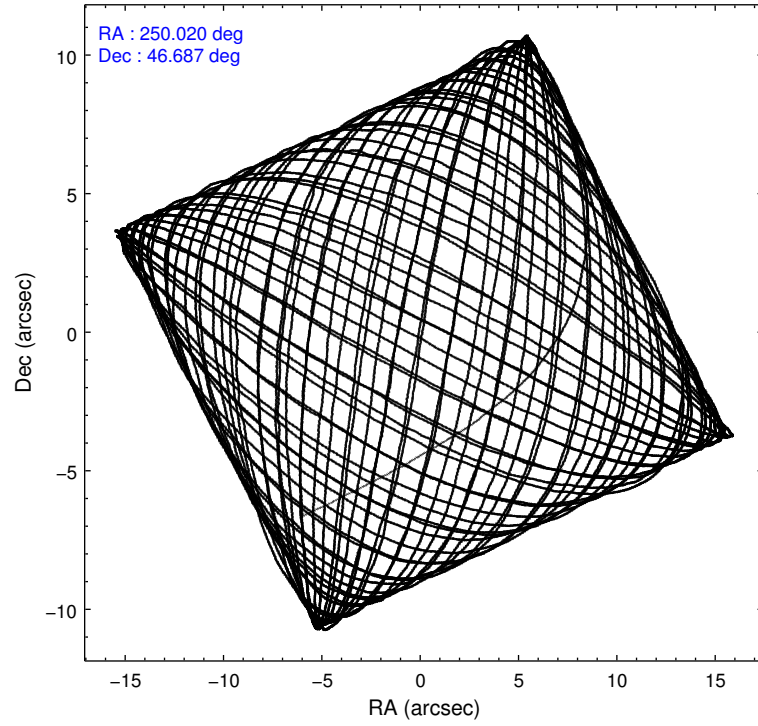
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 155450 | 164109 | 180420 | 219326 | 176197 |
| rejected events | 134178 | 139341 | 158964 | 153392 | 155473 |
| rejected % | 86% | 84% | 88% | 69% | 88% |

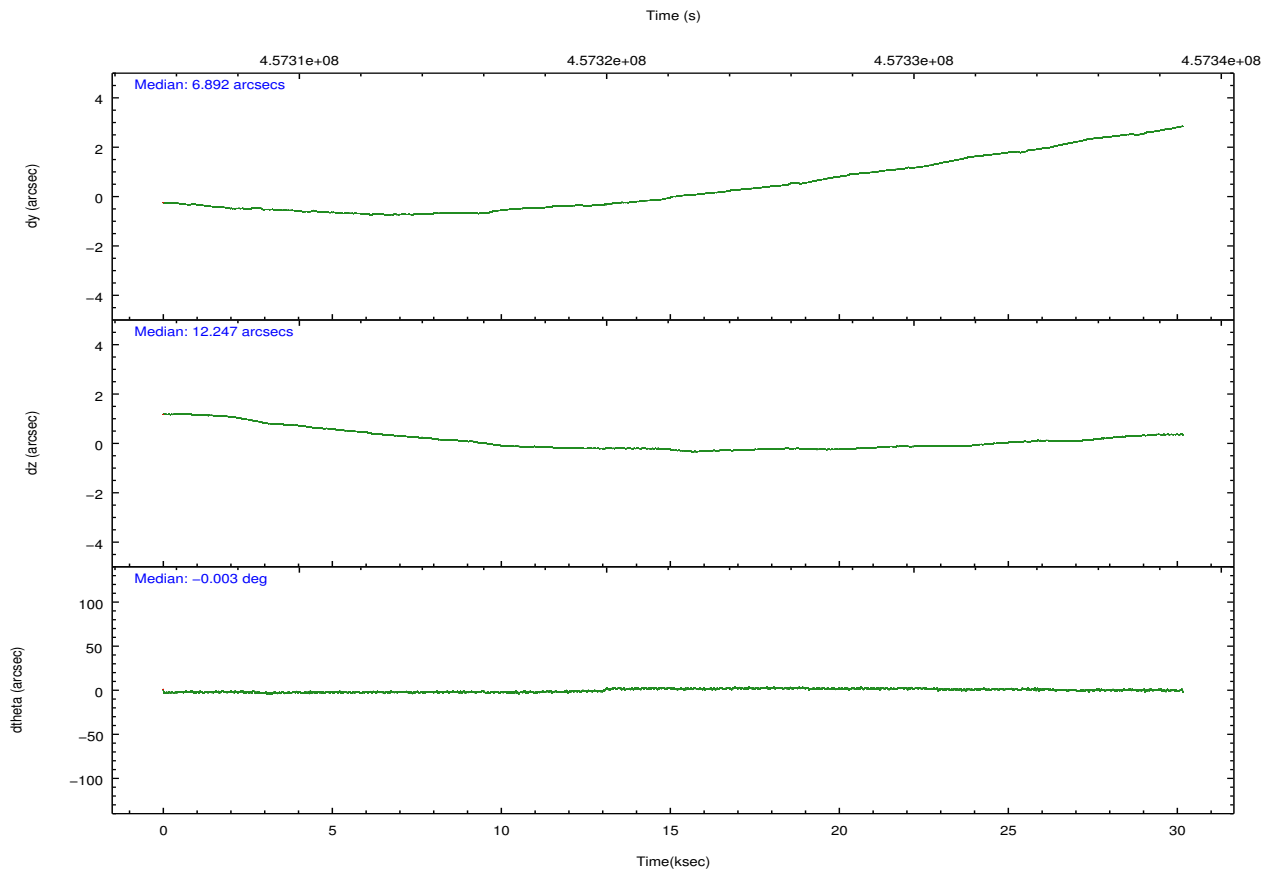
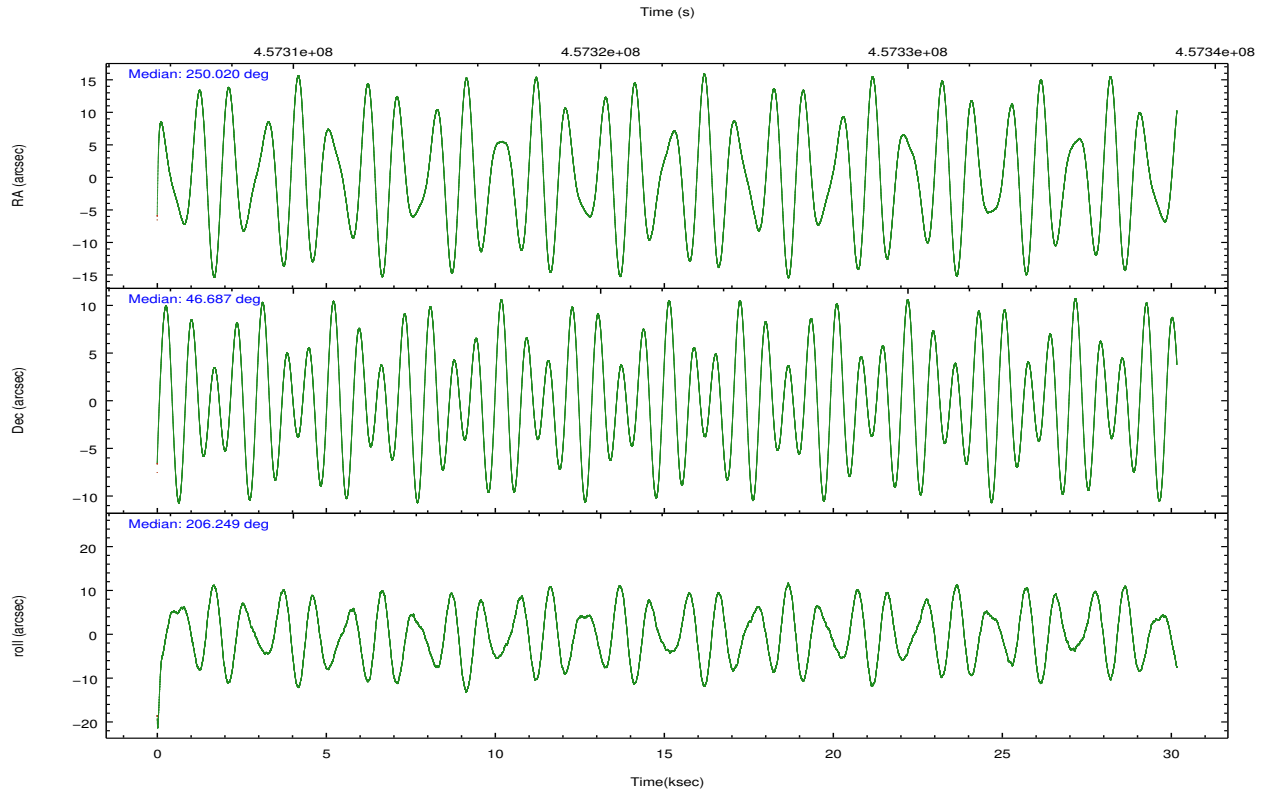
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 7664 | 9628 | 8623 | 44329 | 7193 |
| | 4% | 5% | 4% | 20% | 4% |
| grade 1 events | 93 | 95 | 91 | 302 | 88 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 5165 | 5756 | 4961 | 9281 | 4596 |
| | 3% | 3% | 2% | 4% | 2% |
| grade 3 events | 2188 | 2319 | 2082 | 3517 | 2078 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 2053 | 2269 | 2064 | 3592 | 2258 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 7824 | 8373 | 7212 | 8848 | 8518 |
| | 5% | 5% | 3% | 4% | 4% |
| grade 6 events | 4207 | 4804 | 3729 | 5236 | 4607 |
| | 2% | 2% | 2% | 2% | 2% |
| grade 7 events | 126256 | 130865 | 151658 | 144221 | 146859 |
| | 81% | 79% | 84% | 65% | 83% |

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 | CCD I0 on | Y | Y |
| Observation mode | POINTING | POINTING | CCD I1 on | Y | Y |
| [deg] Pointing RA | 250.042337 | 250.0201924787143 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | 46.709911 | 46.68700265187331 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 206.029832 | 206.25462476743 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | CCD S1 on | N | N |
| [mm] SIM defocus | 0 | 0.001439871863259334 | CCD S2 on | O1 | Y |
| [mm] SIM translation stage pos | -226.292463 | -226.2858628250985 | CCD S3 on | N | N |
| [mm] SIM translation stage offset | -7.3 | -7.306590177831225 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 457307238.184000 | 457306260.11665 | CCD S5 on | N | N |
| Observation start date | 2012-06-28T21:46:12 | 2012-06-28T21:31:00 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 457337238.184000 | 457338025.89334 | On-chip summing requested | N | N |
| Observation end date | 2012-06-29T06:06:12 | 2012-06-29T06:20:25 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect



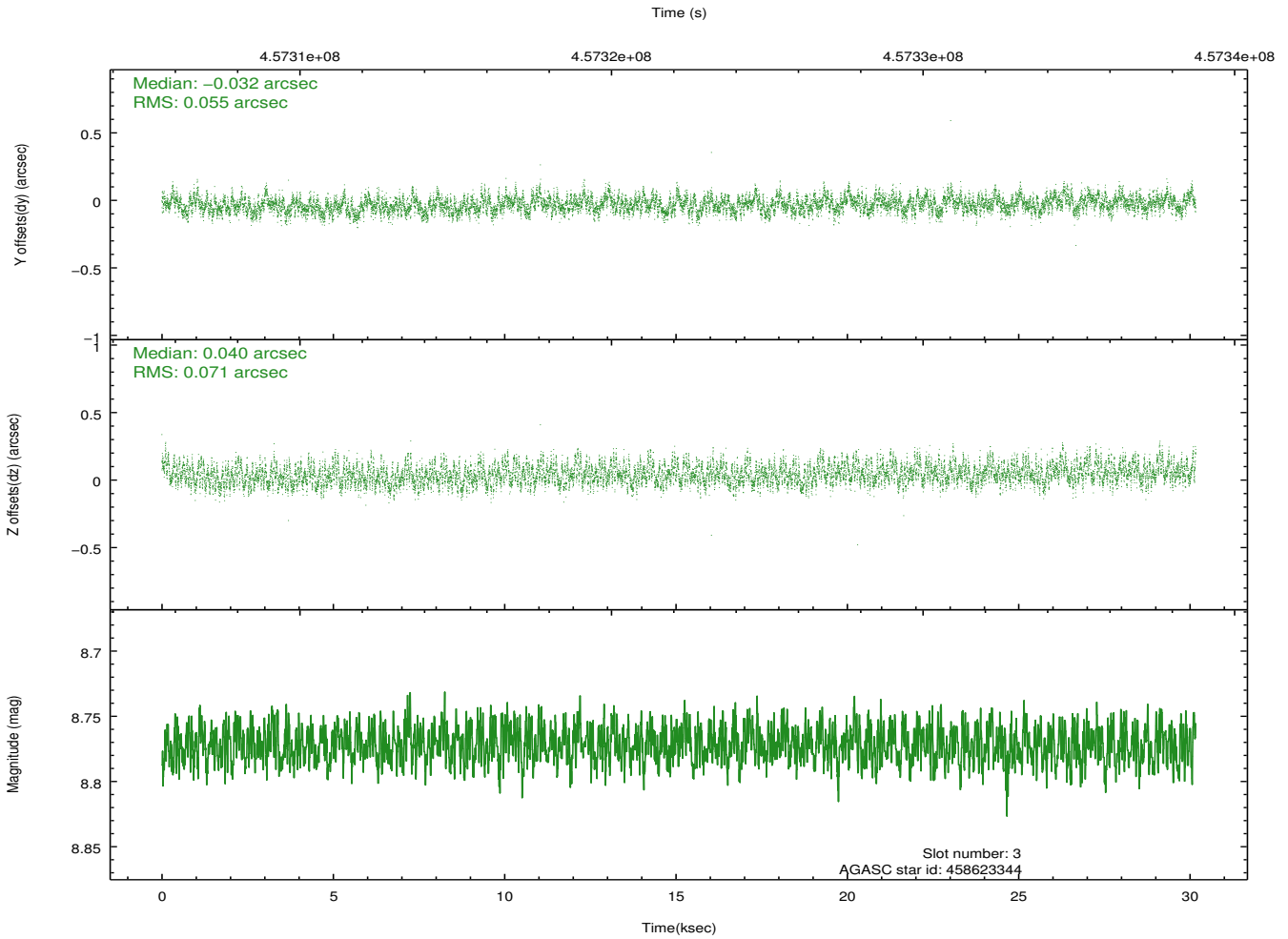
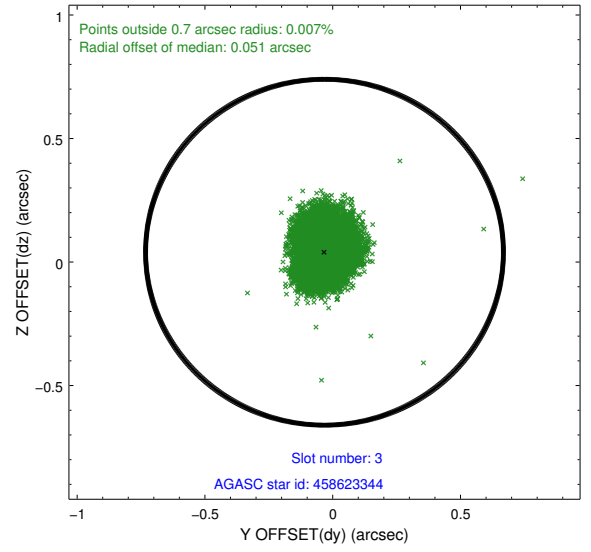
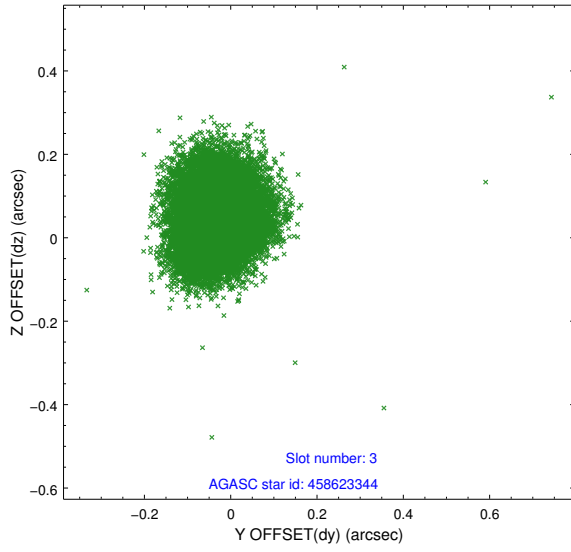


Slot Statistics

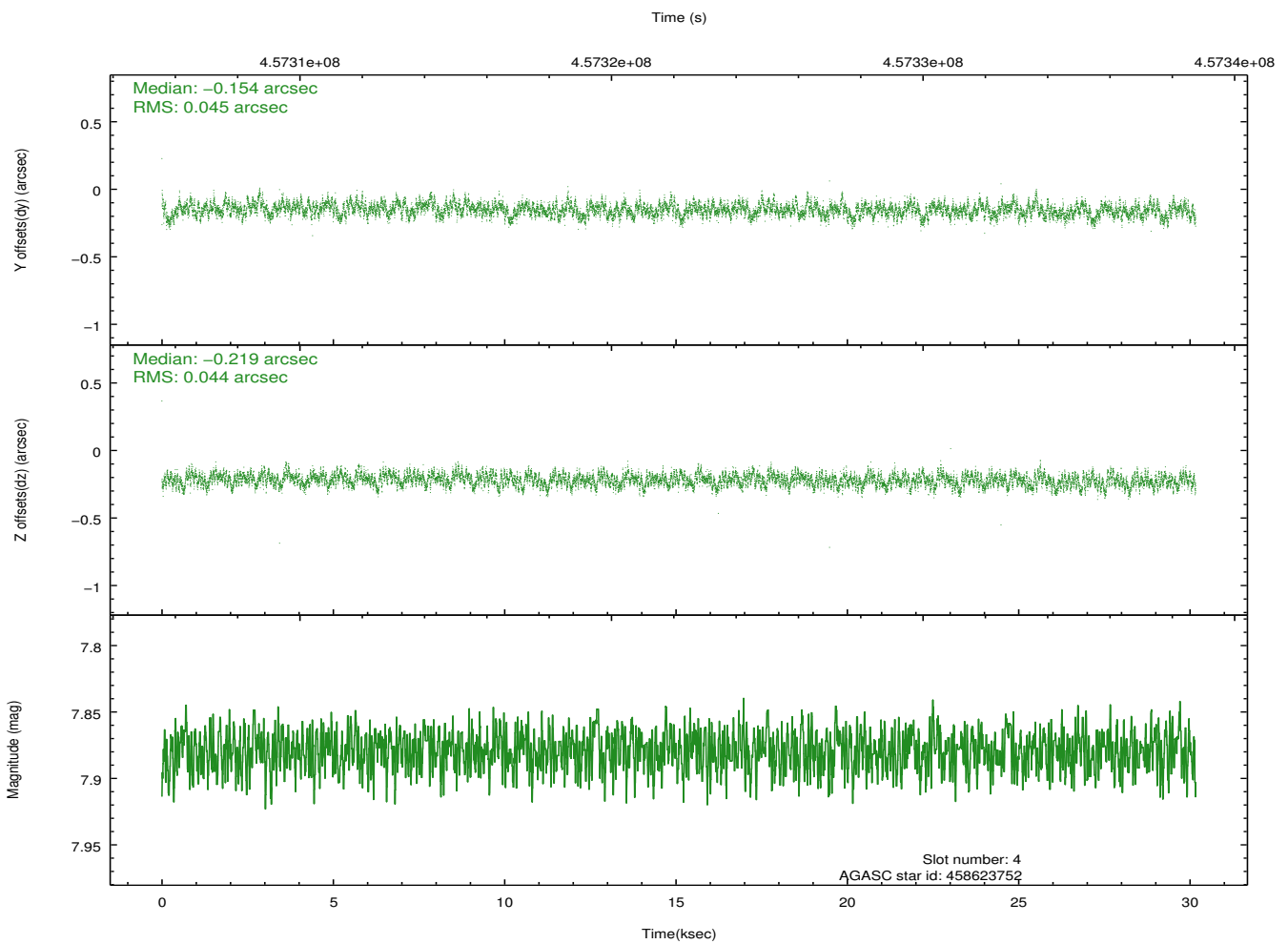
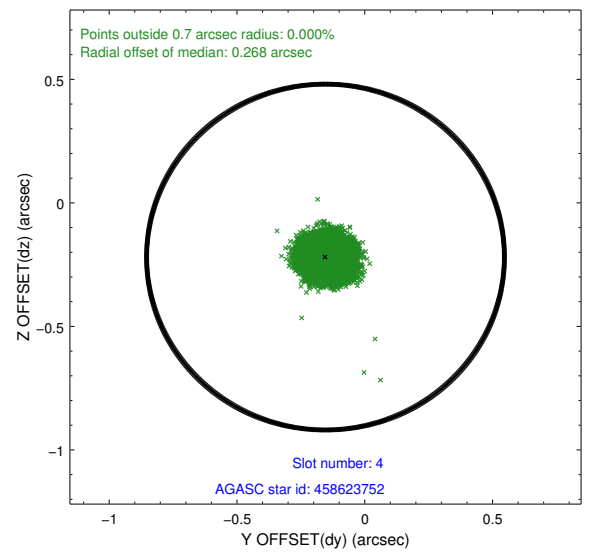
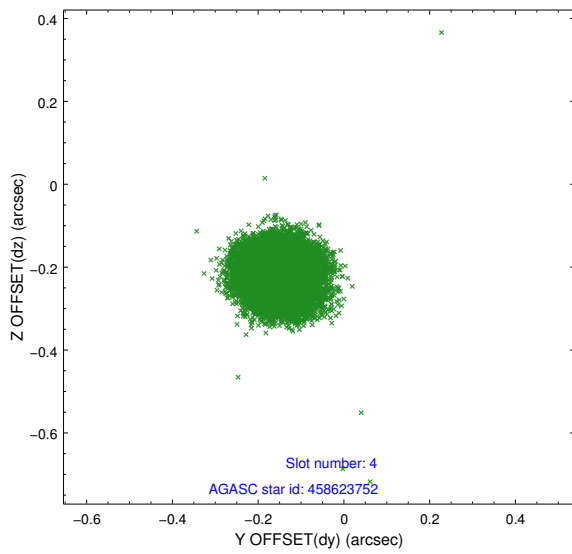
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-2 | 6.99 | 7359 | -0.081 | -0.094 | 0.013 | 0.022 | 0.000000 | 0.000000 | -762.40 | -991.40 |
| 1 | FID | ACIS-I-4 | 6.96 | 7358 | 0.132 | 0.076 | 0.034 | 0.053 | 0.000000 | 0.000000 | 2151.79 | 914.86 |
| 2 | FID | ACIS-I-5 | 7.03 | 7359 | -0.152 | 0.088 | 0.037 | 0.062 | 0.000000 | 0.000000 | -1815.85 | 911.84 |
| 3 | GUIDE | 458623344 | 8.77 | 14712 | -0.032 | 0.040 | 0.097 | 0.151 | 250.330399 | 47.465003 | -1823.56 | -2136.00 |
| 4 | GUIDE | 458623752 | 7.88 | 14717 | -0.154 | -0.219 | 0.067 | 0.106 | 249.631548 | 46.393849 | 1414.58 | 572.53 |
| 5 | GUIDE | 458626288 | 8.94 | 14713 | -0.060 | 0.181 | 0.076 | 0.123 | 250.637186 | 47.079533 | -1896.06 | -560.32 |
| 6 | GUIDE | 458626368 | 8.16 | 14711 | 0.322 | 0.037 | 0.077 | 0.126 | 249.060506 | 46.794229 | 2035.13 | -1347.75 |
| 7 | GUIDE | 458634664 | 9.23 | 14706 | -0.071 | -0.040 | 0.116 | 0.191 | 251.009501 | 46.332103 | -1569.75 | 2263.51 |

2.4 Star Slots

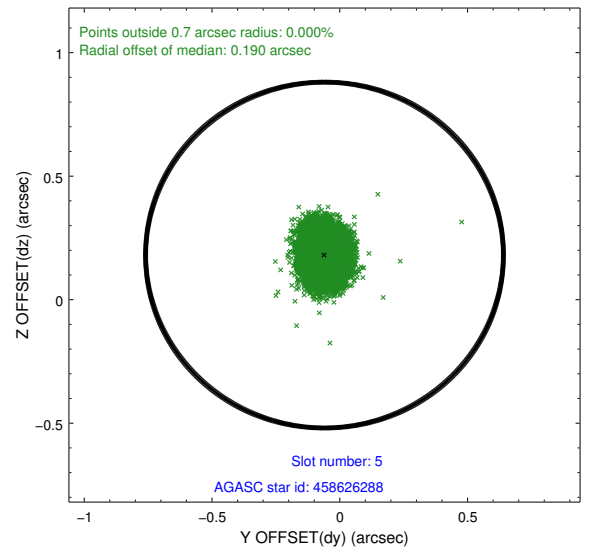
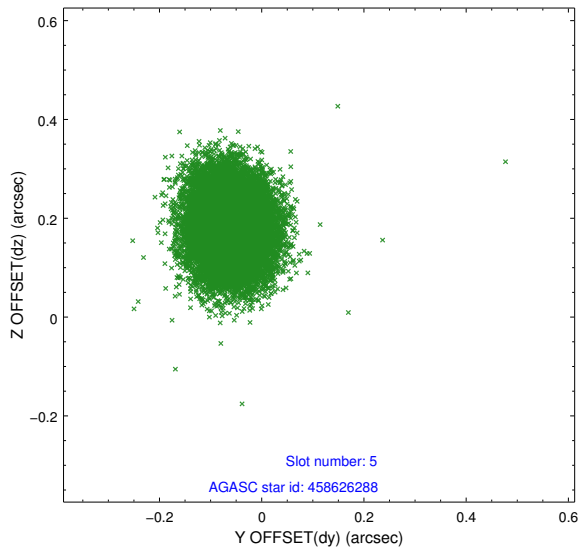
2.4.1 Slot 3



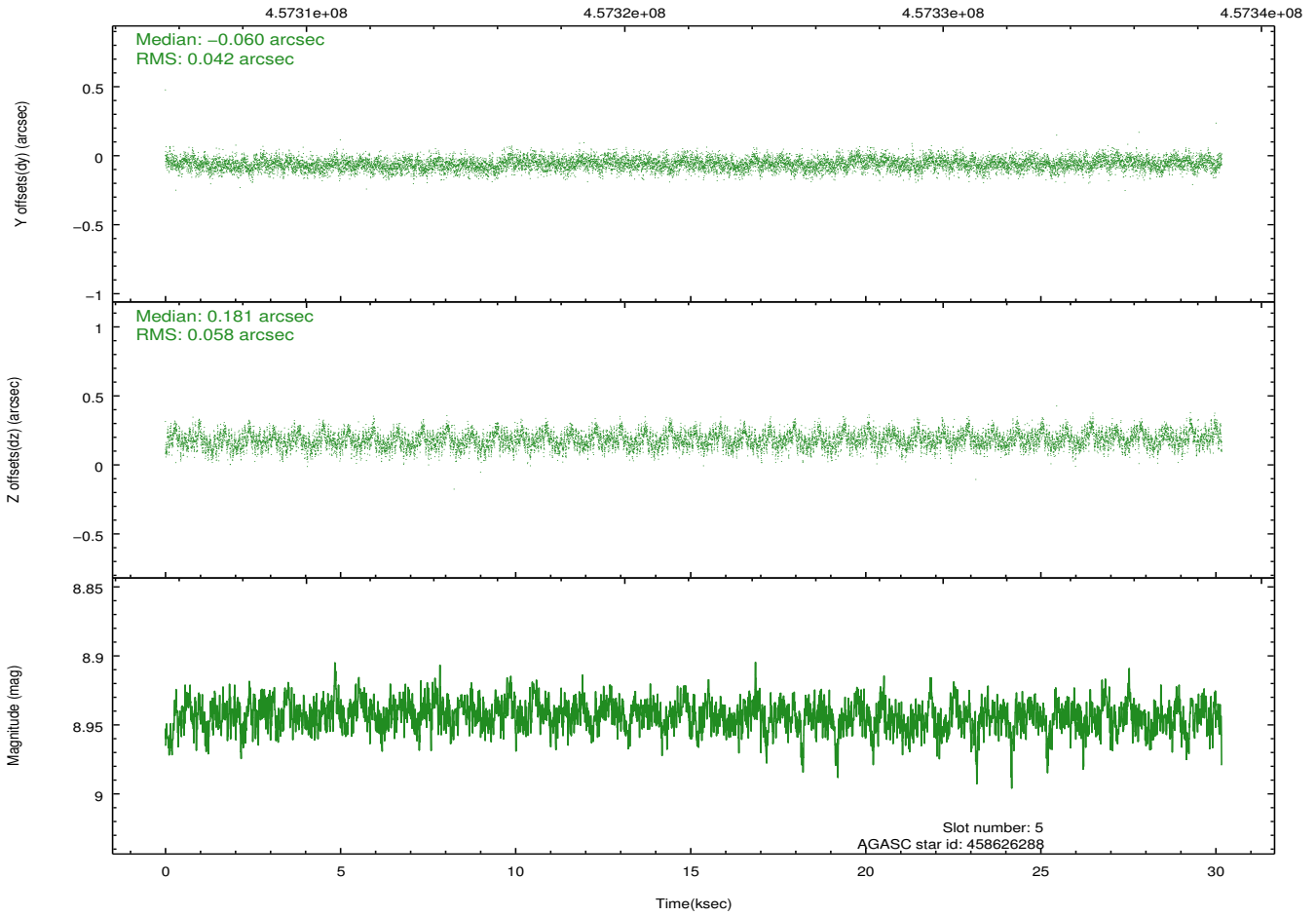
2.4.2 Slot 4



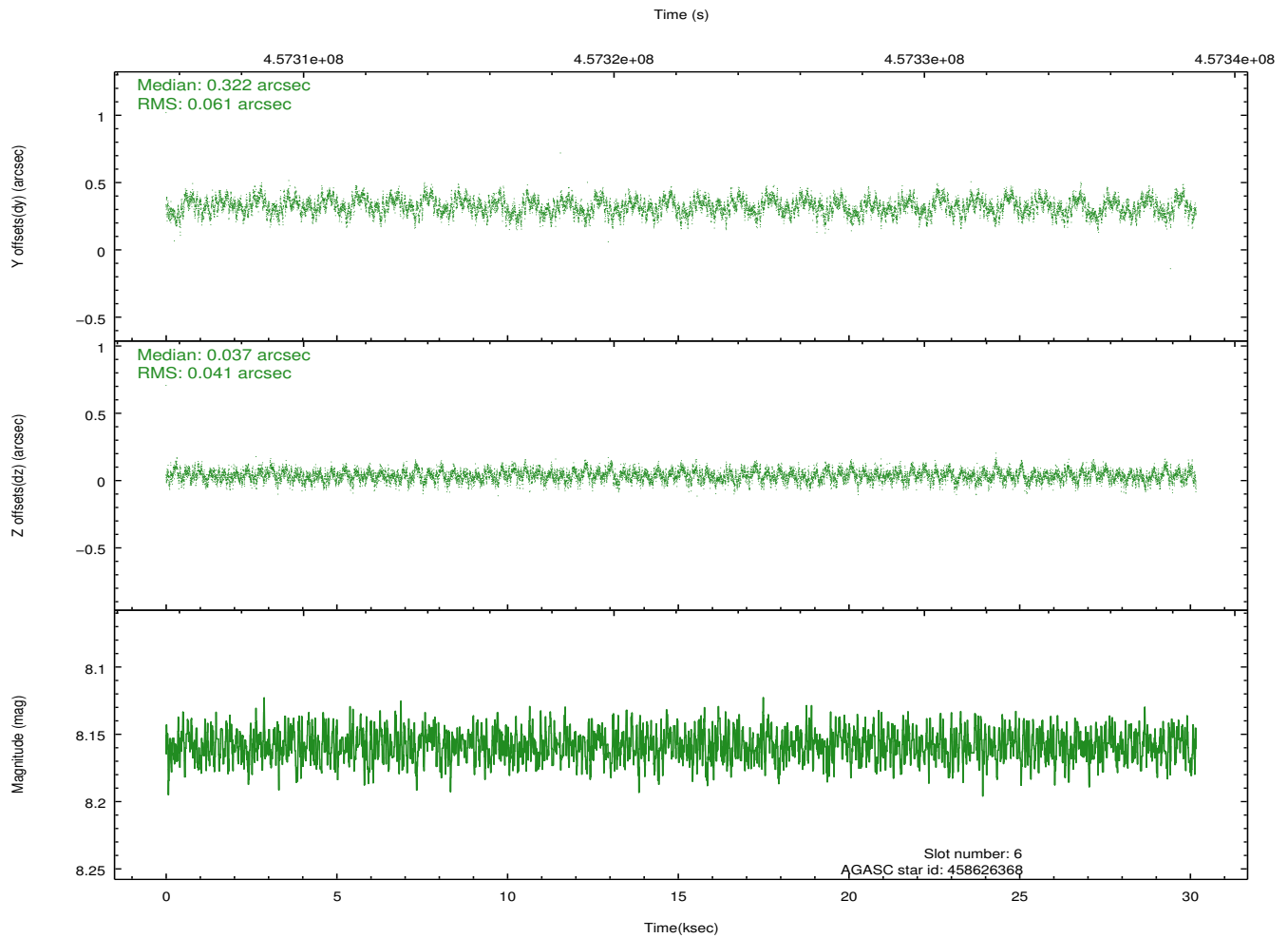
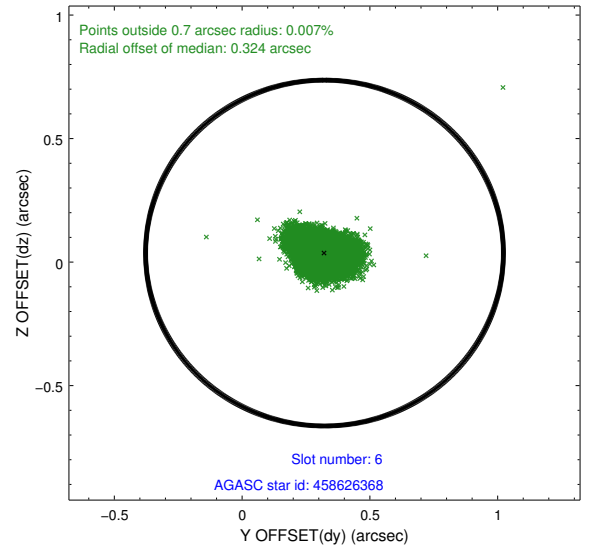
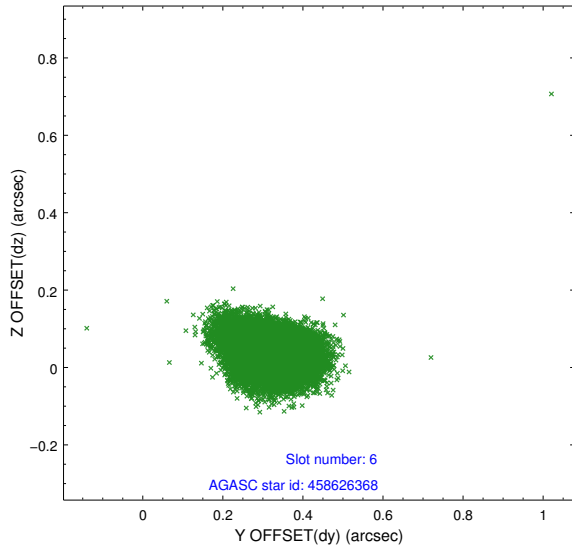
2.4.3 Slot 5



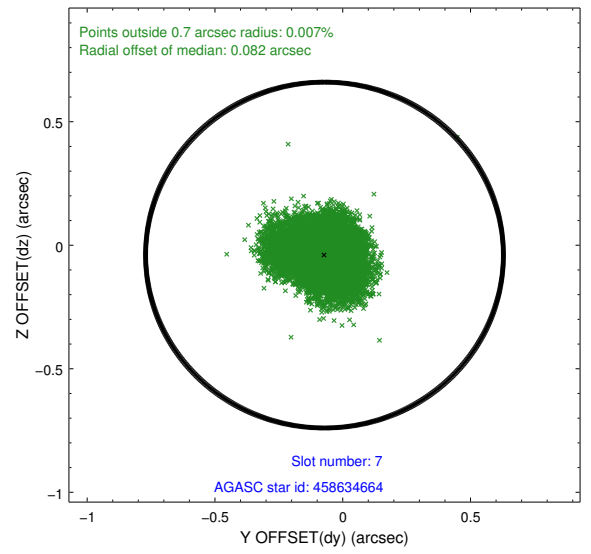
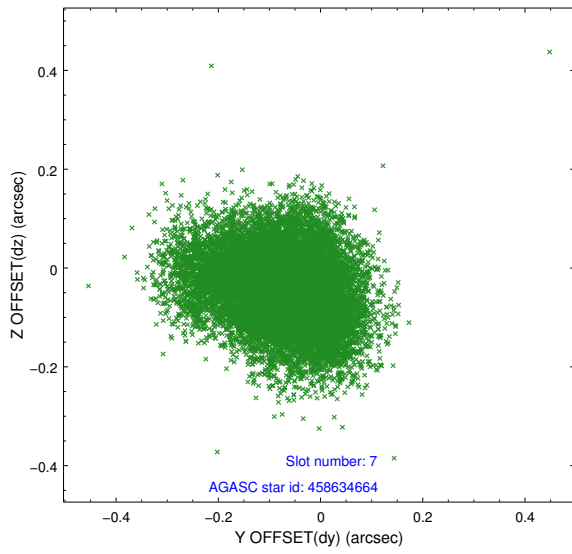
Time (s)



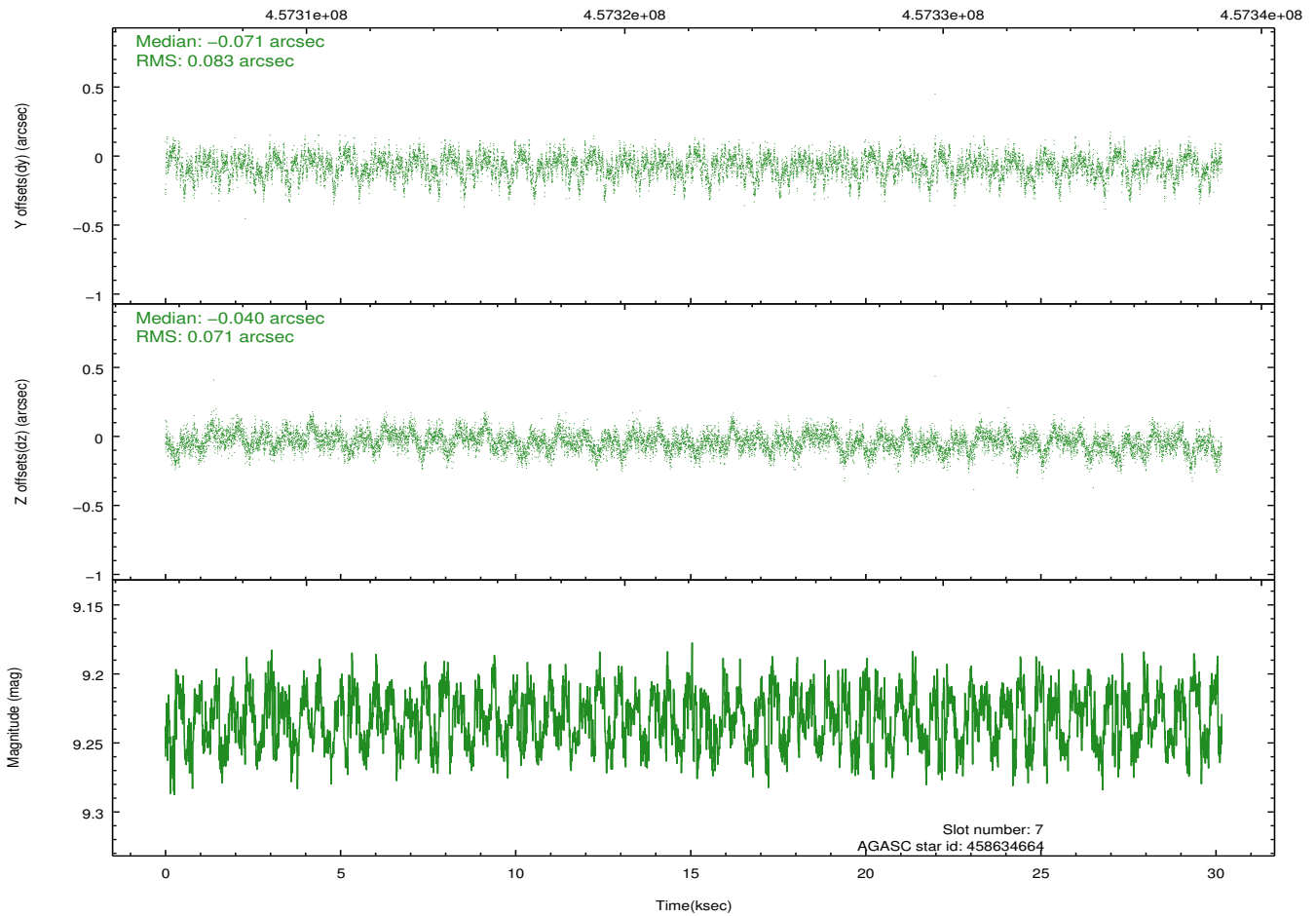
2.4.4 Slot 6



2.4.5 Slot 7

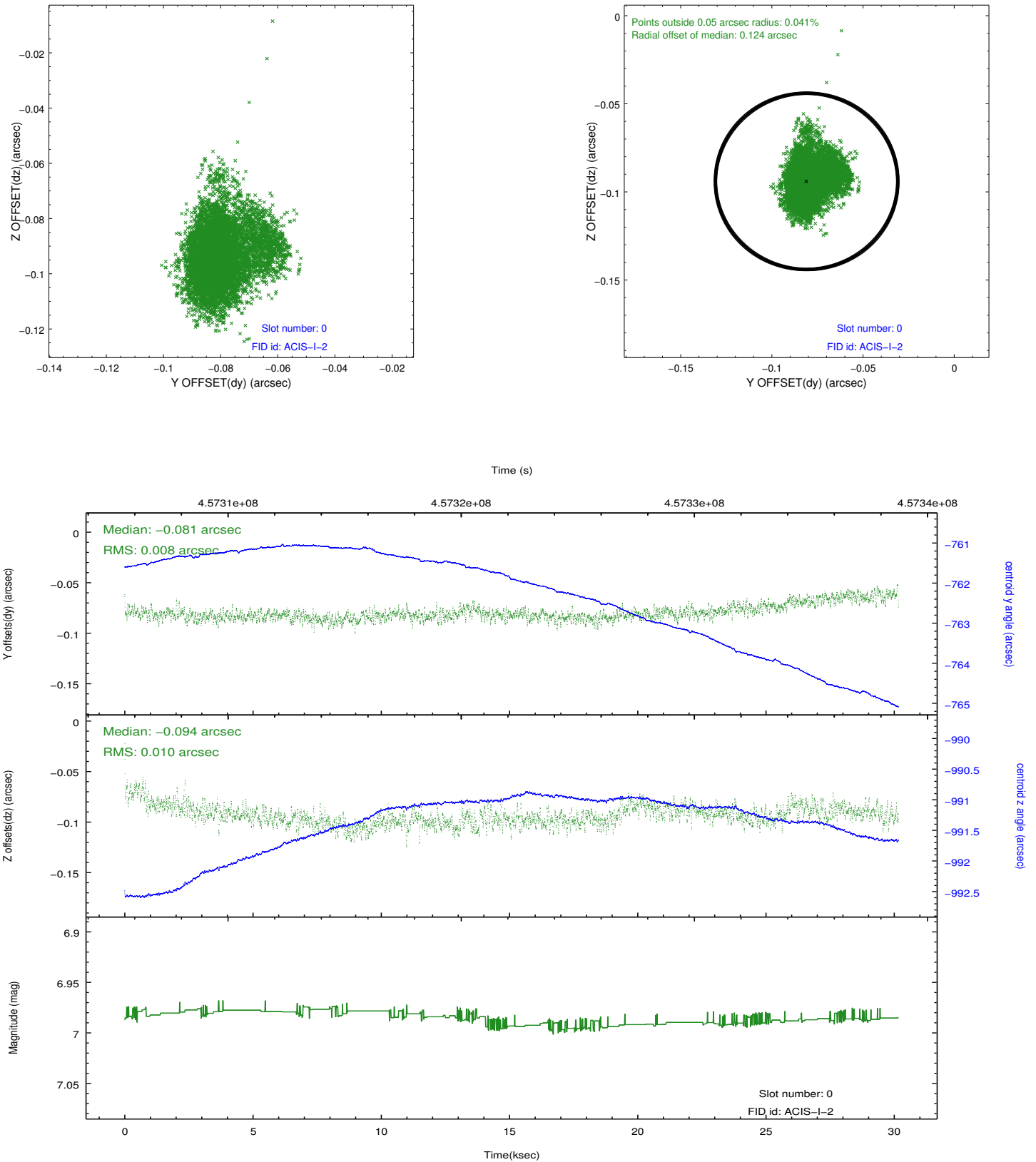


Time (s)

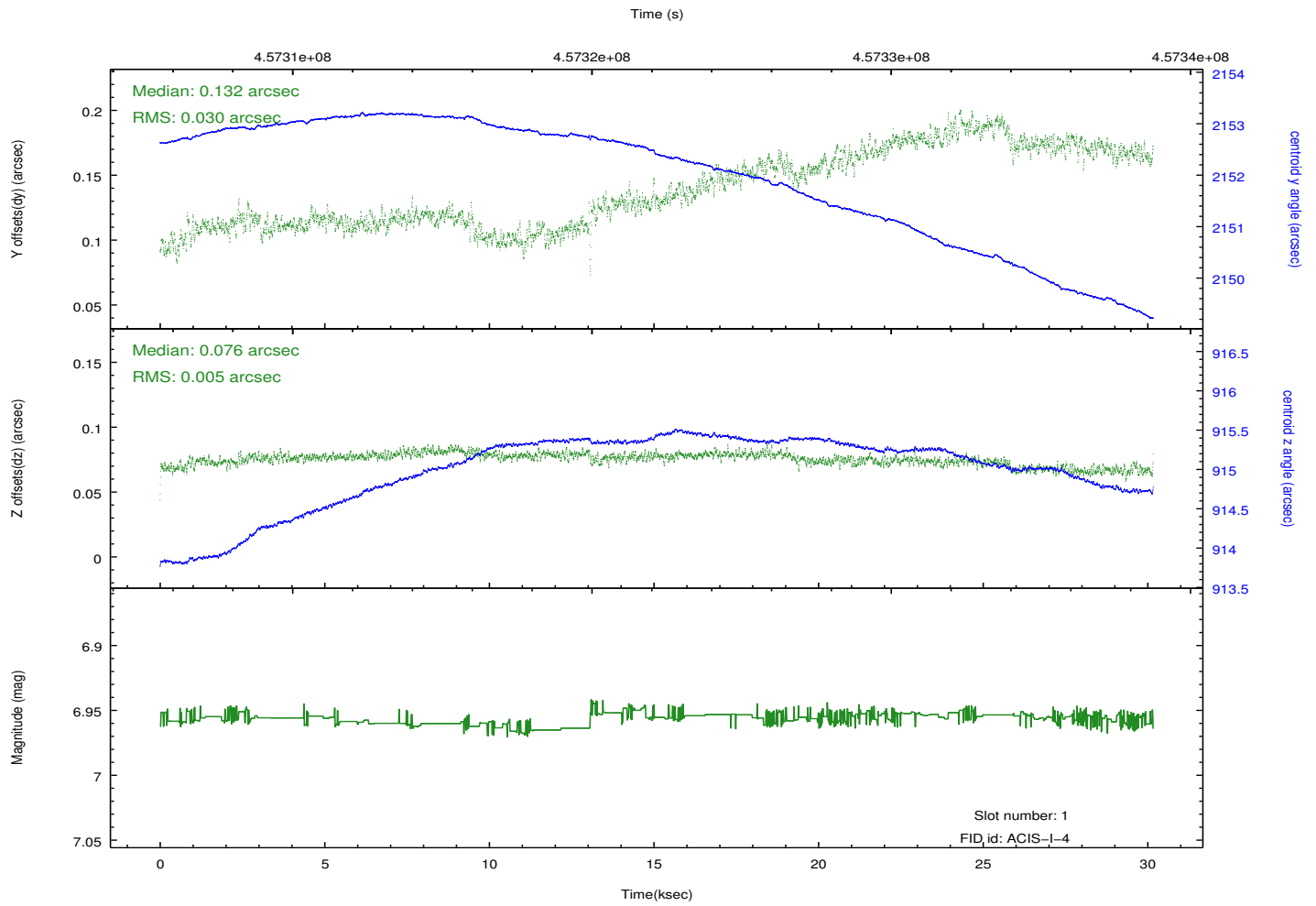
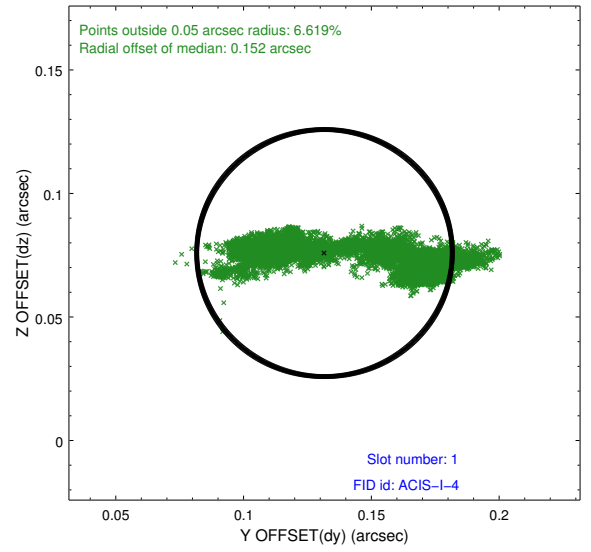
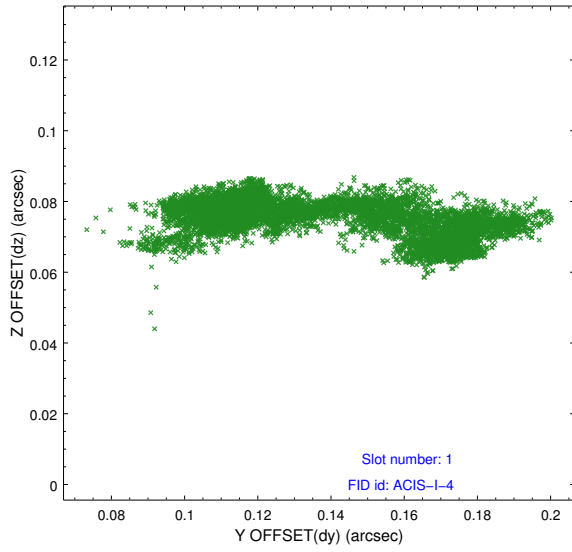


2.5 FID Slots

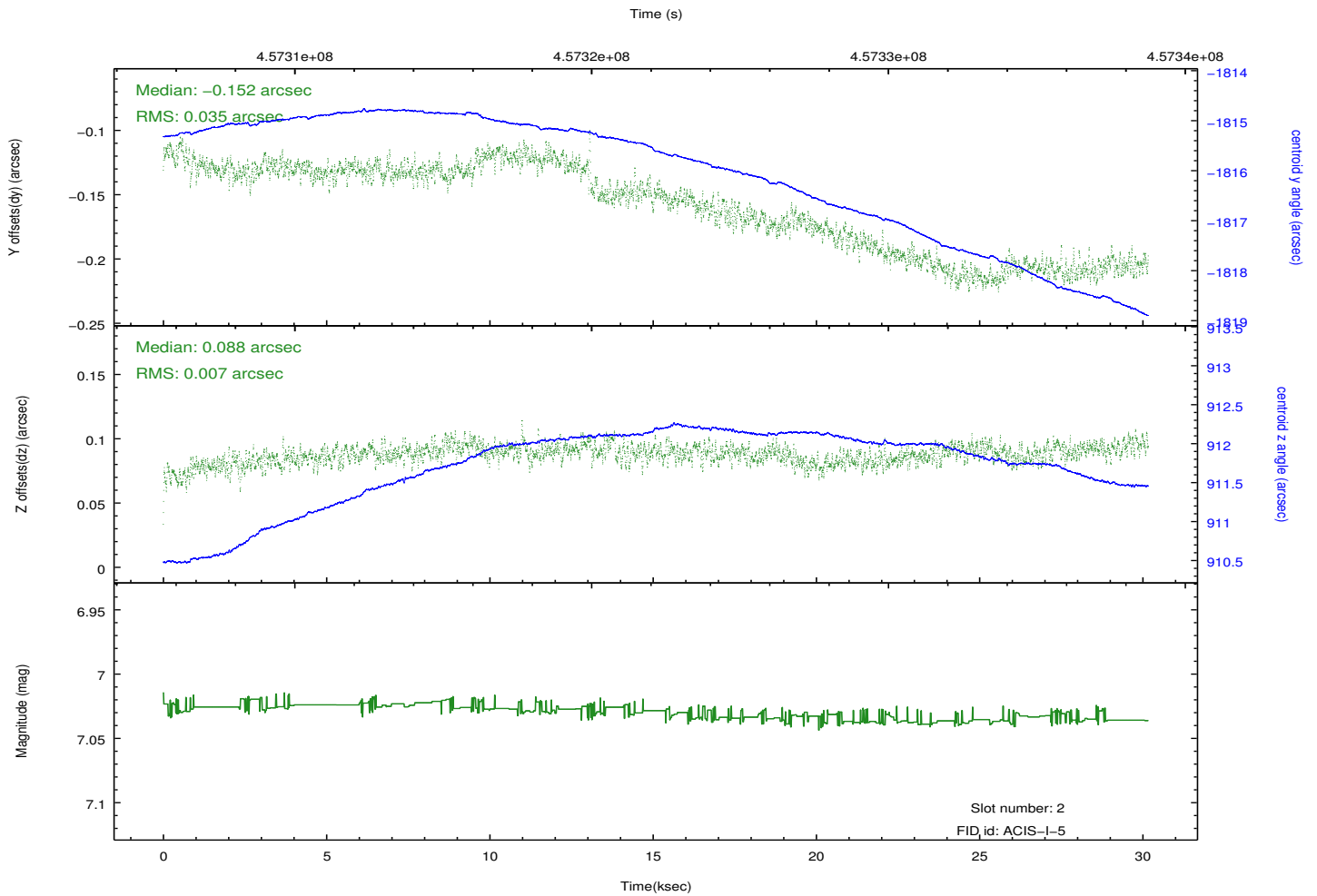
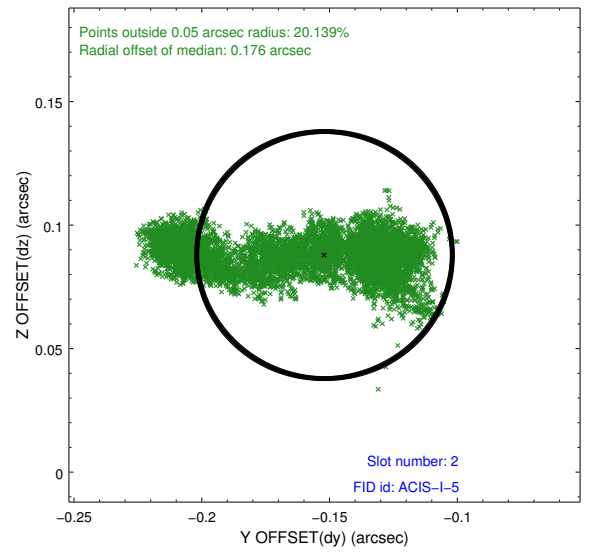
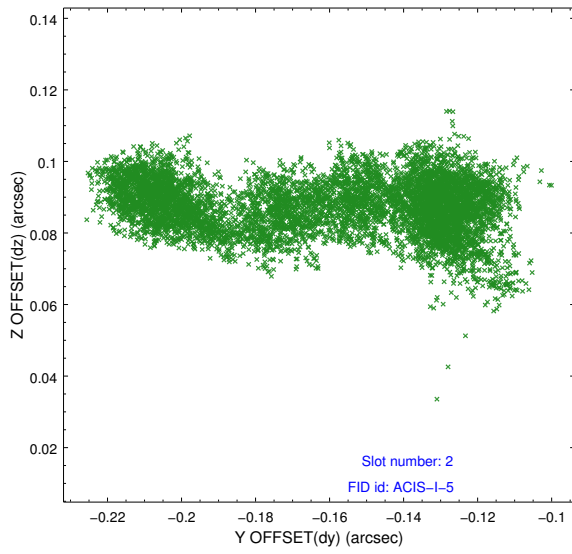
2.5.1 Slot 0



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) | 2012.06.29 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 30.076159270942 |

A.2 Comments