

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 3699 - L2 Version 4
Chandra X-Ray Center

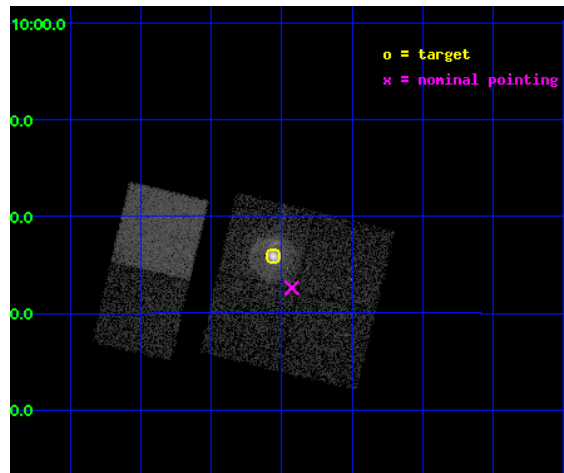
L2 Processing Date : Nov 7 2012

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1 Front

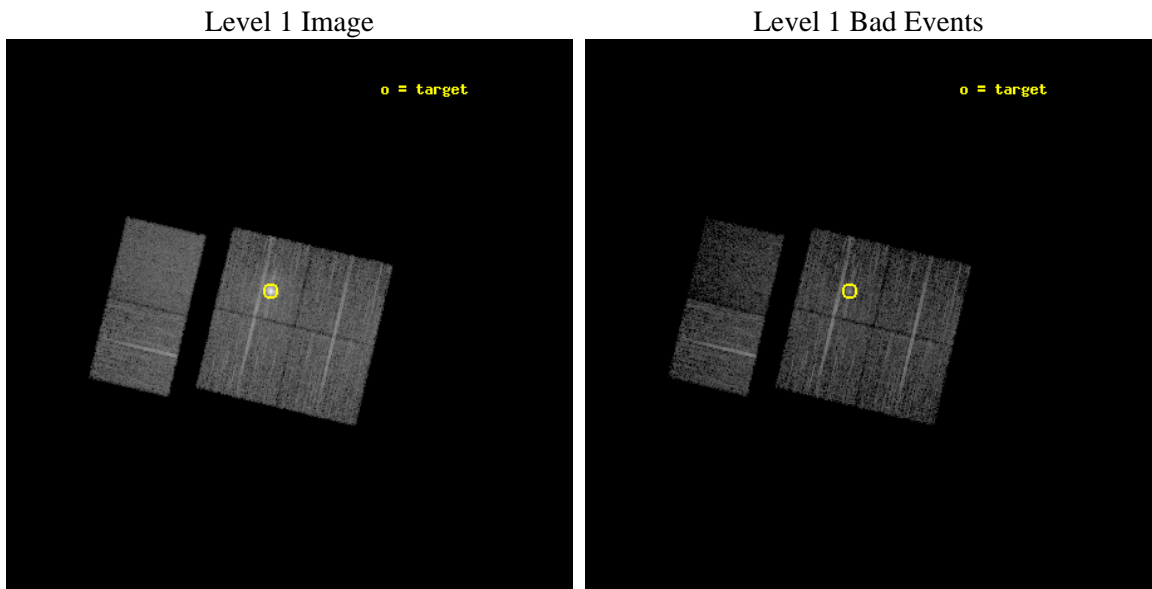
| | | |
|----------|--|---|
| seq_num | 590311 | Sequence number |
| obs_id | 3699 | Observation id |
| title | AO4B OBSERVATIONS OF THE STANDARD CANDLES CAS A AND G21.5-09 | Propo |
| observer | Dr. CXC Calibration | Principal investigator |
| object | G21.5-0.9[Chip I3, T=120, Offsets=-2.5,2.5,0] | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 278.389583 | Observer's specified target RA [deg] |
| dec_targ | -10.568528 | Observer's specified target Dec [deg] |
| ra_nom | 278.35717067169 | Nominal RA [deg] |
| dec_nom | -10.62313406387 | Nominal Dec [deg] |
| roll_nom | 283.34160566938 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 9827.1999633908 | Sum of GTIs [s] |
| livetime | 9702.762040225 | Livetime [s] |
| ontime0 | 9817.4771423042 | Sum of GTIs [s] |
| ontime1 | 9827.1999633908 | Sum of GTIs [s] |
| ontime2 | 9827.1999633908 | Sum of GTIs [s] |
| ontime3 | 9827.1999633908 | Sum of GTIs [s] |
| ontime6 | 9827.1999633908 | Sum of GTIs [s] |
| ontime7 | 9827.1999633908 | Sum of GTIs [s] |
| l2events | 71046 | Number of level 2 events |



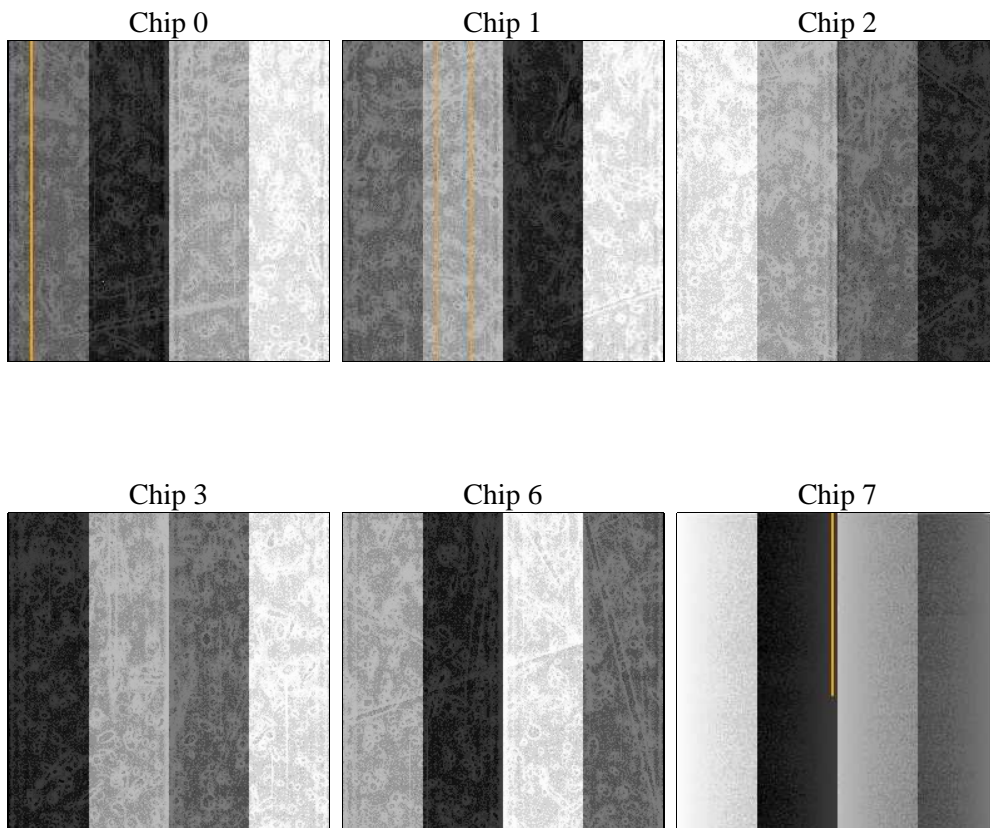
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 9700.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 9827.1999633908 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime0 | 9817.4771423042 | Sum of GTIs [s] |
| date | 2012-11-07T12:49:49 | Date and time of file creation | ontime1 | 9827.1999633908 | Sum of GTIs [s] |
| revision | 4 | Processing version of data | ontime2 | 9827.1999633908 | Sum of GTIs [s] |
| | | | ontime3 | 9827.1999633908 | Sum of GTIs [s] |
| | | | ontime6 | 9827.1999633908 | Sum of GTIs [s] |
| | | | ontime7 | 9827.1999633908 | Sum of GTIs [s] |
| | | | l1events | 300819 | Number of level 1 events |

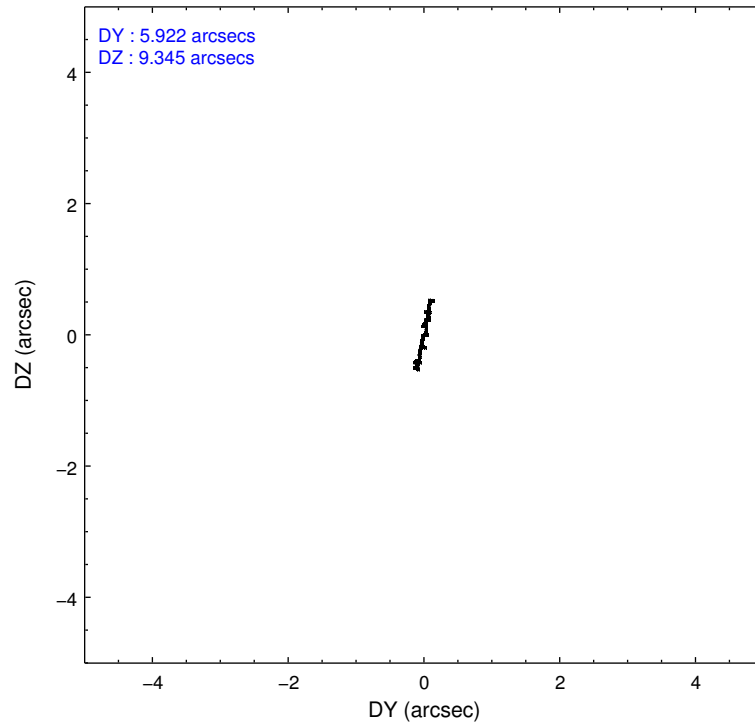
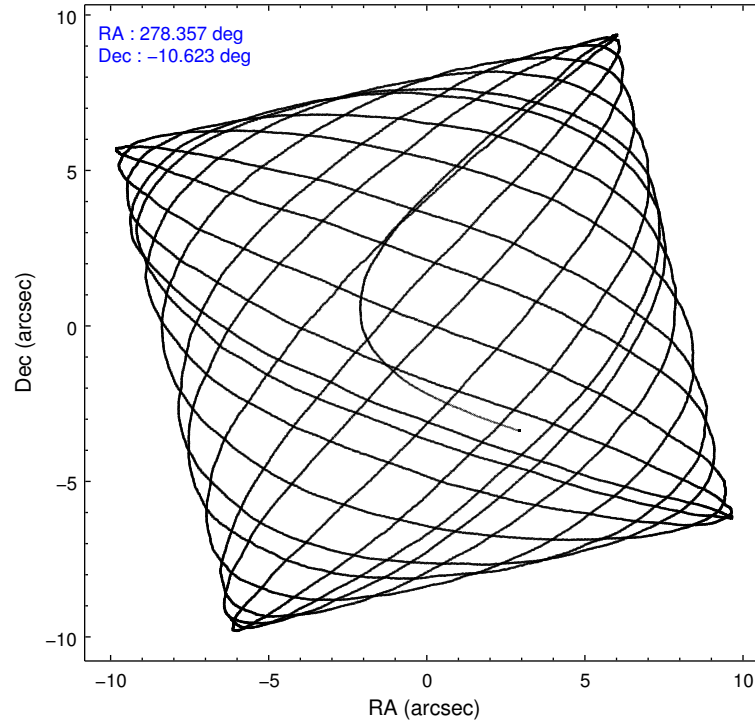
2.1.4 Events

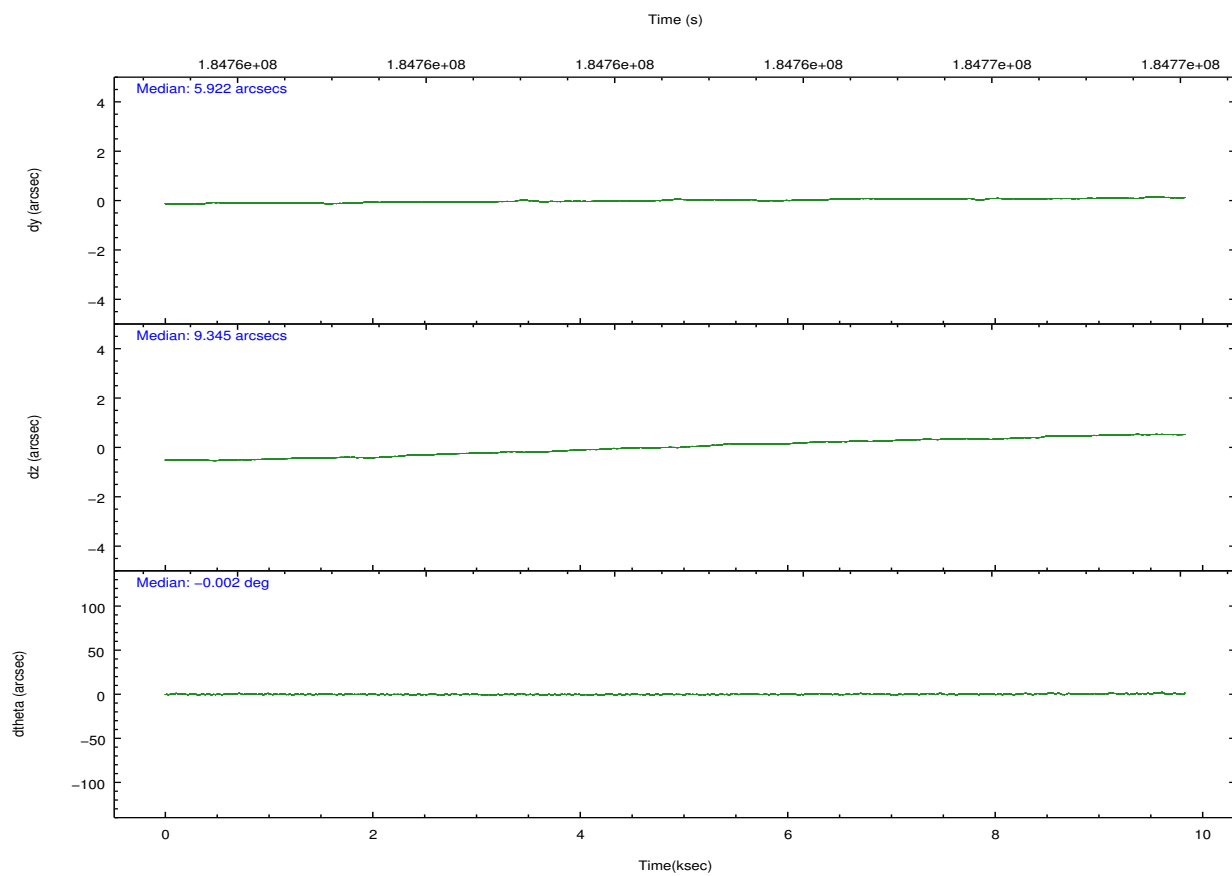
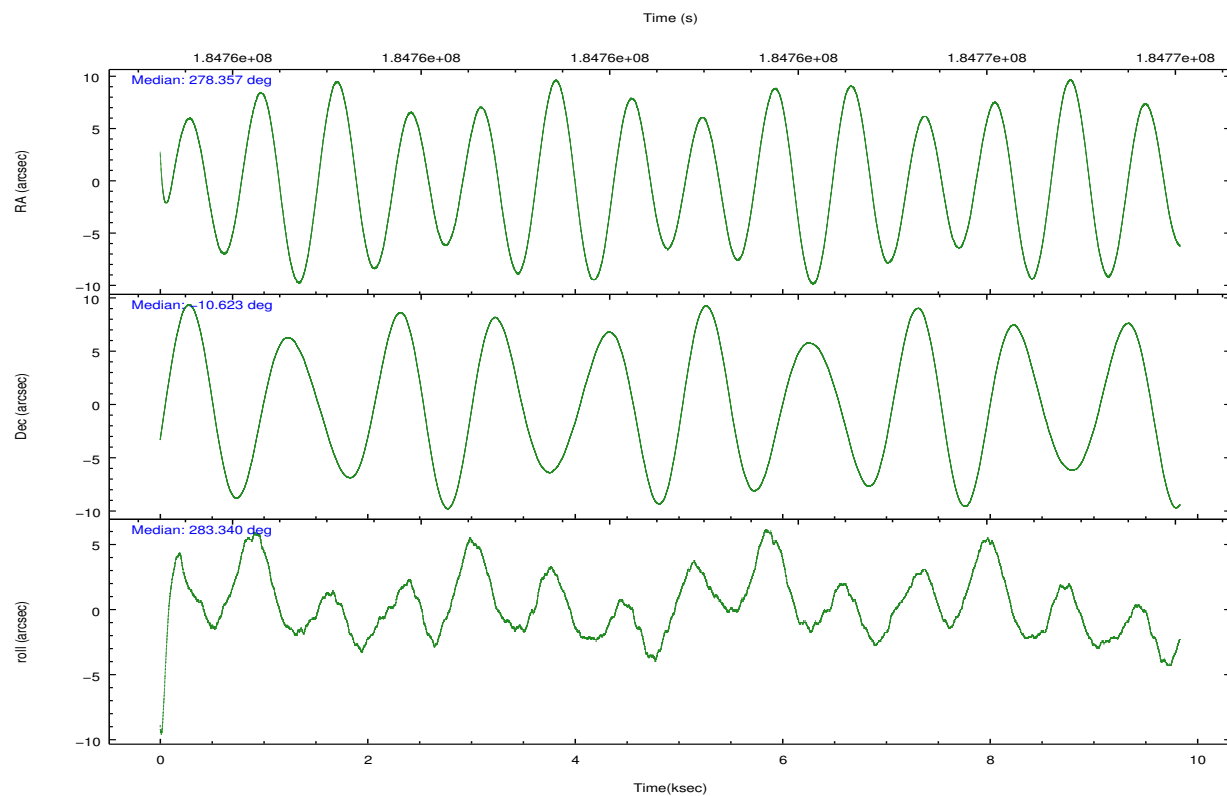
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 43834 | 41766 | 47187 | 77388 | 46594 | 44050 | grade 0 events | 2362 | 2287 | 2488 | 24726 | 2127 | 2221 |
| rejected events | 38597 | 36409 | 41811 | 42682 | 41447 | 22330 | | 5% | 5% | 5% | 31% | 4% | 5% |
| rejected % | 88% | 87% | 88% | 55% | 88% | 50% | grade 1 events | 23 | 23 | 28 | 244 | 26 | 32 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 1141 | 1136 | 1188 | 4935 | 1148 | 4689 |
| | | | | | | | | 2% | 2% | 2% | 6% | 2% | 10% |
| | | | | | | | grade 3 events | 554 | 598 | 536 | 1786 | 517 | 2254 |
| | | | | | | | | 1% | 1% | 1% | 2% | 1% | 5% |
| | | | | | | | grade 4 events | 509 | 578 | 573 | 1747 | 508 | 2295 |
| | | | | | | | | 1% | 1% | 1% | 2% | 1% | 5% |
| | | | | | | | grade 5 events | 1337 | 1370 | 1284 | 1768 | 1589 | 4724 |
| | | | | | | | | 3% | 3% | 2% | 2% | 3% | 10% |
| | | | | | | | grade 6 events | 929 | 1002 | 807 | 2262 | 1074 | 11122 |
| | | | | | | | | 2% | 2% | 1% | 2% | 2% | 25% |
| | | | | | | | grade 7 events | 36979 | 34772 | 40283 | 39920 | 39605 | 16713 |
| | | | | | | | | 84% | 83% | 85% | 51% | 85% | 37% |

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 | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 278.337947 | 278.3571706716926 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -10.603310 | -10.62313406386979 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 283.129400 | 283.3416056693781 | [s] Primary exposure time | 0.000000 | 3.2 |
| [s] Window start time (MET) | 182563264.184000 | 182563264.184000 | | | |
| [s] Window stop time (MET) | 185241664.184000 | 185241664.184000 | | | |
| [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) | 184757856.184000 | 184756610.06319 | | | |
| Observation start date | 2003-11-09T09:36:32 | 2003-11-09T09:16:50 | | | |
| [s] Observation end time (MET) | 184767556.184000 | 184767706.71367 | | | |
| Observation end date | 2003-11-09T12:18:12 | 2003-11-09T12:21:46 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



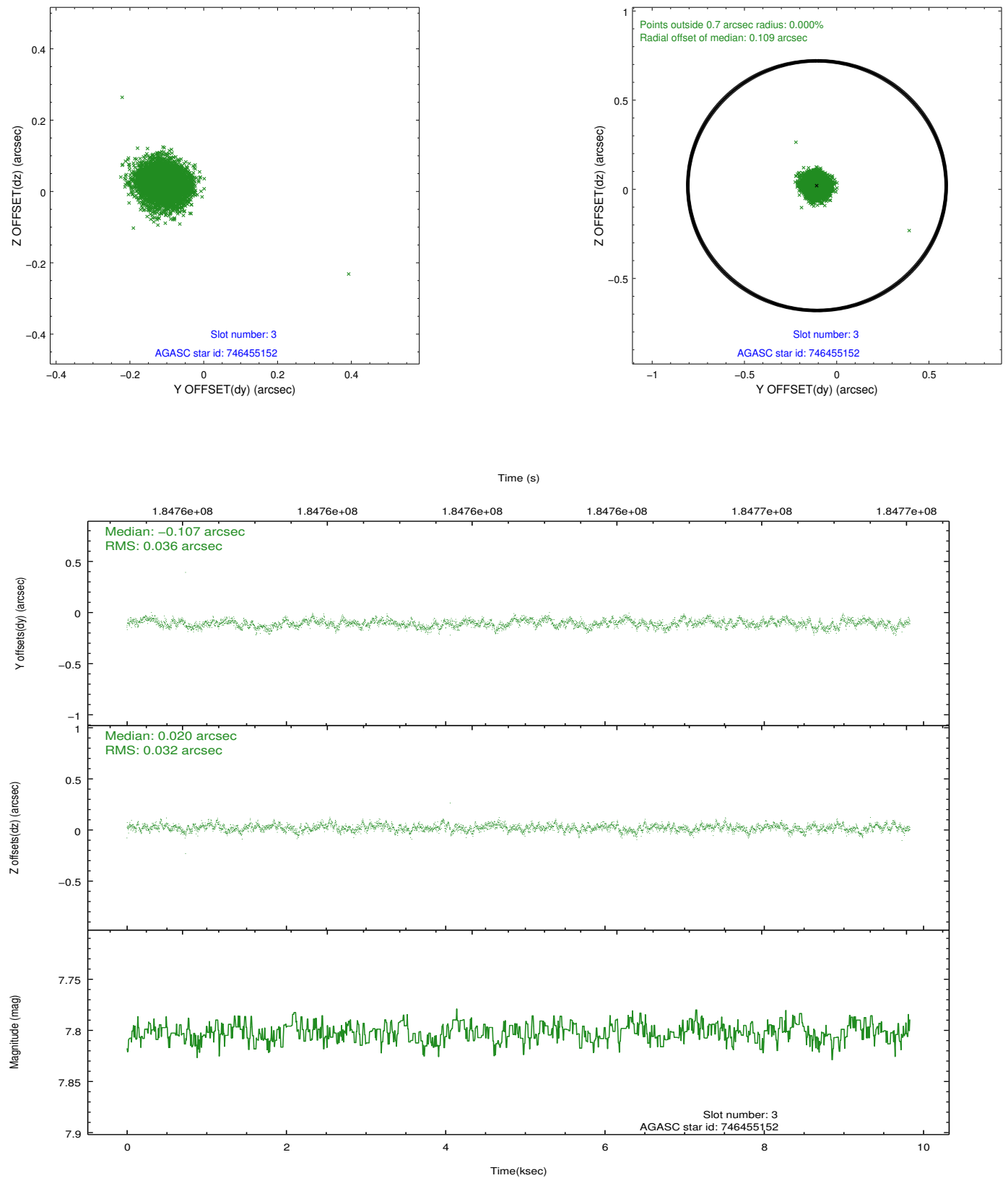


Slot Statistics

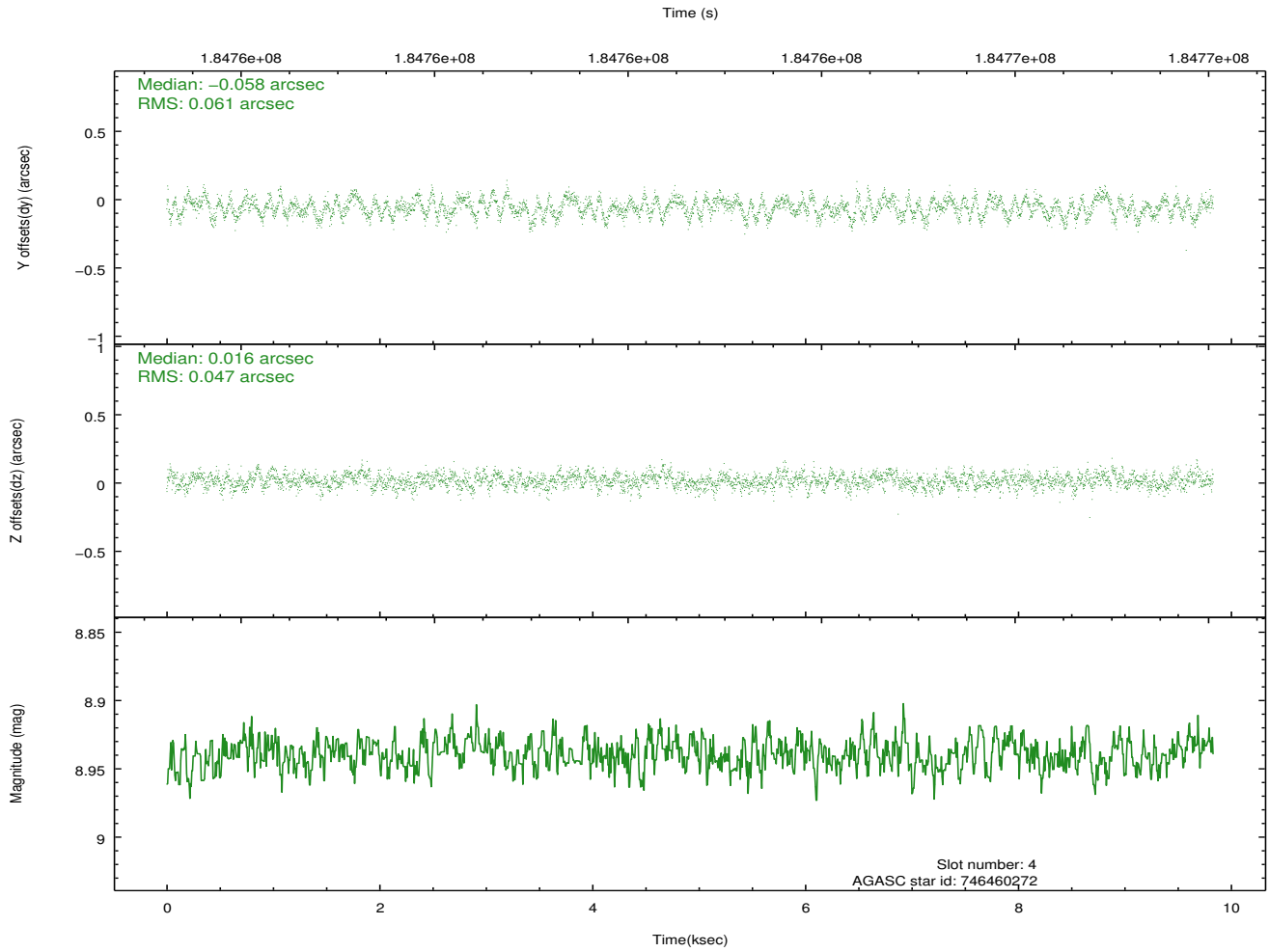
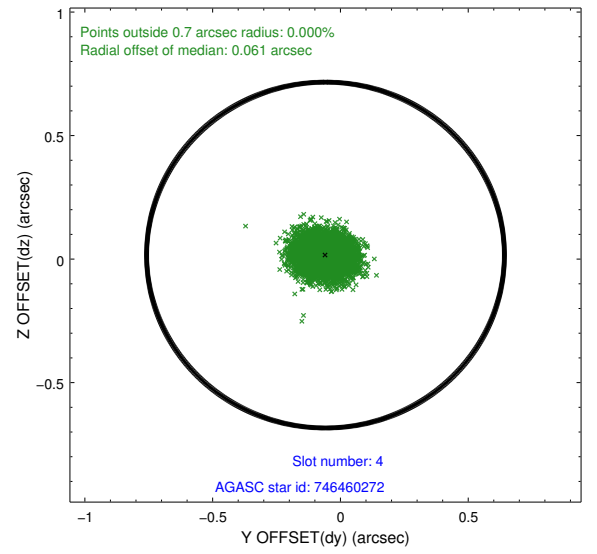
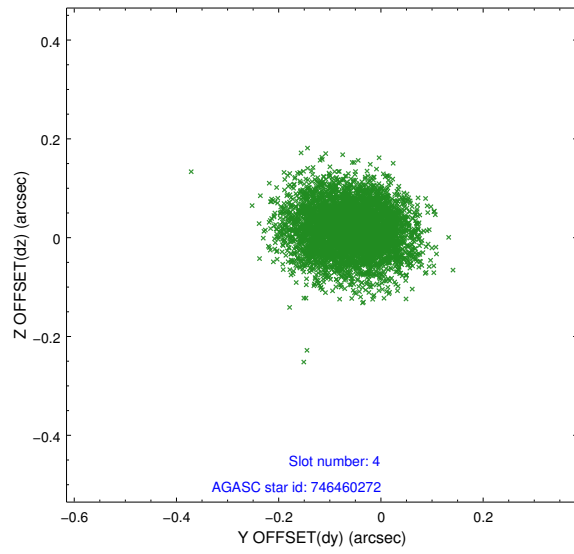
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.23 | 2398 | -0.001 | 0.042 | 0.011 | 0.017 | 0.000000 | 0.000000 | 933.79 | -832.76 |
| 1 | FID | ACIS-I-5 | 7.23 | 2398 | -0.138 | 0.030 | 0.008 | 0.013 | 0.000000 | 0.000000 | -1814.16 | 1064.44 |
| 2 | FID | ACIS-I-6 | 7.26 | 2398 | 0.048 | -0.002 | 0.015 | 0.022 | 0.000000 | 0.000000 | 398.79 | 1709.53 |
| 3 | GUIDE | 746455152 | 7.80 | 4797 | -0.107 | 0.020 | 0.050 | 0.080 | 278.447893 | -9.976732 | -2108.10 | 892.16 |
| 4 | GUIDE | 746460272 | 8.94 | 4794 | -0.058 | 0.016 | 0.083 | 0.131 | 278.847488 | -10.152127 | -1170.68 | 2127.43 |
| 5 | GUIDE | 746462392 | 8.54 | 4794 | 0.109 | 0.041 | 0.077 | 0.118 | 279.038421 | -10.890715 | 1573.69 | 2176.94 |
| 6 | GUIDE | 746995400 | 9.49 | 4791 | 0.120 | -0.097 | 0.094 | 0.150 | 278.078957 | -11.289885 | 2200.40 | -1451.45 |
| 7 | GUIDE | 746460328 | 9.78 | 4794 | -0.060 | 0.018 | 0.134 | 0.222 | 278.603974 | -9.898096 | -2256.96 | 1495.17 |

2.4 Star Slots

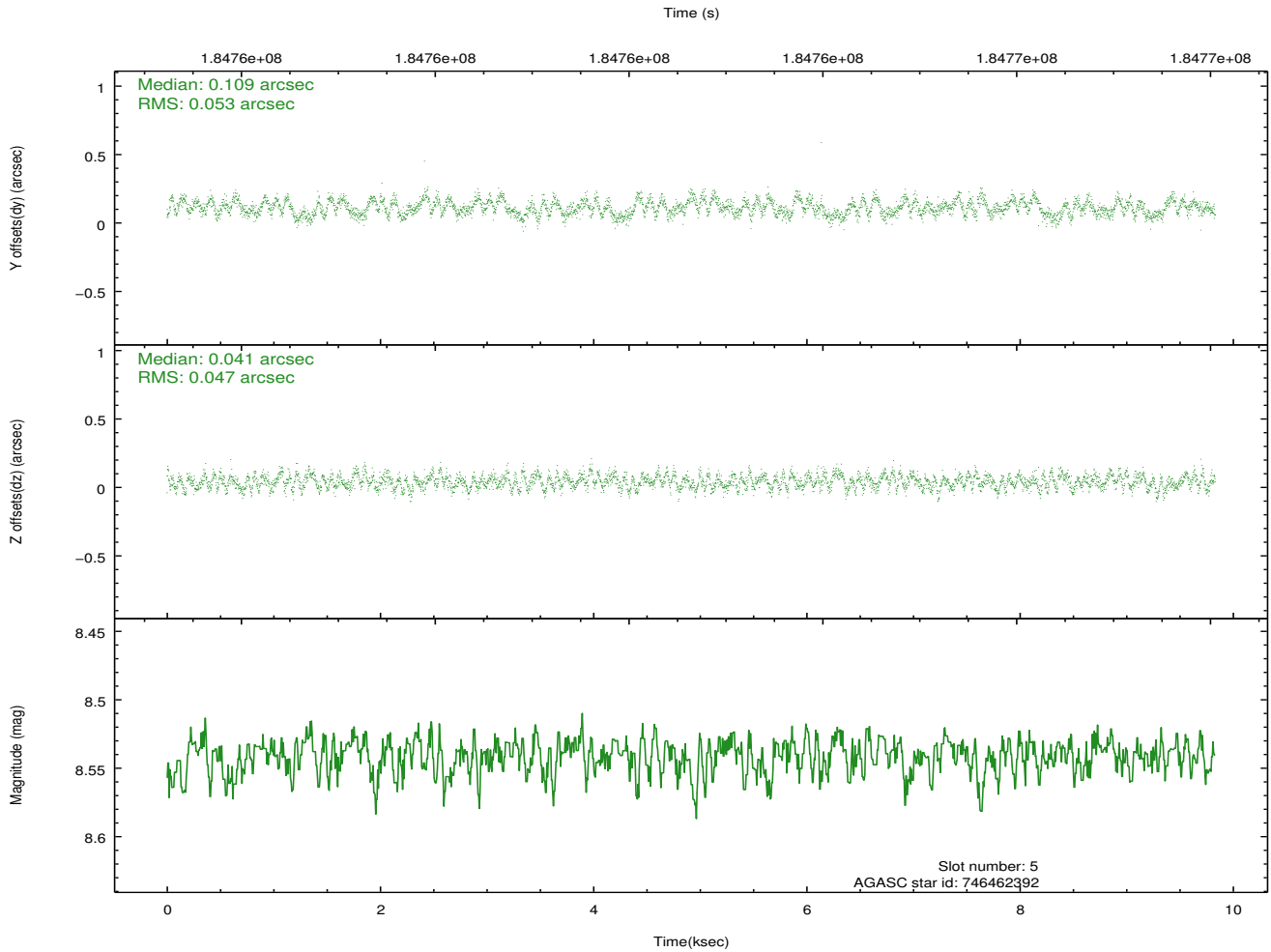
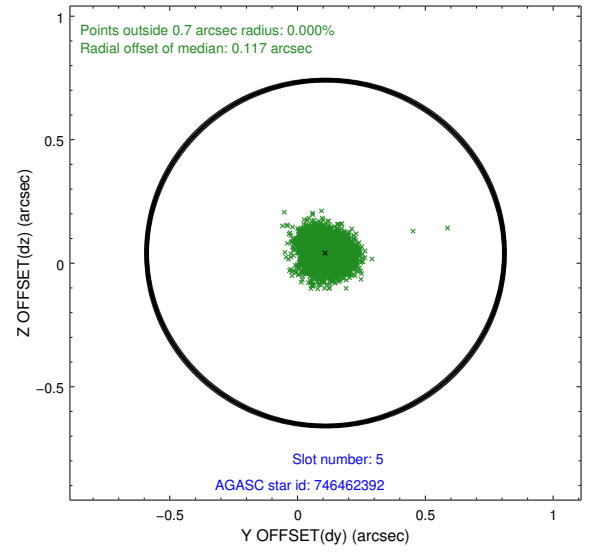
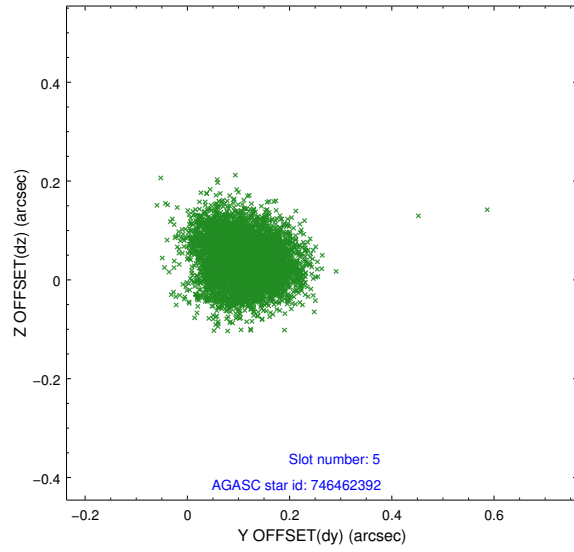
2.4.1 Slot 3



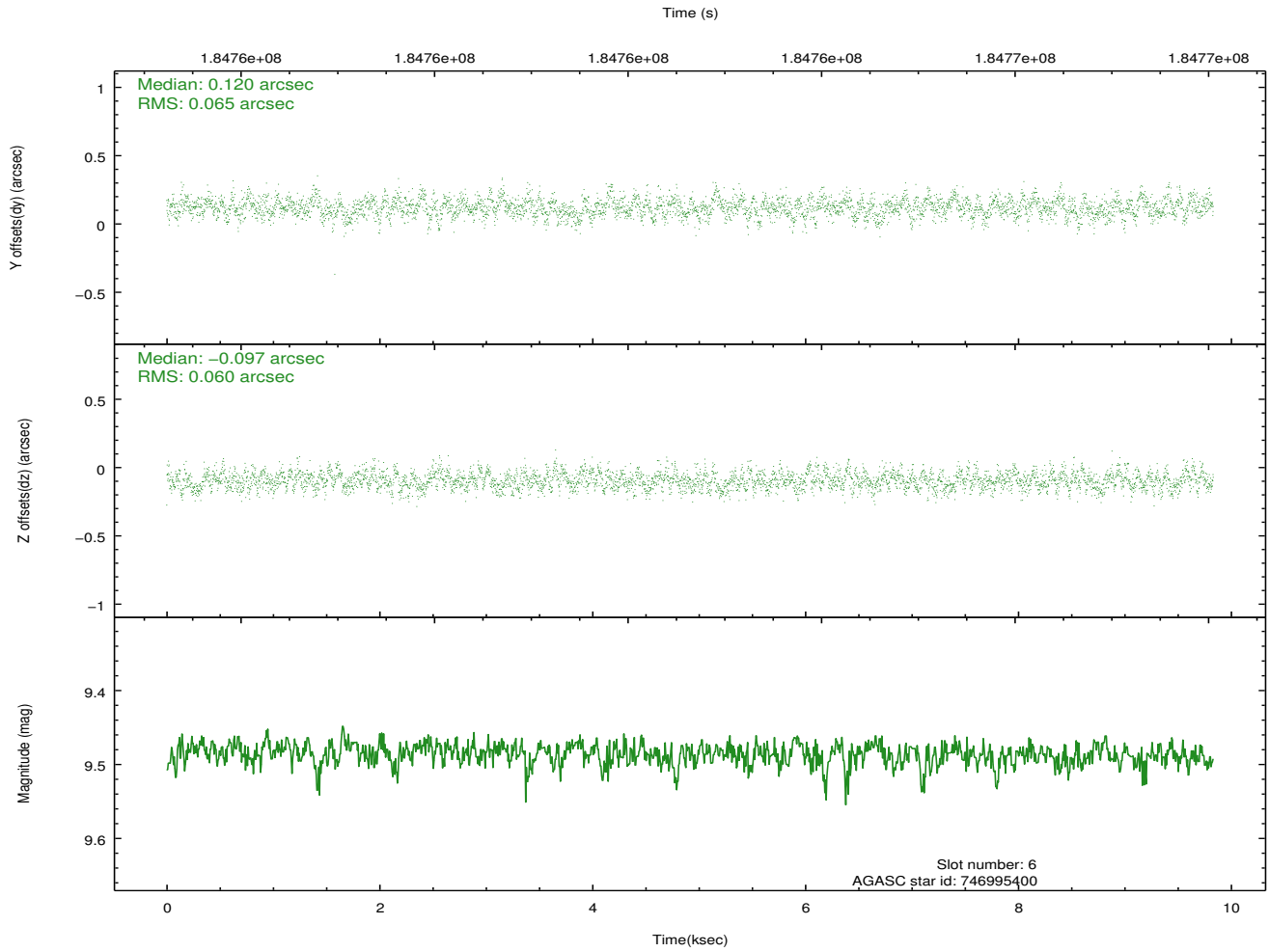
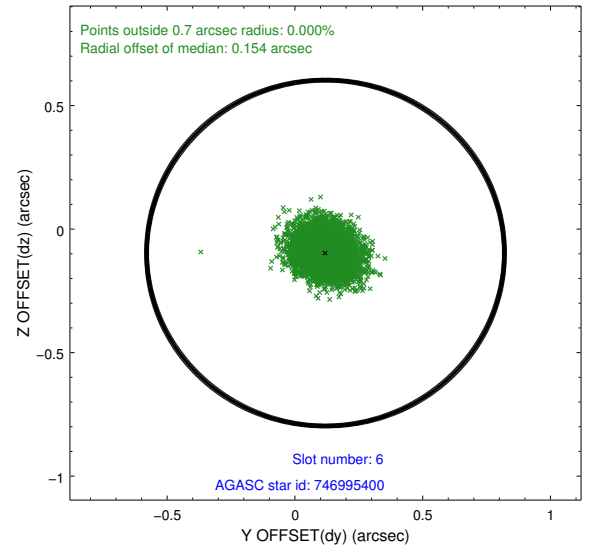
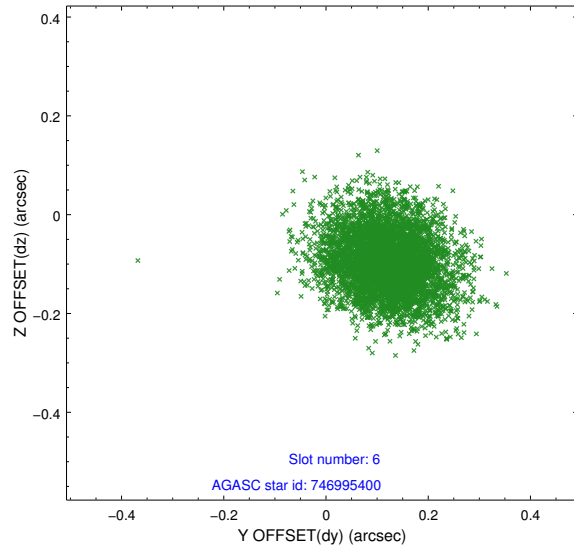
2.4.2 Slot 4



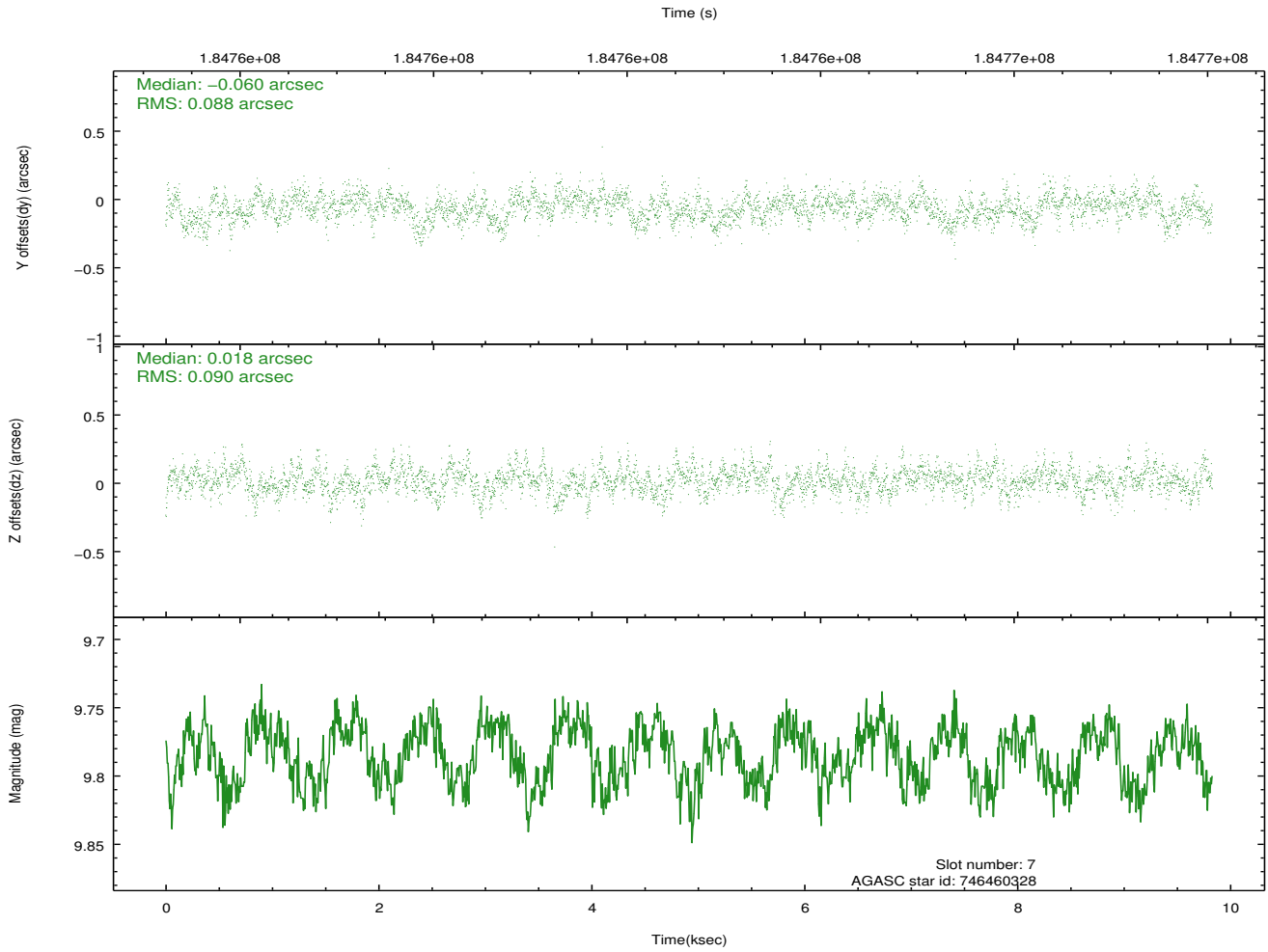
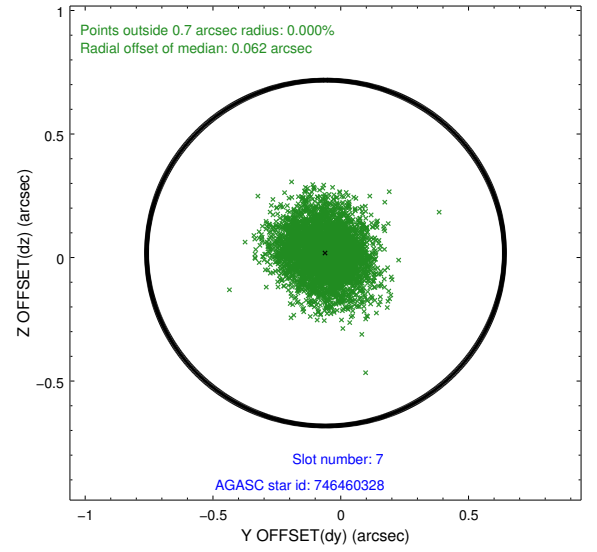
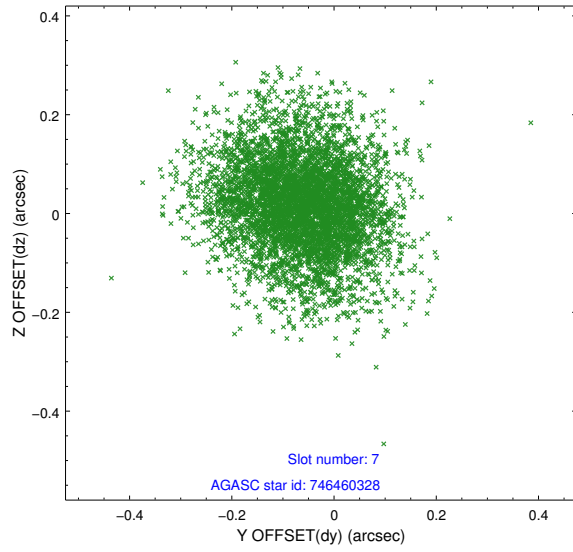
2.4.3 Slot 5



2.4.4 Slot 6

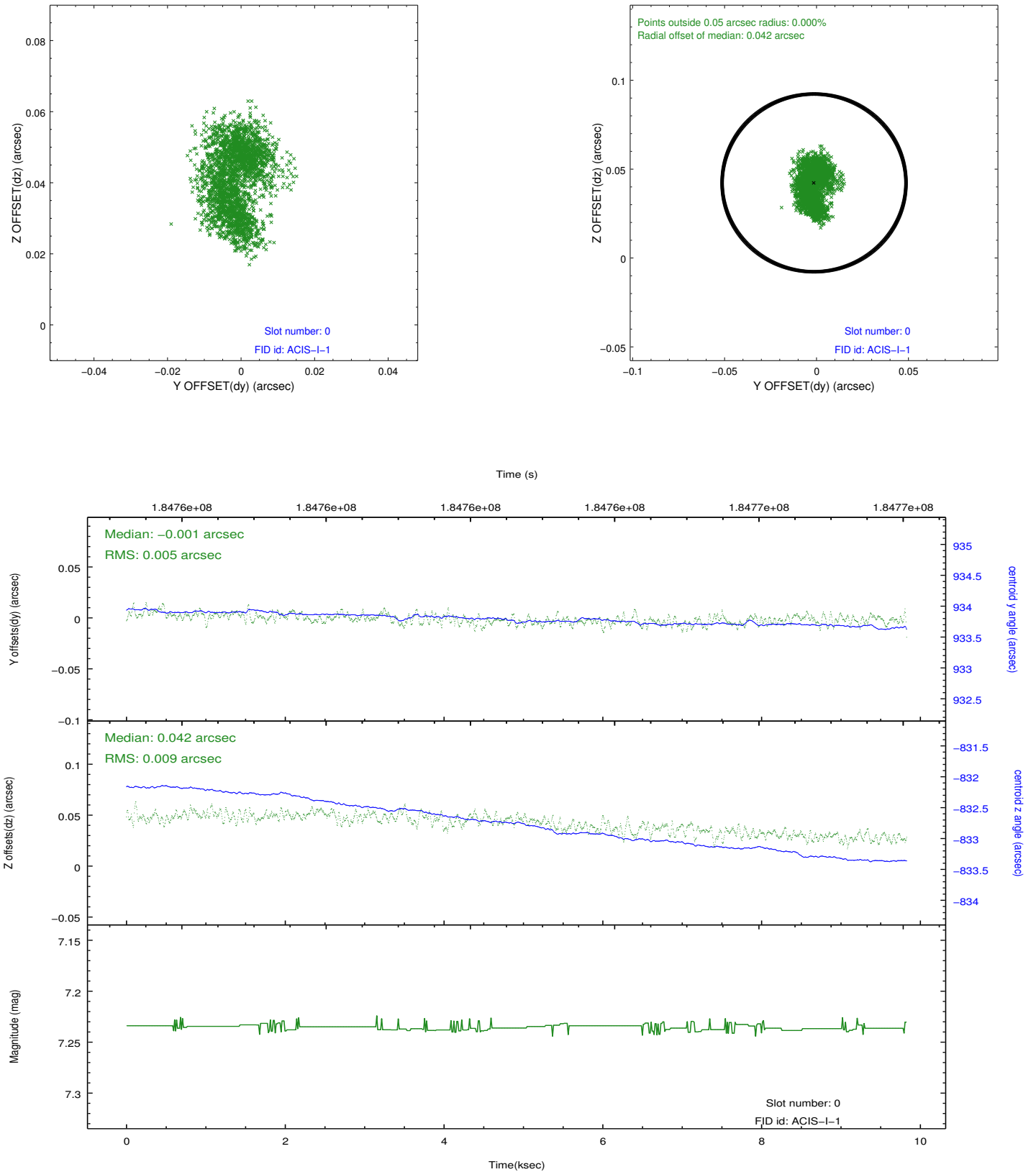


2.4.5 Slot 7

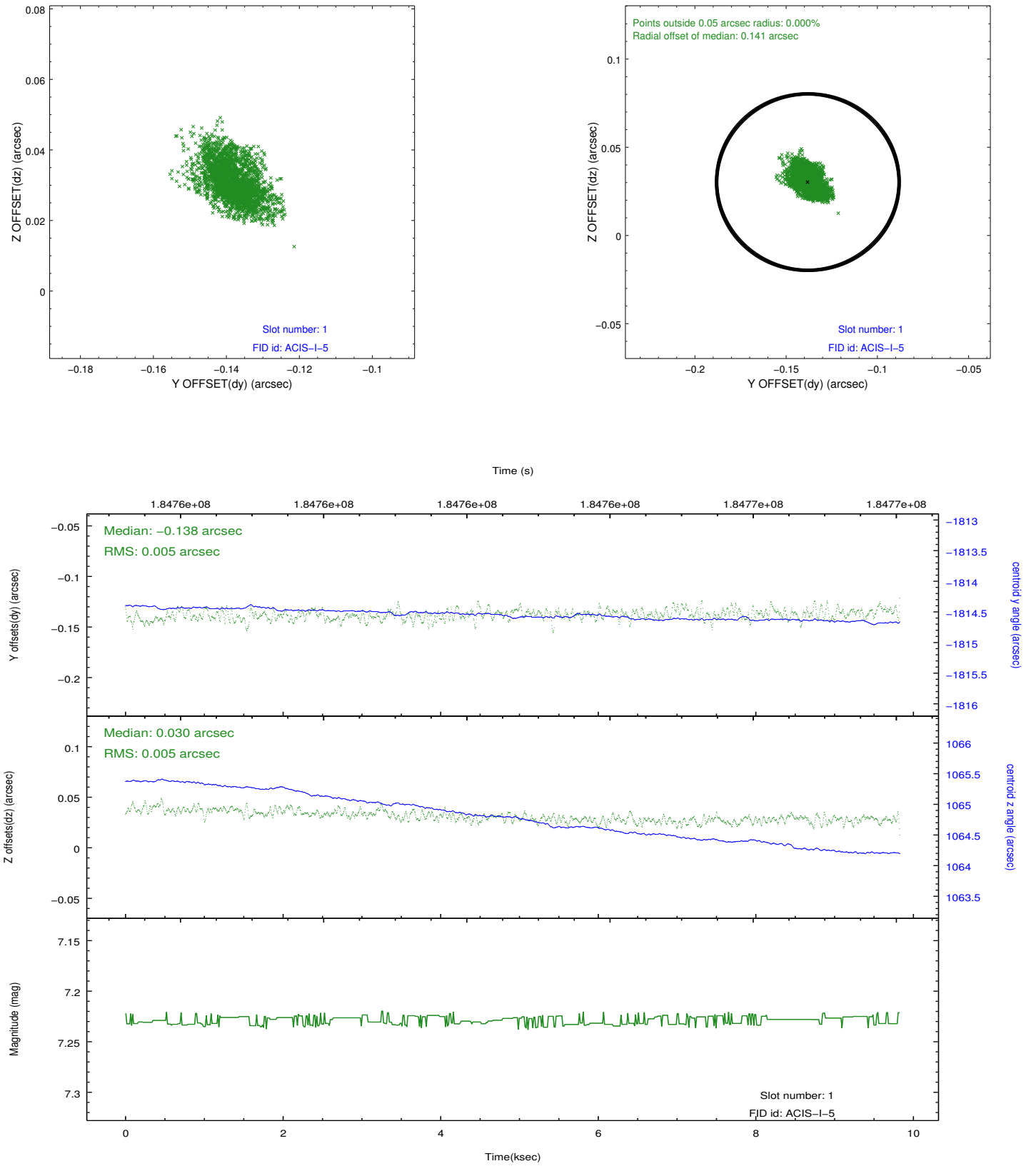


2.5 FID Slots

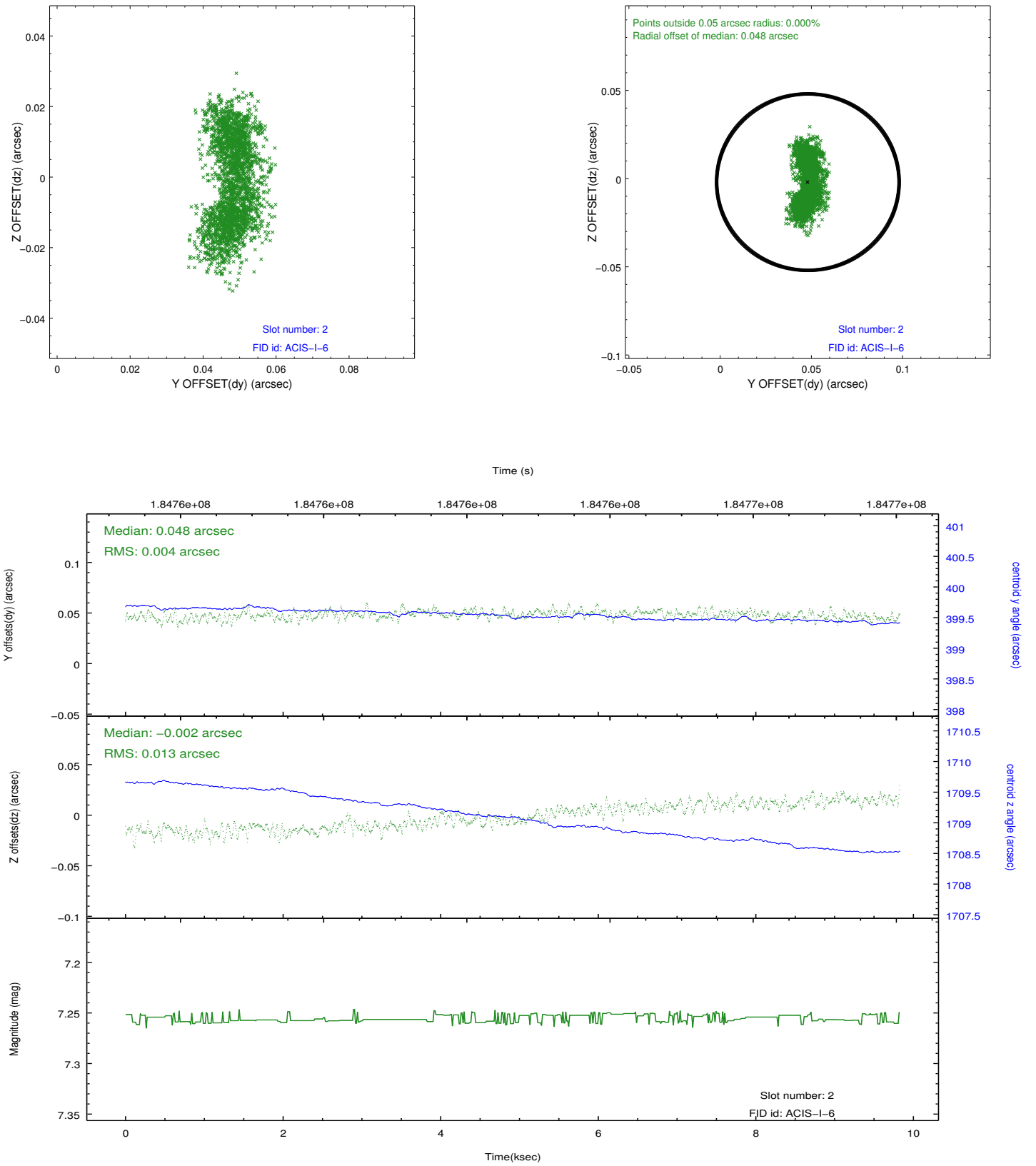
2.5.1 Slot 0



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) | 2012.11.19 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 9.827 |

A.2 Comments

Window preference met.