

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 18644 - L2 Version 1
Chandra X-Ray Center

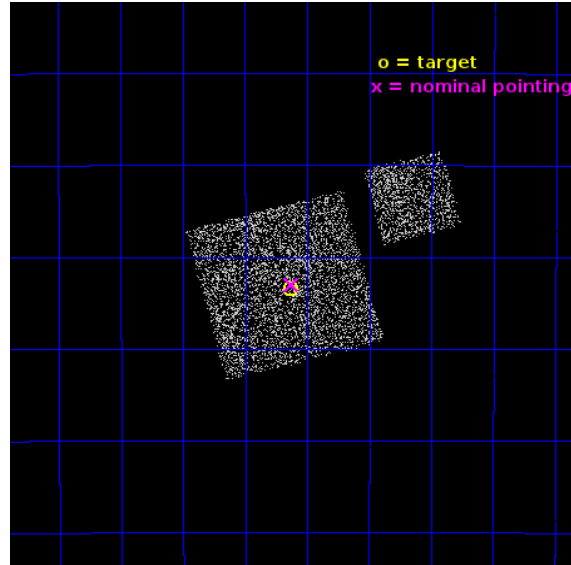
L2 Processing Date : May 22 2016

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1 Front

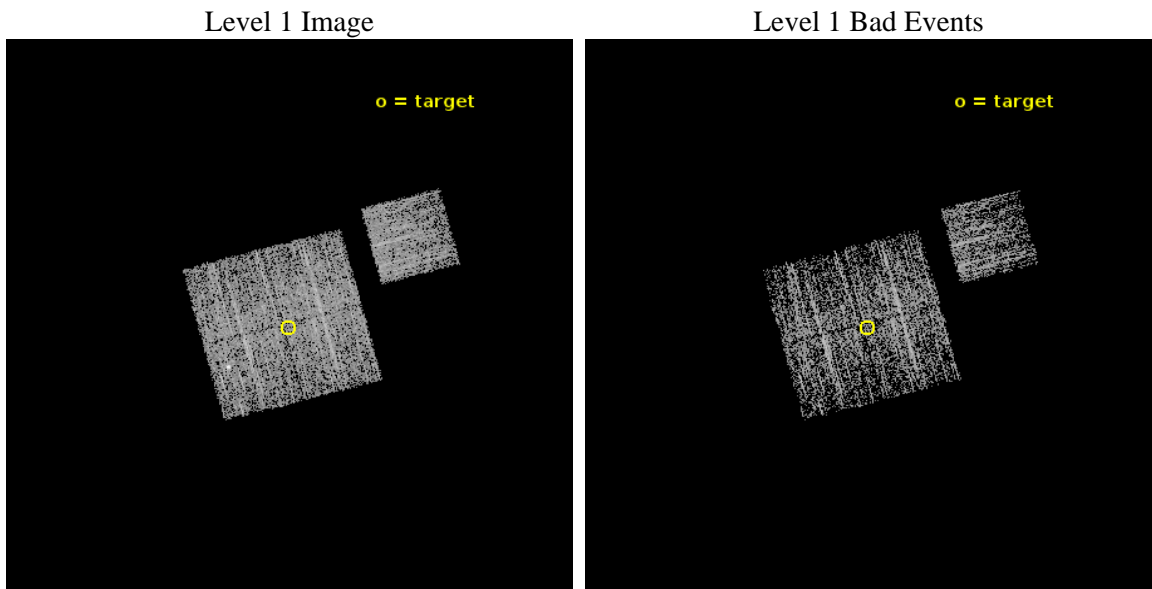
| | | |
|----------|--|---|
| seq_num | 300368 | Sequence number |
| obs_id | 18644 | Observation id |
| title | X-raying the Galactic center/bulge interface | Proposal title |
| observer | Q. Daniel Wang | Principal investigator |
| object | GC-GB interface | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 265.90794 | Observer's specified target RA [deg] |
| dec_targ | -29.89069 | Observer's specified target Dec [deg] |
| ra_nom | 265.90689527808 | Nominal RA [deg] |
| dec_nom | -29.883613118374 | Nominal Dec [deg] |
| roll_nom | 75.024815710998 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 1955.3963134289 | Sum of GTIs [s] |
| livetime | 1929.8476210521 | Livetime [s] |
| ontime0 | 1955.273183465 | Sum of GTIs [s] |
| ontime1 | 1955.3142334223 | Sum of GTIs [s] |
| ontime2 | 1955.3552734852 | Sum of GTIs [s] |
| ontime3 | 1955.3963134289 | Sum of GTIs [s] |
| ontime6 | 1955.2321534157 | Sum of GTIs [s] |
| l2events | 7260 | Number of level 2 events |



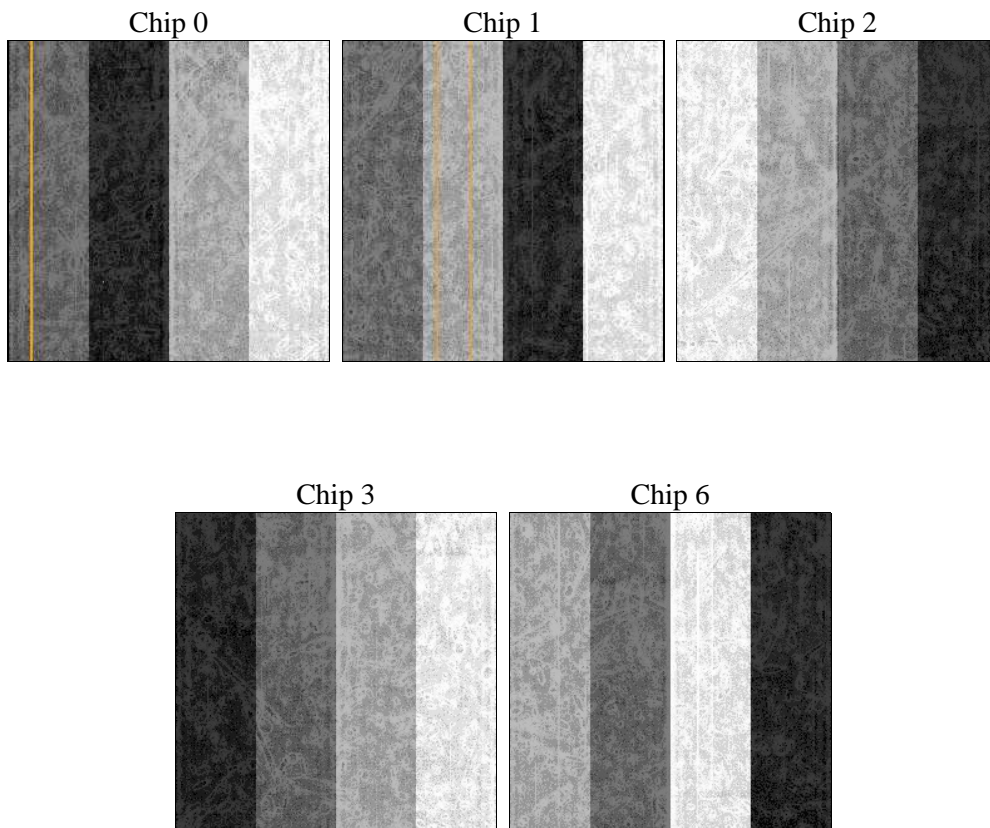
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 2180.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.4.3.1 | Processing system revision | ontime | 1955.3963134289 | Sum of GTIs [s] |
| caldsver | 4.7.1 | | ontime0 | 1955.273183465 | Sum of GTIs [s] |
| date | 2016-05-22T07:35:52 | Date and time of file creation | ontime1 | 1955.3142334223 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime2 | 1955.3552734852 | Sum of GTIs [s] |
| | | | ontime3 | 1955.3963134289 | Sum of GTIs [s] |
| | | | ontime6 | 1955.2321534157 | Sum of GTIs [s] |
| | | | l1events | 62259 | Number of level 1 events |

2.1.4 Events

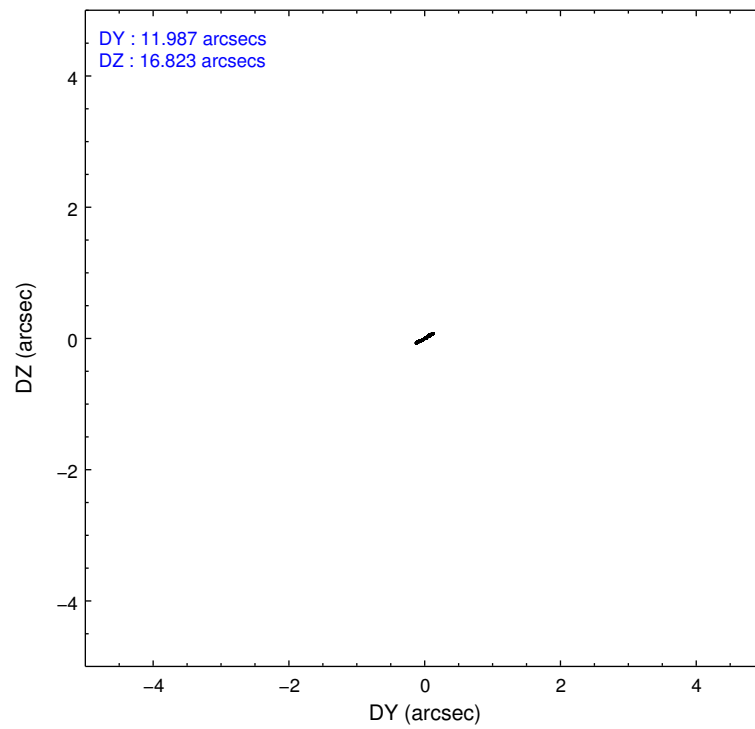
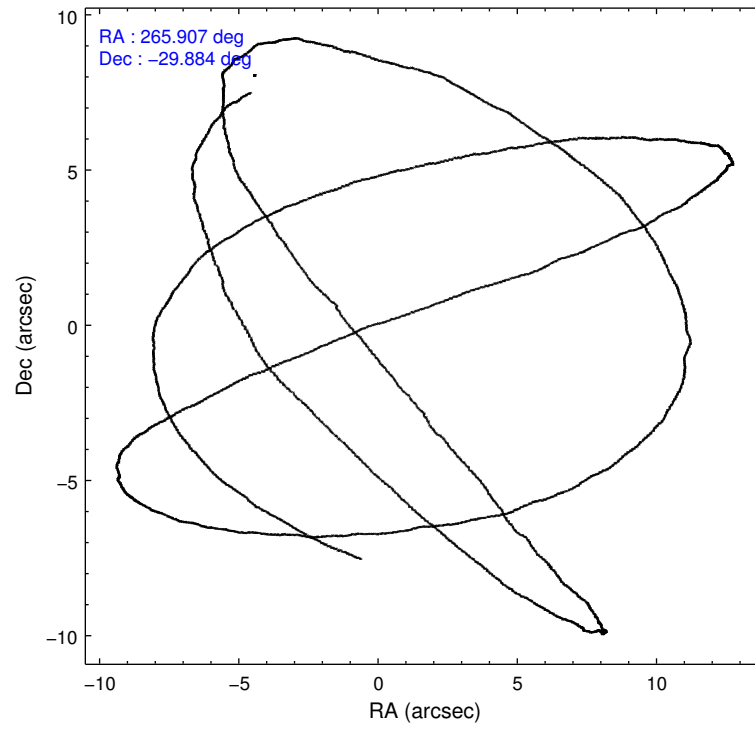
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|-------|-------|-------|-------|-------|
| level 1 events | 12078 | 12459 | 13142 | 12201 | 12379 |
| rejected events | 10247 | 10279 | 11385 | 10715 | 10711 |
| rejected % | 84% | 82% | 86% | 87% | 86% |

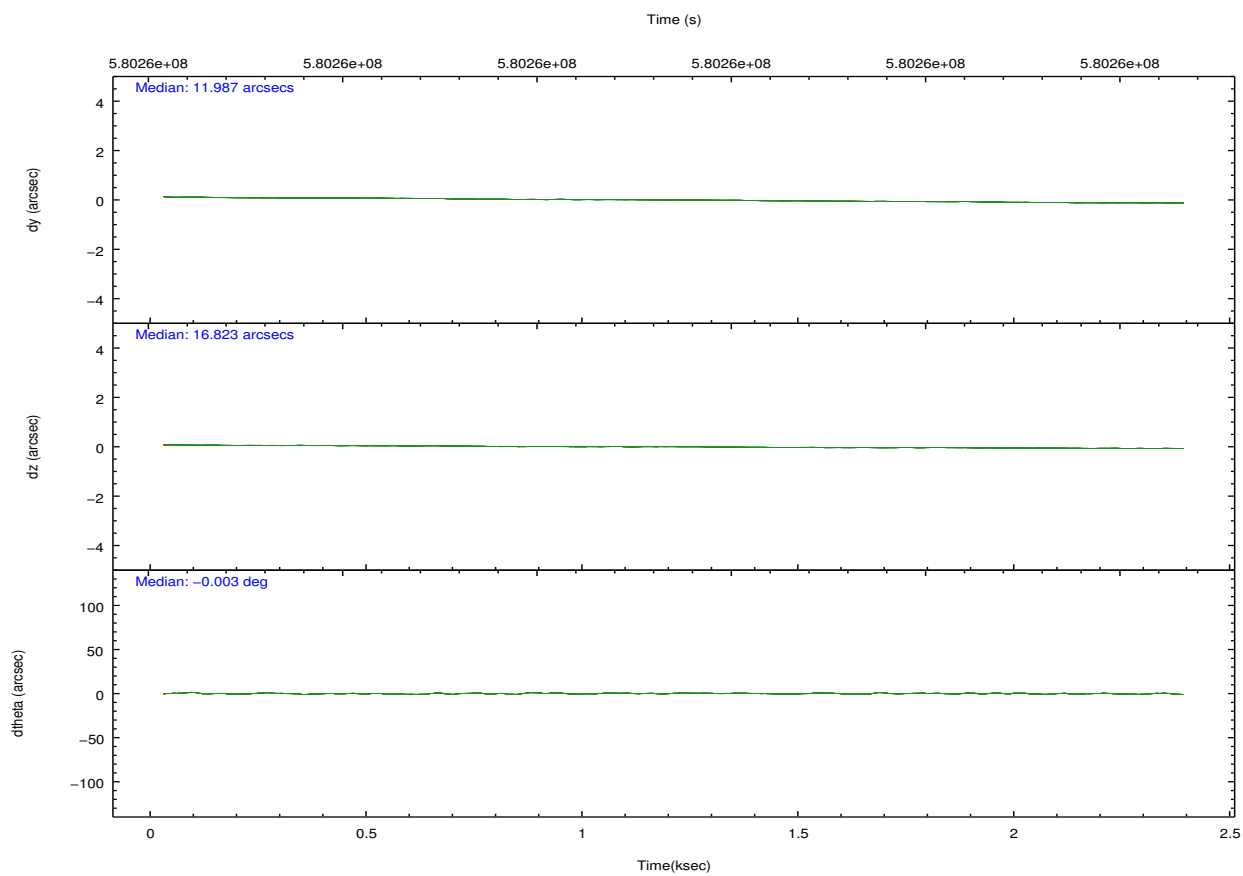
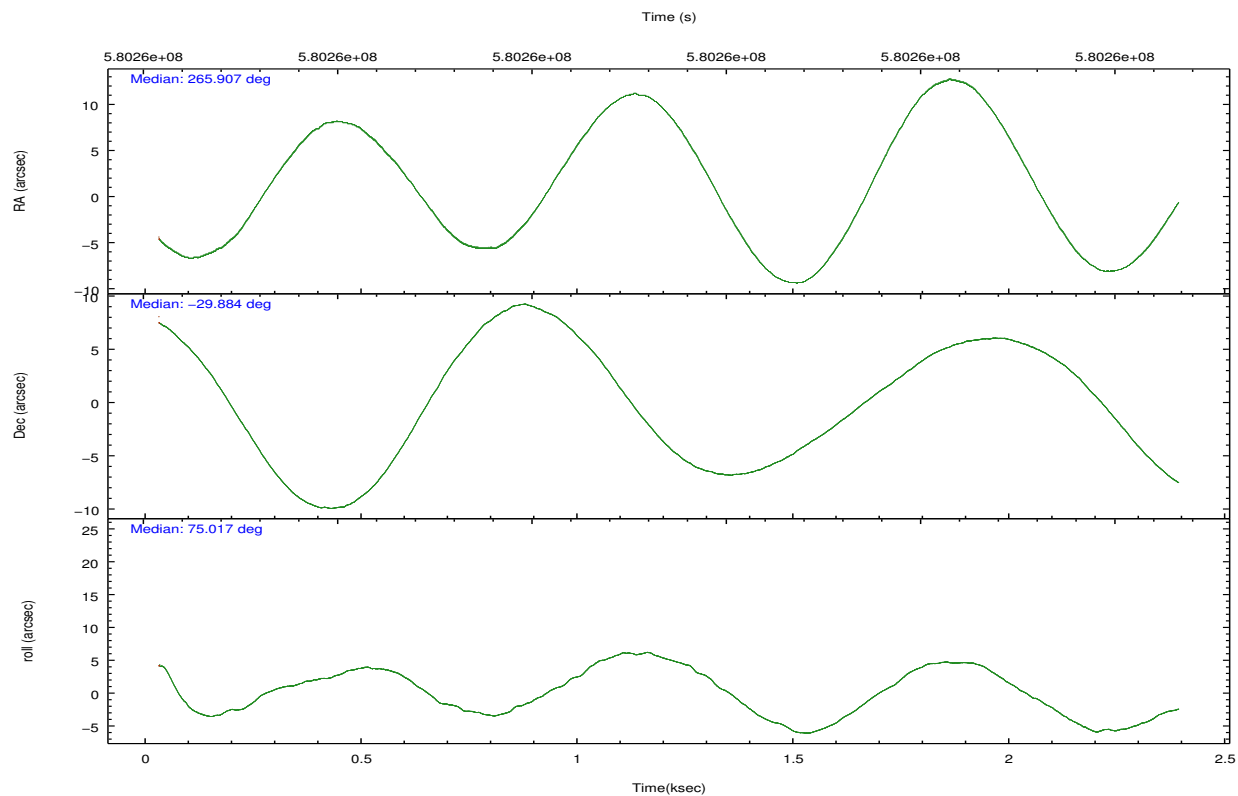
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 843 | 1137 | 803 | 618 | 641 |
| | 6% | 9% | 6% | 5% | 5% |
| grade 1 events | 2 | 11 | 14 | 4 | 6 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 364 | 382 | 374 | 304 | 396 |
| | 3% | 3% | 2% | 2% | 3% |
| grade 3 events | 169 | 160 | 156 | 153 | 127 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 146 | 133 | 151 | 137 | 157 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 514 | 488 | 482 | 572 | 561 |
| | 4% | 3% | 3% | 4% | 4% |
| grade 6 events | 312 | 371 | 275 | 279 | 352 |
| | 2% | 2% | 2% | 2% | 2% |
| grade 7 events | 9728 | 9777 | 10887 | 10134 | 10139 |
| | 80% | 78% | 82% | 83% | 81% |

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 | 265.915525 | 265.9068952780793 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | -29.910210 | -29.88361311837418 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 74.820397 | 75.02481571099793 | 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 | -233.592463 | -233.5874344608287 | CCD S3 on | N | N |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 580255383.184000 | 580255006.87435 | CCD S5 on | N | N |
| Observation start date | 2016-05-21T22:01:55 | 2016-05-21T21:56:46 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 580257563.184000 | 580257696.98701 | On-chip summing requested | N | N |
| Observation end date | 2016-05-21T22:38:15 | 2016-05-21T22:41:36 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect



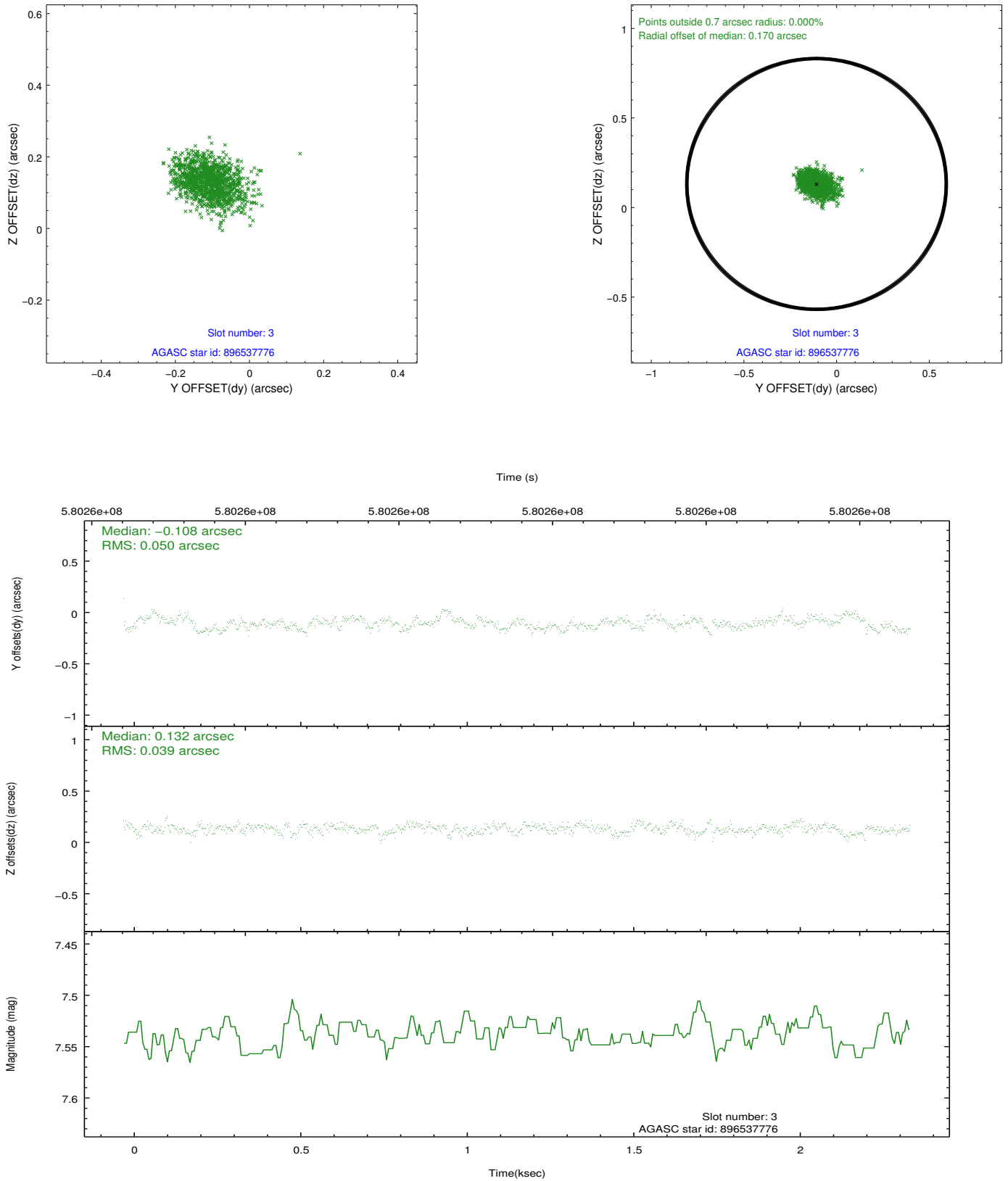


Slot Statistics

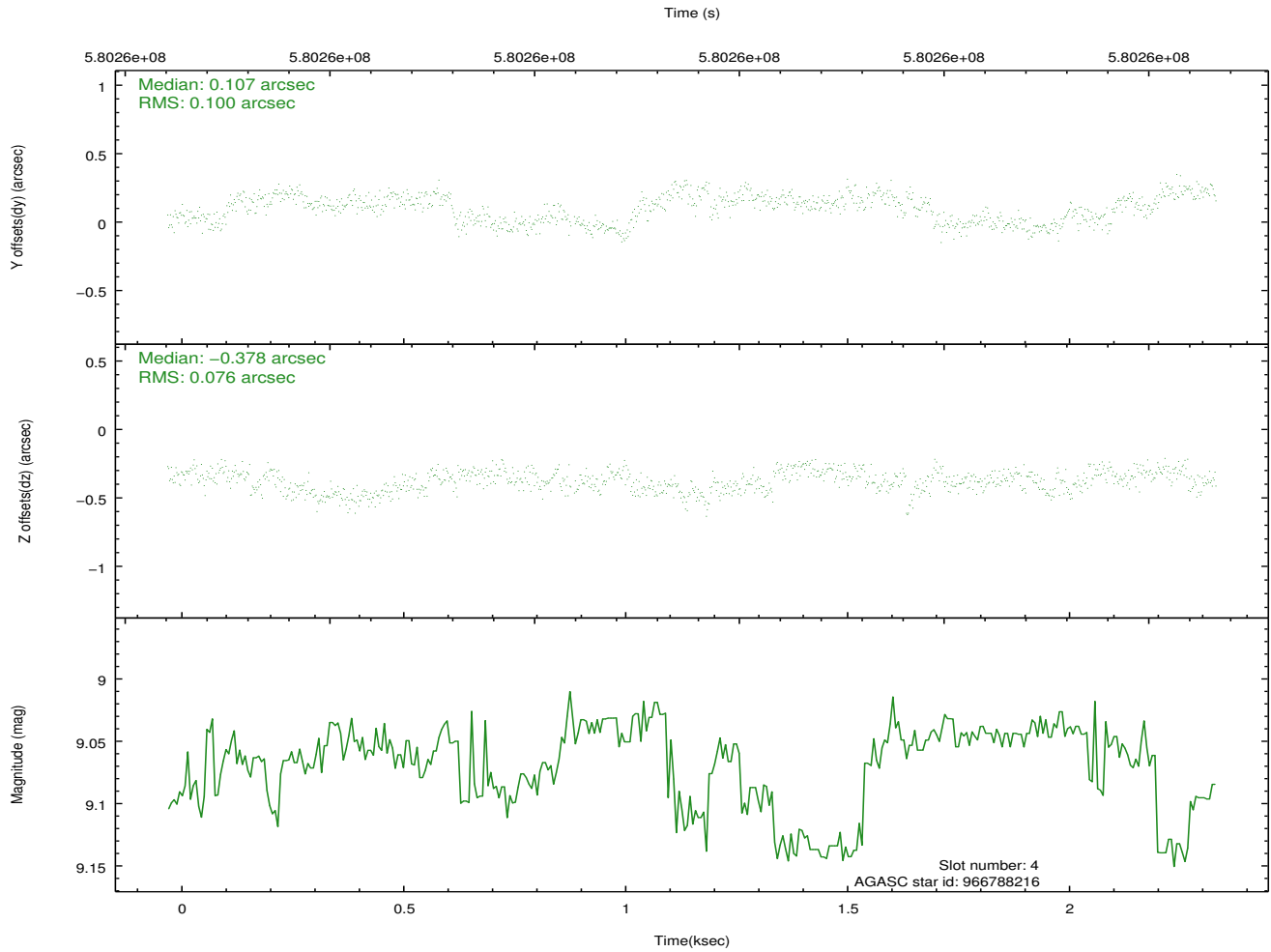
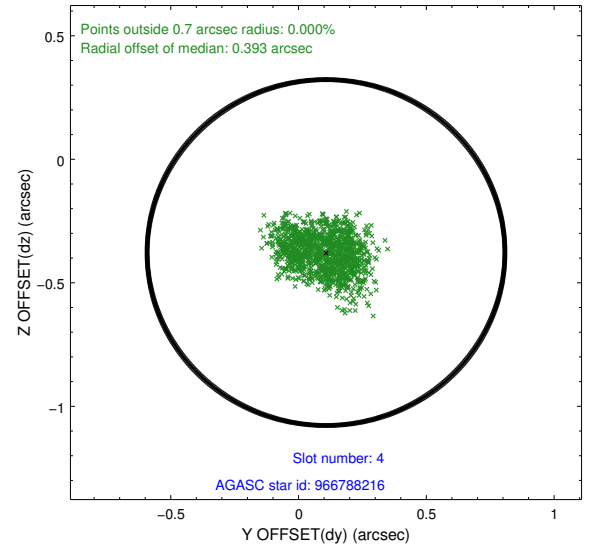
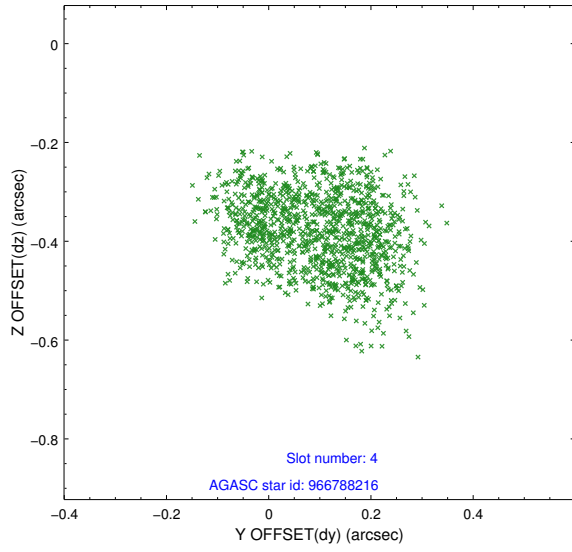
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | | ACIS-I-1 | 7.25 | 577 | 0.085 | -0.078 | 0.006 | 0.009 | 0.000000 | 0.000000 | 927.66 | -840.53 |
| 1 | FID | | ACIS-I-5 | 7.26 | 577 | -0.304 | 0.053 | 0.006 | 0.010 | 0.000000 | 0.000000 | -1819.35 | 1055.66 |
| 2 | FID | | ACIS-I-6 | 7.26 | 577 | 0.128 | 0.095 | 0.006 | 0.010 | 0.000000 | 0.000000 | 390.22 | 1703.35 |
| 3 | GUIDE | used | 896537776 | 7.54 | 1153 | -0.108 | 0.132 | 0.067 | 0.109 | 266.655684 | -29.665673 | 1449.54 | -2006.14 |
| 4 | GUIDE | used | 966788216 | 9.06 | 1149 | 0.107 | -0.378 | 0.136 | 0.207 | 265.089173 | -30.220730 | -1759.66 | 2183.05 |
| 5 | GUIDE | used | 966924920 | 8.08 | 1151 | -0.190 | 0.101 | 0.091 | 0.146 | 265.875401 | -30.176961 | -960.57 | -129.54 |
| 6 | GUIDE | used | 896541360 | 7.74 | 1153 | -0.145 | 0.117 | 0.082 | 0.153 | 266.684478 | -29.453744 | 2209.33 | -1898.40 |
| 7 | GUIDE | used | 966920024 | 8.80 | 1152 | 0.339 | 0.029 | 0.099 | 0.150 | 265.515080 | -30.492187 | -2346.61 | 647.35 |

2.4 Star Slots

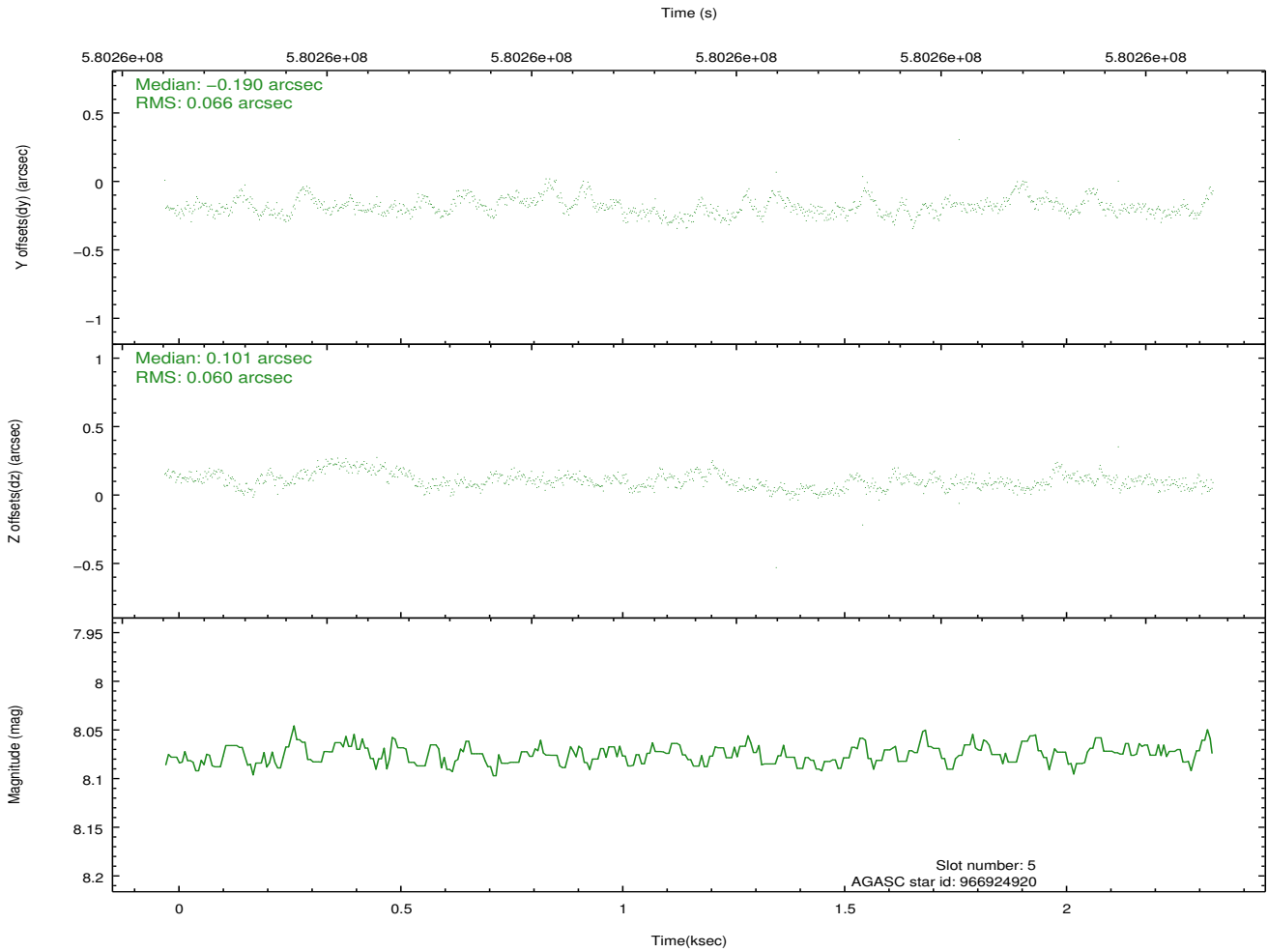
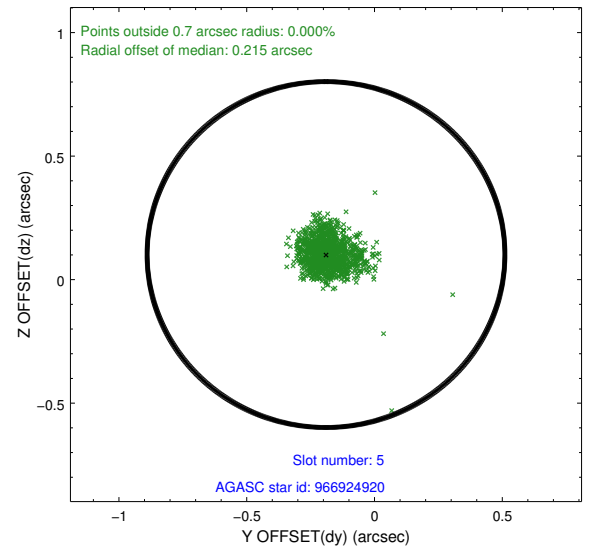
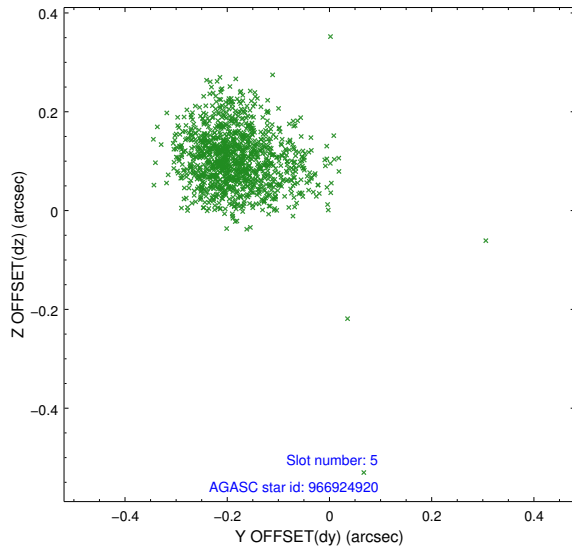
2.4.1 Slot 3



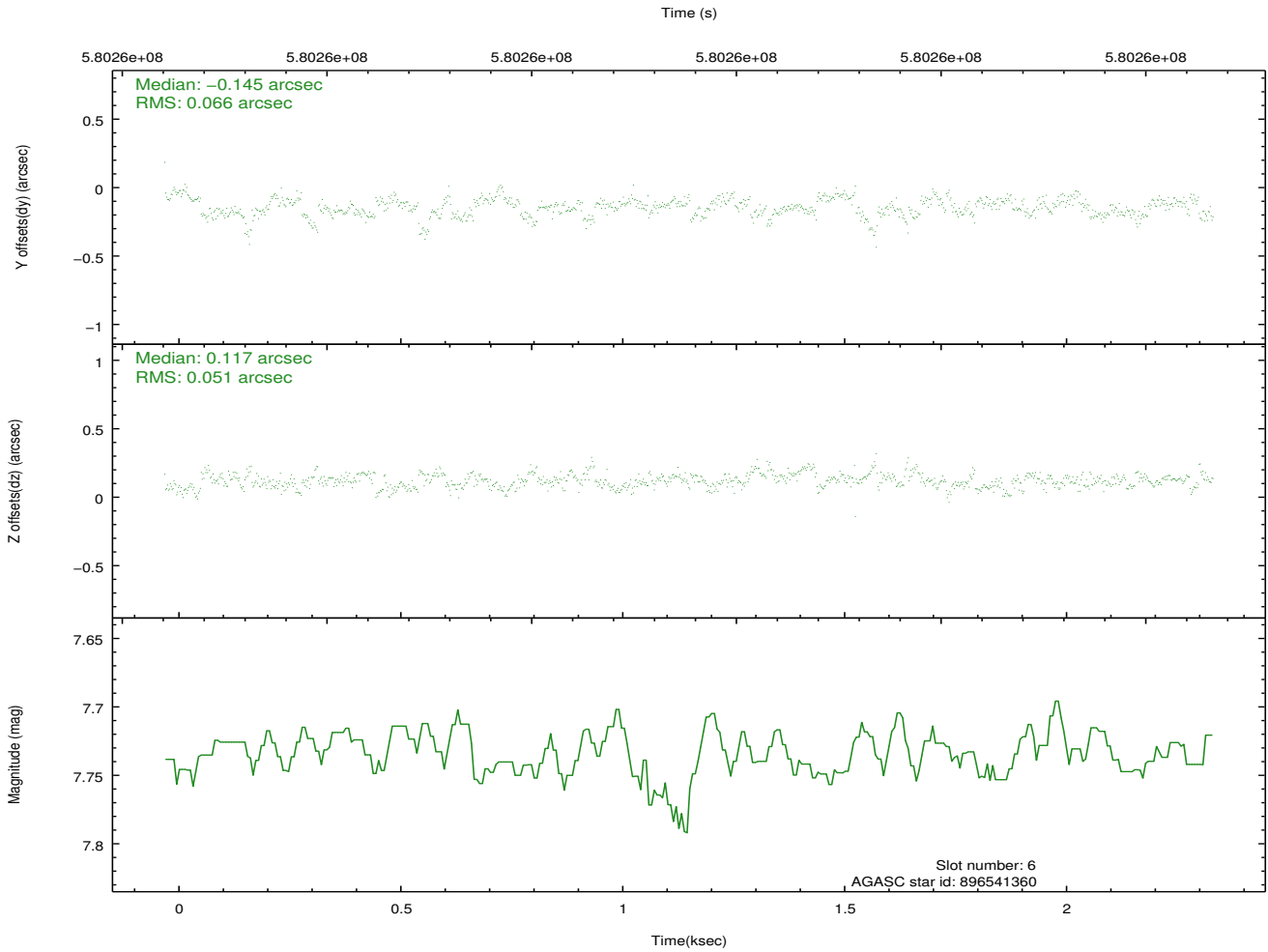
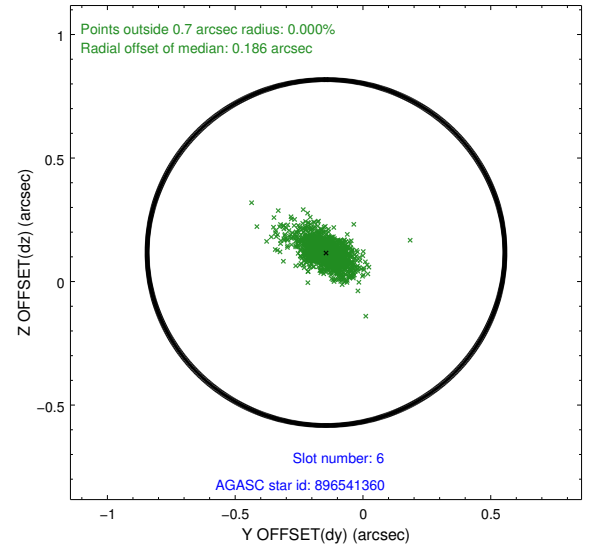
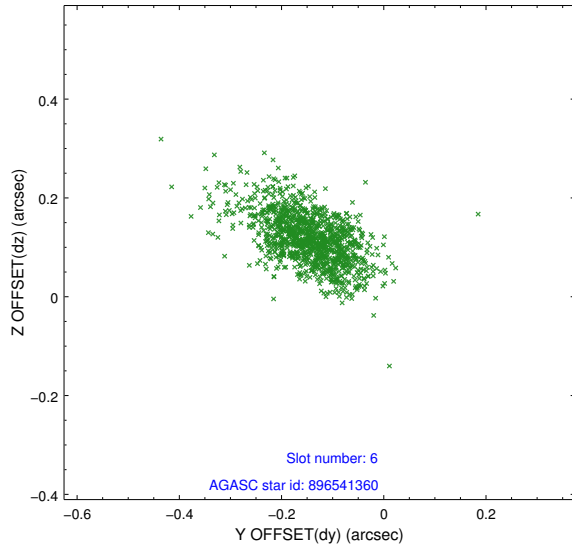
2.4.2 Slot 4



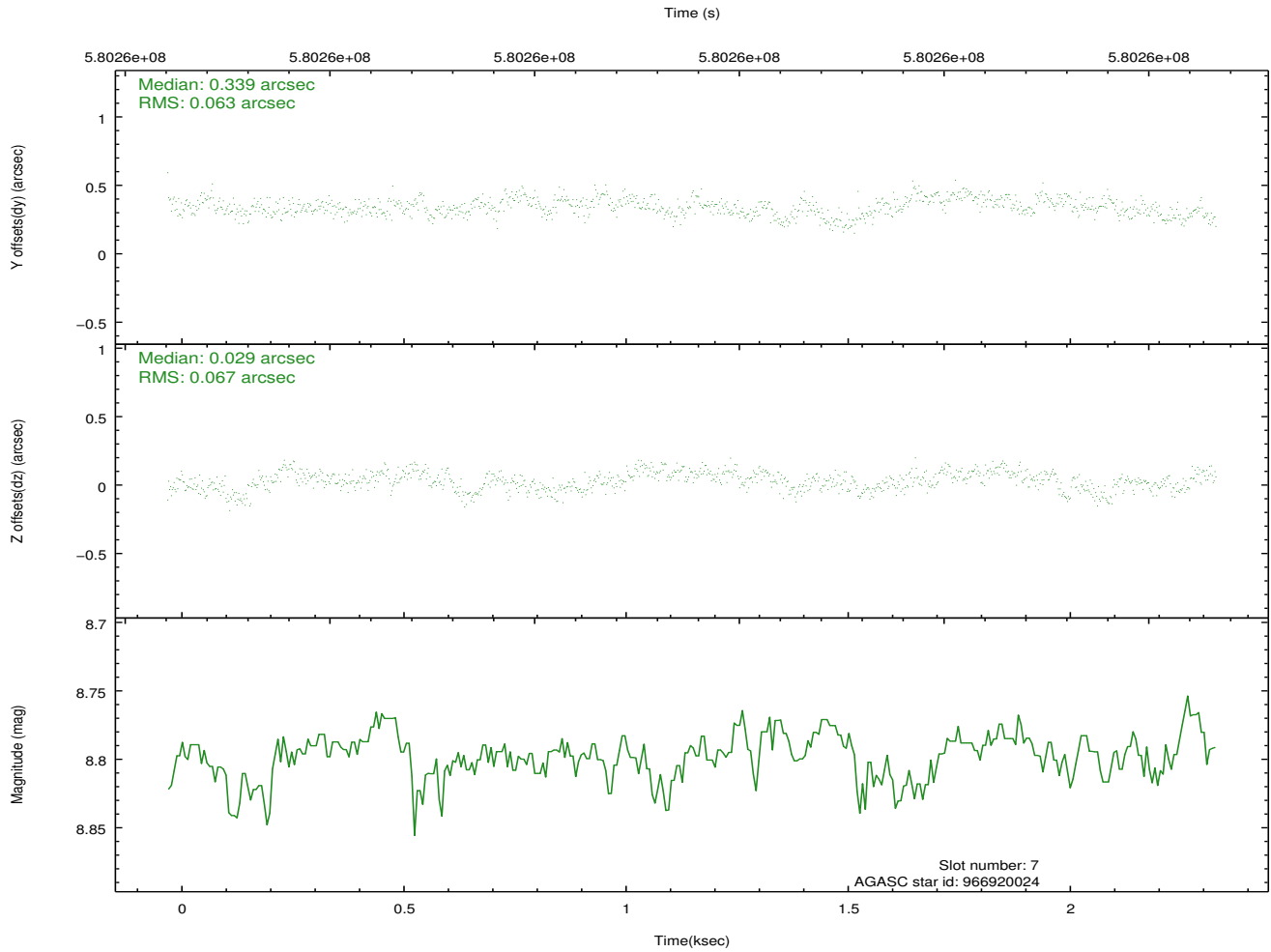
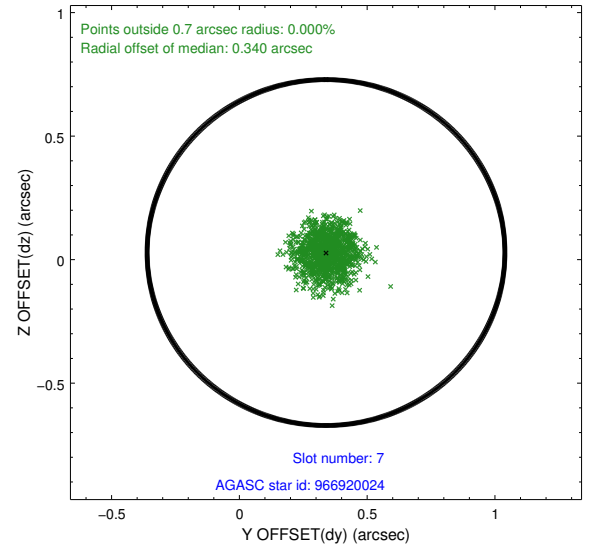
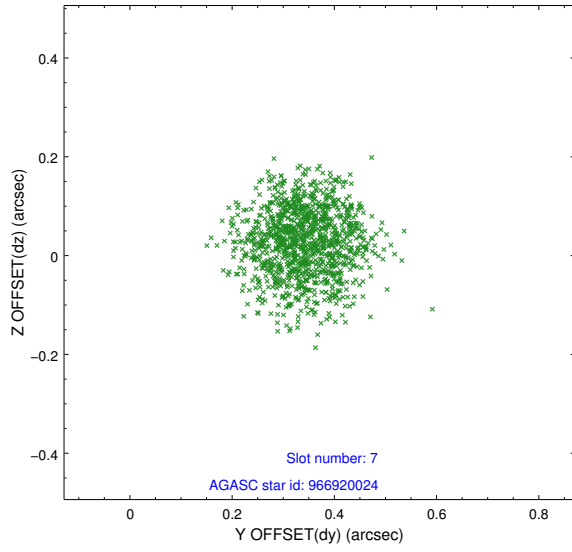
2.4.3 Slot 5



2.4.4 Slot 6

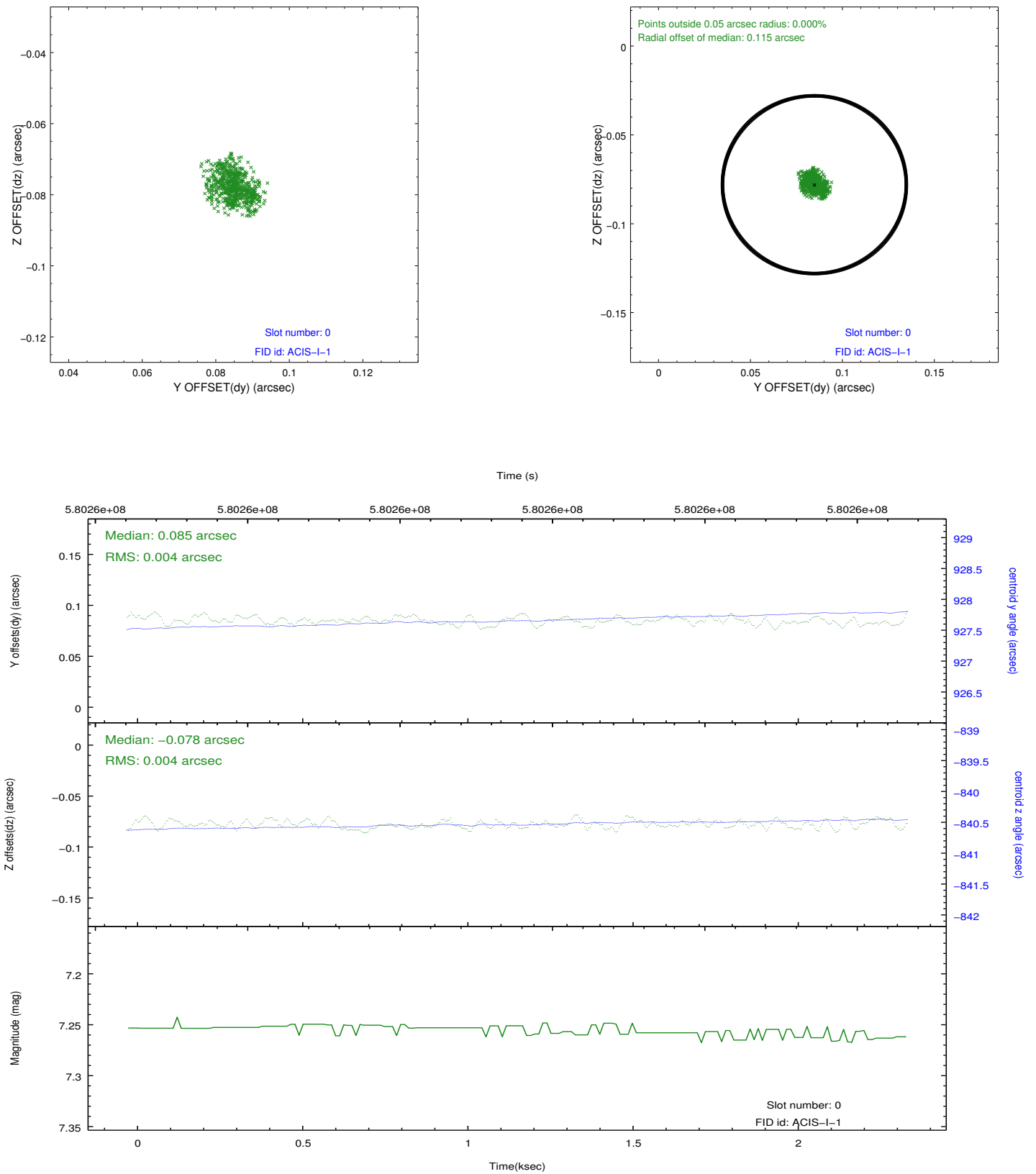


2.4.5 Slot 7

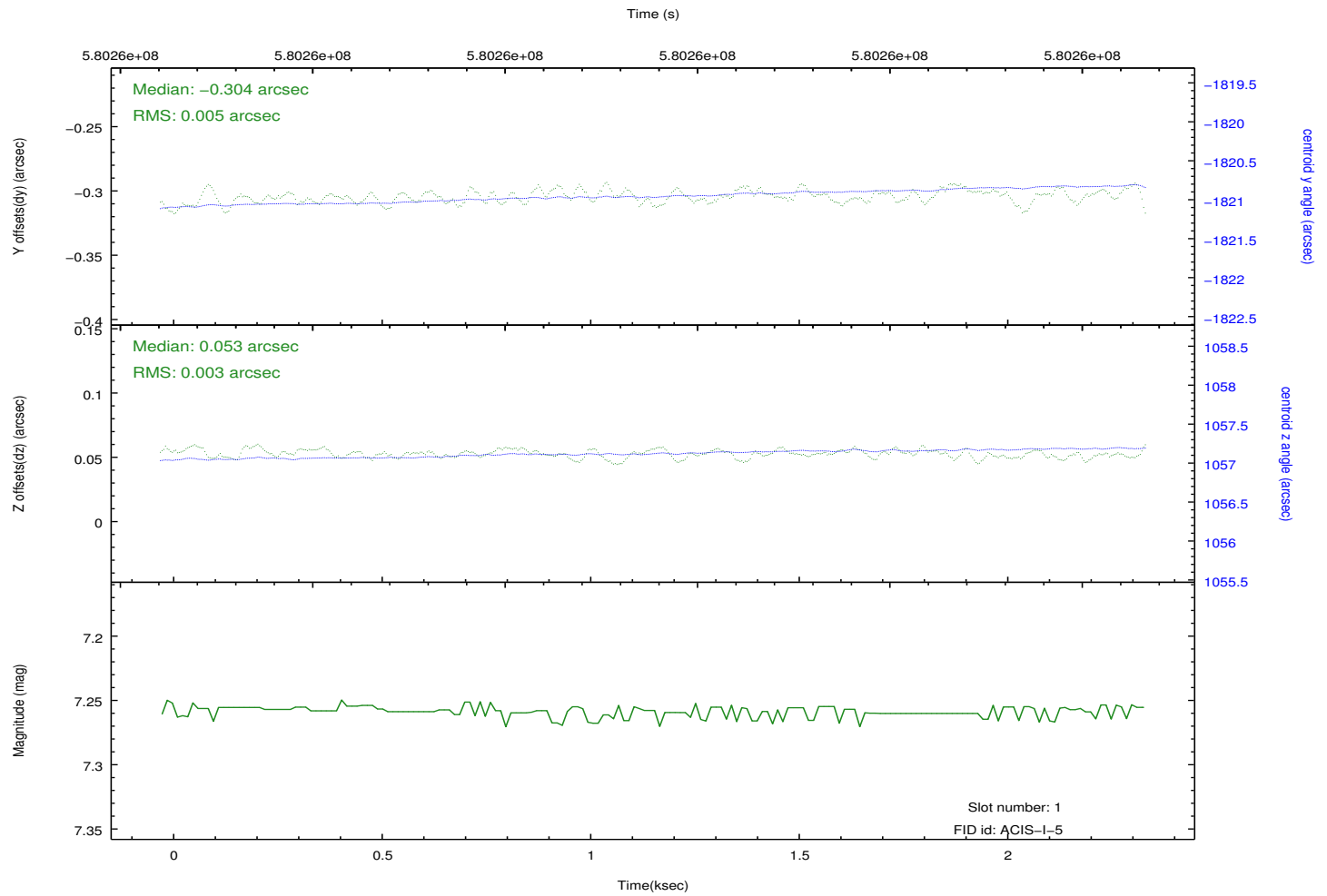
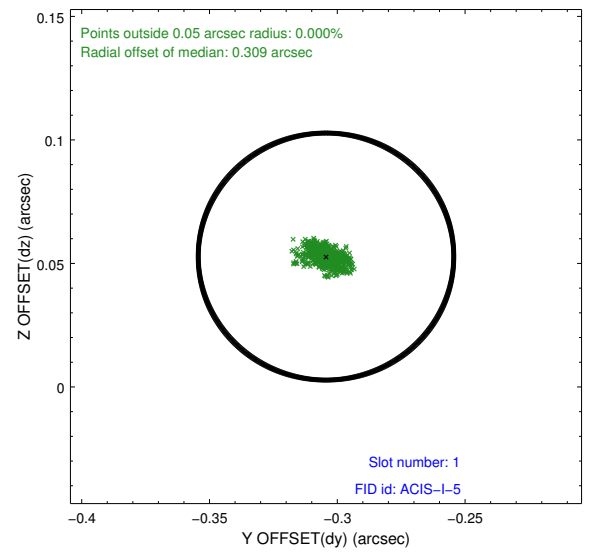
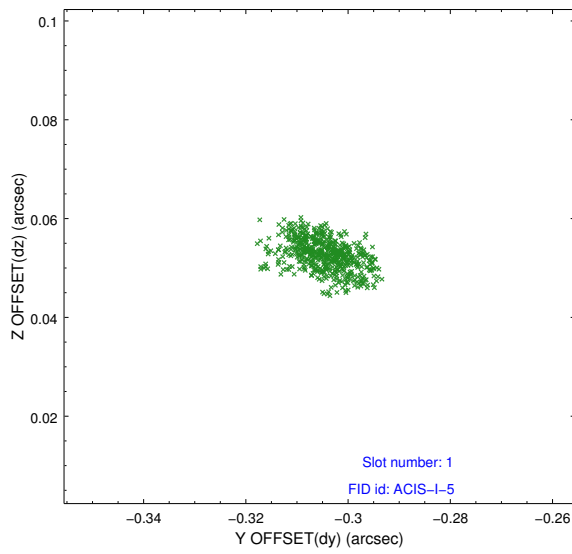


2.5 FID Slots

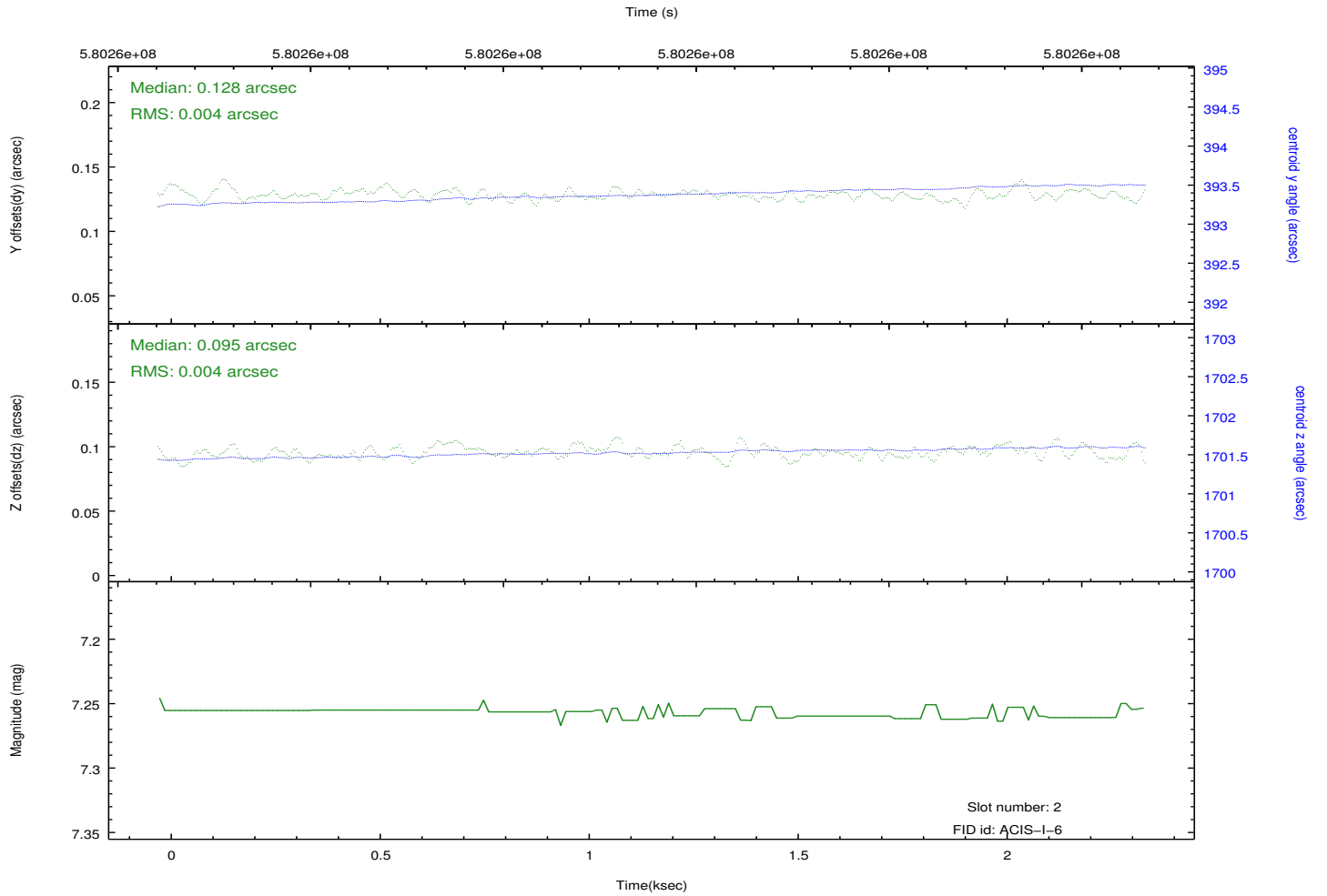
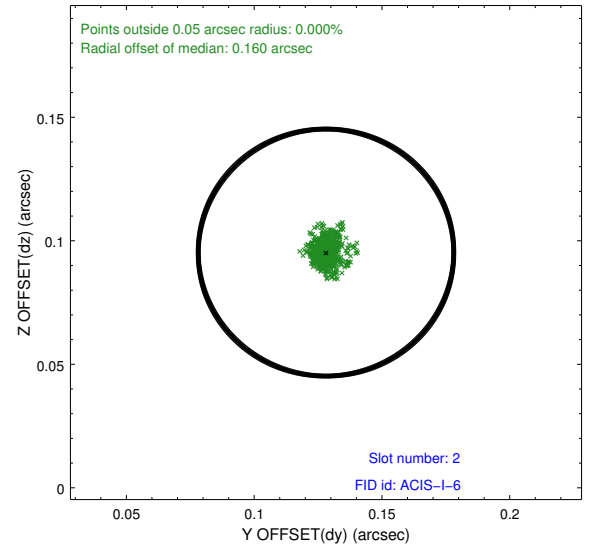
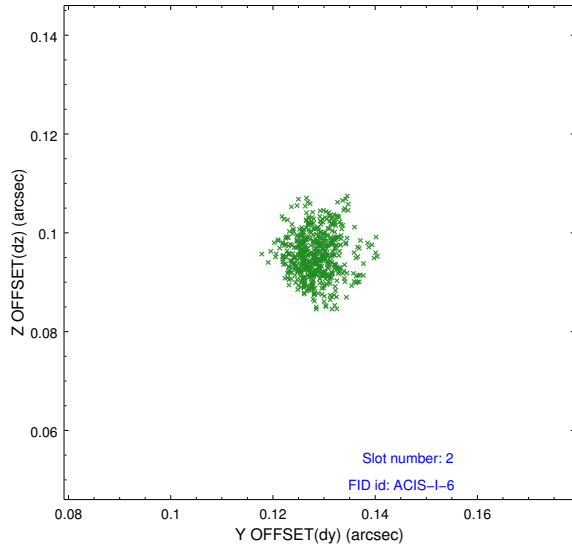
2.5.1 Slot 0



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) | 2016.05.23 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 1.9553963134289 |

A.2 Comments