

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 7238 - L2 Version 2
Chandra X-Ray Center

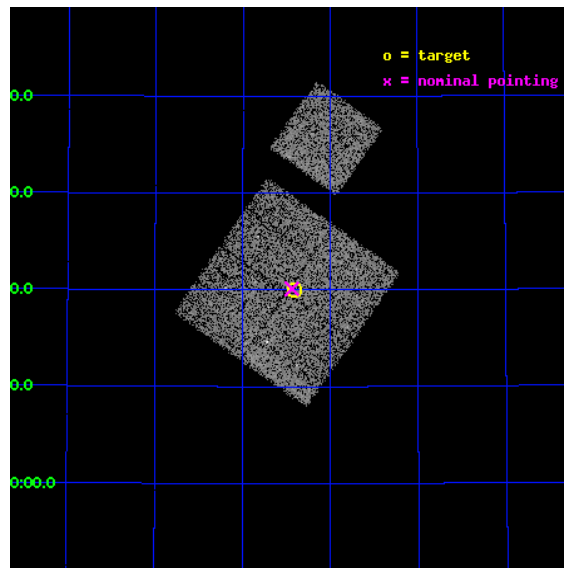
L2 Processing Date : Mar 18 2012

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

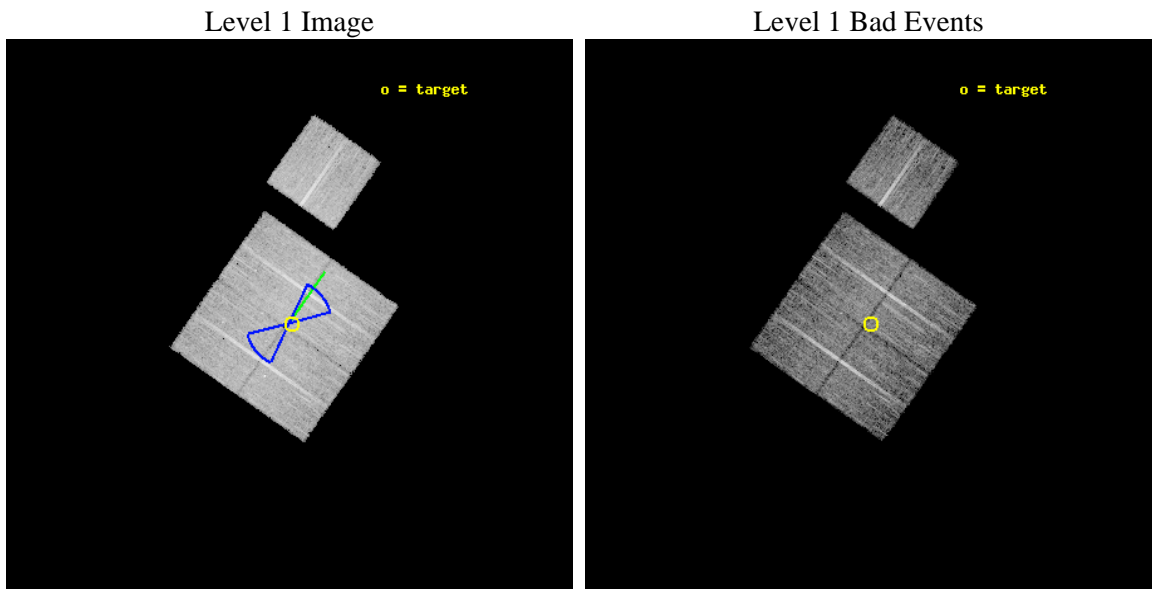
| | | |
|----------|--|---|
| seq_num | 900353 | Sequence number |
| obs_id | 7238 | Observation id |
| title | Deep Chandra Imaging of the Extended Groth Strip: The Co-evolution of Black Holes and Galaxies | Proposal title |
| observer | Prof Kirpal Nandra | Principal investigator |
| object | EGS-6 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 214.102081 | Observer's specified target RA [deg] |
| dec_targ | 52.334053 | Observer's specified target Dec [deg] |
| ra_nom | 214.10960028673 | Nominal RA [deg] |
| dec_nom | 52.3350335167 | Nominal Dec [deg] |
| roll_nom | 35.202772360785 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 9653.3590111136 | Sum of GTIs [s] |
| livetime | 9527.2307689339 | Livetime [s] |
| ontime0 | 9656.4999814034 | Sum of GTIs [s] |
| ontime1 | 9653.3590011001 | Sum of GTIs [s] |
| ontime2 | 9650.2180309296 | Sum of GTIs [s] |
| ontime3 | 9653.3590111136 | Sum of GTIs [s] |
| ontime6 | 9656.4999814034 | Sum of GTIs [s] |
| l2events | 27525 | Number of level 2 events |



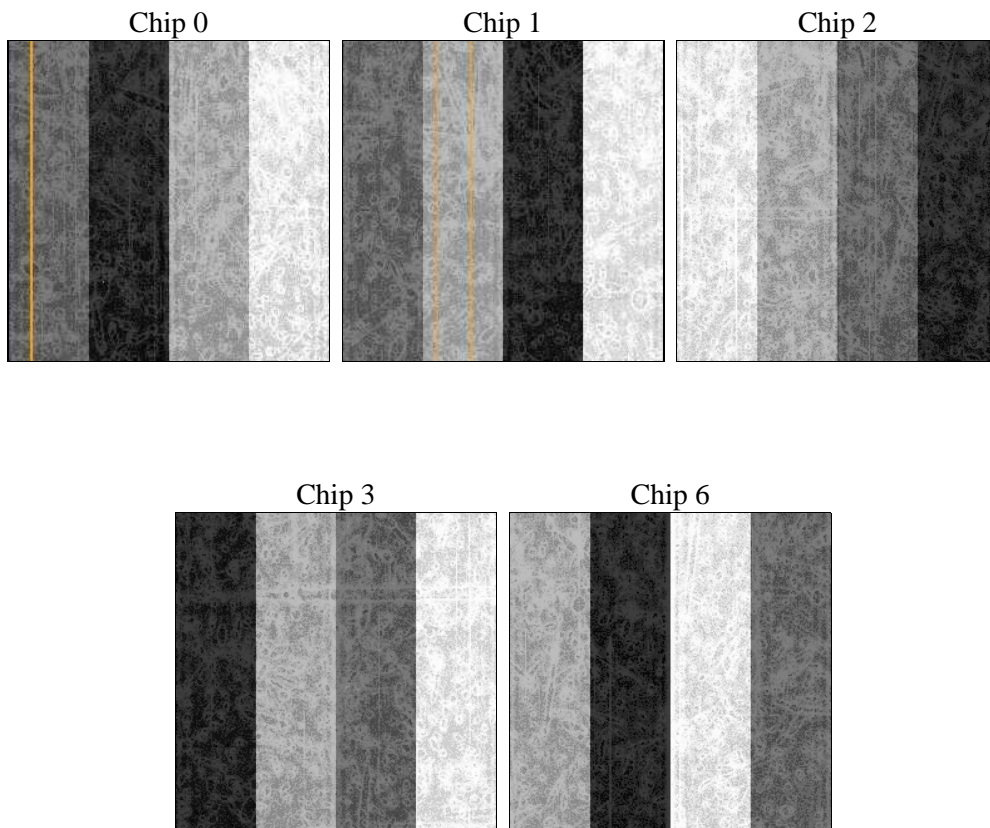
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 9500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3 | Processing system revision | ontime | 9653.3590111136 | Sum of GTIs [s] |
| caldsver | 4.4.8 | | ontime0 | 9656.4999814034 | Sum of GTIs [s] |
| date | 2012-03-18T08:39:44 | Date and time of file creation | ontime1 | 9653.3590011001 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 9650.2180309296 | Sum of GTIs [s] |
| | | | ontime3 | 9653.3590111136 | Sum of GTIs [s] |
| | | | ontime6 | 9656.4999814034 | Sum of GTIs [s] |
| | | | l1events | 327478 | Number of level 1 events |

2.1.4 Events

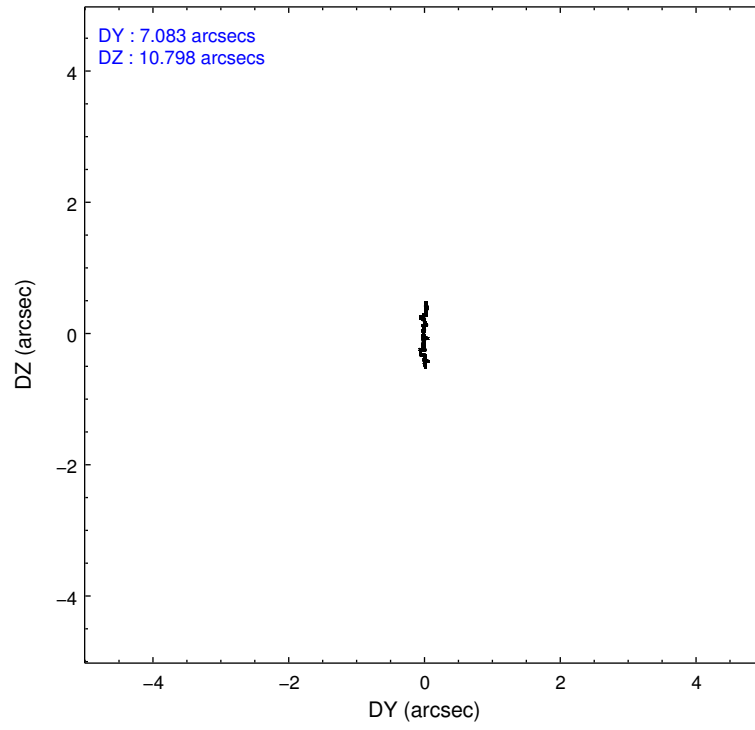
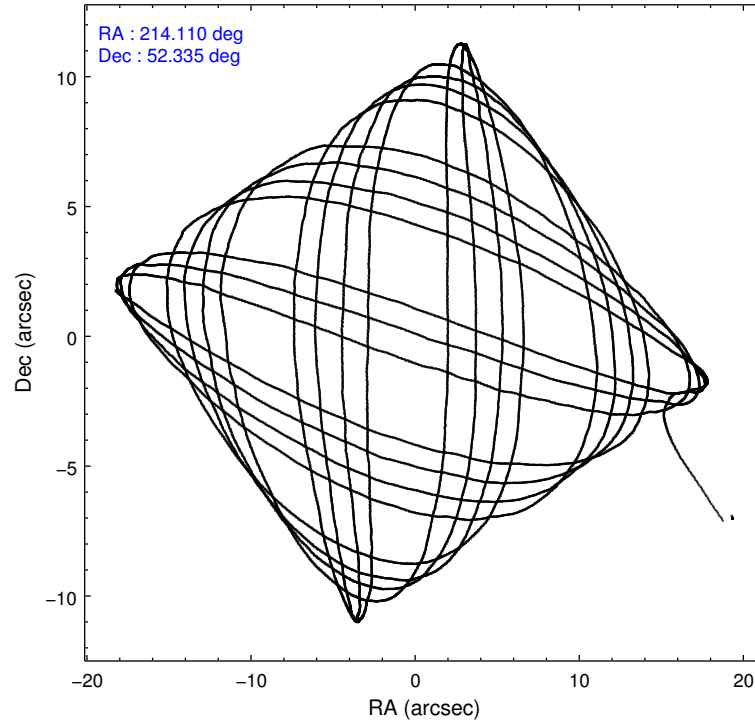
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|-------|-------|-------|-------|-------|
| level 1 events | 61938 | 60199 | 70296 | 67586 | 67459 |
| rejected events | 55458 | 52906 | 63907 | 61310 | 60813 |
| rejected % | 89% | 87% | 90% | 90% | 90% |

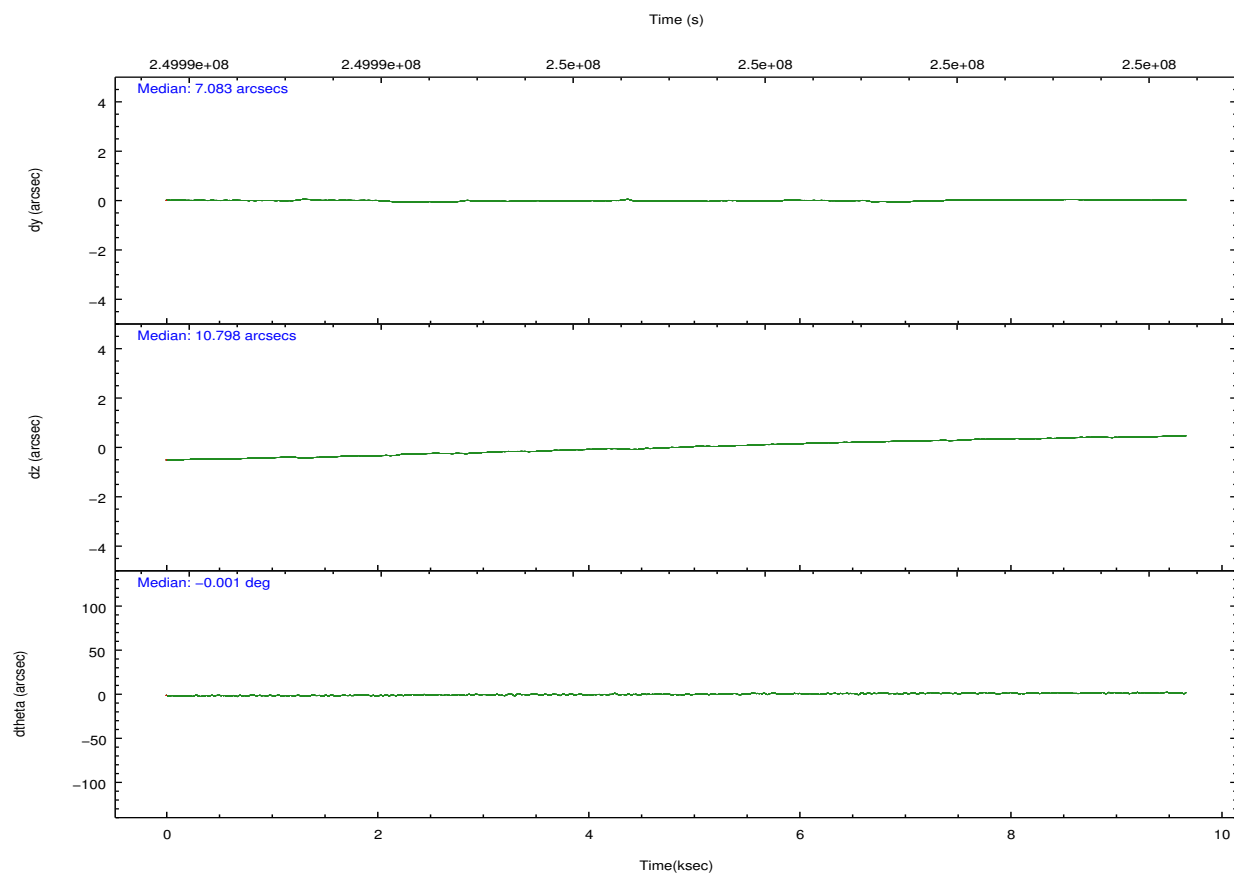
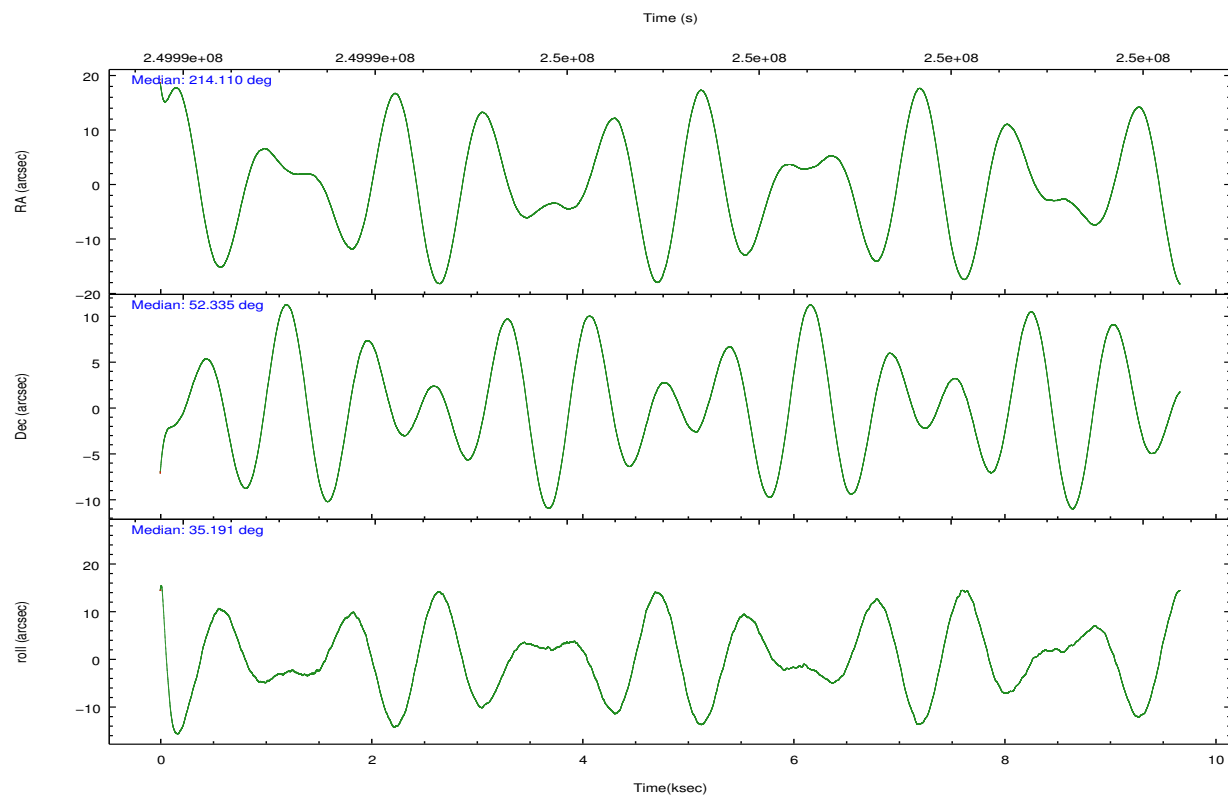
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 2260 | 2795 | 2301 | 2303 | 2335 |
| | 3% | 4% | 3% | 3% | 3% |
| grade 1 events | 34 | 32 | 35 | 35 | 25 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 1584 | 1634 | 1550 | 1299 | 1446 |
| | 2% | 2% | 2% | 1% | 2% |
| grade 3 events | 736 | 790 | 700 | 734 | 766 |
| | 1% | 1% | 0% | 1% | 1% |
| grade 4 events | 710 | 783 | 726 | 728 | 777 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 2319 | 2496 | 2158 | 2640 | 2668 |
| | 3% | 4% | 3% | 3% | 3% |
| grade 6 events | 1315 | 1416 | 1229 | 1314 | 1441 |
| | 2% | 2% | 1% | 1% | 2% |
| grade 7 events | 52980 | 50253 | 61597 | 58533 | 58001 |
| | 85% | 83% | 87% | 86% | 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 | 214.090878 | 214.1096002867289 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 52.310136 | 52.33503351669977 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 35.008870 | 35.20277236078508 | [s] Primary exposure time | 0.000000 | 3.1 |
| [deg] Roll angle | 50.756000 | 50.756000 | | | |
| [deg] Roll tolerance | 25.000000 | 25.000000 | | | |
| Roll constraint allows 180D rotation | Y | Y | | | |
| [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) | 249992399.184000 | 249991330.15168 | | | |
| Observation start date | 2005-12-03T10:18:55 | 2005-12-03T10:02:10 | | | |
| [s] Observation end time (MET) | 250001899.184000 | 250002033.20218 | | | |
| Observation end date | 2005-12-03T12:57:15 | 2005-12-03T13:00:33 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



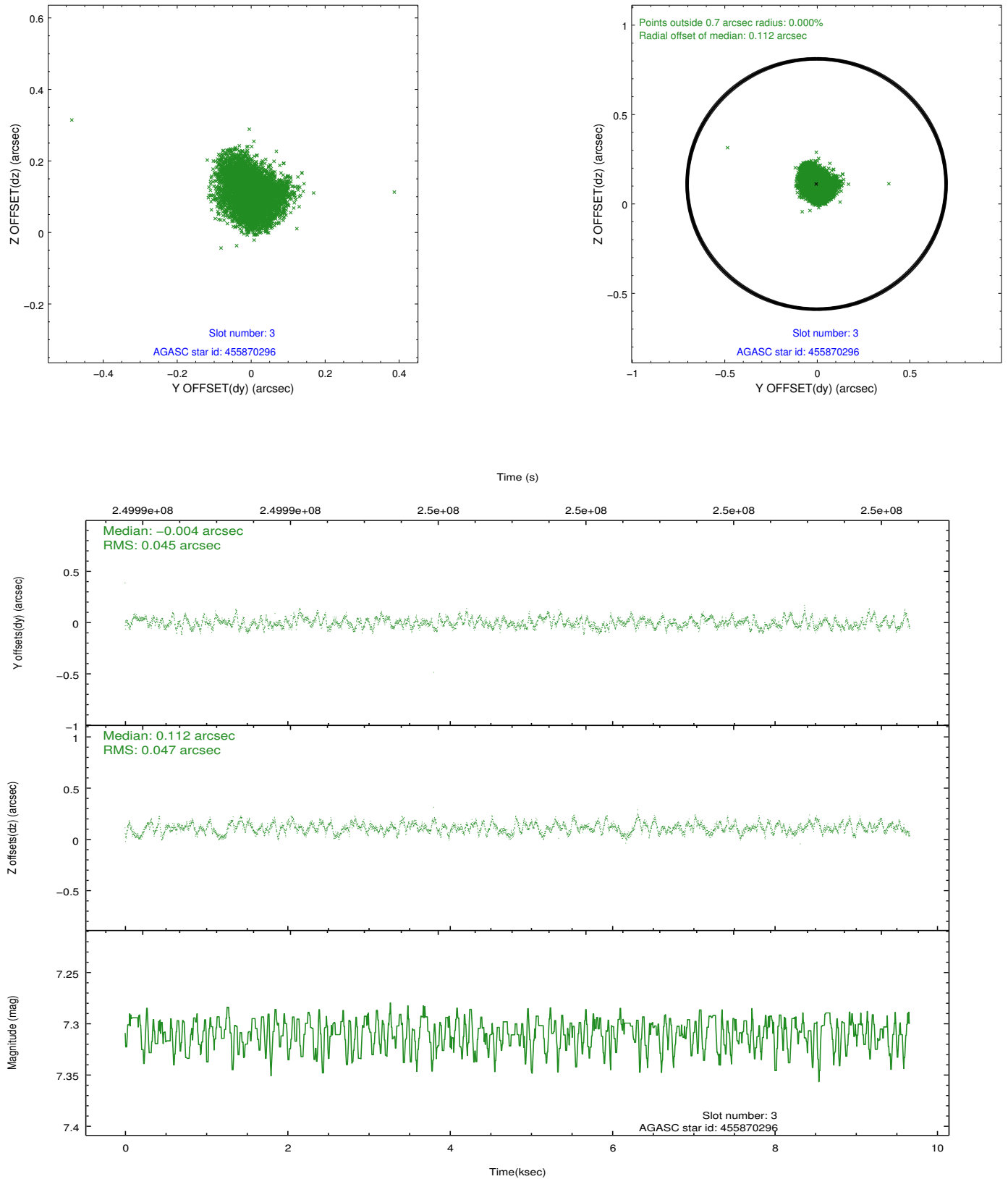


Slot Statistics

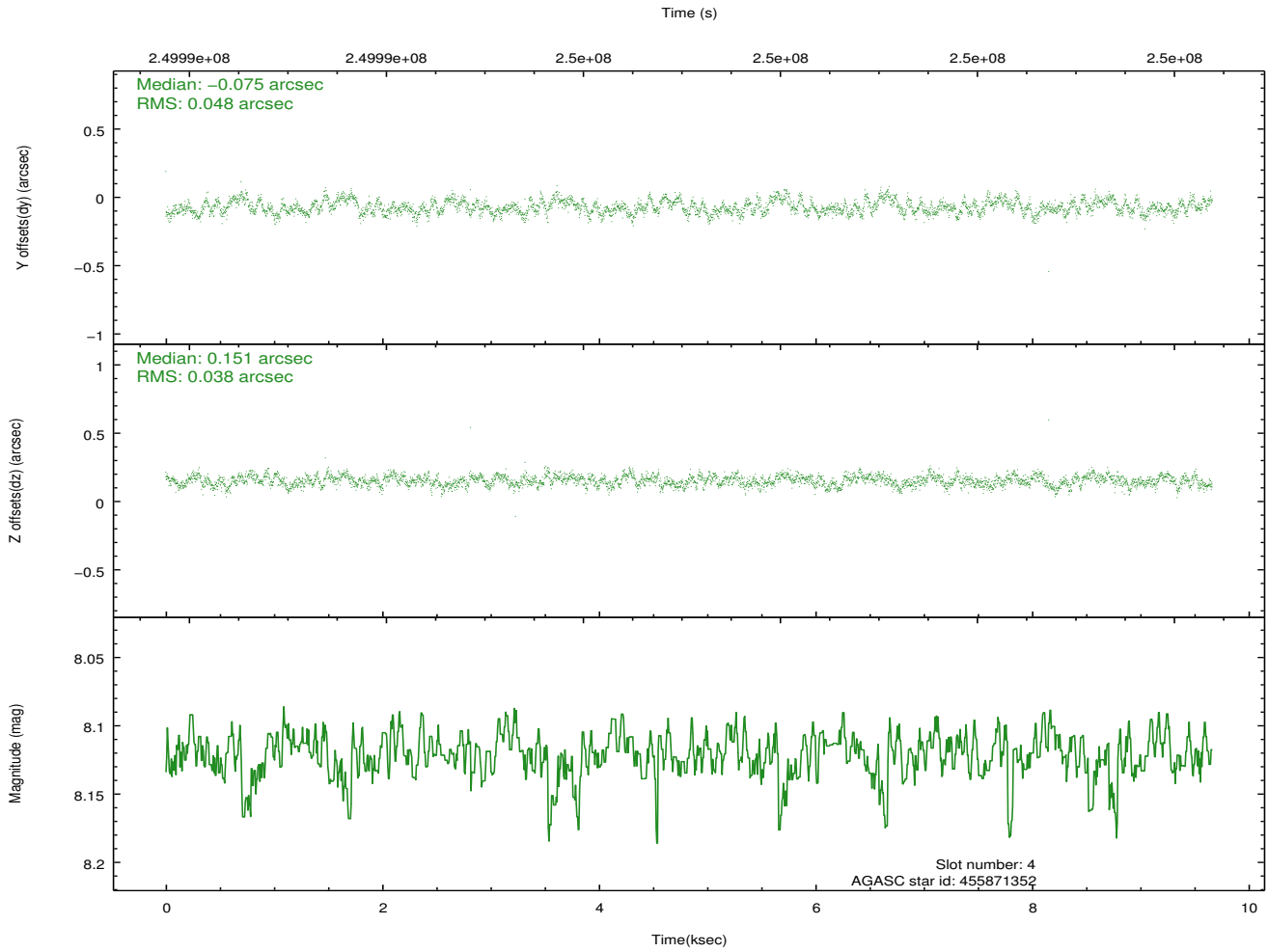
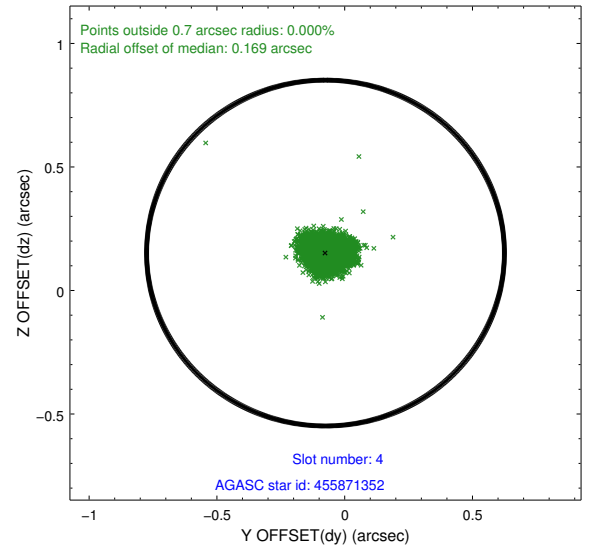
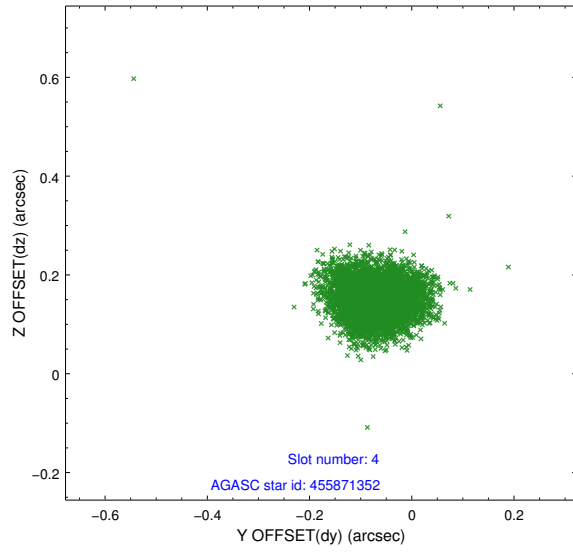
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.24 | 2358 | 0.031 | -0.020 | 0.015 | 0.024 | 0.000000 | 0.000000 | 932.61 | -834.32 |
| 1 | FID | ACIS-I-5 | 7.23 | 2358 | -0.162 | 0.046 | 0.010 | 0.016 | 0.000000 | 0.000000 | -1815.35 | 1063.00 |
| 2 | FID | ACIS-I-6 | 7.25 | 2358 | 0.040 | 0.044 | 0.010 | 0.016 | 0.000000 | 0.000000 | 397.61 | 1708.10 |
| 3 | GUIDE | 455870296 | 7.31 | 4715 | -0.004 | 0.112 | 0.070 | 0.106 | 214.629779 | 52.033323 | 408.83 | -1496.93 |
| 4 | GUIDE | 455871352 | 8.12 | 4714 | -0.075 | 0.151 | 0.064 | 0.102 | 215.099961 | 52.172669 | 1550.21 | -1670.42 |
| 5 | GUIDE | 505806936 | 7.01 | 4715 | 0.052 | 0.001 | 0.069 | 0.114 | 213.820815 | 52.535927 | -17.11 | 1005.78 |
| 6 | GUIDE | 505812376 | 7.57 | 4714 | -0.267 | -0.073 | 0.059 | 0.091 | 214.039537 | 52.937930 | 1204.87 | 1915.67 |
| 7 | GUIDE | 504894728 | 8.82 | 4714 | 0.285 | -0.190 | 0.079 | 0.126 | 213.220892 | 52.722550 | -695.23 | 2313.94 |

2.4 Star Slots

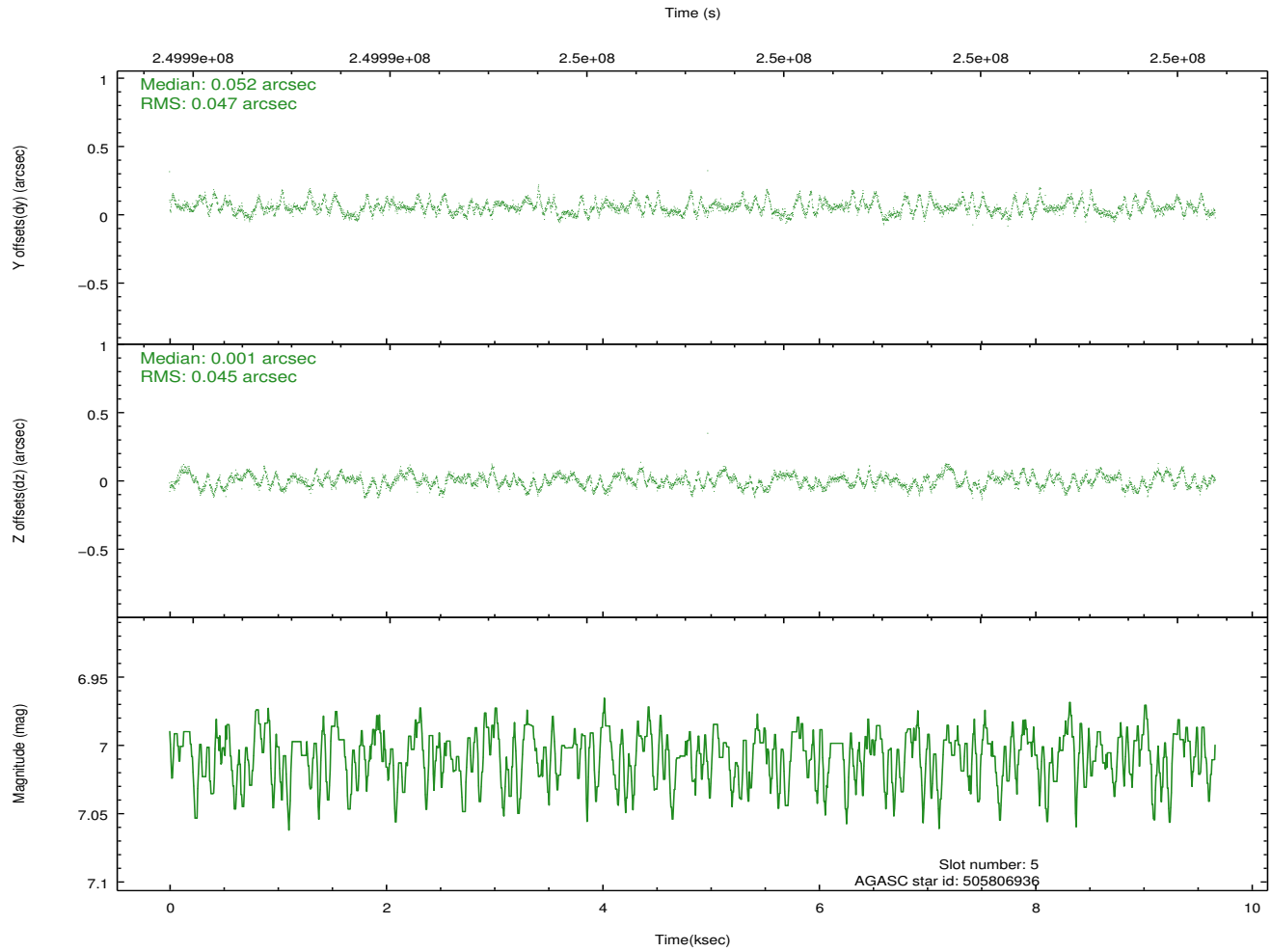
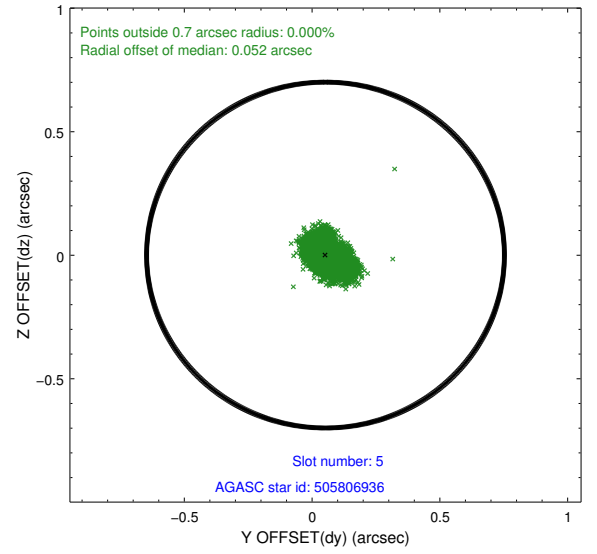
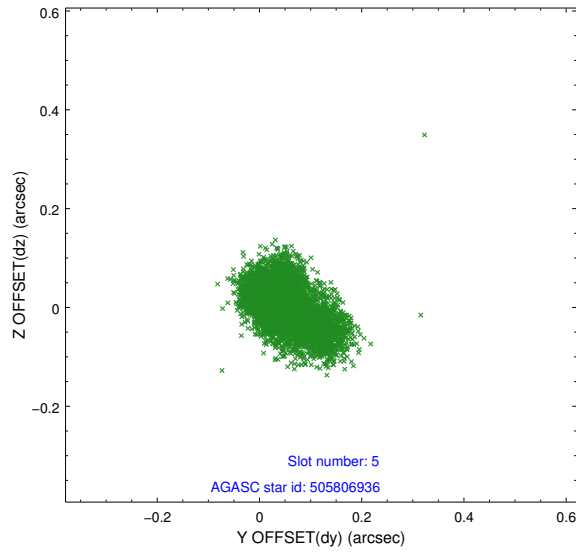
2.4.1 Slot 3



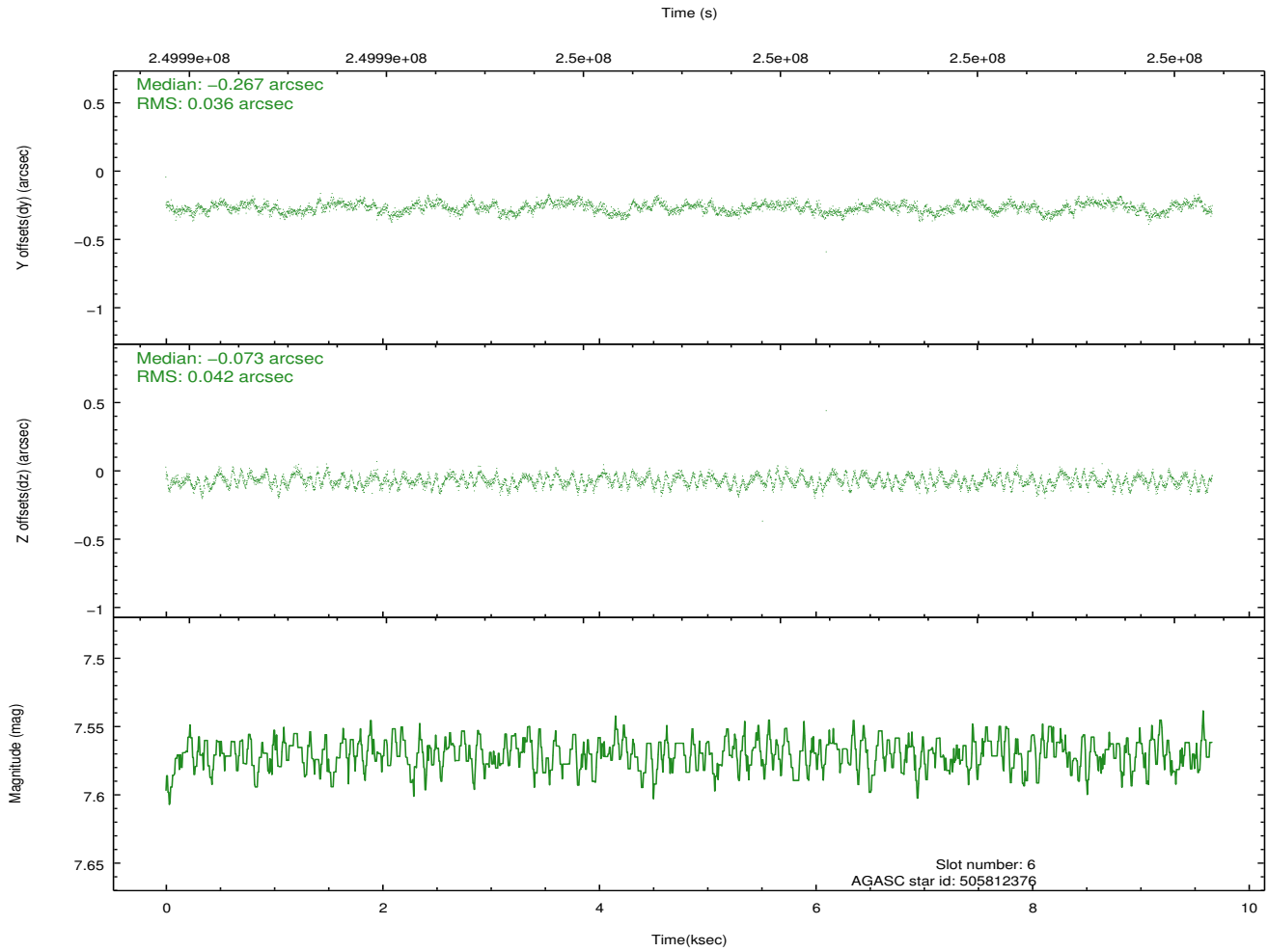
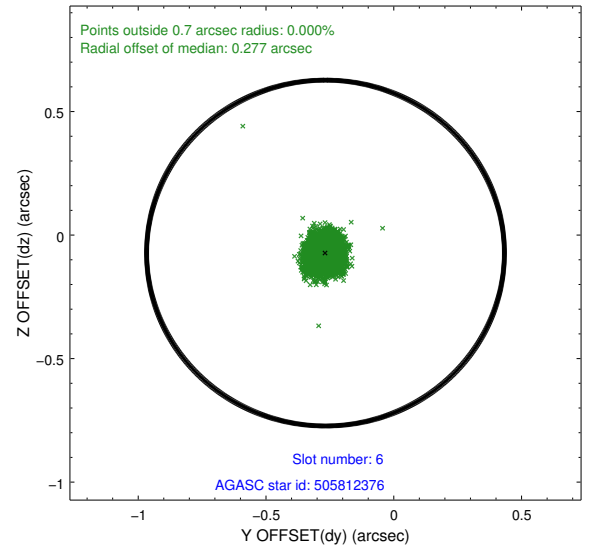
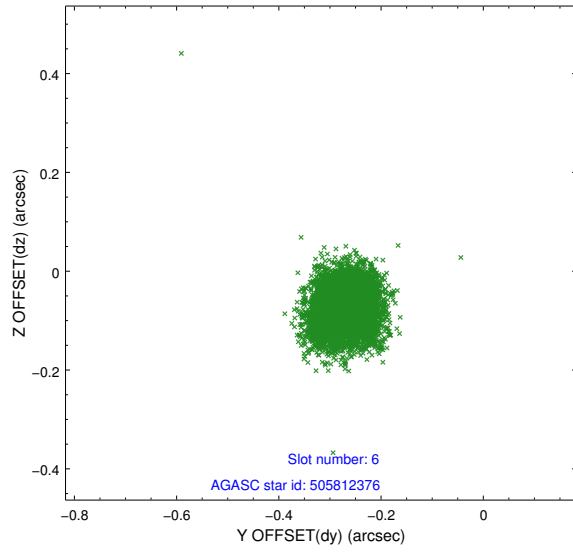
2.4.2 Slot 4



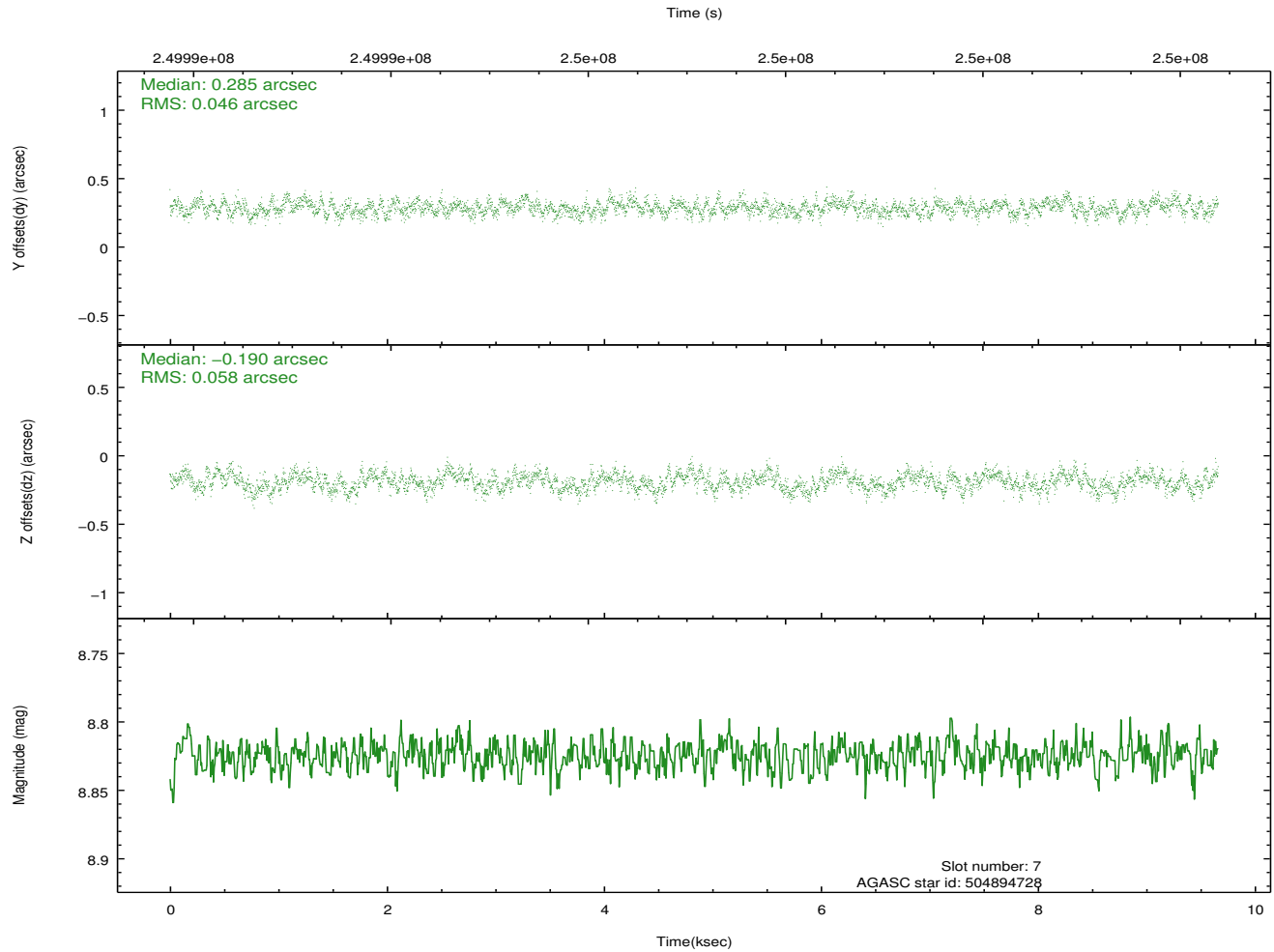
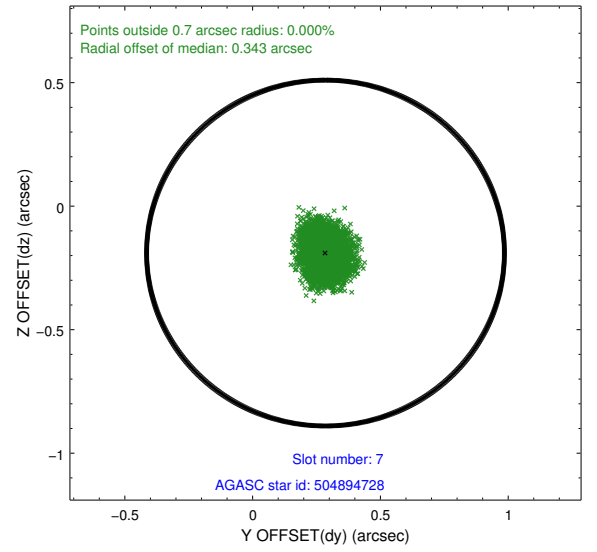
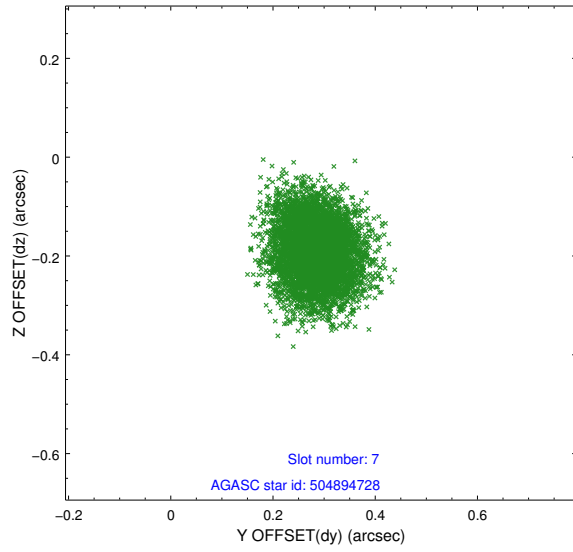
2.4.3 Slot 5



2.4.4 Slot 6

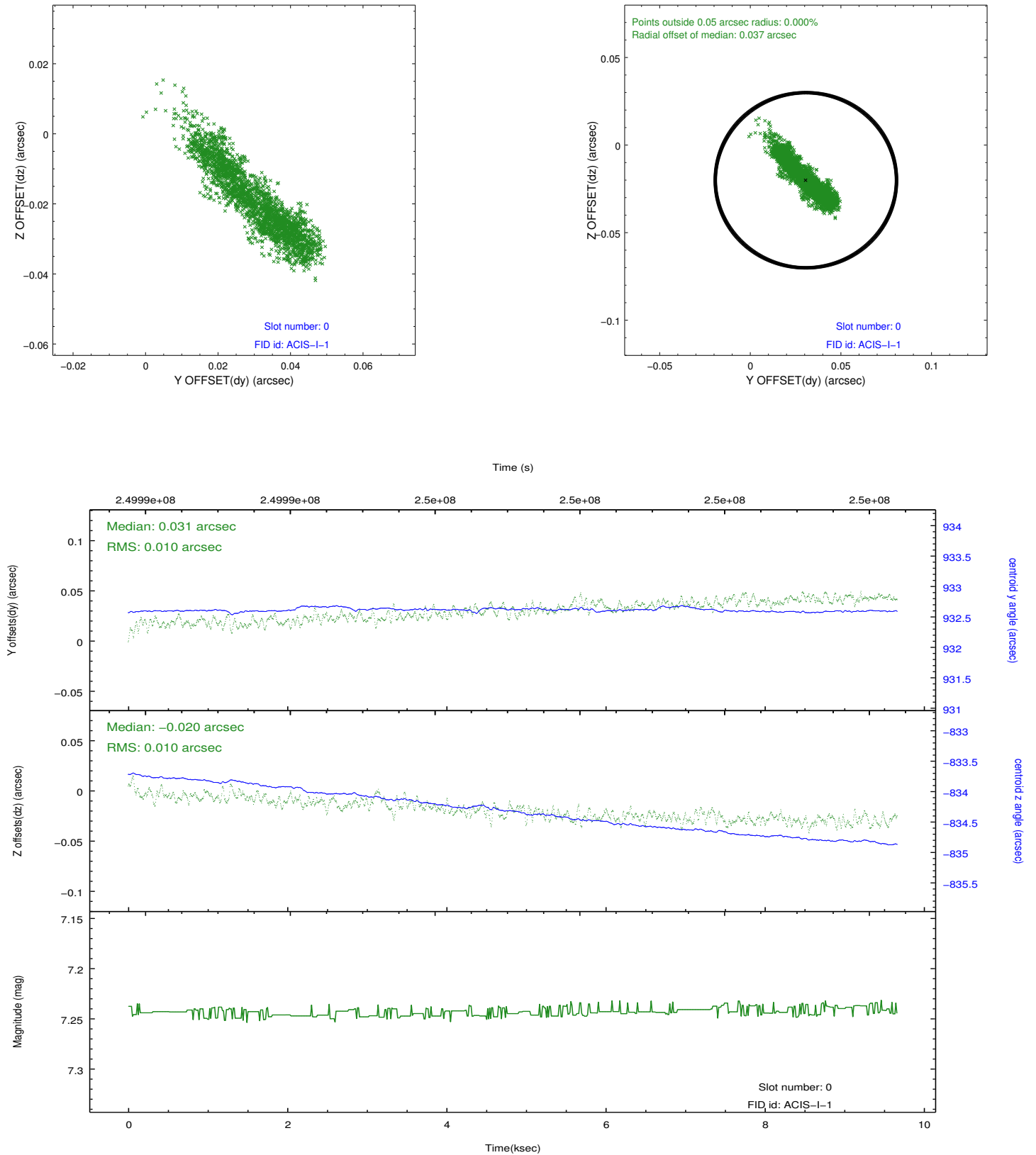


2.4.5 Slot 7

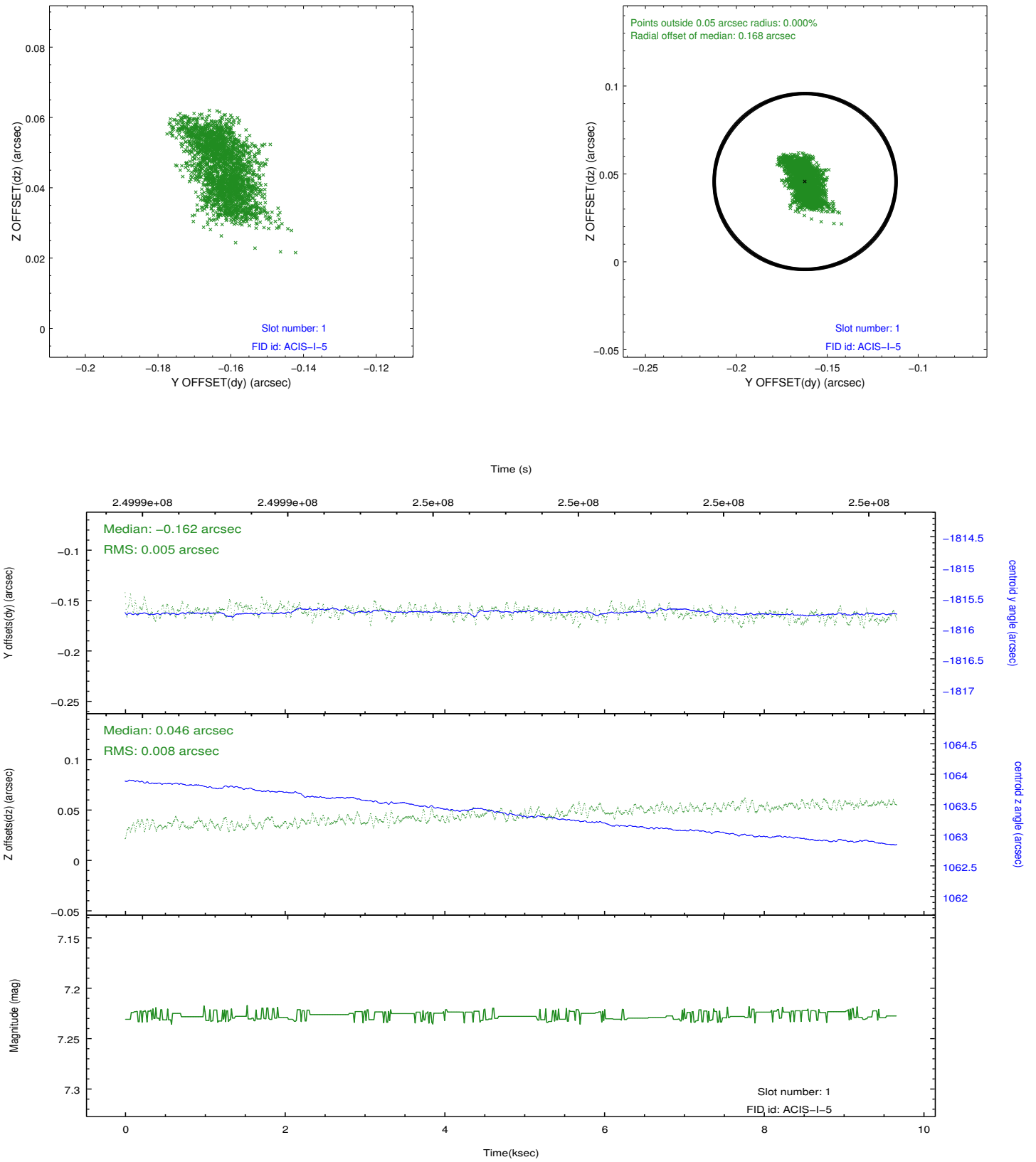


2.5 FID Slots

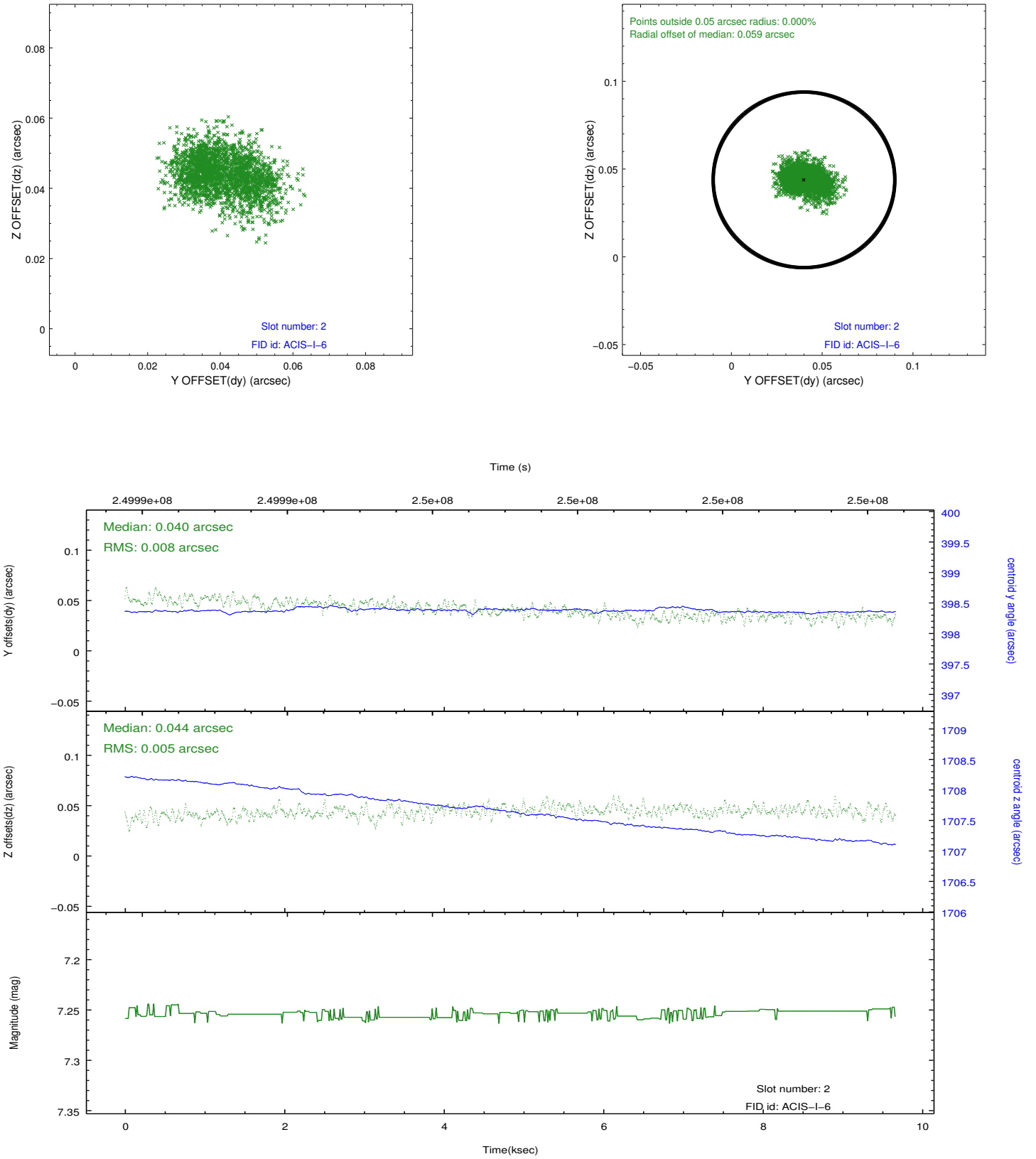
2.5.1 Slot 0



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) | 2012.03.19 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 9.653359 |

A.2 Comments

Roll constraint met.