

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13400 - L2 Version 1
Chandra X-Ray Center

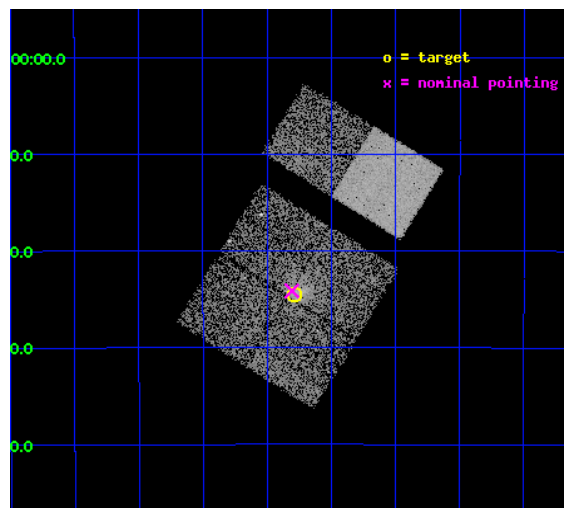
L2 Processing Date : Mar 18 2012

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1 Front

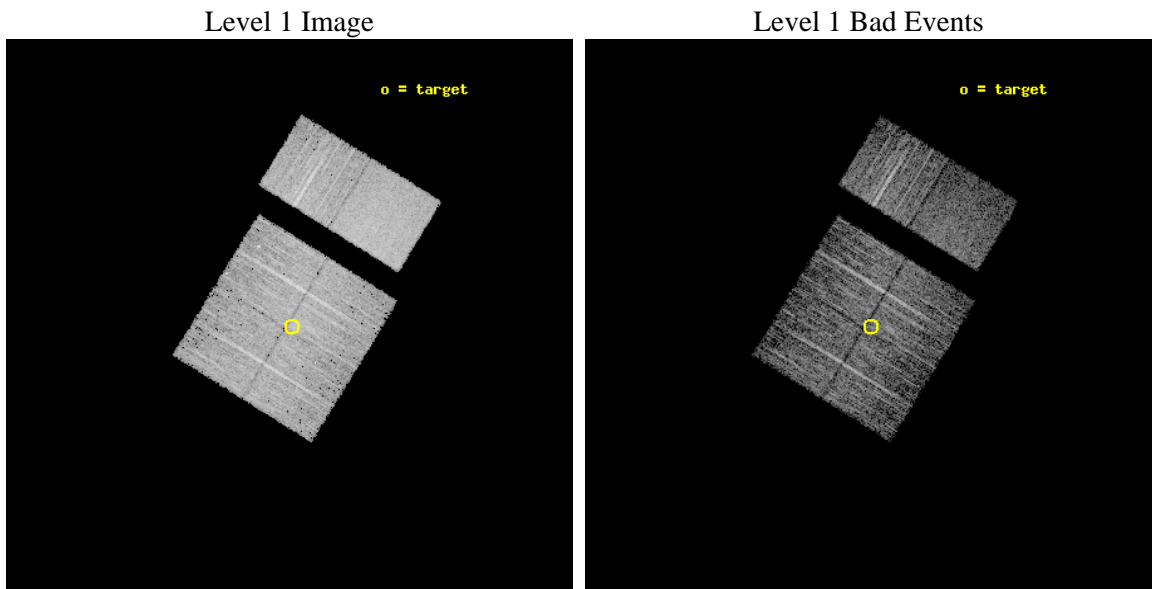
| | | |
|----------|--|---|
| seq_num | 801087 | Sequence number |
| obs_id | 13400 | Observation id |
| title | Astrophysical study with a merging cluster at an intermediate redshift | Proposal title |
| observer | Dr. Peter Predehl | Principal investigator |
| object | RXC J1253.8-2622 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 193.445833 | Observer's specified target RA [deg] |
| dec_targ | -26.408333 | Observer's specified target Dec [deg] |
| ra_nom | 193.45171543876 | Nominal RA [deg] |
| dec_nom | -26.402217039882 | Nominal Dec [deg] |
| roll_nom | 31.643446319519 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 7471.7993696332 | Sum of GTIs [s] |
| livetime | 7377.1869470375 | Livetime [s] |
| ontime0 | 7471.6762496233 | Sum of GTIs [s] |
| ontime1 | 7471.7172896266 | Sum of GTIs [s] |
| ontime2 | 7471.7583296299 | Sum of GTIs [s] |
| ontime3 | 7471.7993696332 | Sum of GTIs [s] |
| ontime6 | 7468.6404592991 | Sum of GTIs [s] |
| ontime7 | 7471.8404096365 | Sum of GTIs [s] |
| l2events | 44690 | Number of level 2 events |



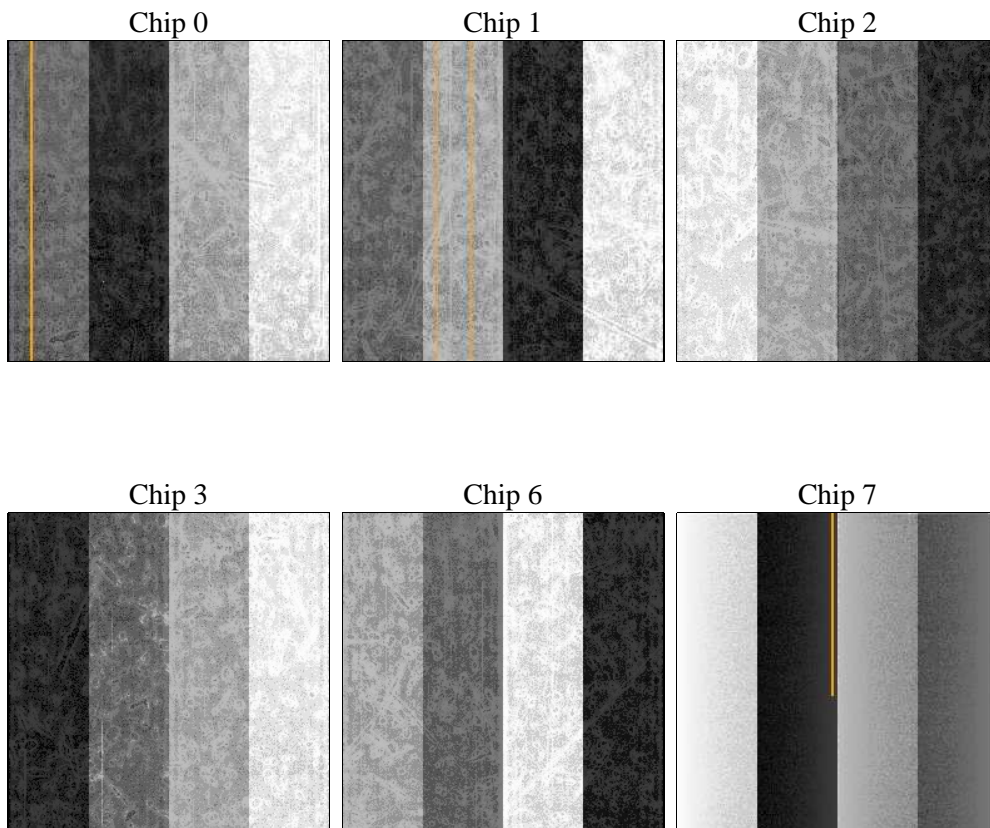
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 7500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3 | Processing system revision | ontime | 7471.7993696332 | Sum of GTIs [s] |
| caldsver | 4.4.8 | | ontime0 | 7471.6762496233 | Sum of GTIs [s] |
| date | 2012-03-18T12:29:05 | Date and time of file creation | ontime1 | 7471.7172896266 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime2 | 7471.7583296299 | Sum of GTIs [s] |
| | | | ontime3 | 7471.7993696332 | Sum of GTIs [s] |
| | | | ontime6 | 7468.6404592991 | Sum of GTIs [s] |
| | | | ontime7 | 7471.8404096365 | Sum of GTIs [s] |
| | | | l1events | 245498 | Number of level 1 events |

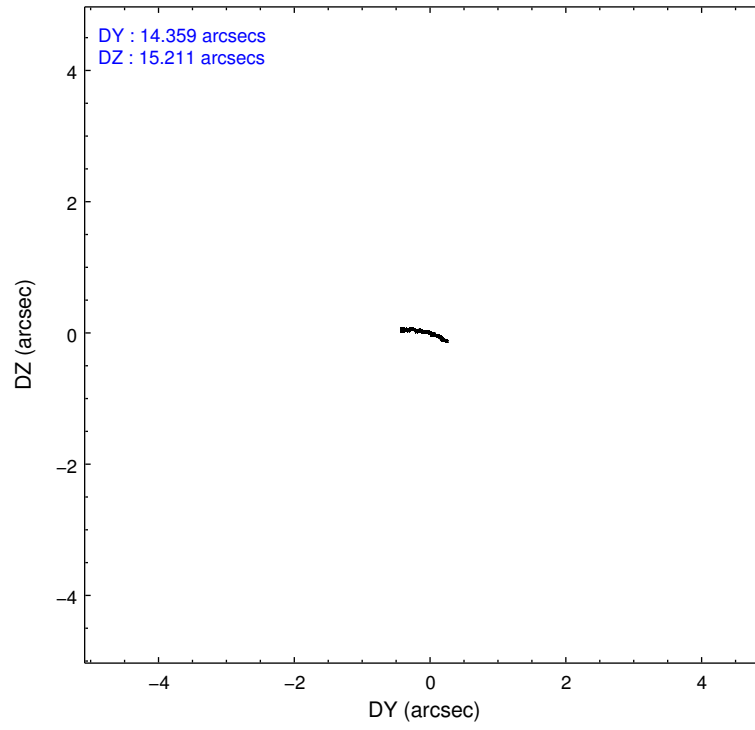
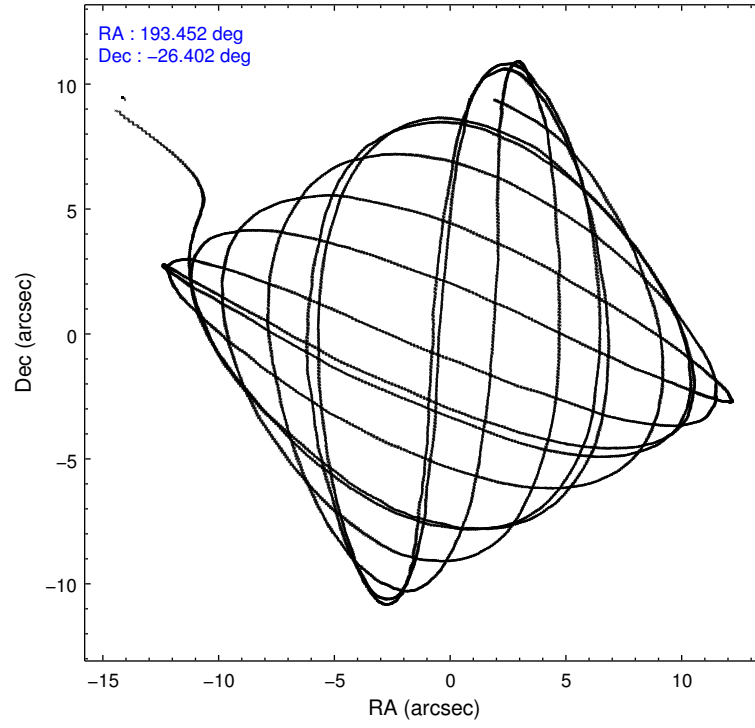
2.1.4 Events

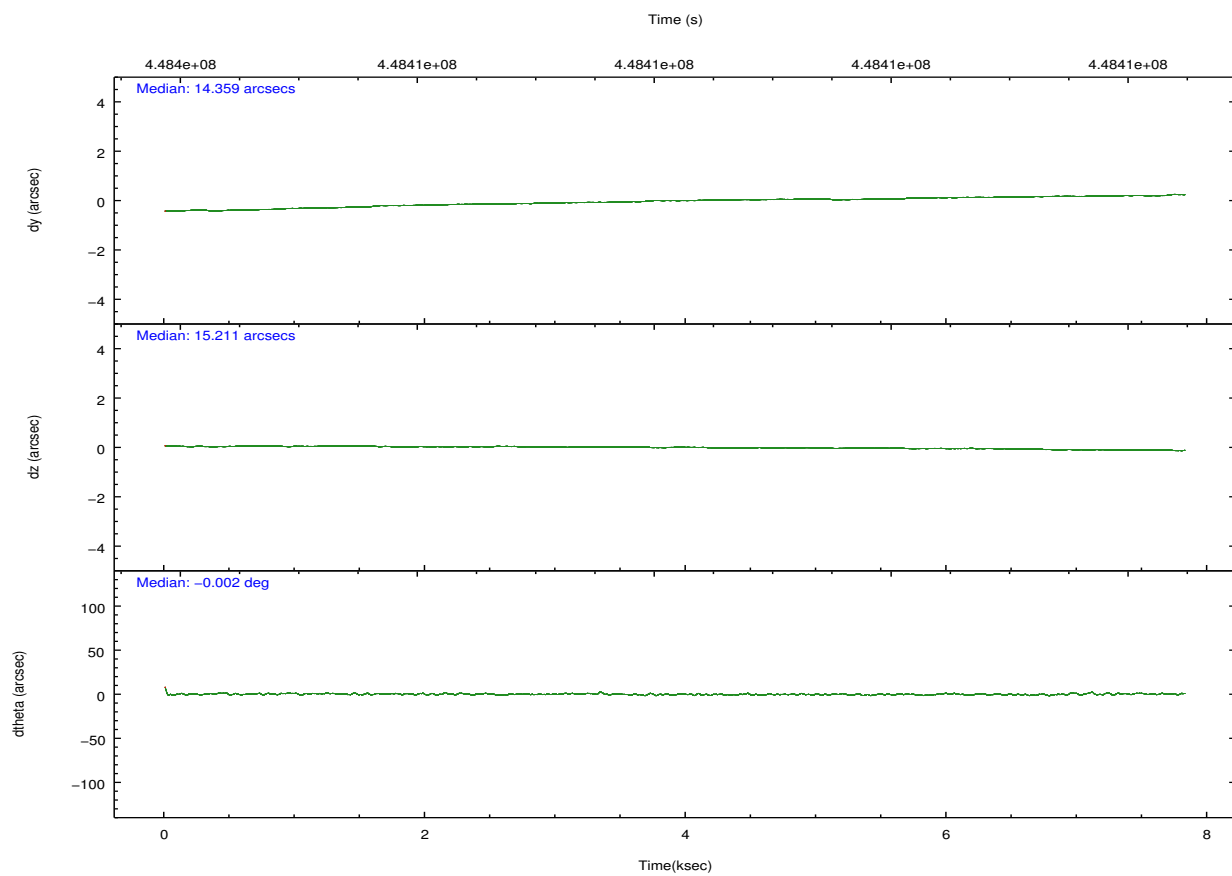
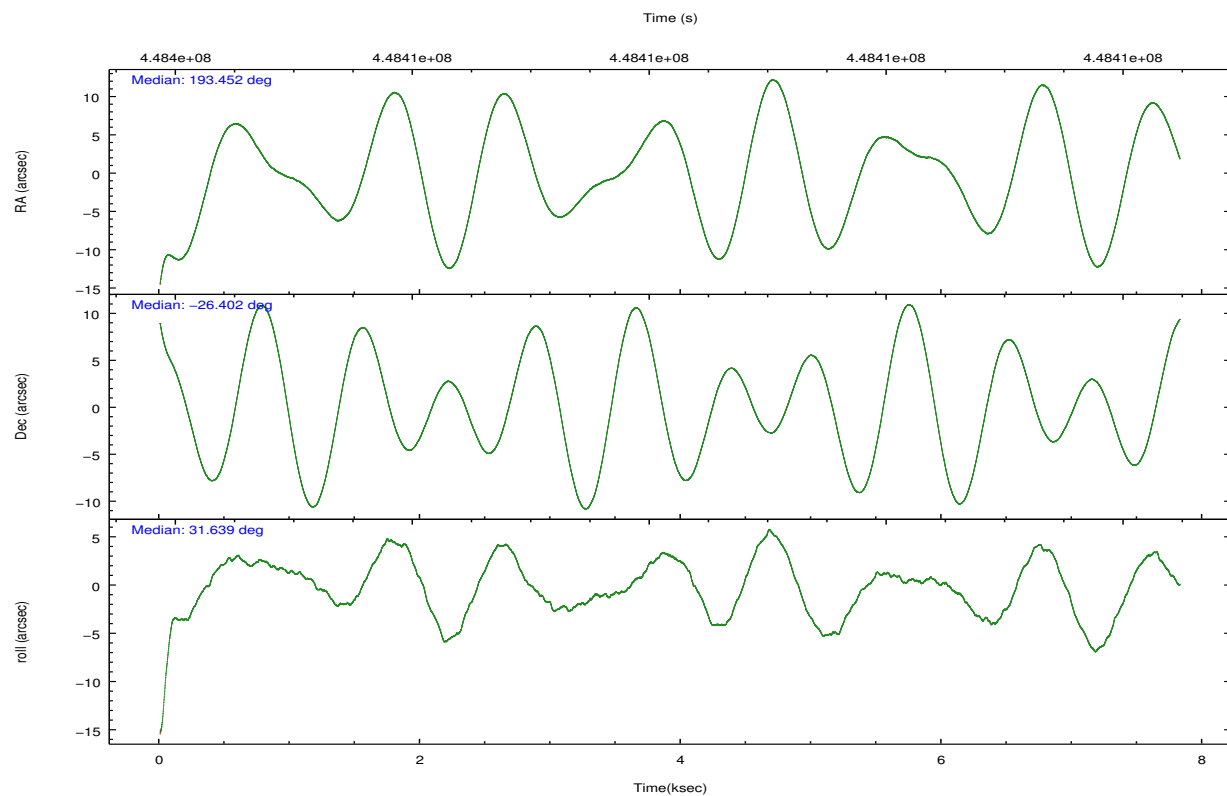
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 35378 | 36231 | 40473 | 39874 | 42198 | 51344 | grade 0 events | 1745 | 2072 | 2232 | 2511 | 1835 | 2118 |
| rejected events | 30606 | 30842 | 35255 | 34343 | 37137 | 28334 | | 4% | 5% | 5% | 6% | 4% | 4% |
| rejected % | 86% | 85% | 87% | 86% | 88% | 55% | grade 1 events | 29 | 18 | 32 | 30 | 19 | 59 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 1167 | 1219 | 1155 | 1035 | 1103 | 4614 |
| | | | | | | | | 3% | 3% | 2% | 2% | 2% | 8% |
| | | | | | | | grade 3 events | 513 | 490 | 502 | 519 | 510 | 2028 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 4 events | 440 | 528 | 462 | 494 | 500 | 2046 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 5 events | 1790 | 1846 | 1604 | 1962 | 2007 | 5303 |
| | | | | | | | | 5% | 5% | 3% | 4% | 4% | 10% |
| | | | | | | | grade 6 events | 911 | 1081 | 875 | 978 | 1115 | 12225 |
| | | | | | | | | 2% | 2% | 2% | 2% | 2% | 23% |
| | | | | | | | grade 7 events | 28783 | 28977 | 33611 | 32345 | 35109 | 22951 |
| | | | | | | | | 81% | 79% | 83% | 81% | 83% | 44% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-012367 | ACIS-012367 | 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 | 193.437282 | 193.4517154387585 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | -26.426491 | -26.402217039882 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 31.428356 | 31.6434463195187 | 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 | Y | Y |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 448404590.184000 | 448403410.99726 | CCD S5 on | N | N |
| Observation start date | 2012-03-17T20:48:44 | 2012-03-17T20:30:10 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 448412090.184000 | 448412956.82277 | On-chip summing requested | N | N |
| Observation end date | 2012-03-17T22:53:44 | 2012-03-17T23:09:16 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



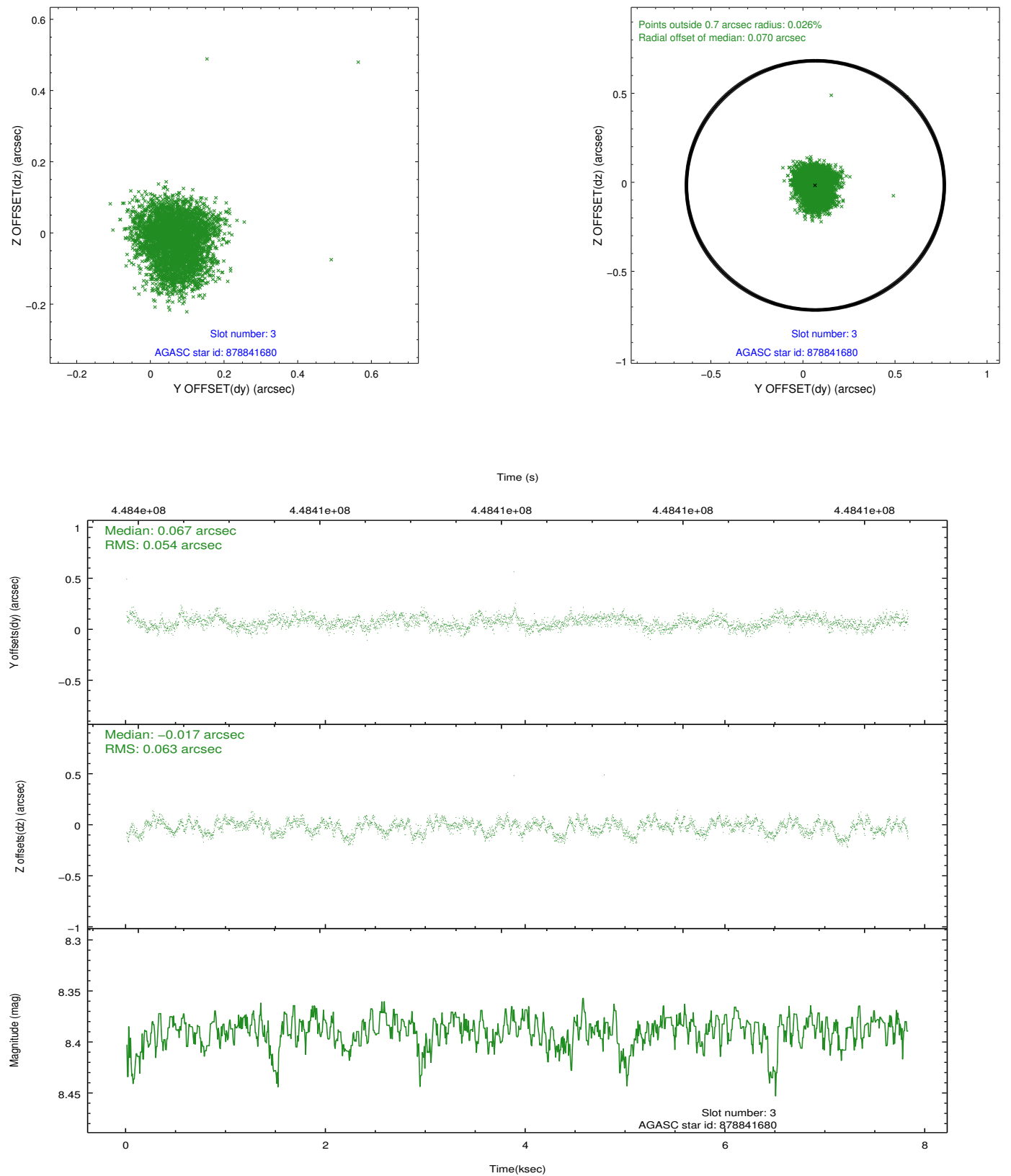


Slot Statistics

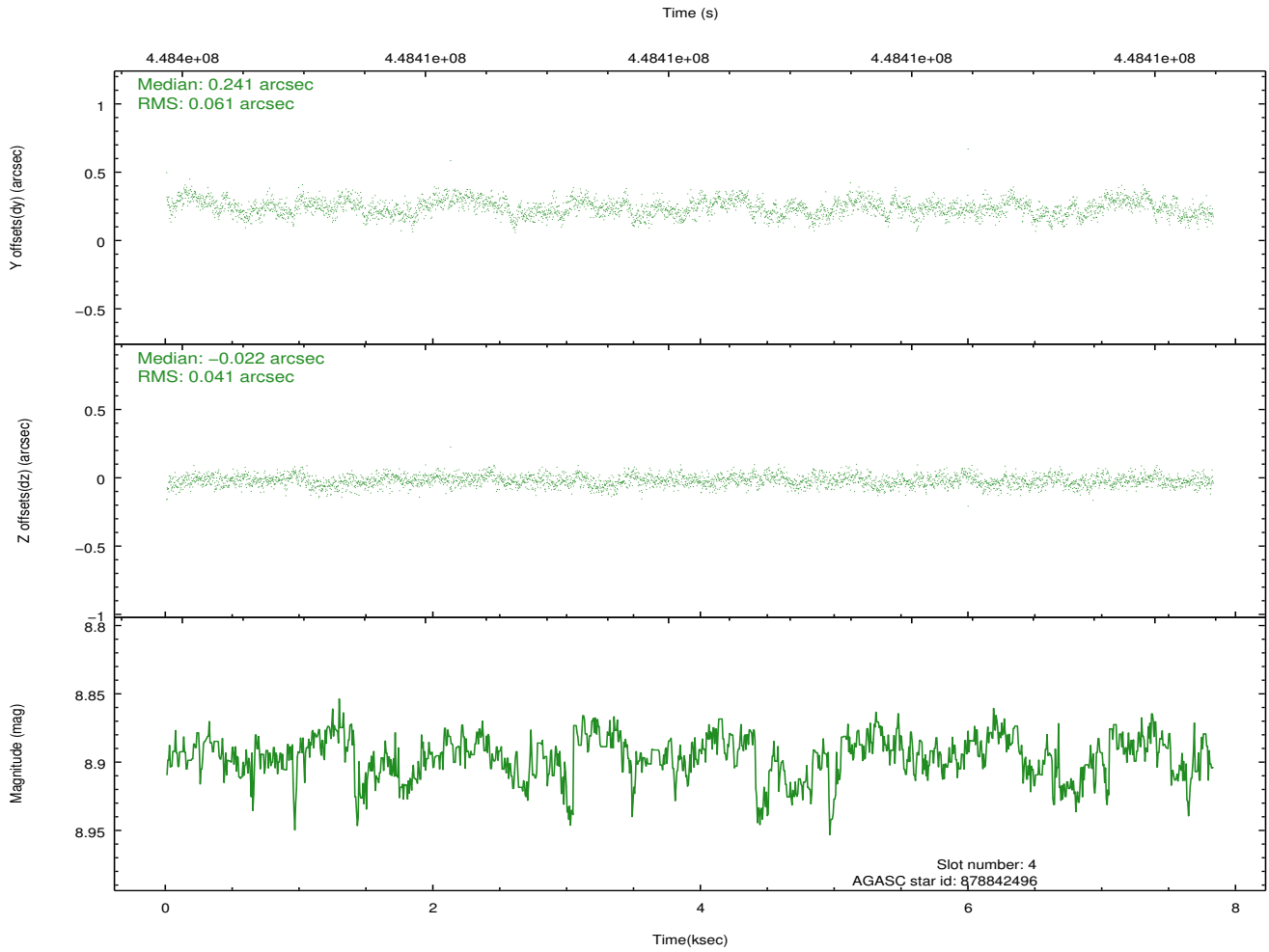
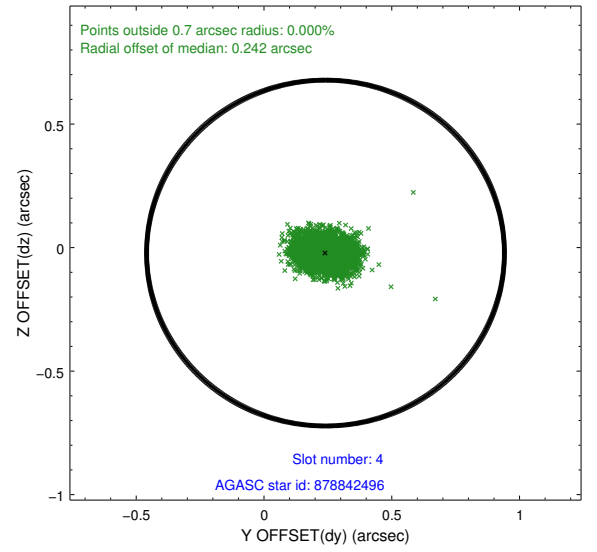
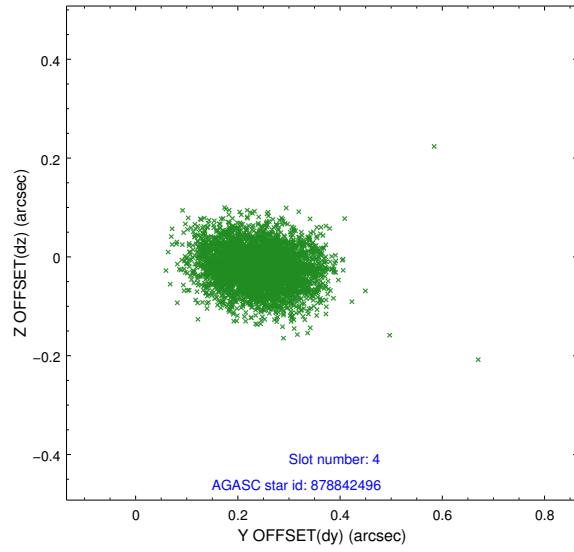
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.05 | 1909 | -0.070 | -0.030 | 0.007 | 0.012 | 0.000000 | 0.000000 | 925.10 | -838.84 |
| 1 | FID | ACIS-I-4 | 6.96 | 1909 | 0.041 | 0.068 | 0.010 | 0.018 | 0.000000 | 0.000000 | 2145.67 | 1060.69 |
| 2 | FID | ACIS-I-6 | 7.05 | 1909 | -0.068 | 0.028 | 0.010 | 0.016 | 0.000000 | 0.000000 | 391.95 | 1703.67 |
| 3 | GUIDE | 878841680 | 8.39 | 3815 | 0.067 | -0.017 | 0.088 | 0.137 | 193.031066 | -26.461482 | -1185.02 | 572.22 |
| 4 | GUIDE | 878842496 | 8.89 | 3815 | 0.241 | -0.022 | 0.078 | 0.125 | 192.769111 | -26.451473 | -1888.01 | 1042.10 |
| 5 | GUIDE | 878843216 | 8.52 | 3804 | -0.103 | 0.169 | 0.088 | 0.151 | 194.129643 | -26.586361 | 1597.96 | -1657.57 |
| 6 | GUIDE | 878843856 | 6.65 | 3817 | -0.053 | 0.150 | 0.062 | 0.100 | 194.125545 | -26.460294 | 1827.01 | -1265.97 |
| 7 | GUIDE | 878318736 | 8.87 | 3813 | -0.161 | -0.276 | 0.101 | 0.156 | 193.504981 | -25.753660 | 1450.80 | 1951.90 |

2.4 Star Slots

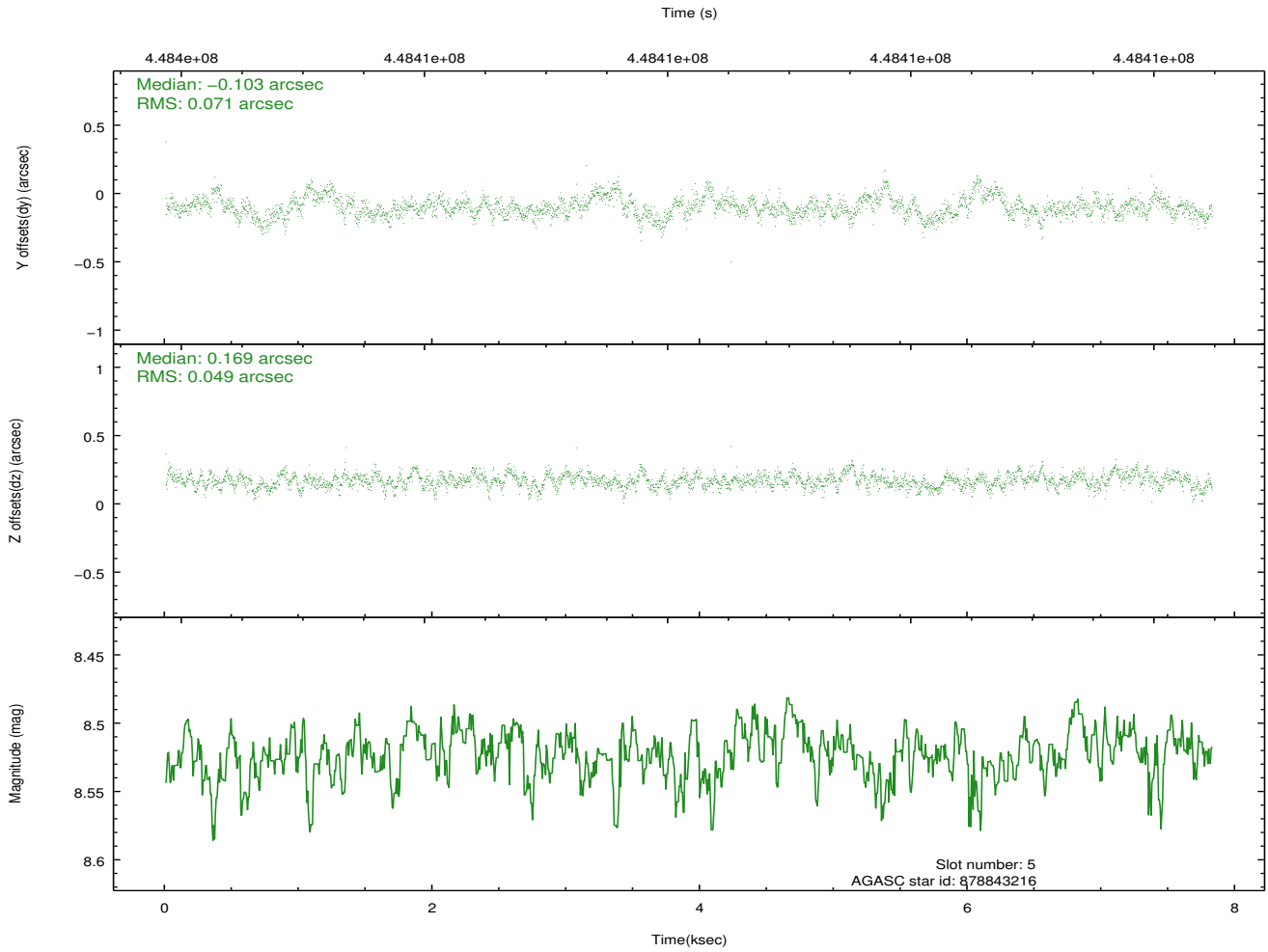
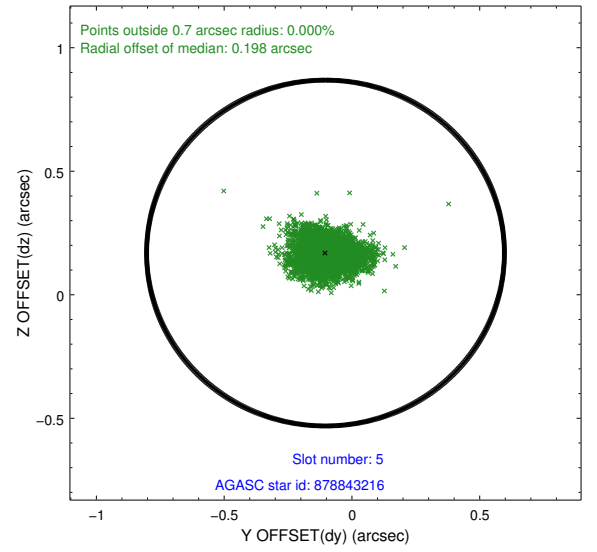
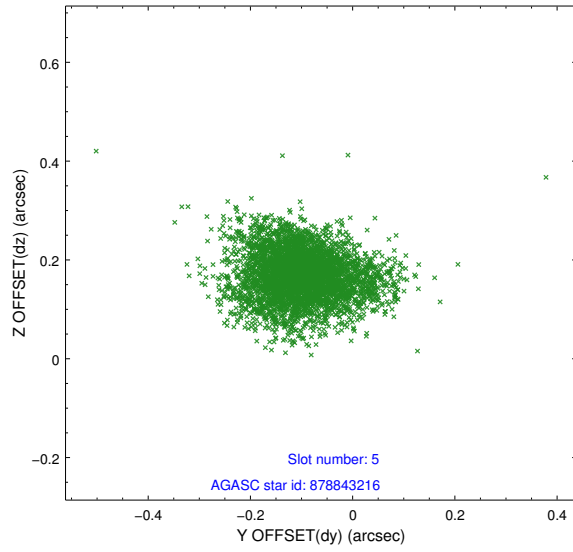
2.4.1 Slot 3



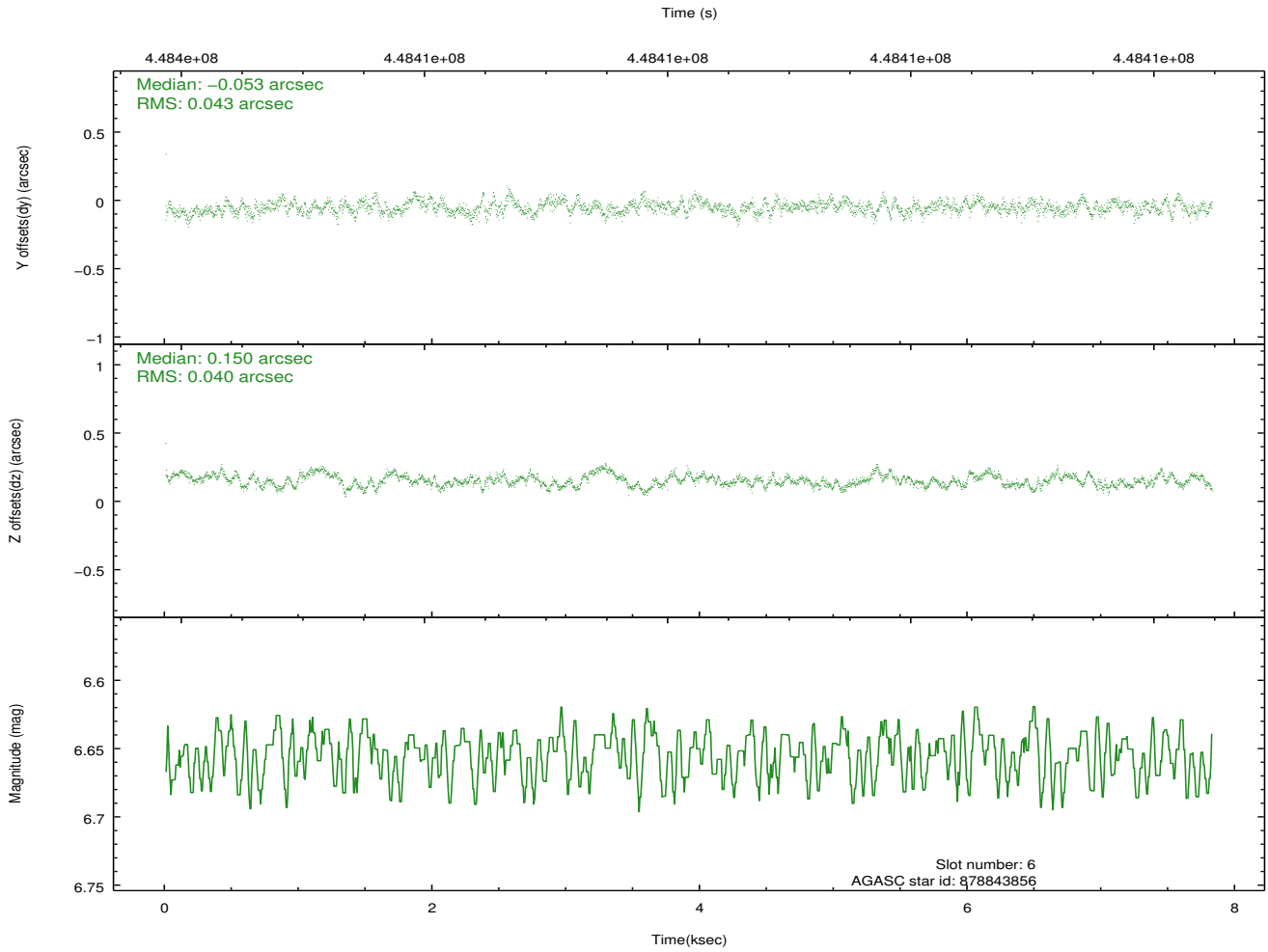
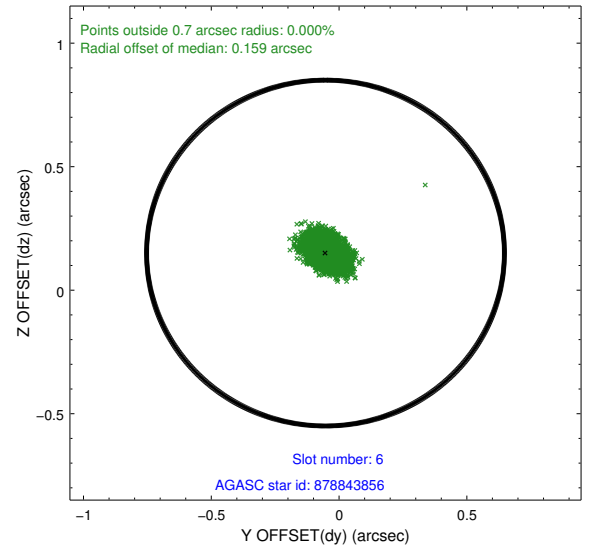
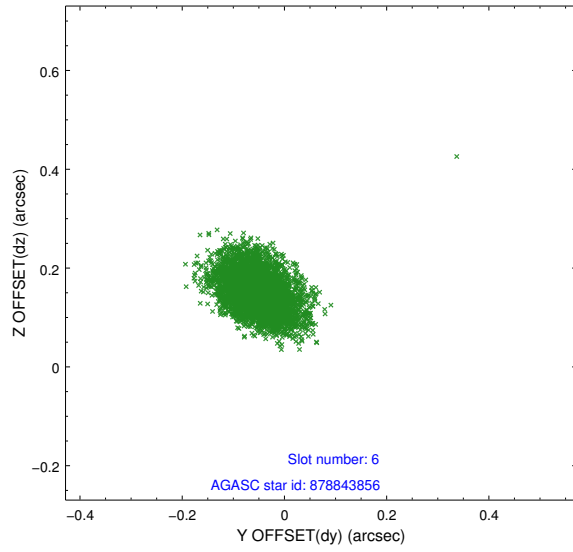
2.4.2 Slot 4



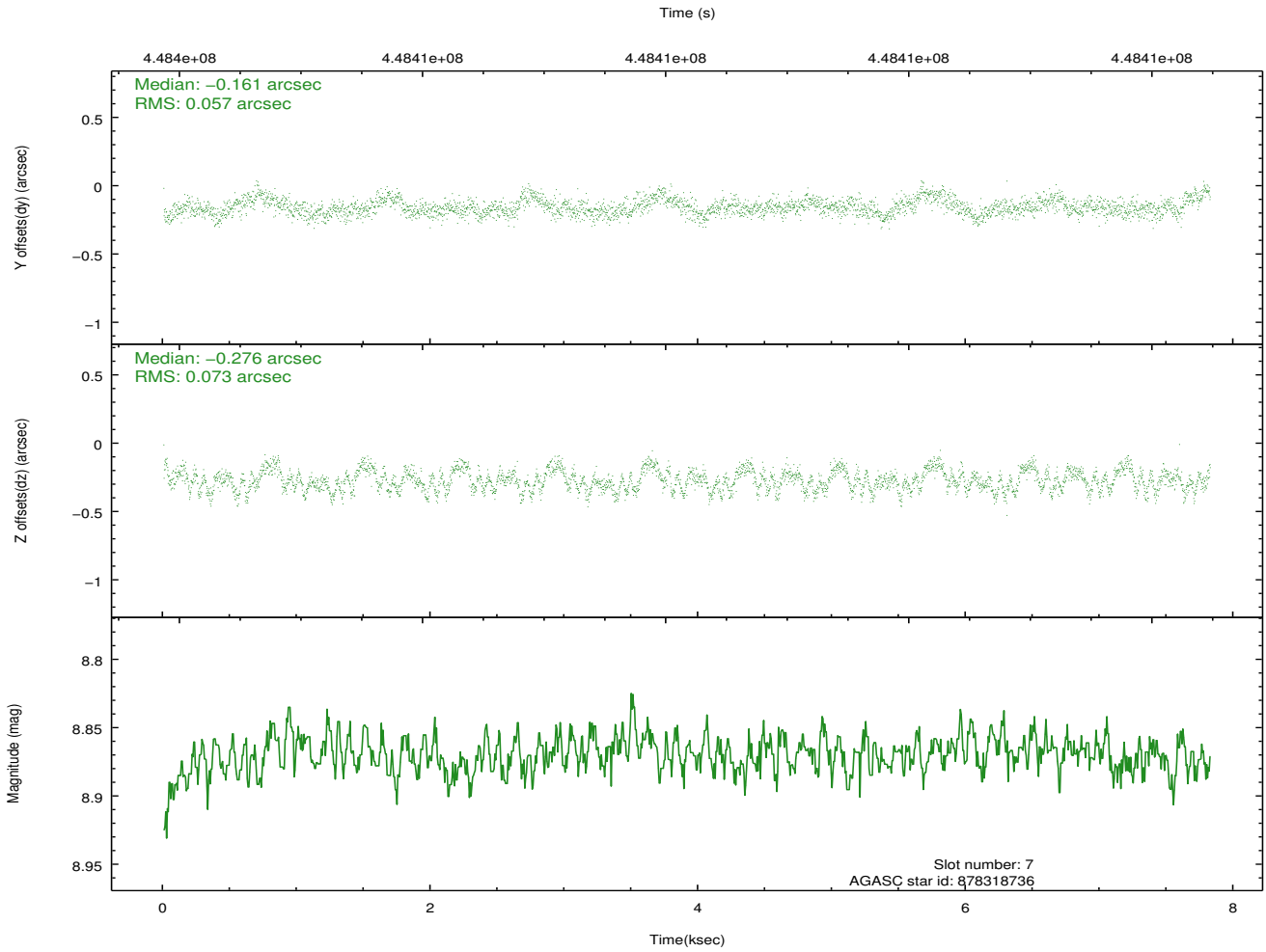
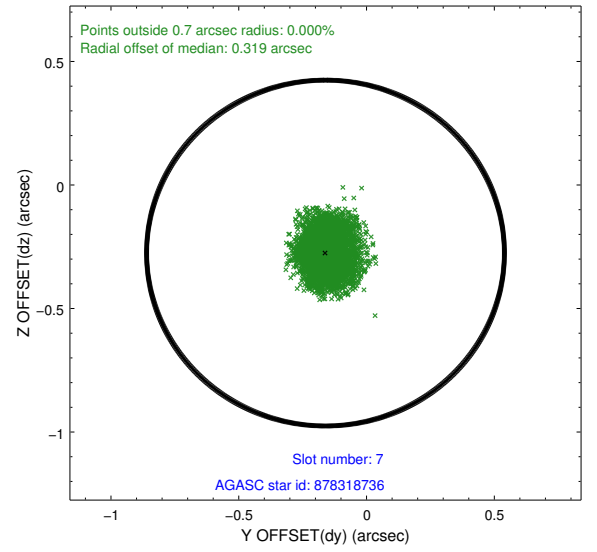
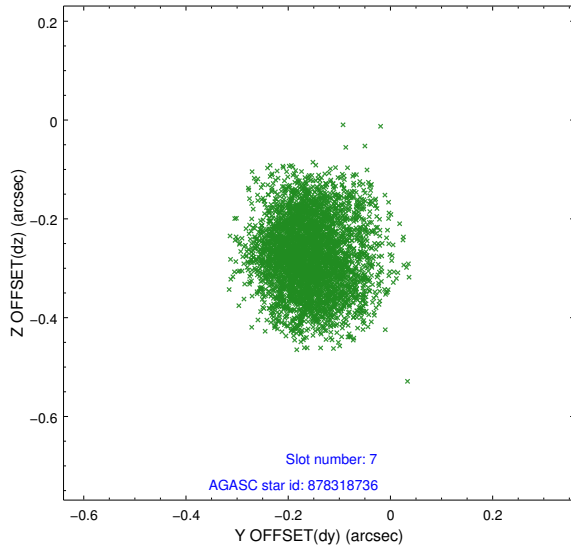
2.4.3 Slot 5



2.4.4 Slot 6

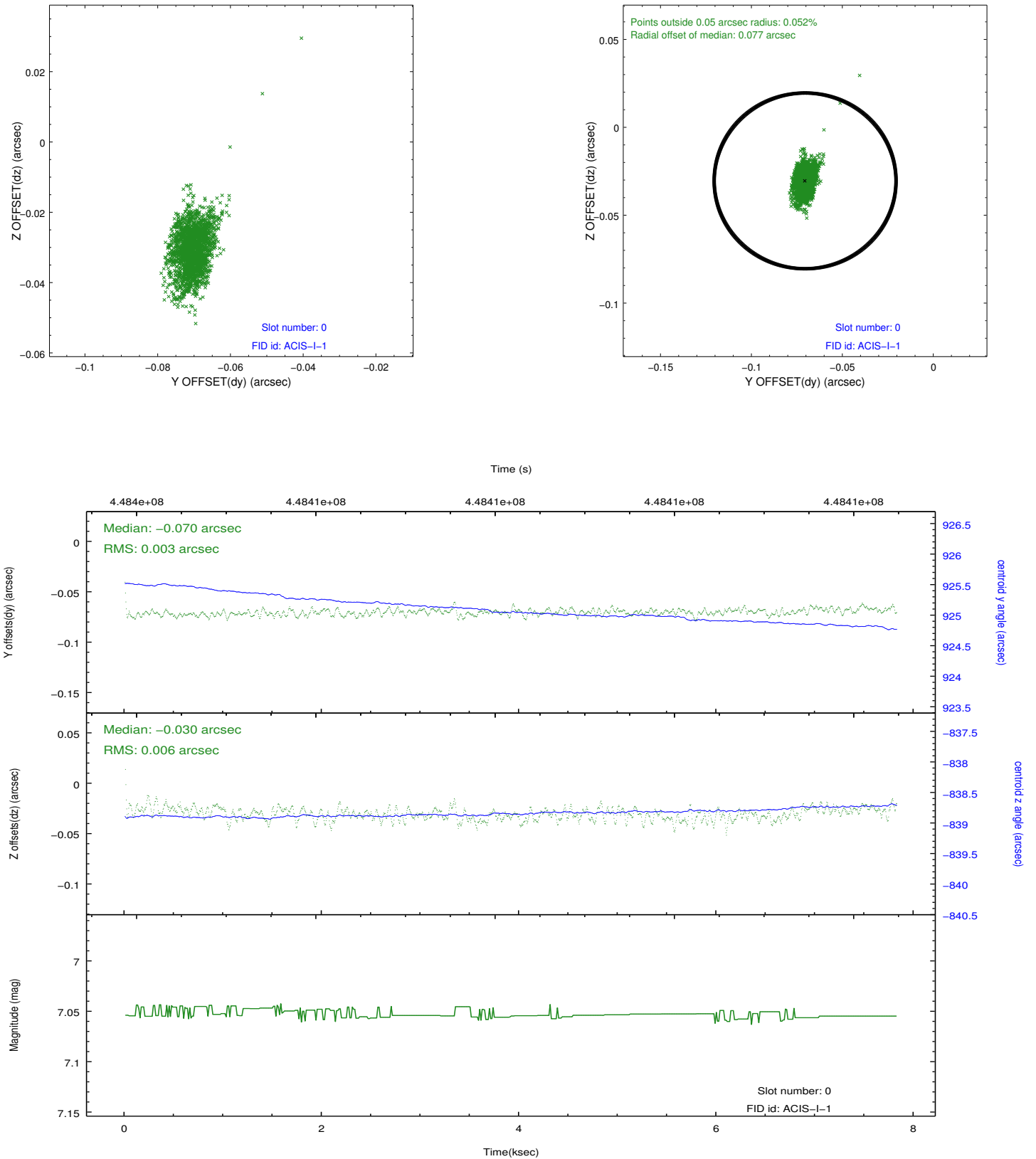


2.4.5 Slot 7

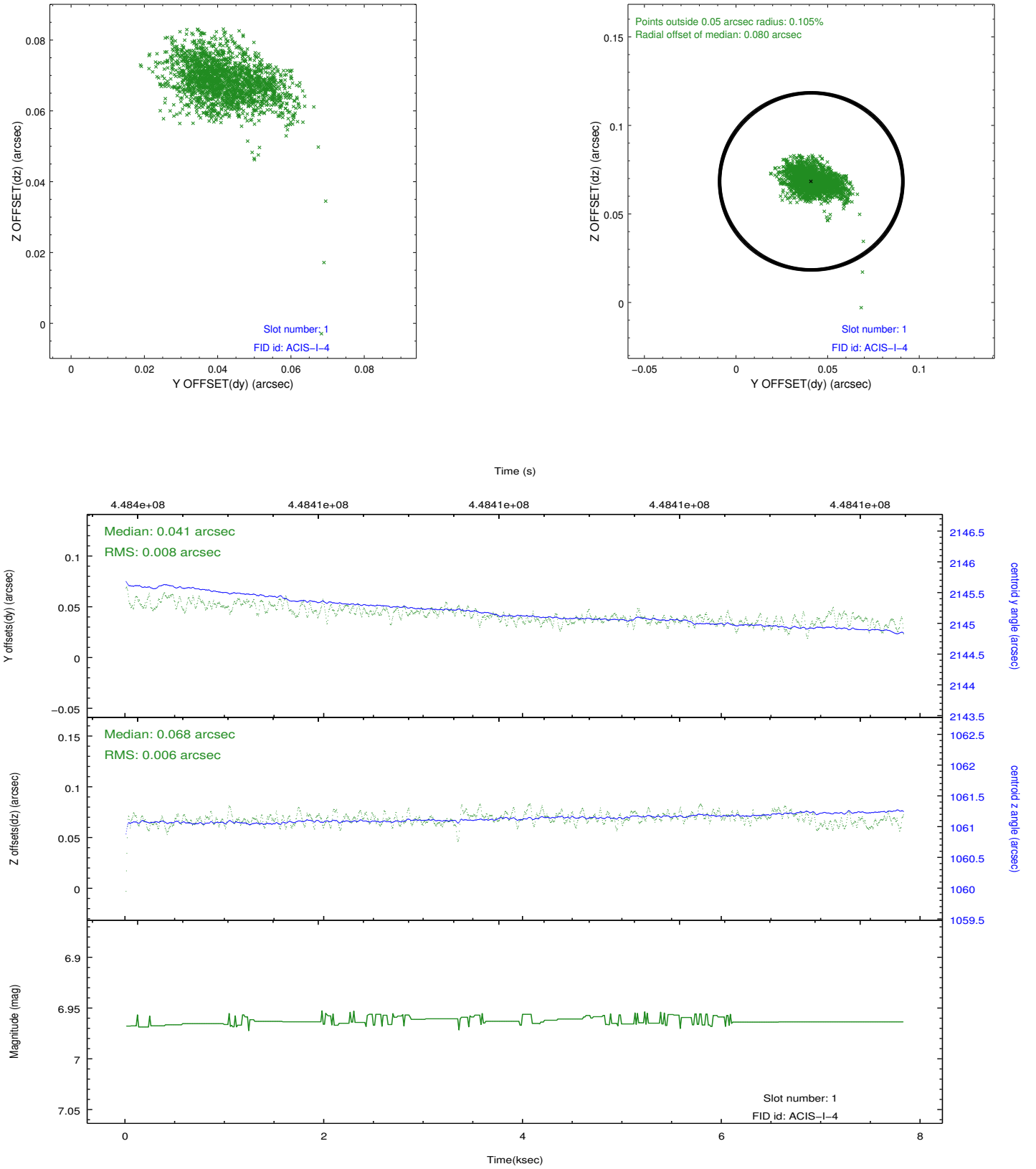


2.5 FID Slots

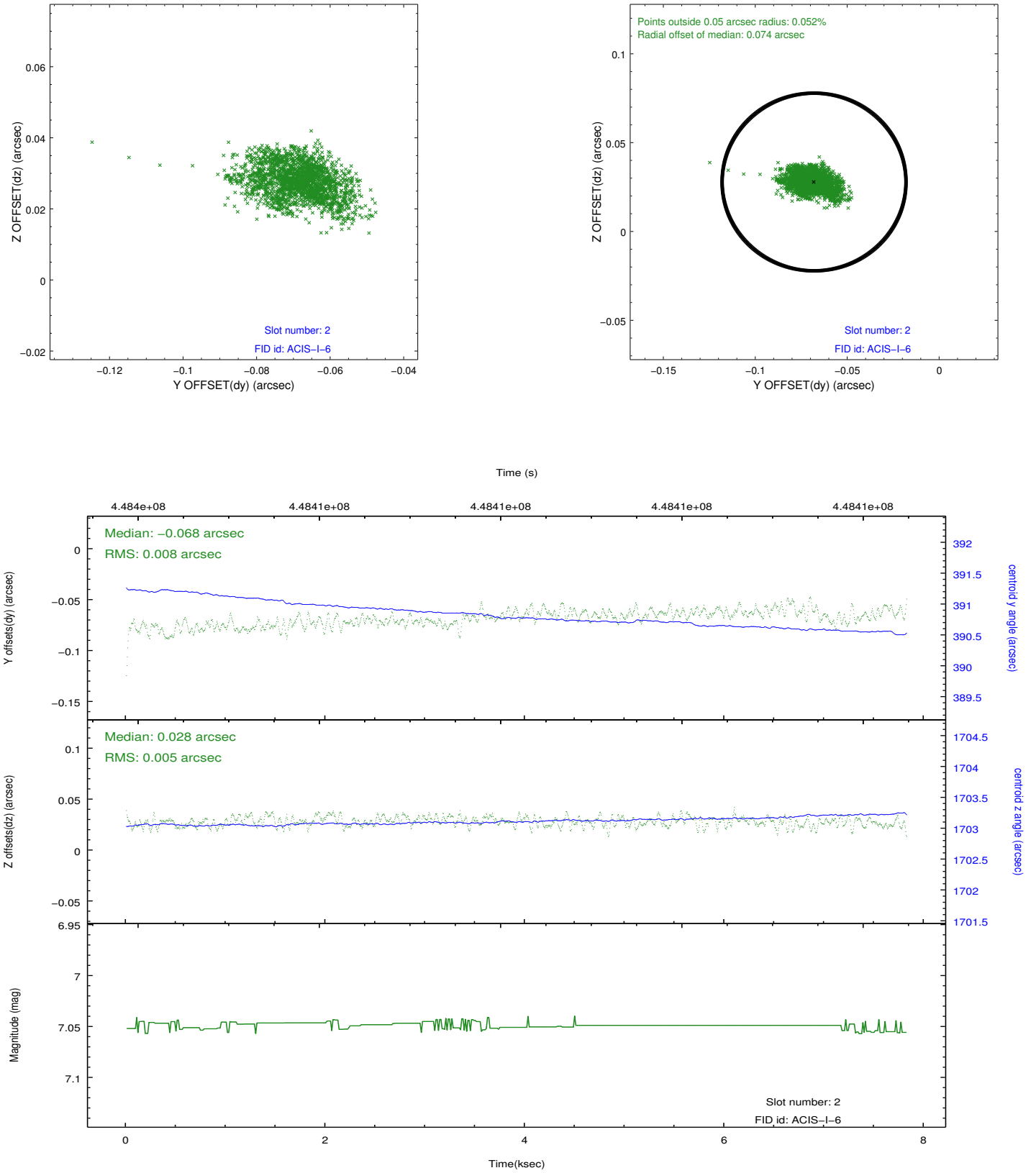
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2012.03.18 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 7.4717993696332 |

A.2 Comments