

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2403 - L2 Version 5
Chandra X-Ray Center

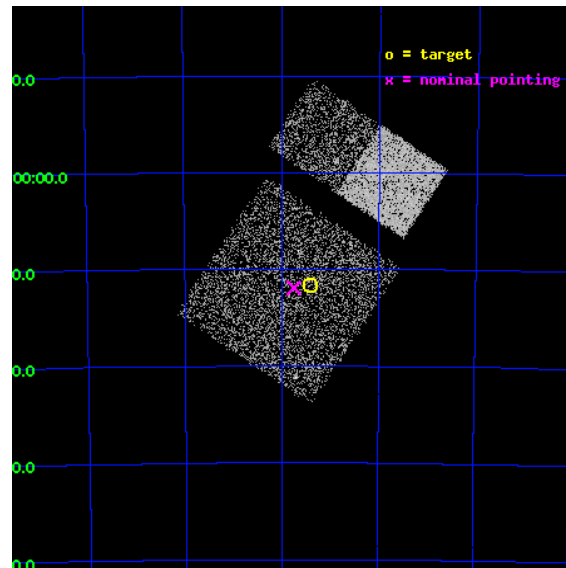
L2 Processing Date : Oct 15 2012

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1 Front

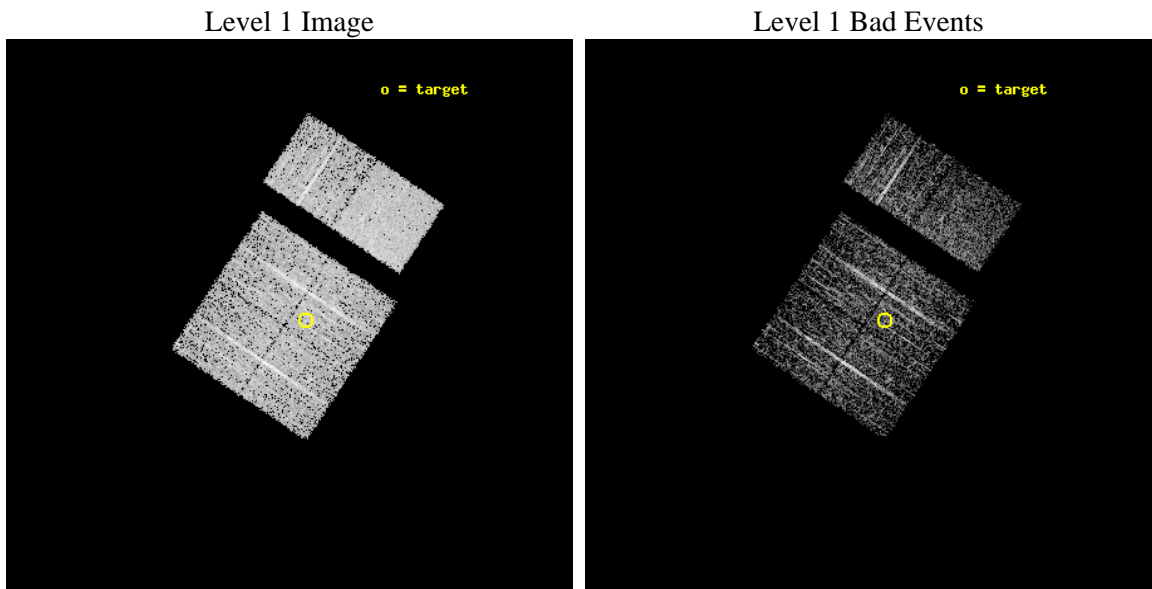
| | | |
|----------|------------------------------------|---|
| seq_num | 200127 | Sequence number |
| obs_id | 2403 | Observation id |
| title | OBSERVATION OF SCO-CEN OUTLYERS | Proposal title |
| observer | Professor Gordon Garmire | Principal investigator |
| object | HD100546 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 173.355833 | Observer's specified target RA [deg] |
| dec_targ | -70.194722 | Observer's specified target Dec [deg] |
| ra_nom | 173.43742148174 | Nominal RA [deg] |
| dec_nom | -70.198469626829 | Nominal Dec [deg] |
| roll_nom | 33.753523098919 | Nominal Roll [deg] |
| revision | 5 | Processing version of data |
| ontime | 2654.9292687774 | Sum of GTIs [s] |
| livetime | 2621.3109557696 | Livetime [s] |
| ontime0 | 2654.8061487824 | Sum of GTIs [s] |
| ontime1 | 2654.8471887857 | Sum of GTIs [s] |
| ontime2 | 2654.888228789 | Sum of GTIs [s] |
| ontime3 | 2654.9292687774 | Sum of GTIs [s] |
| ontime6 | 2655.011348784 | Sum of GTIs [s] |
| ontime7 | 2654.9703087807 | Sum of GTIs [s] |
| l2events | 17377 | Number of level 2 events |



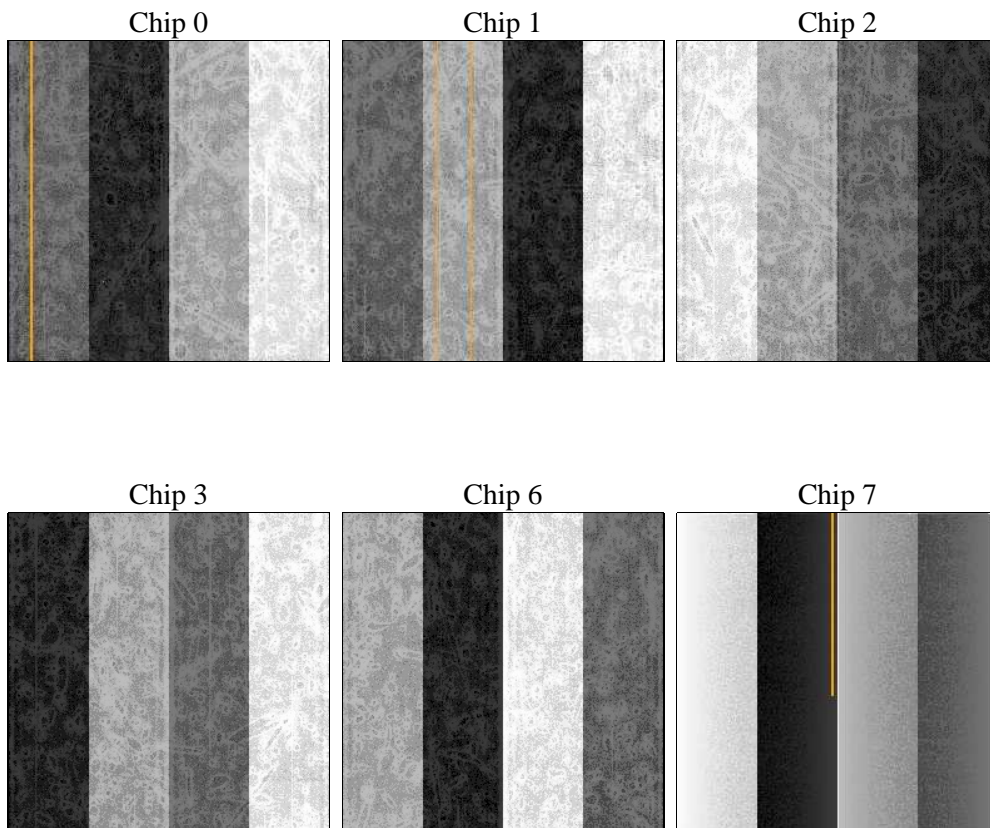
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 2 | Obi number | sched_exp_time | 2900.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 2654.9292687774 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime0 | 2654.8061487824 | Sum of GTIs [s] |
| date | 2012-10-15T18:23:58 | Date and time of file creation | ontime1 | 2654.8471887857 | Sum of GTIs [s] |
| revision | 5 | Processing version of data | ontime2 | 2654.888228789 | Sum of GTIs [s] |
| | | | ontime3 | 2654.9292687774 | Sum of GTIs [s] |
| | | | ontime6 | 2655.011348784 | Sum of GTIs [s] |
| | | | ontime7 | 2654.9703087807 | Sum of GTIs [s] |
| | | | l1events | 100911 | Number of level 1 events |

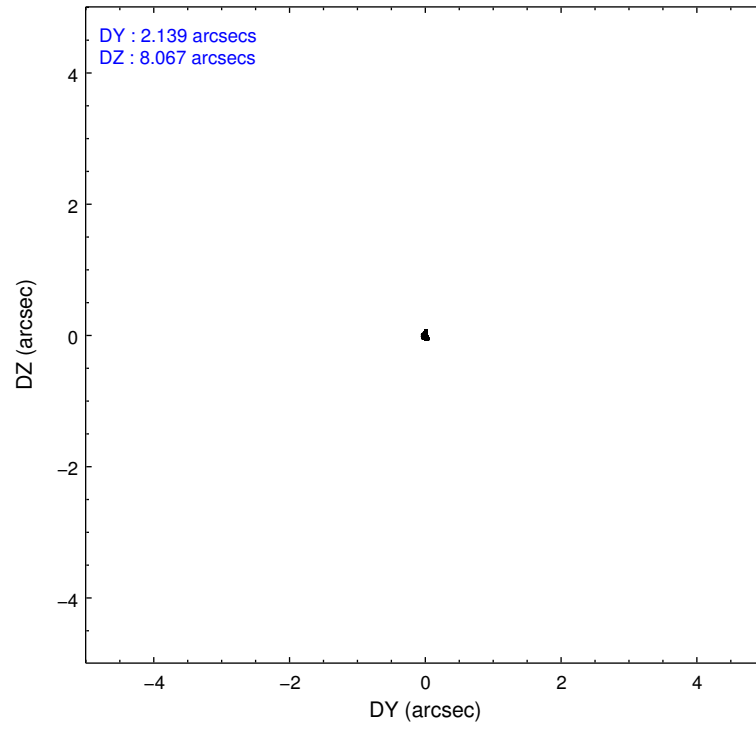
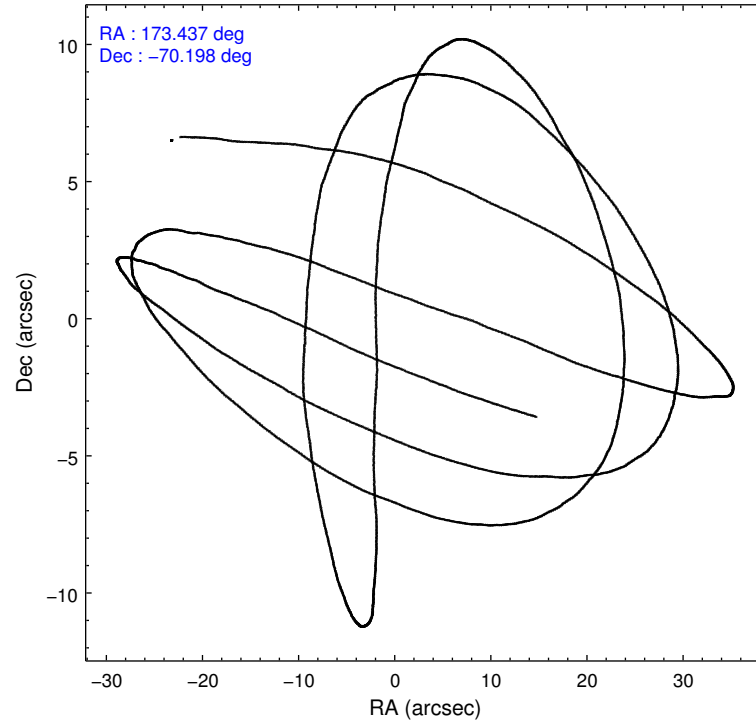
2.1.4 Events

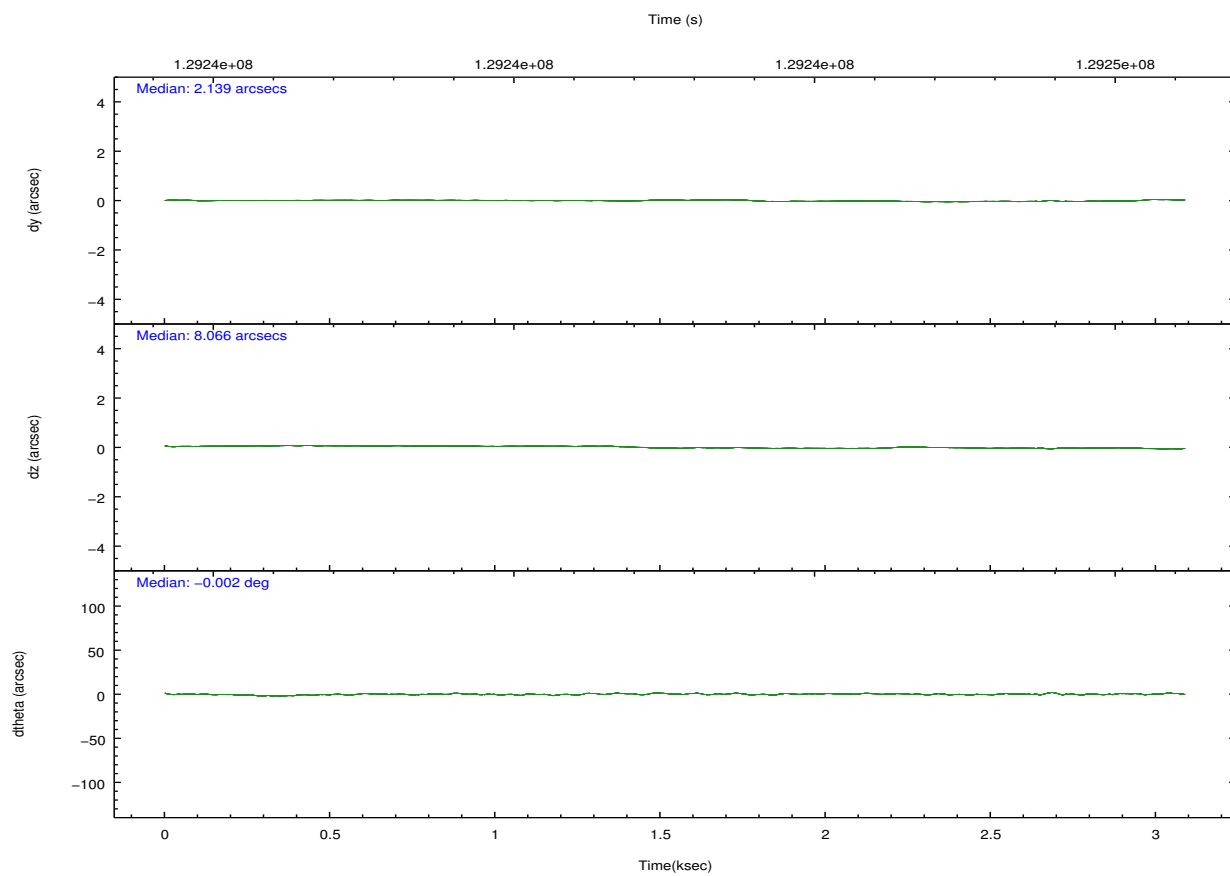
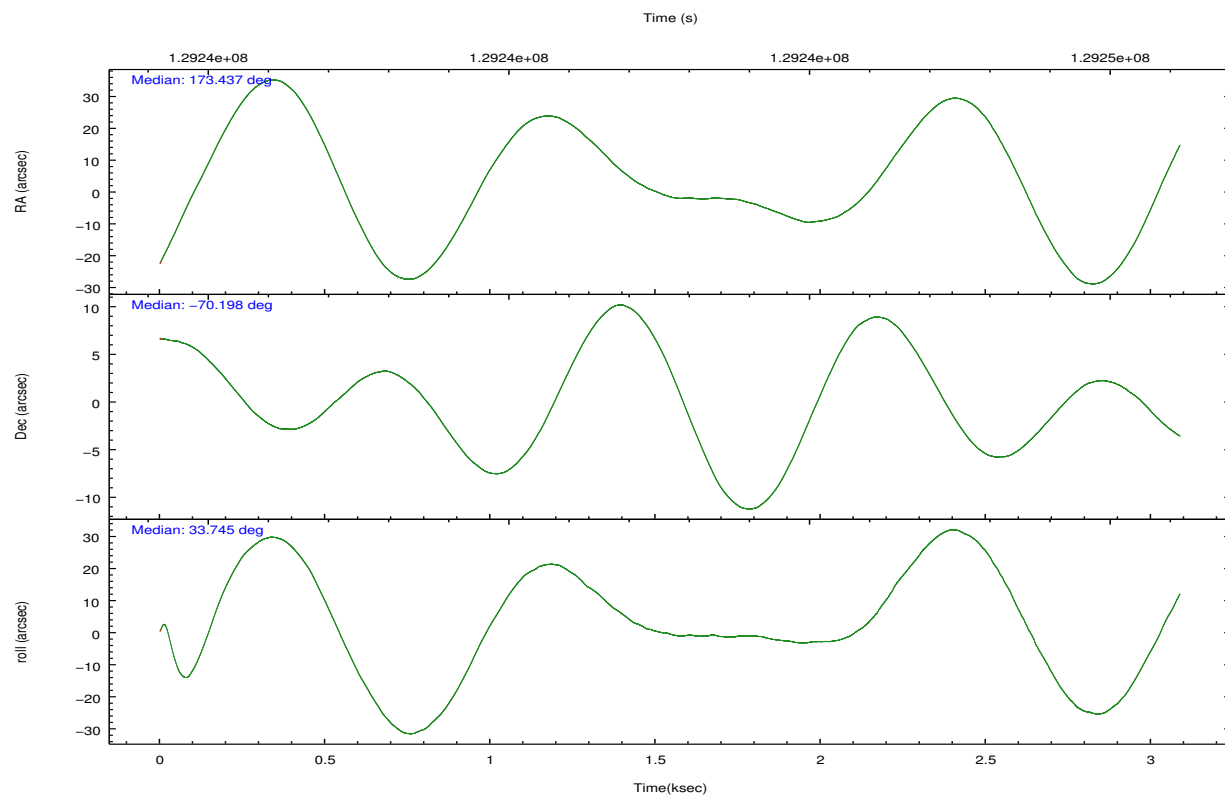
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 14621 | 15366 | 16132 | 16354 | 16492 | 21946 | grade 0 events | 810 | 853 | 888 | 830 | 813 | 839 |
| rejected events | 12656 | 13223 | 14167 | 14468 | 14504 | 12939 | | 5% | 5% | 5% | 5% | 4% | 3% |
| rejected % | 86% | 86% | 87% | 88% | 87% | 58% | grade 1 events | 6 | 6 | 8 | 7 | 8 | 23 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 447 | 412 | 388 | 352 | 370 | 1816 |
| | | | | | | | | 3% | 2% | 2% | 2% | 2% | 8% |
| | | | | | | | grade 3 events | 197 | 229 | 200 | 190 | 187 | 860 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 4 events | 177 | 229 | 162 | 163 | 207 | 765 |
| | | | | | | | | 1% | 1% | 1% | 0% | 1% | 3% |
| | | | | | | | grade 5 events | 581 | 747 | 606 | 669 | 752 | 2099 |
| | | | | | | | | 3% | 4% | 3% | 4% | 4% | 9% |
| | | | | | | | grade 6 events | 337 | 426 | 328 | 352 | 413 | 4743 |
| | | | | | | | | 2% | 2% | 2% | 2% | 2% | 21% |
| | | | | | | | grade 7 events | 12066 | 12464 | 13552 | 13791 | 13742 | 10801 |
| | | | | | | | | 82% | 81% | 84% | 84% | 83% | 49% |

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 | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 173.401965 | 173.4374214817409 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -70.223155 | -70.19846962682935 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 33.511312 | 33.75352309891925 | [s] Primary exposure time | 0.000000 | 3.2 |
| [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) | 129243182.184000 | 129242638.49557 | | | |
| Observation start date | 2002-02-04T20:51:58 | 2002-02-04T20:43:58 | | | |
| [s] Observation end time (MET) | 129246082.184000 | 129246216.25822 | | | |
| Observation end date | 2002-02-04T21:40:18 | 2002-02-04T21:43:36 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



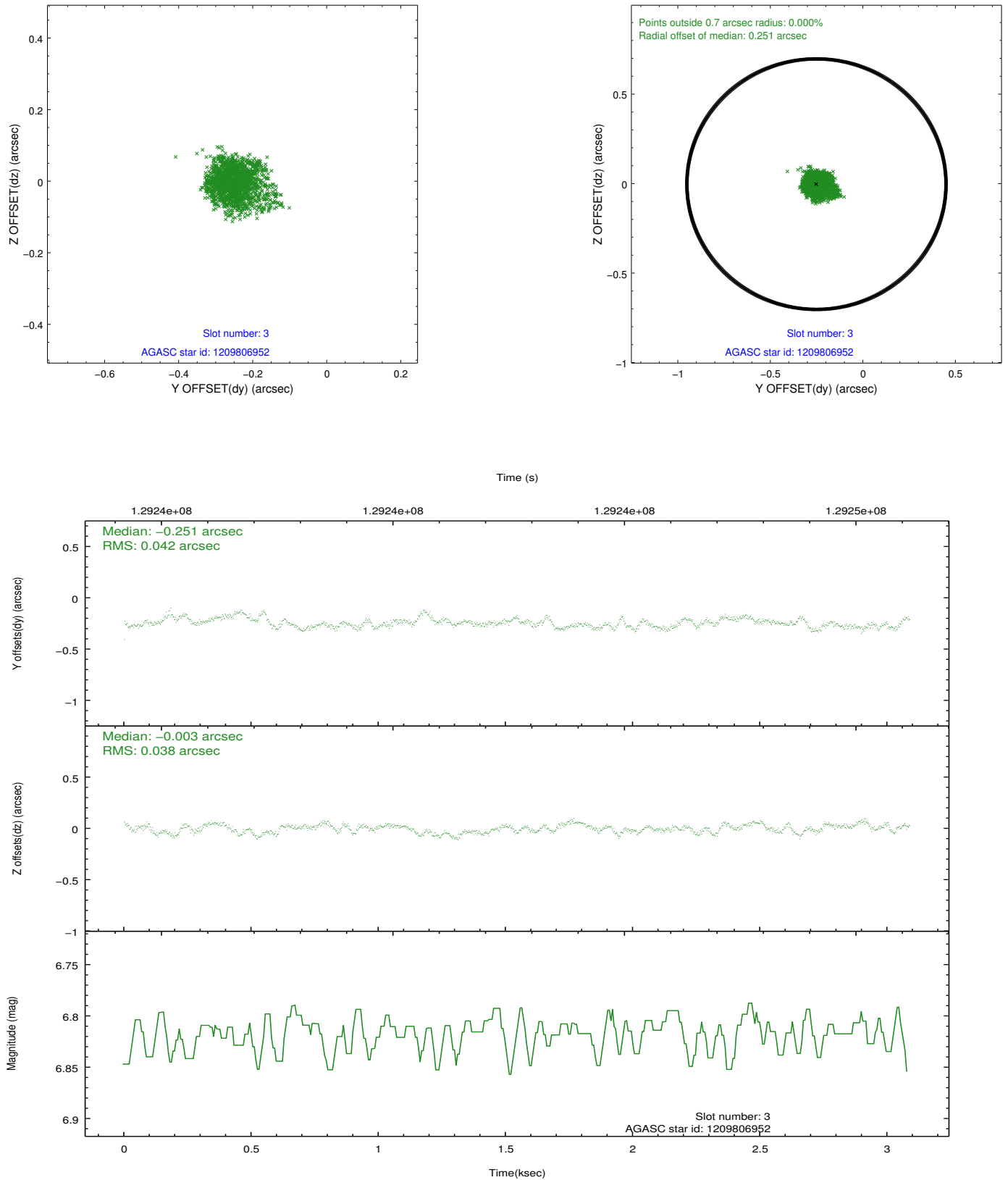


Slot Statistics

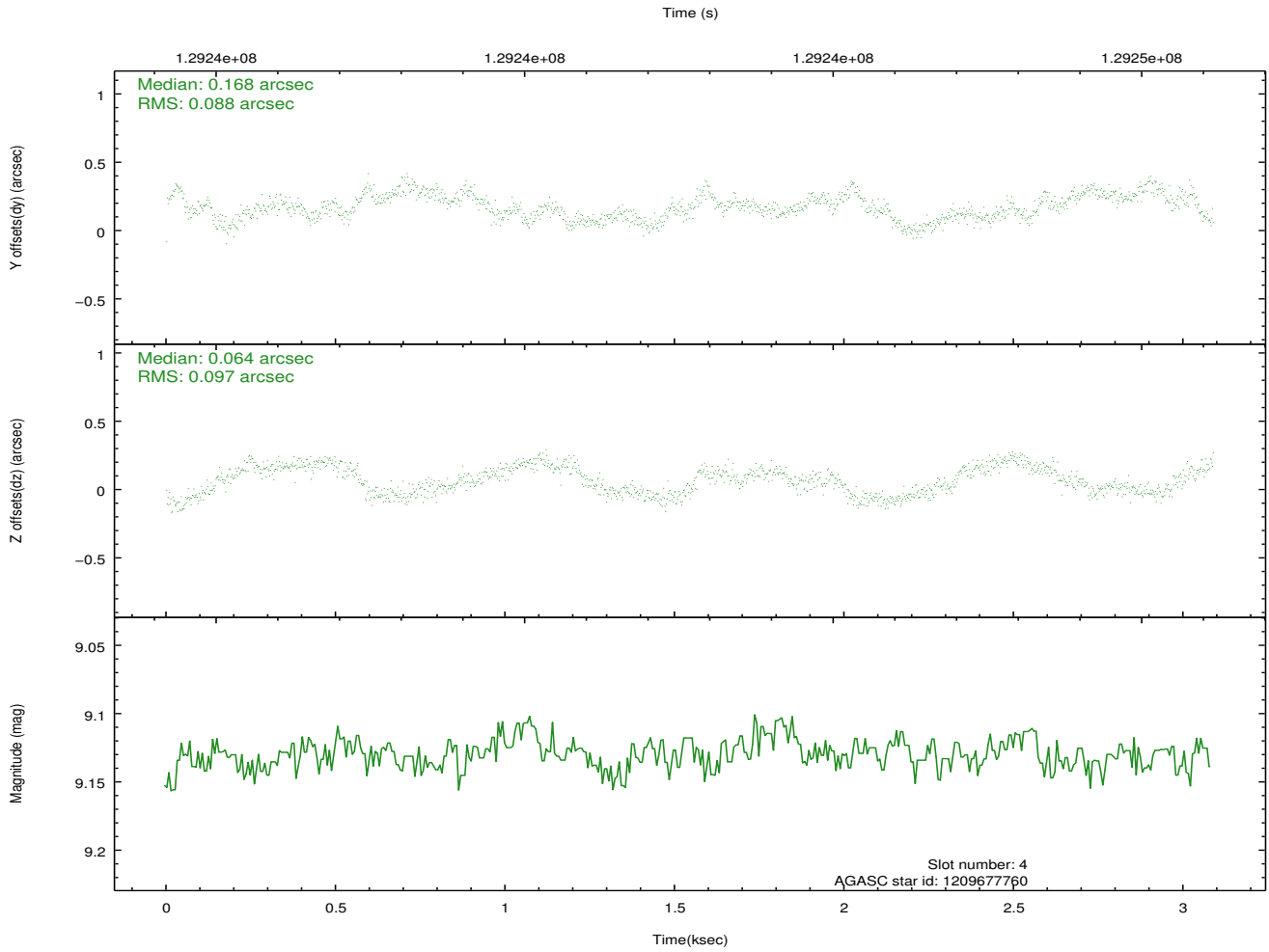
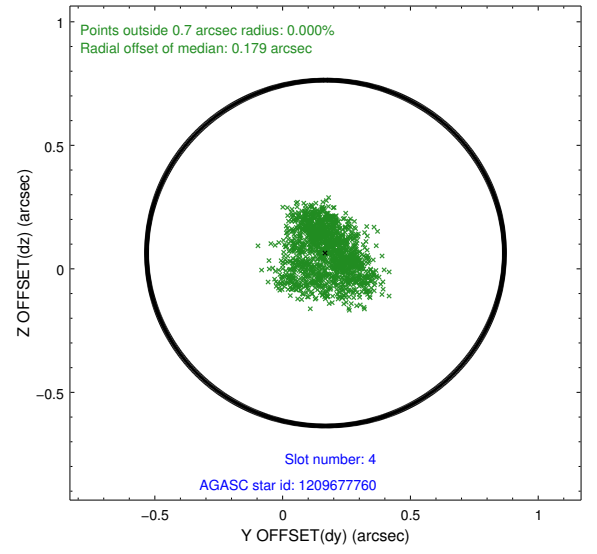
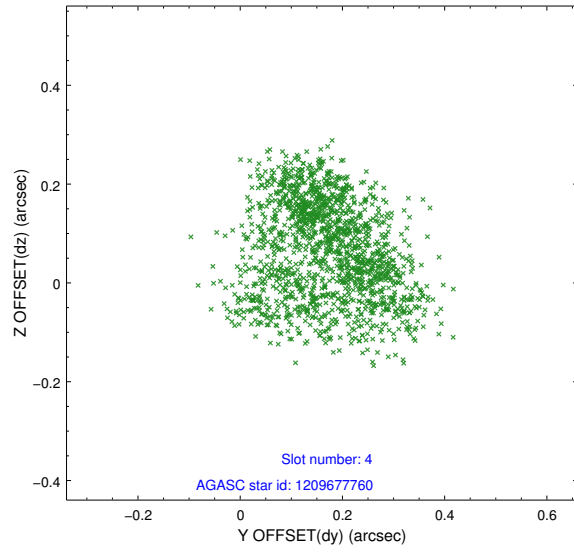
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|---------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.24 | 754 | -0.048 | 0.037 | 0.006 | 0.011 | 0.000000 | 0.000000 | 937.63 | -831.47 |
| 1 | FID | ACIS-I-5 | 7.24 | 754 | -0.013 | 0.013 | 0.006 | 0.011 | 0.000000 | 0.000000 | -1809.28 | 1064.99 |
| 2 | OMITTED | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |
| 3 | GUIDE | 1209806952 | 6.82 | 1507 | -0.251 | -0.003 | 0.060 | 0.098 | 174.311027 | -69.674228 | 2033.55 | 1012.96 |
| 4 | GUIDE | 1209677760 | 9.13 | 1507 | 0.168 | 0.064 | 0.144 | 0.210 | 171.899645 | -70.126361 | -1351.81 | 1286.83 |
| 5 | GUIDE | 1209808912 | 9.59 | 1506 | -0.039 | 0.175 | 0.109 | 0.181 | 174.926008 | -70.456656 | 1052.45 | -1732.41 |
| 6 | GUIDE | 1209675144 | 9.37 | 1506 | -0.063 | -0.147 | 0.117 | 0.177 | 173.252205 | -70.915996 | -1523.63 | -1984.47 |
| 7 | GUIDE | 1209684208 | 9.96 | 1504 | 0.177 | -0.092 | 0.202 | 0.321 | 170.984969 | -70.133892 | -2321.07 | 1849.09 |

2.4 Star Slots

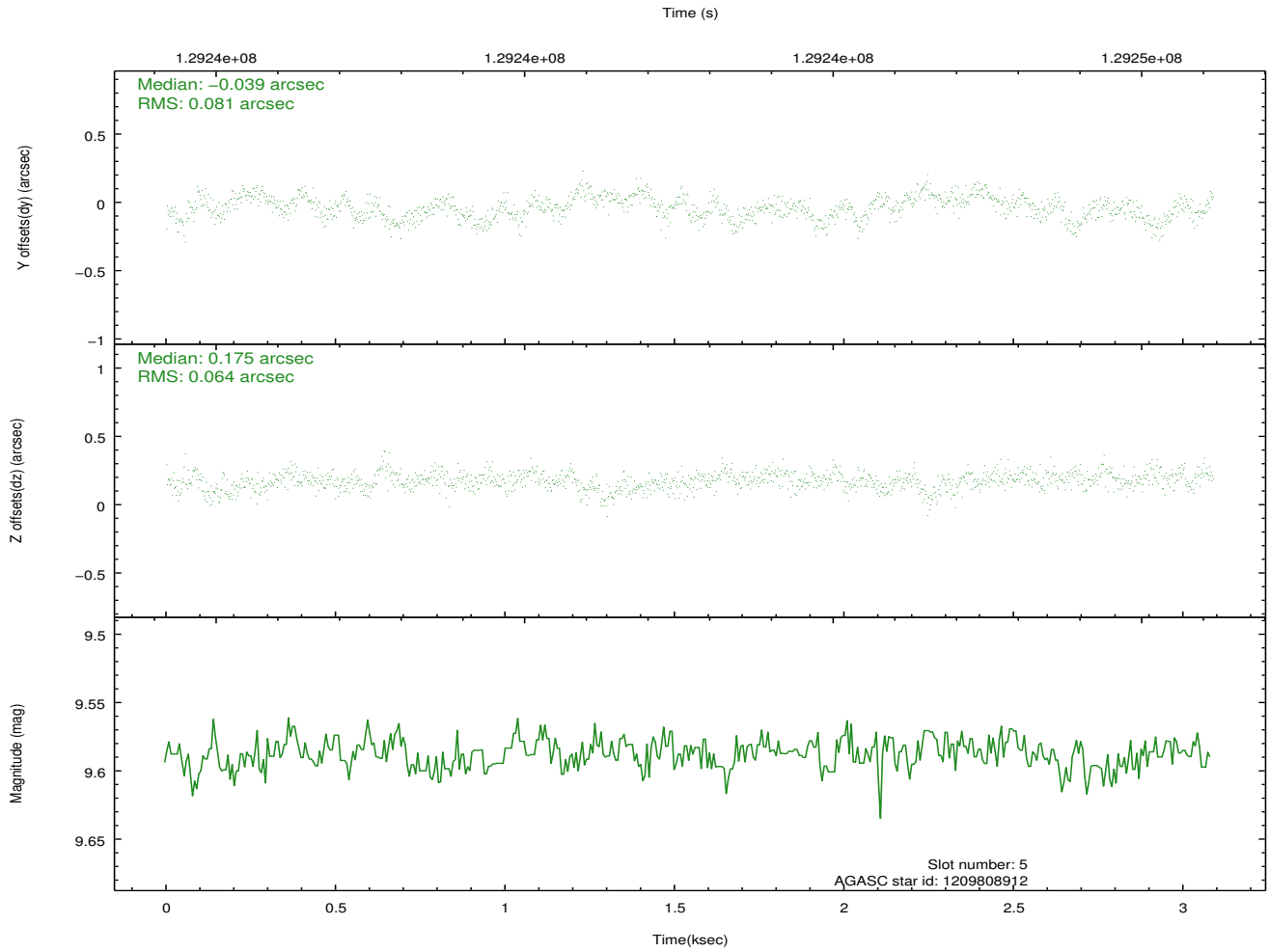
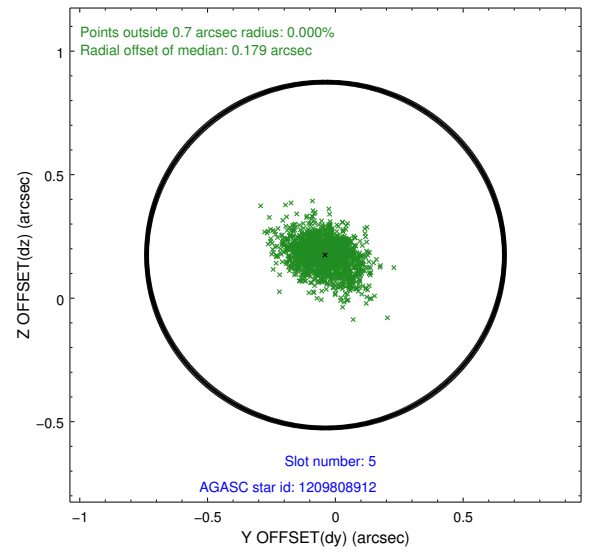
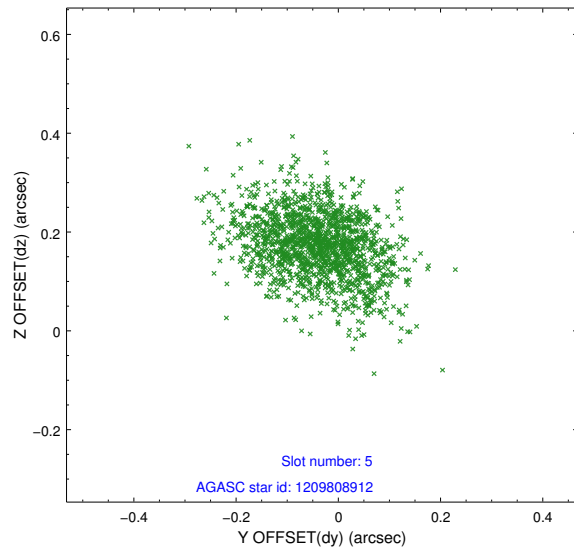
2.4.1 Slot 3



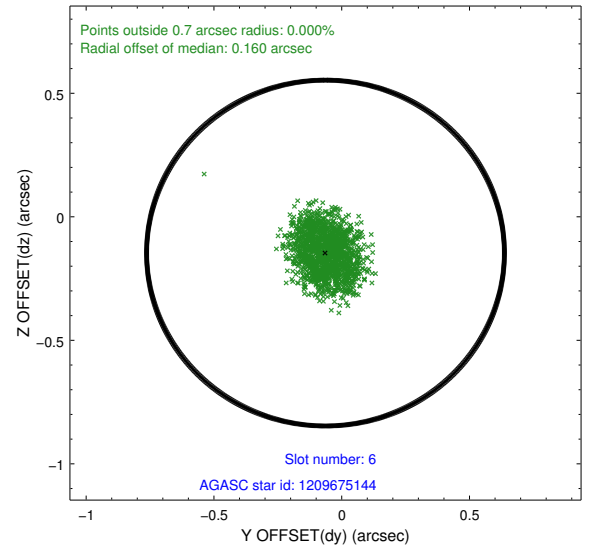
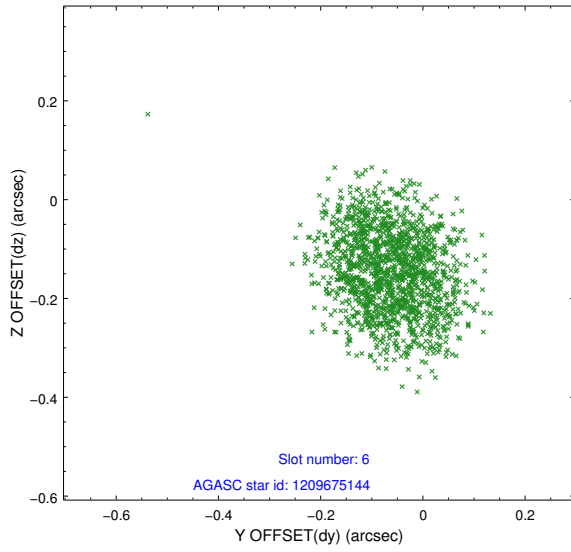
2.4.2 Slot 4



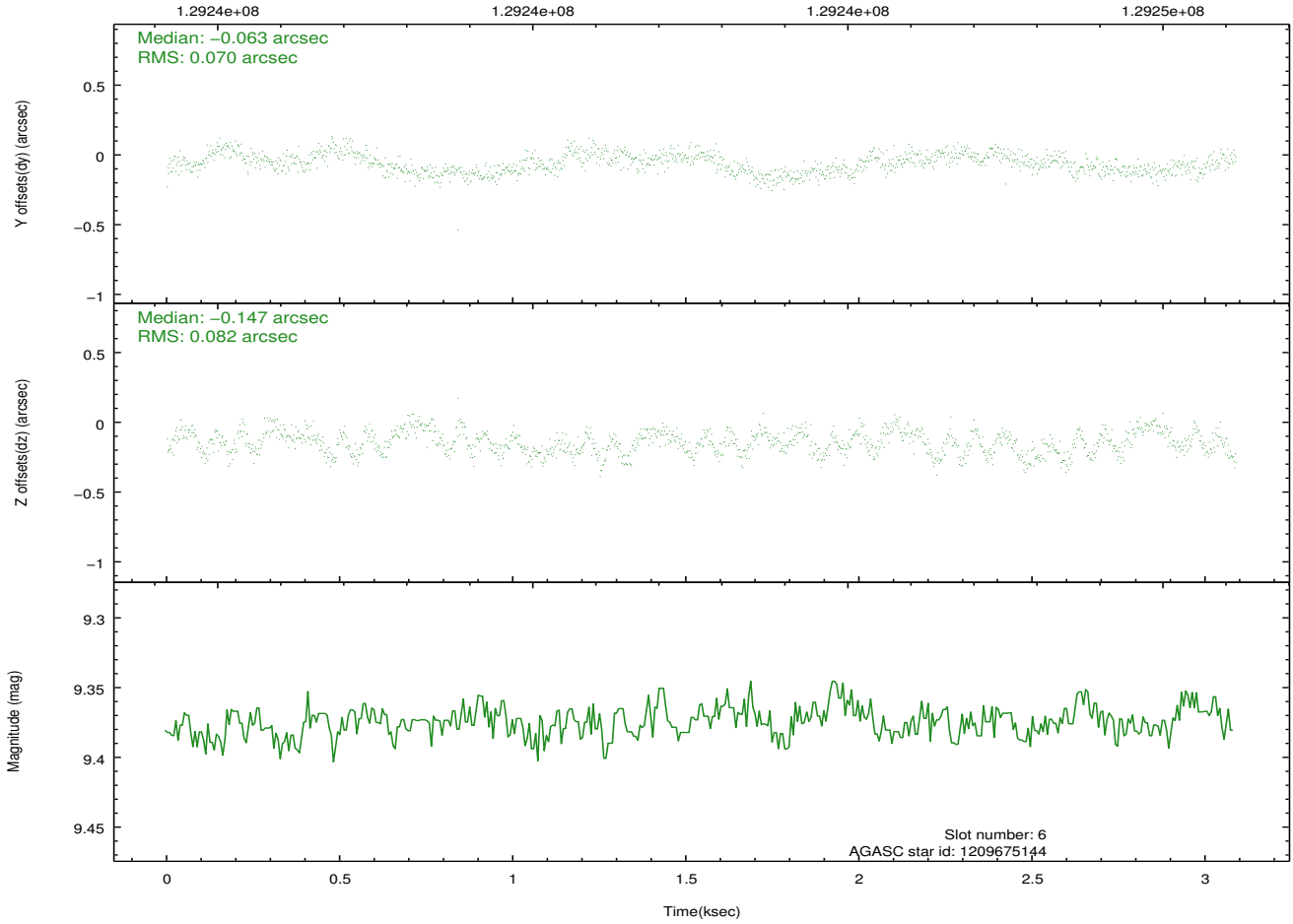
2.4.3 Slot 5



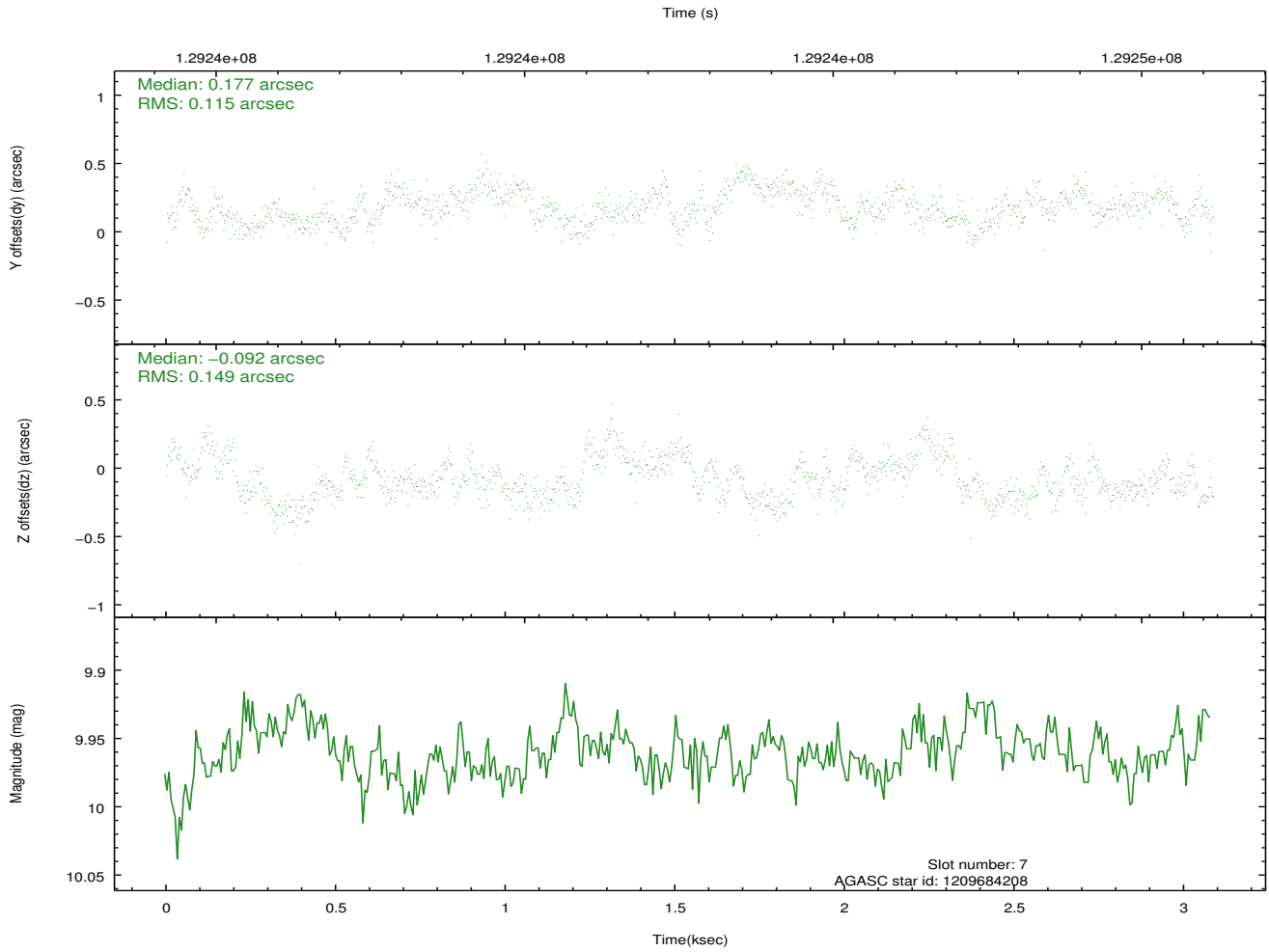
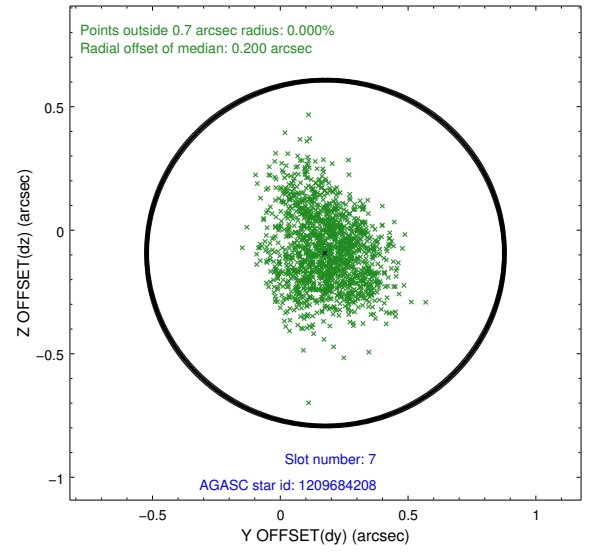
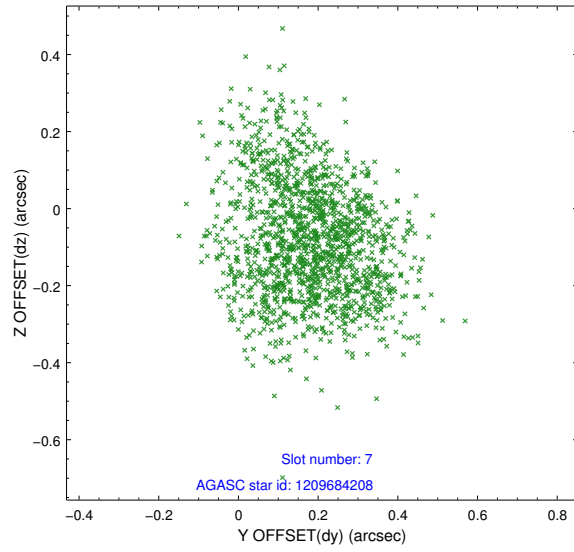
2.4.4 Slot 6



Time (s)

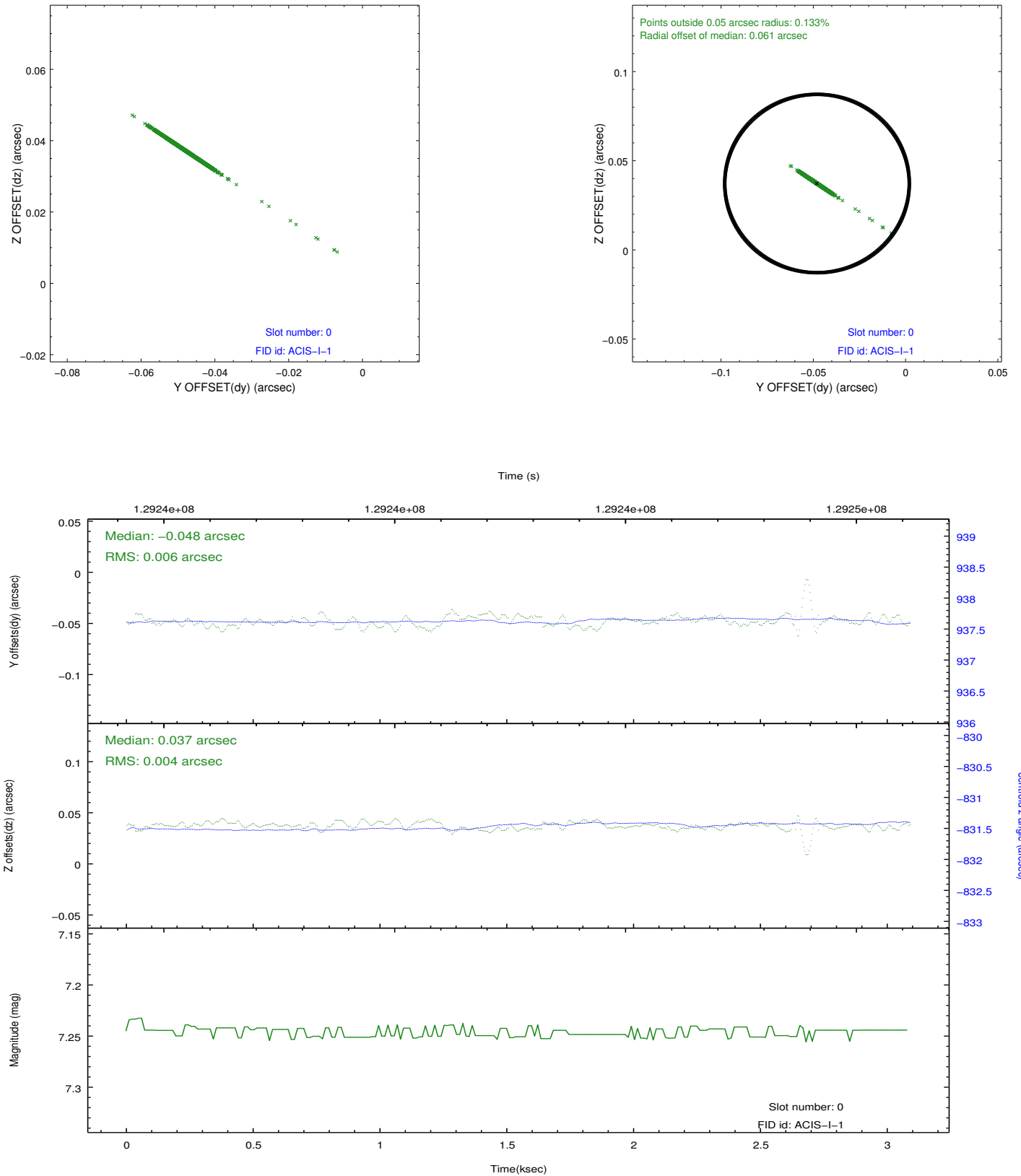


2.4.5 Slot 7

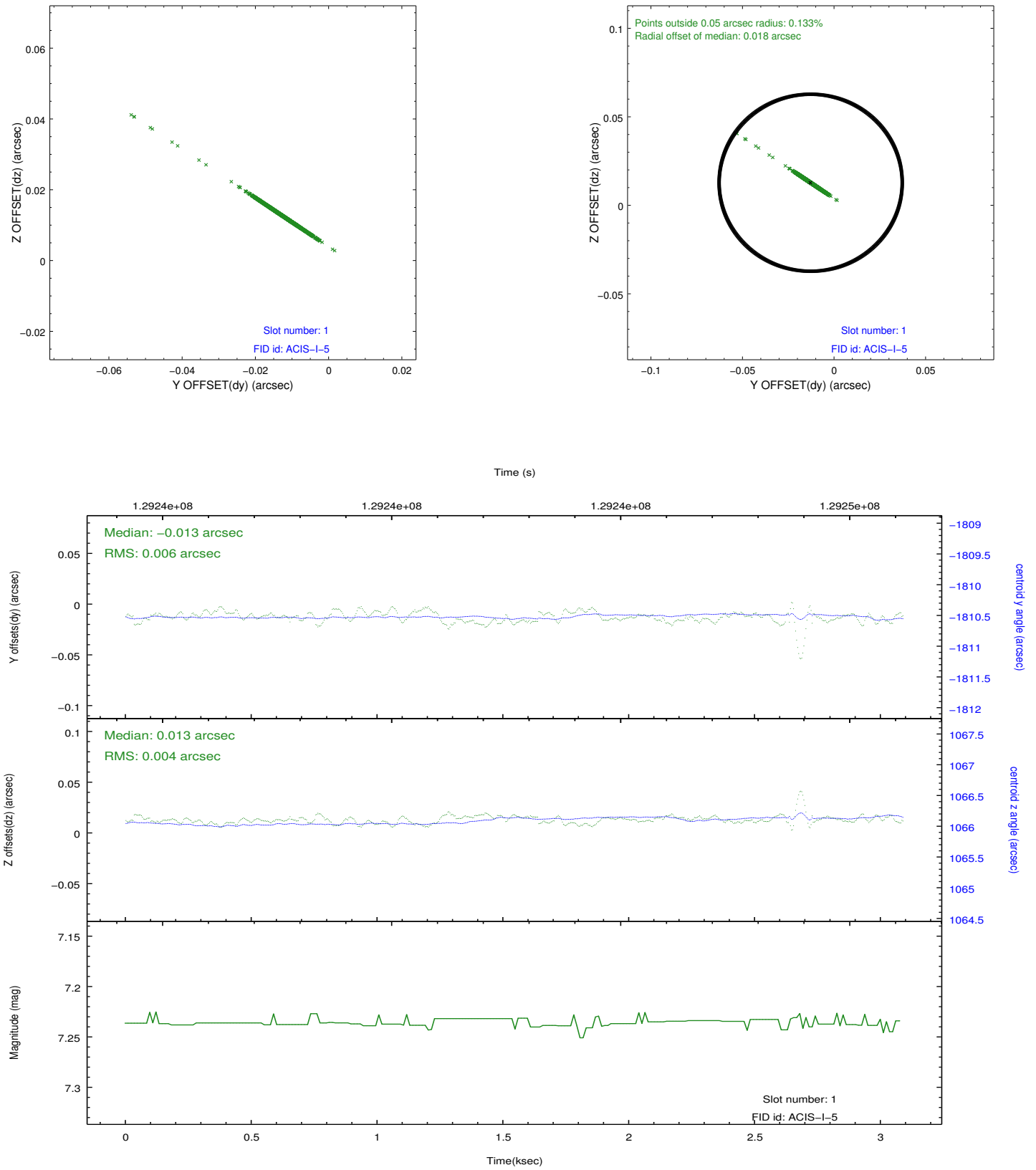


2.5 FID Slots

2.5.1 Slot 0



2.5.2 Slot 1



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.10.25 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 2.656 |

A.2 Comments

The fid light in slot 2 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this fid light from the solution.