

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 3540 - L2 Version 3
Chandra X-Ray Center

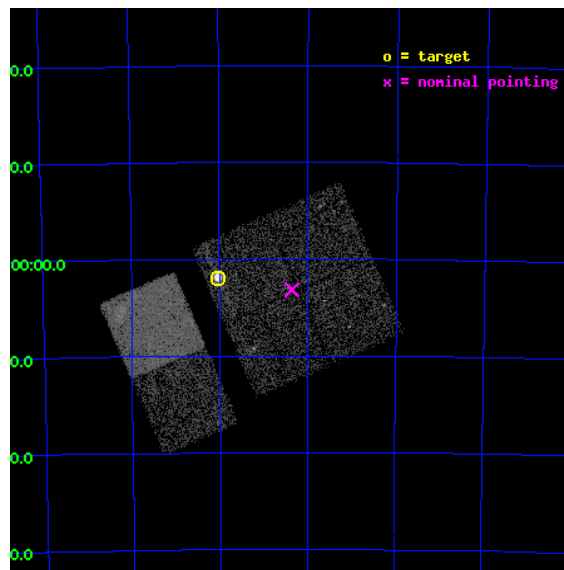
L2 Processing Date : Oct 22 2012

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1 Front

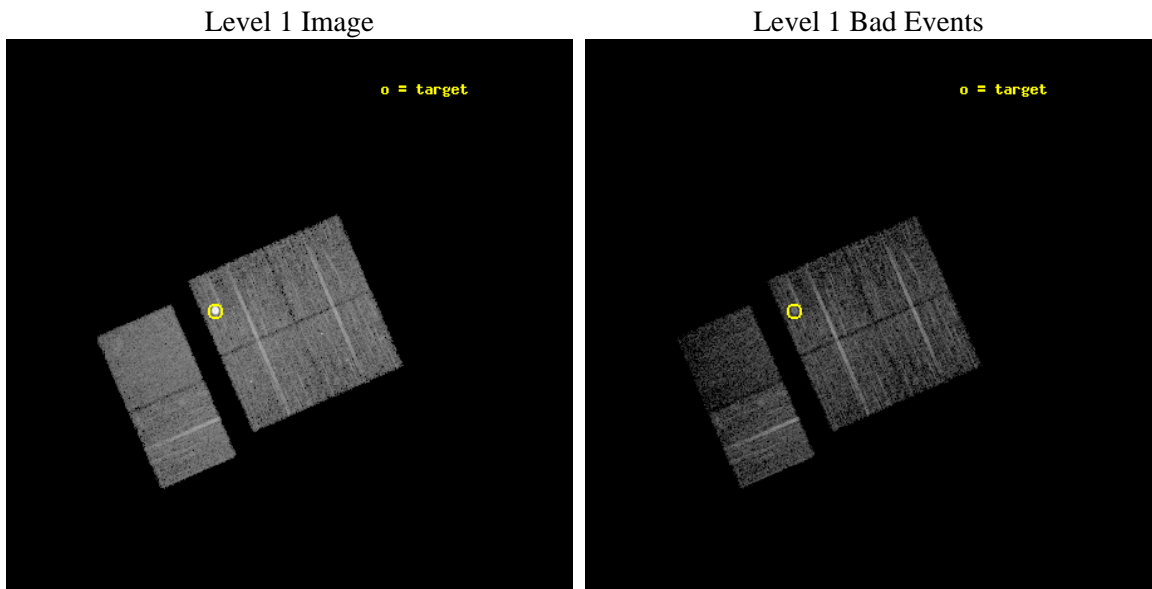
| | | |
|----------|---|---|
| seq_num | 590295 | Sequence number |
| obs_id | 3540 | Observation id |
| title | AO4A ACIS-I CALIBRATION OBSERVATIONS OF E0102-72 | Proposal title |
| observer | Dr. CXC Calibration | Principal investigator |
| object | E0102-72[I3,-120,-4.0,6.5.0] | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 16.01 | Observer's specified target RA [deg] |
| dec_targ | -72.032028 | Observer's specified target Dec [deg] |
| ra_nom | 15.5906020701 | Nominal RA [deg] |
| dec_nom | -72.052963649832 | Nominal Dec [deg] |
| roll_nom | 246.43200146637 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 7731.199971199 | Sum of GTIs [s] |
| livetime | 7633.302861994 | Livetime [s] |
| ontime0 | 7731.199971199 | Sum of GTIs [s] |
| ontime1 | 7731.199971199 | Sum of GTIs [s] |
| ontime2 | 7727.9590109587 | Sum of GTIs [s] |
| ontime3 | 7731.199971199 | Sum of GTIs [s] |
| ontime6 | 7727.9591304958 | Sum of GTIs [s] |
| ontime7 | 7731.199971199 | Sum of GTIs [s] |
| l2events | 55053 | Number of level 2 events |



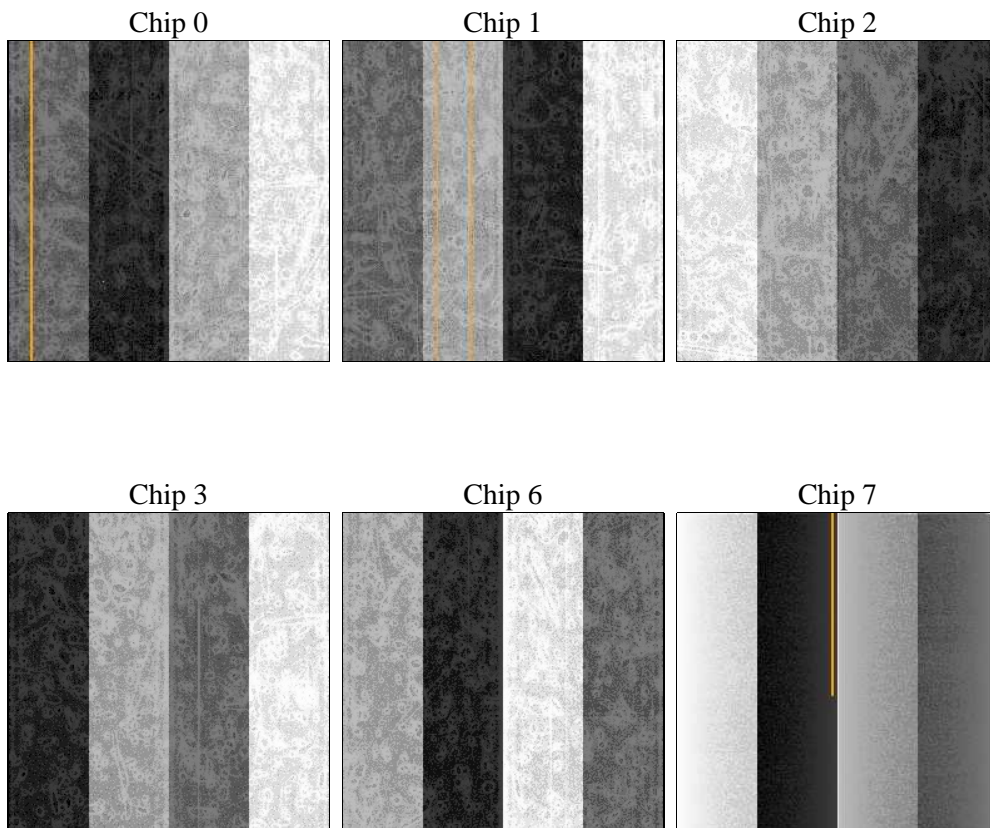
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 7973.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 7731.199971199 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime0 | 7731.199971199 | Sum of GTIs [s] |
| date | 2012-10-22T04:02:10 | Date and time of file creation | ontime1 | 7731.199971199 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 7727.9590109587 | Sum of GTIs [s] |
| | | | ontime3 | 7731.199971199 | Sum of GTIs [s] |
| | | | ontime6 | 7727.9591304958 | Sum of GTIs [s] |
| | | | ontime7 | 7731.199971199 | Sum of GTIs [s] |
| | | | l1events | 241601 | Number of level 1 events |

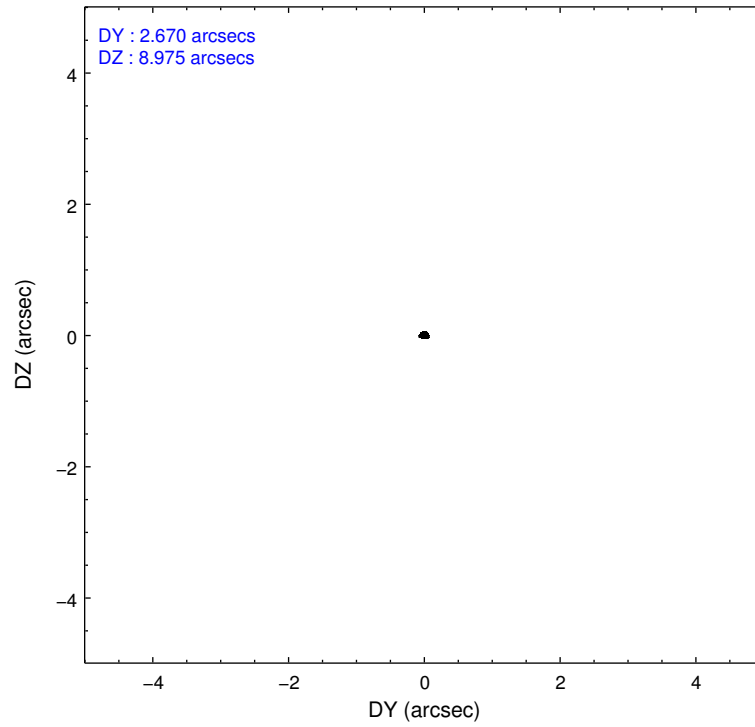
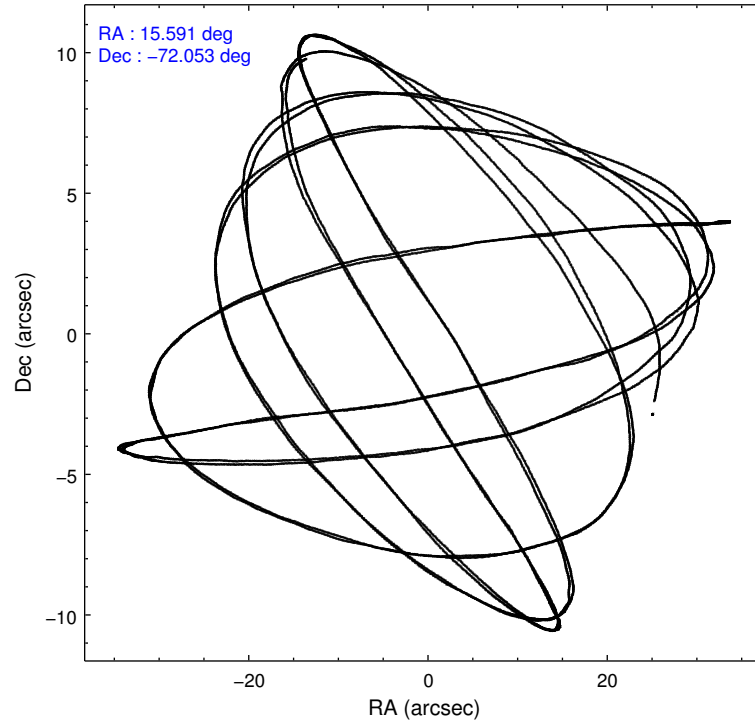
2.1.4 Events

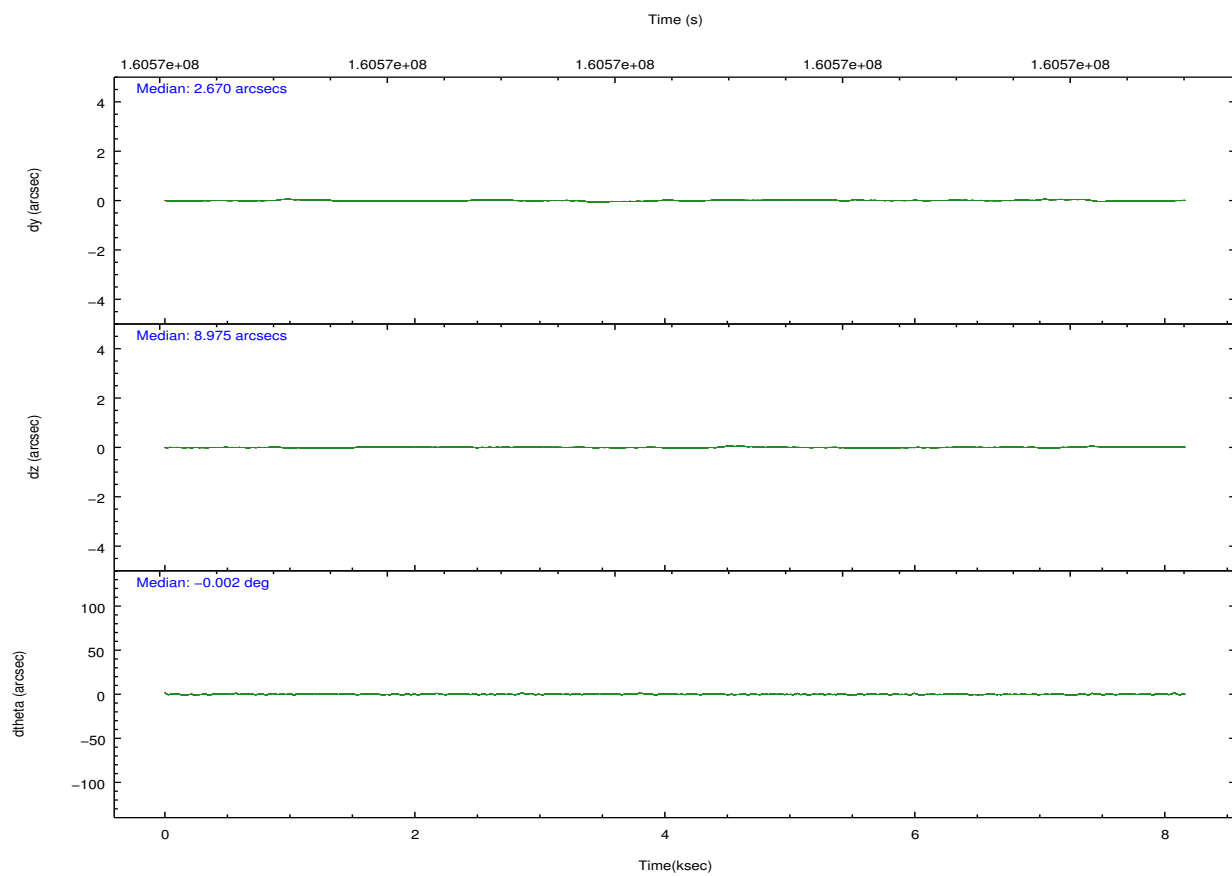
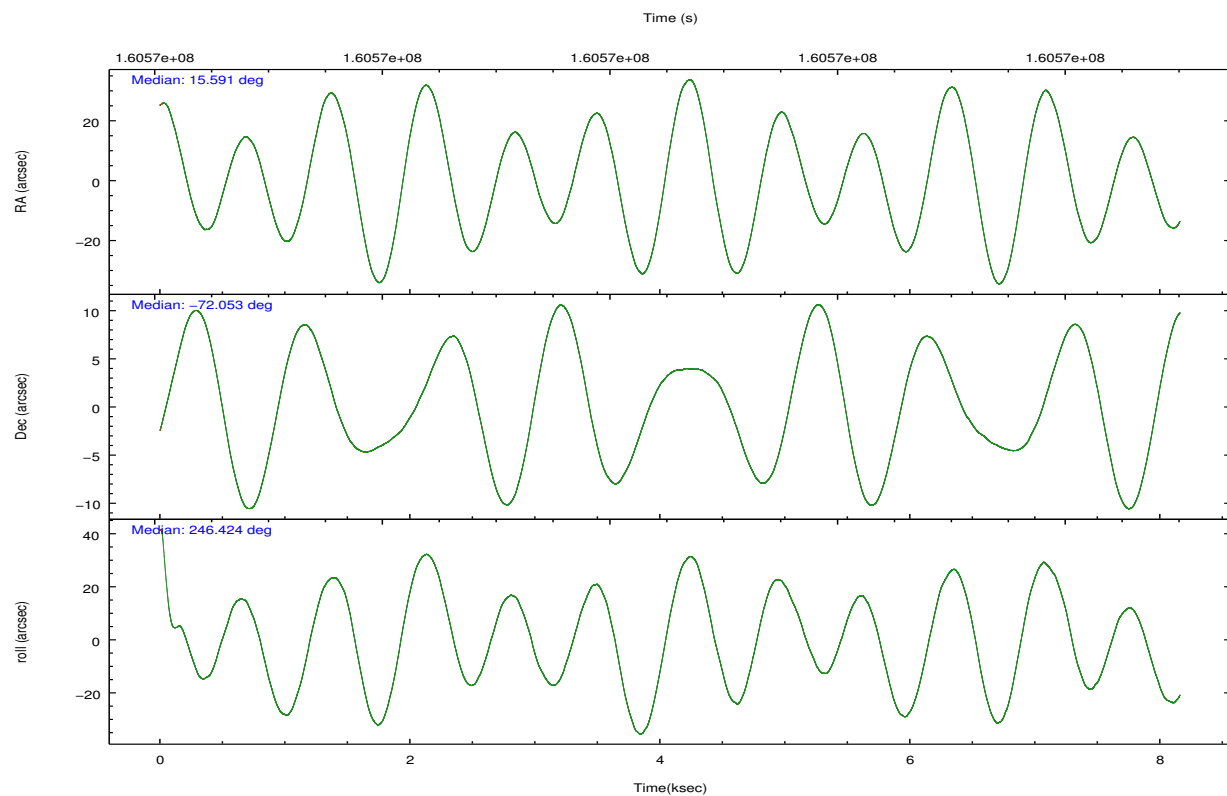
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 36503 | 33789 | 37642 | 58958 | 38625 | 36084 | grade 0 events | 1818 | 1570 | 1841 | 20317 | 1687 | 2275 |
| rejected events | 32261 | 29772 | 33582 | 34005 | 34459 | 17621 | | 4% | 4% | 4% | 34% | 4% | 6% |
| rejected % | 88% | 88% | 89% | 57% | 89% | 48% | grade 1 events | 21 | 9 | 23 | 160 | 16 | 34 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 913 | 816 | 846 | 2334 | 836 | 3909 |
| | | | | | | | | 2% | 2% | 2% | 3% | 2% | 10% |
| | | | | | | | grade 3 events | 452 | 431 | 388 | 782 | 457 | 1853 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 5% |
| | | | | | | | grade 4 events | 375 | 463 | 415 | 762 | 457 | 1805 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 5% |
| | | | | | | | grade 5 events | 1000 | 1121 | 940 | 1239 | 1236 | 3699 |
| | | | | | | | | 2% | 3% | 2% | 2% | 3% | 10% |
| | | | | | | | grade 6 events | 684 | 737 | 574 | 770 | 730 | 8626 |
| | | | | | | | | 1% | 2% | 1% | 1% | 1% | 23% |
| | | | | | | | grade 7 events | 31240 | 28642 | 32615 | 32594 | 33206 | 13883 |
| | | | | | | | | 85% | 84% | 86% | 55% | 85% | 38% |

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 | 15.580303 | 15.59060207010041 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -72.025810 | -72.05296364983182 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 246.213460 | 246.4320014663737 | [s] Primary exposure time | 0.000000 | 3.2 |
| [s] Window start time (MET) | 158976064.184000 | 158976064.184000 | | | |
| [s] Window stop time (MET) | 161654464.184000 | 161654464.184000 | | | |
| [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) | 160566637.184000 | 160566261.047 | | | |
| Observation start date | 2003-02-02T09:49:33 | 2003-02-02T09:44:21 | | | |
| [s] Observation end time (MET) | 160574610.184000 | 160574743.94735 | | | |
| Observation end date | 2003-02-02T12:02:26 | 2003-02-02T12:05:43 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



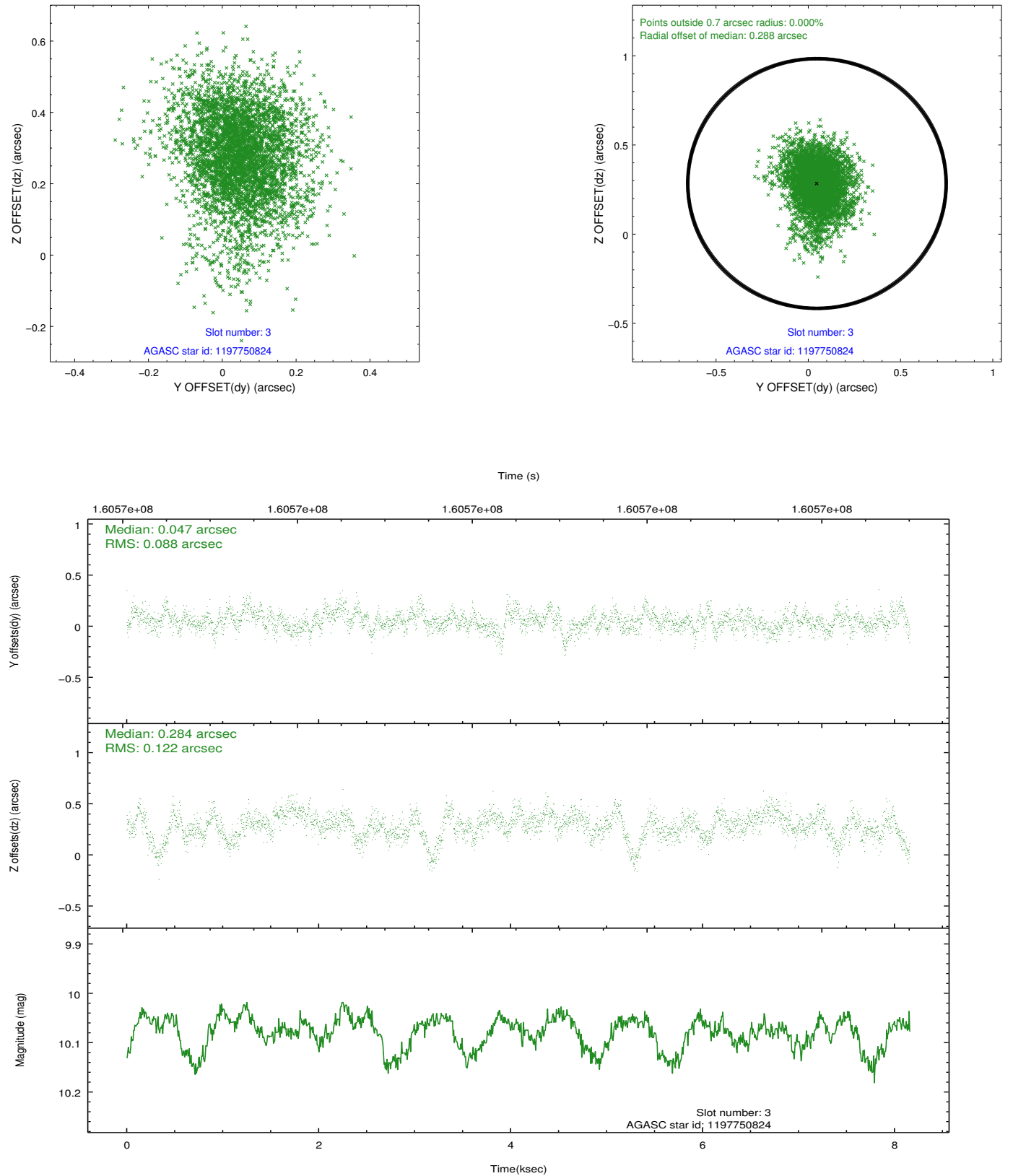


Slot Statistics

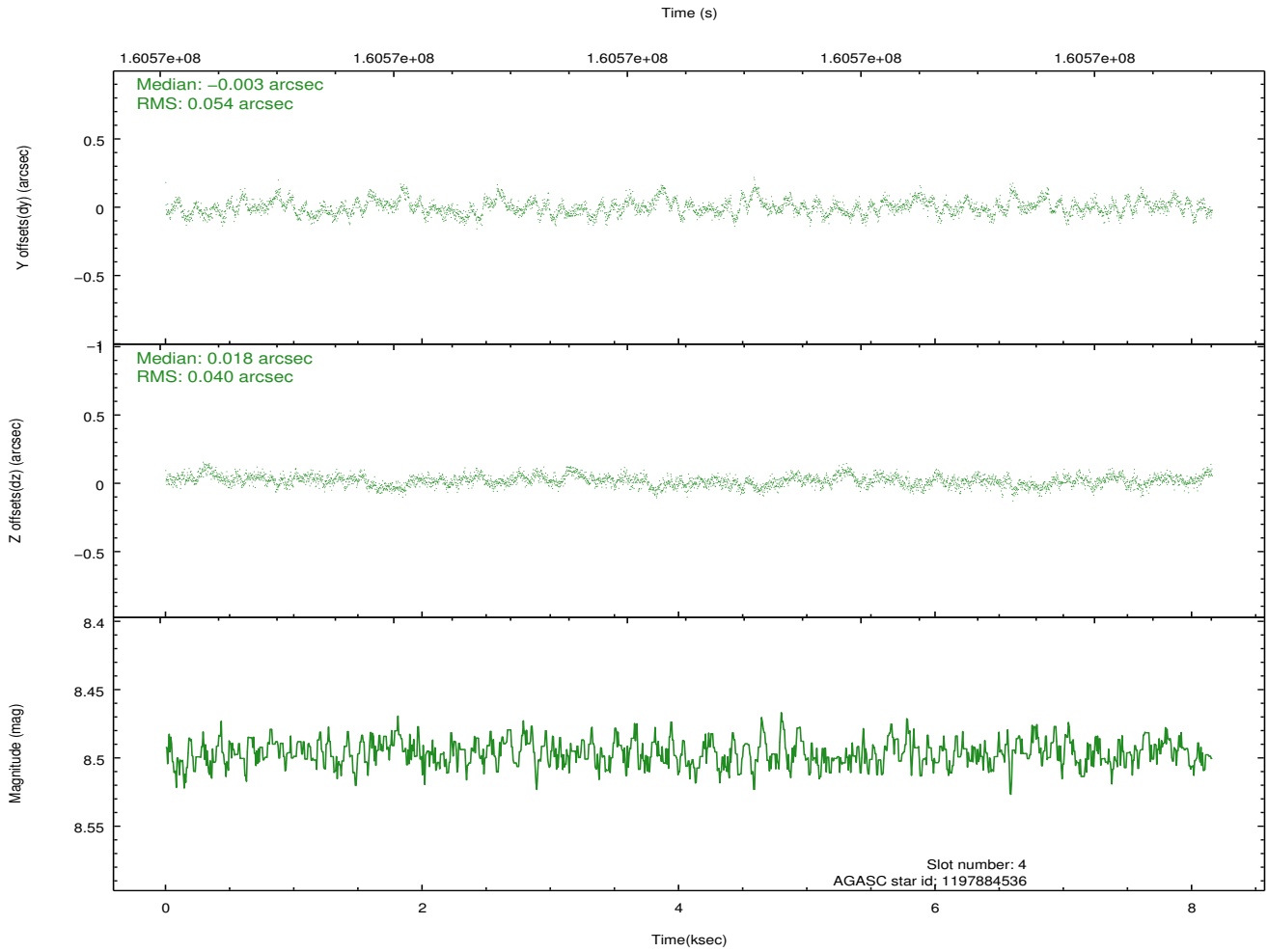
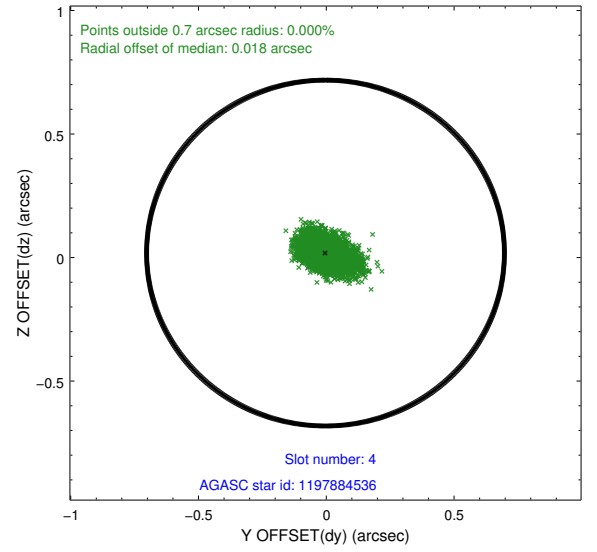
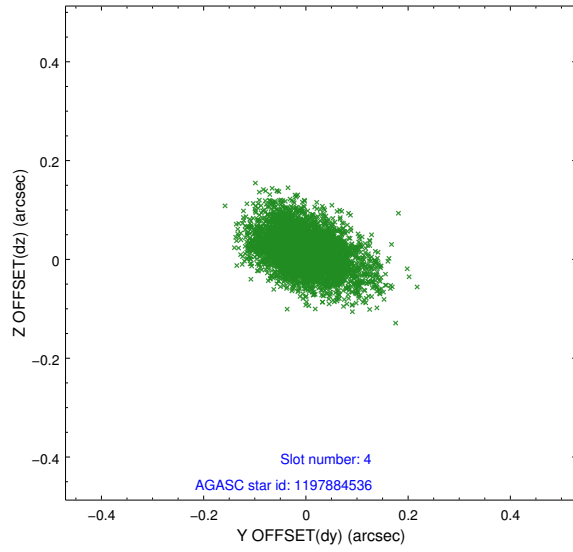
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|-------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.25 | 1991 | -0.032 | 0.063 | 0.006 | 0.010 | 0.000000 | 0.000000 | 937.10 | -832.35 |
| 1 | FID | ACIS-I-5 | 7.24 | 1990 | -0.060 | 0.024 | 0.006 | 0.010 | 0.000000 | 0.000000 | -1810.66 | 1064.74 |
| 2 | FID | ACIS-I-6 | 7.26 | 1990 | 0.001 | -0.016 | 0.006 | 0.011 | 0.000000 | 0.000000 | 401.92 | 1709.99 |
| 3 | GUIDE | 1197750824 | 10.08 | 3969 | 0.047 | 0.284 | 0.153 | 0.273 | 14.791487 | -71.393477 | -1711.50 | -1744.75 |
| 4 | GUIDE | 1197884536 | 8.50 | 3981 | -0.003 | 0.018 | 0.069 | 0.120 | 17.160729 | -71.835289 | -1321.89 | 1355.13 |
| 5 | GUIDE | 1197885328 | 7.23 | 3981 | -0.040 | -0.103 | 0.060 | 0.093 | 16.283090 | -71.733943 | -1277.34 | 304.10 |
| 6 | GUIDE | 1197749776 | 9.90 | 3978 | 0.236 | -0.120 | 0.137 | 0.221 | 12.674349 | -72.322893 | 2330.38 | -2443.12 |
| 7 | GUIDE | 1198189696 | 7.38 | 3980 | -0.240 | -0.071 | 0.044 | 0.070 | 15.223750 | -72.697522 | 2368.44 | 626.31 |

2.4 Star Slots

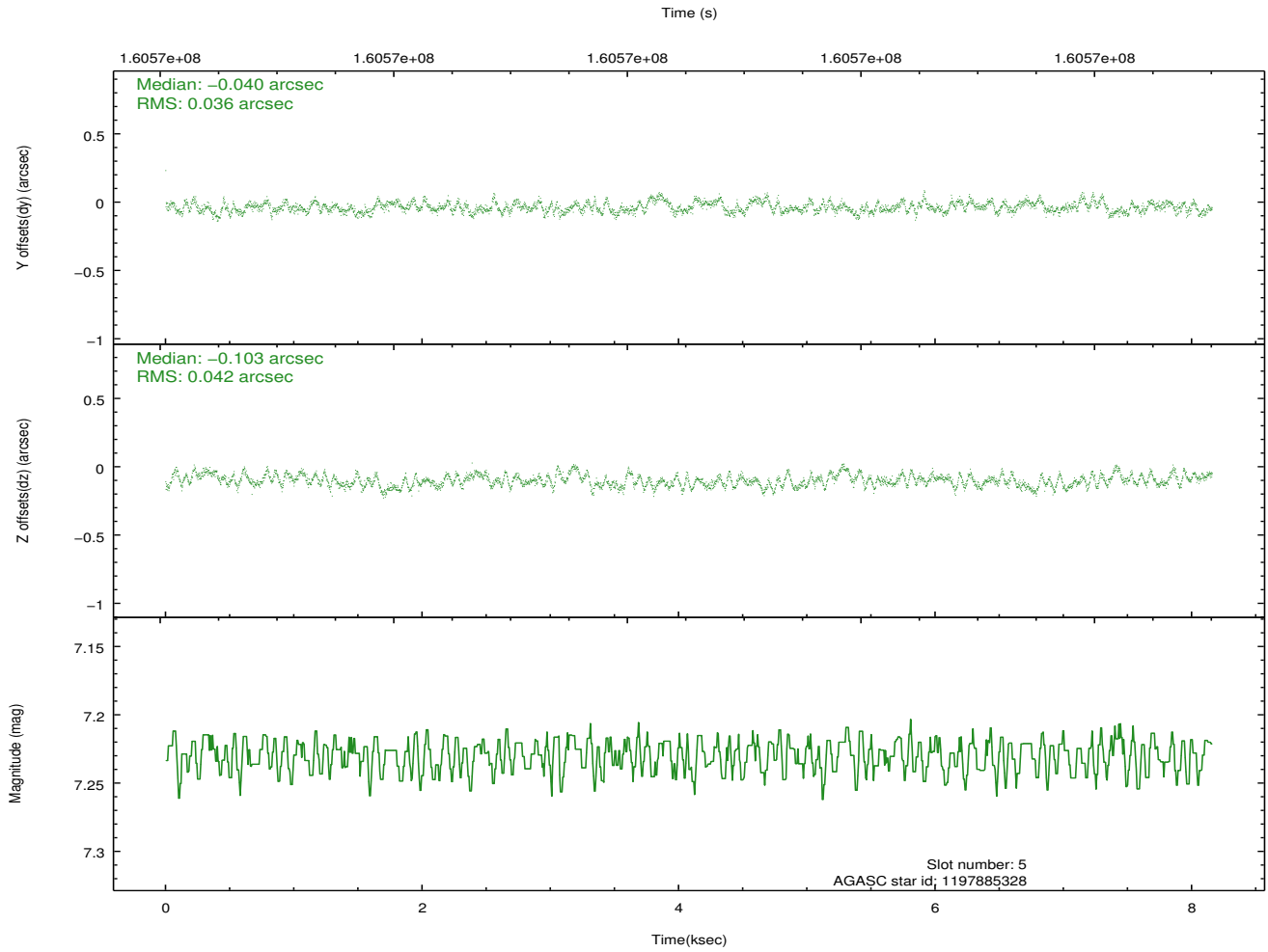
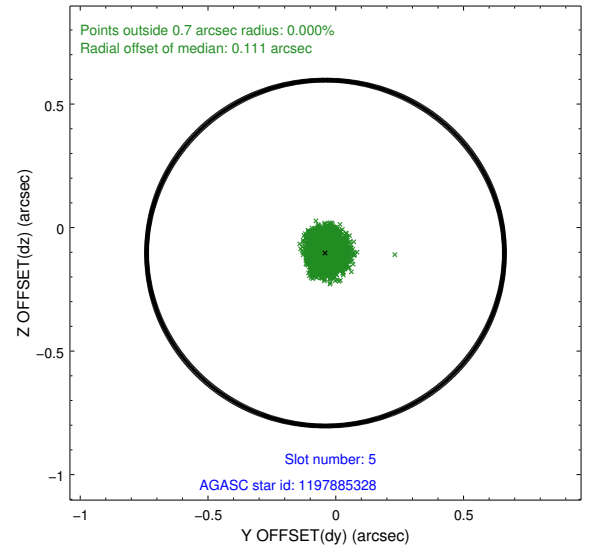
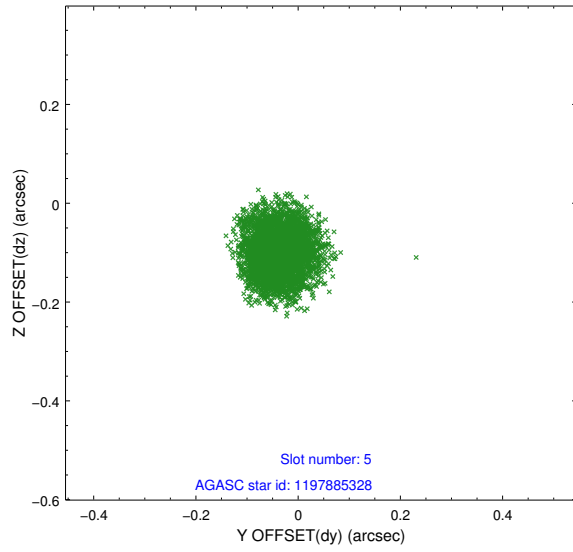
2.4.1 Slot 3



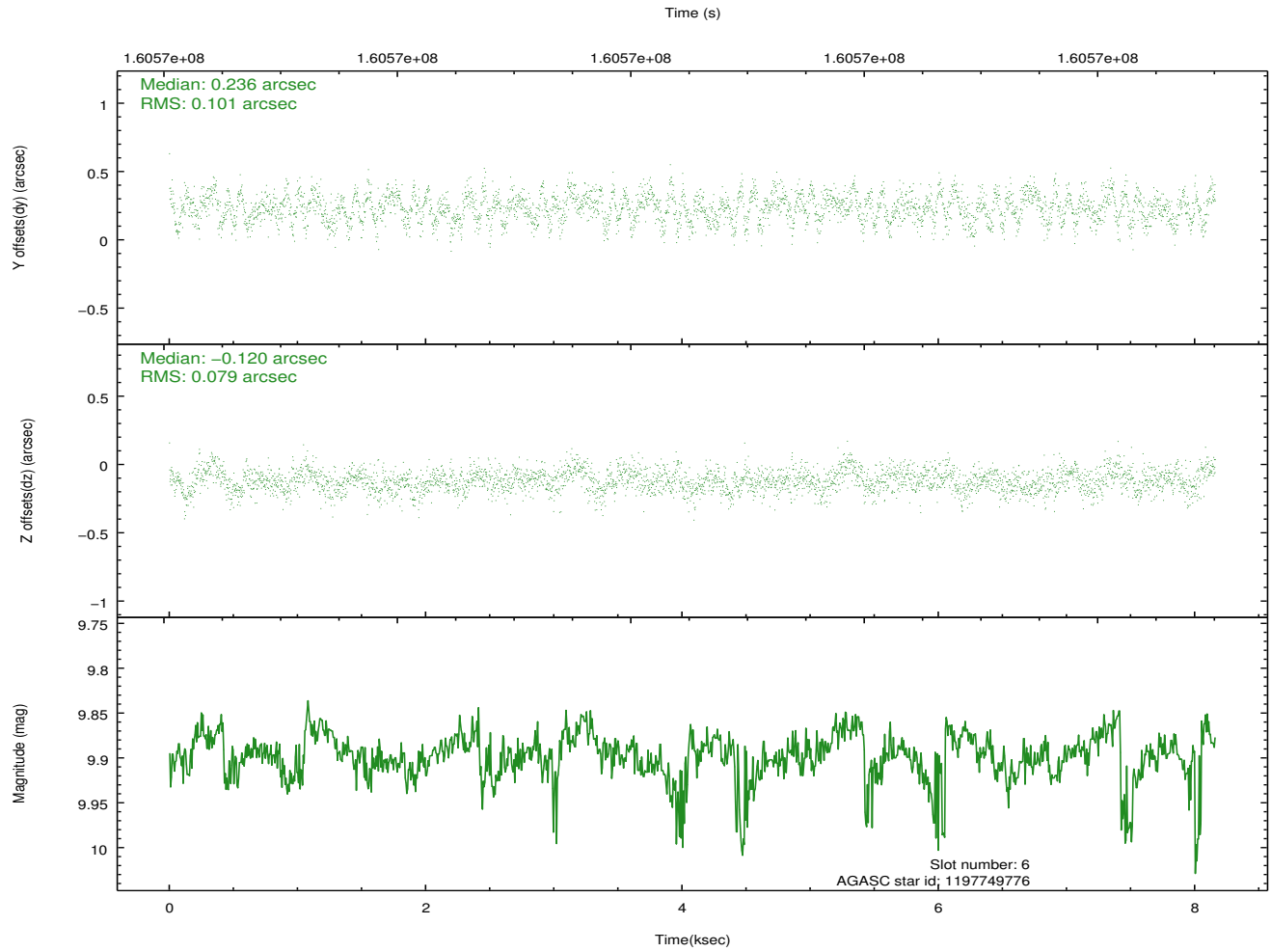
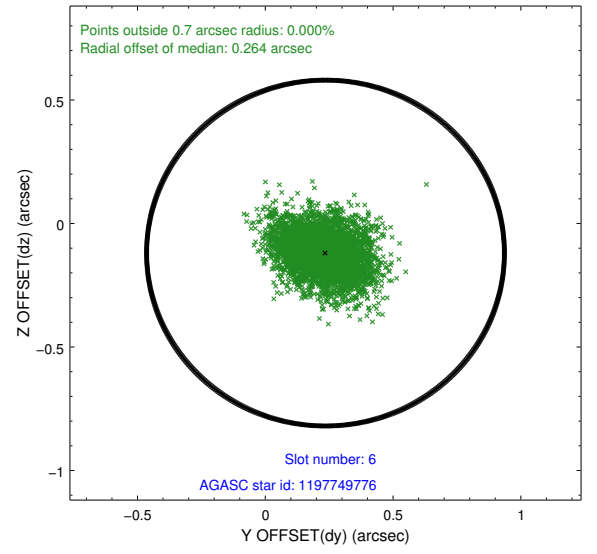
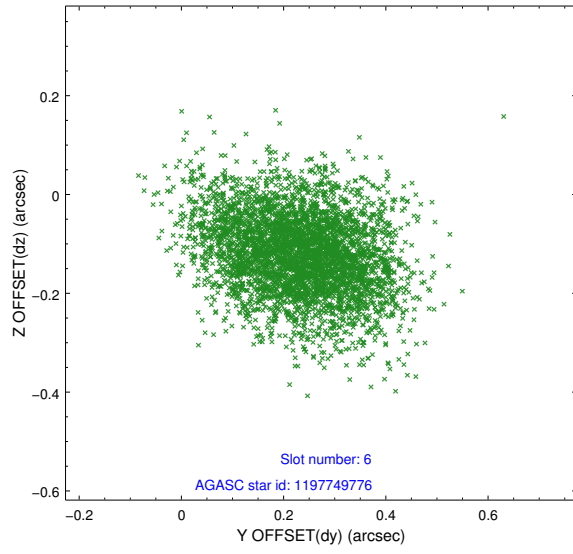
2.4.2 Slot 4



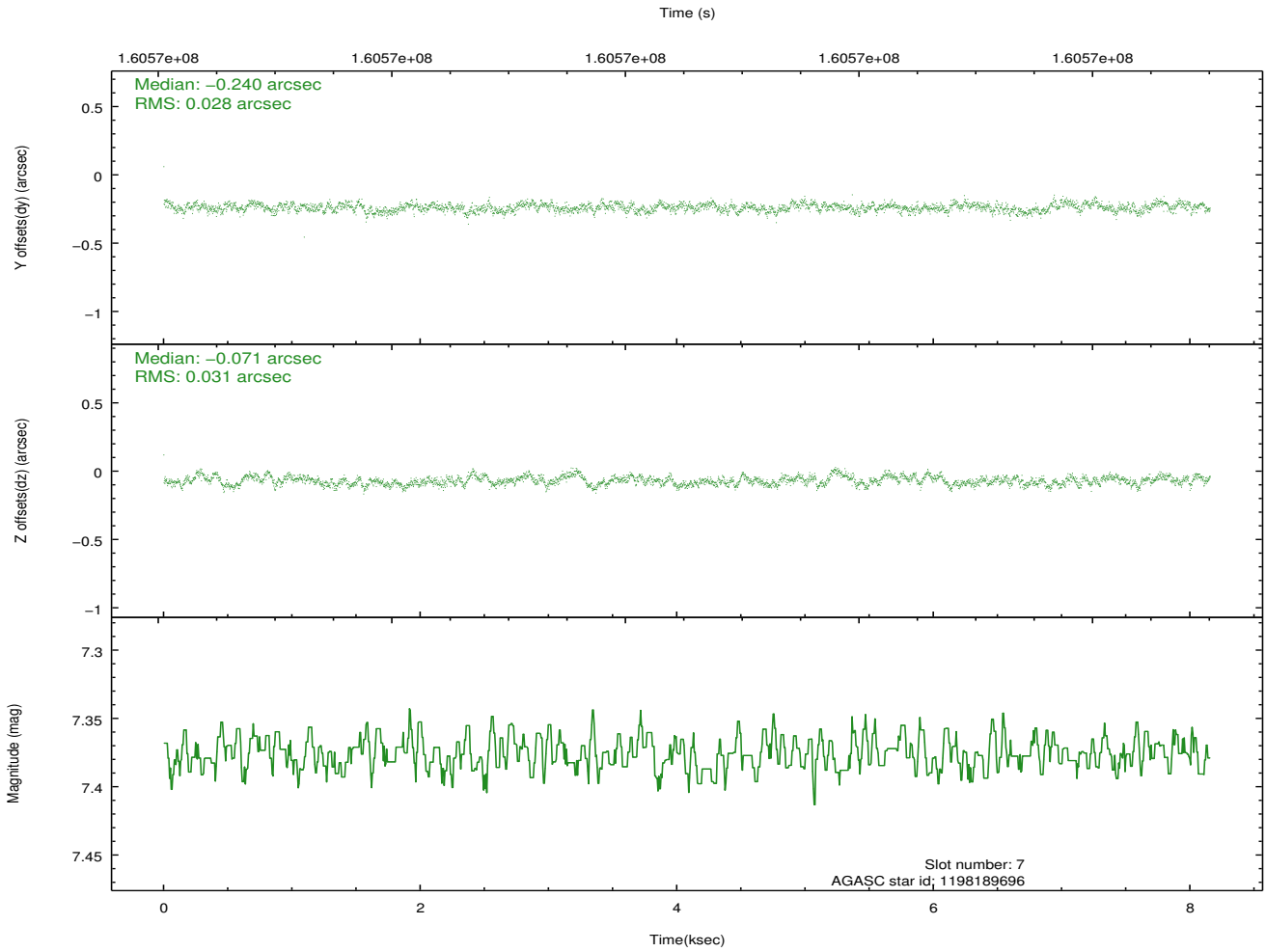
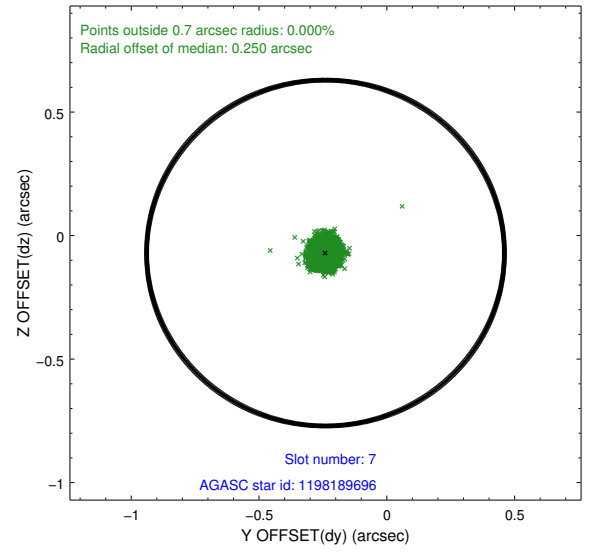
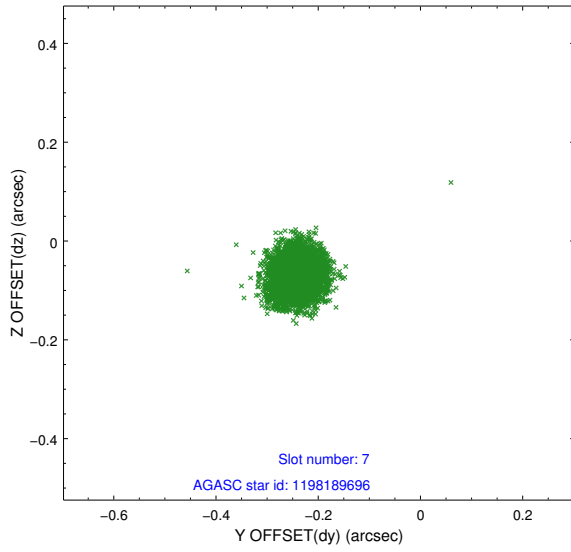
2.4.3 Slot 5



2.4.4 Slot 6

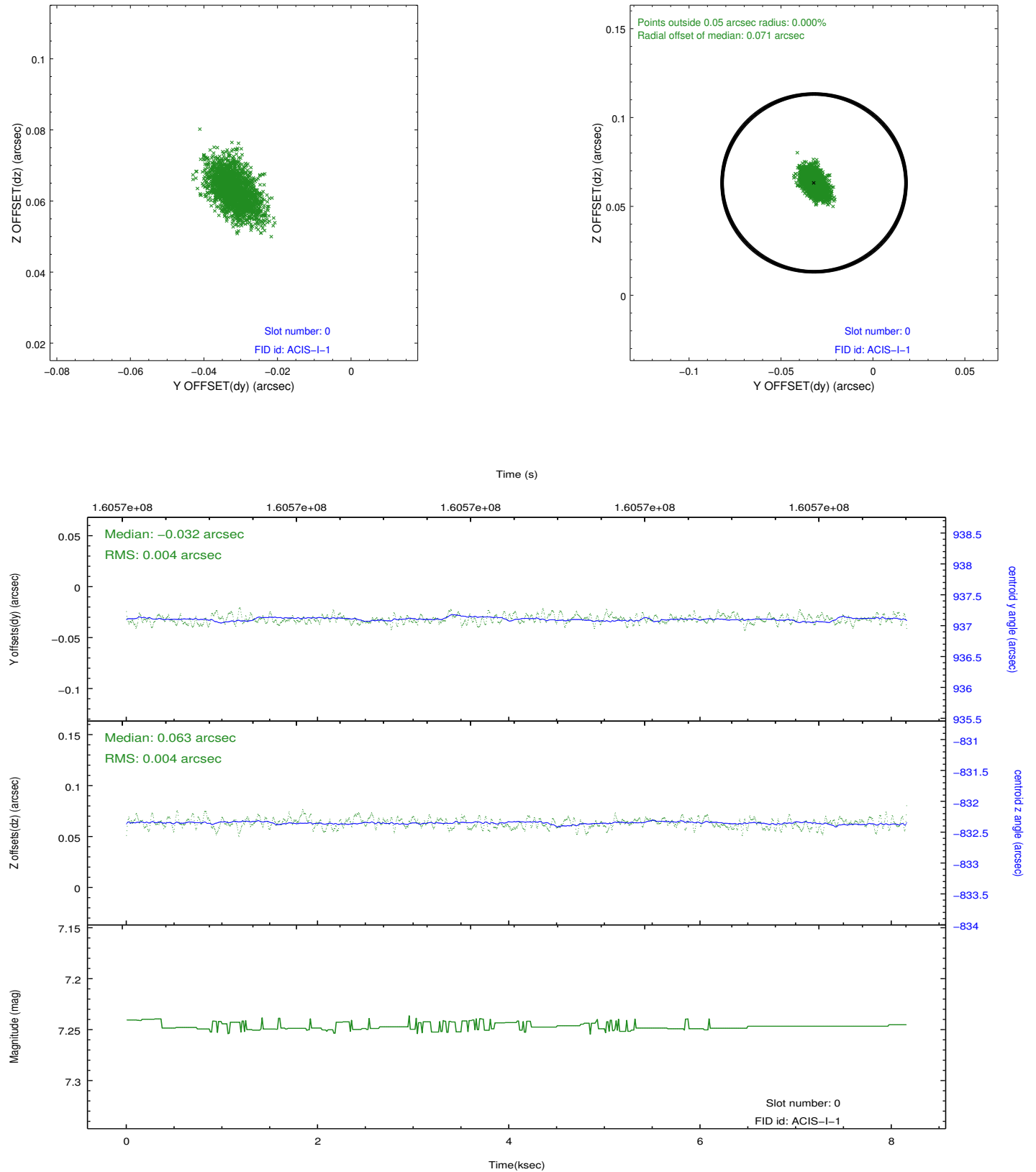


2.4.5 Slot 7

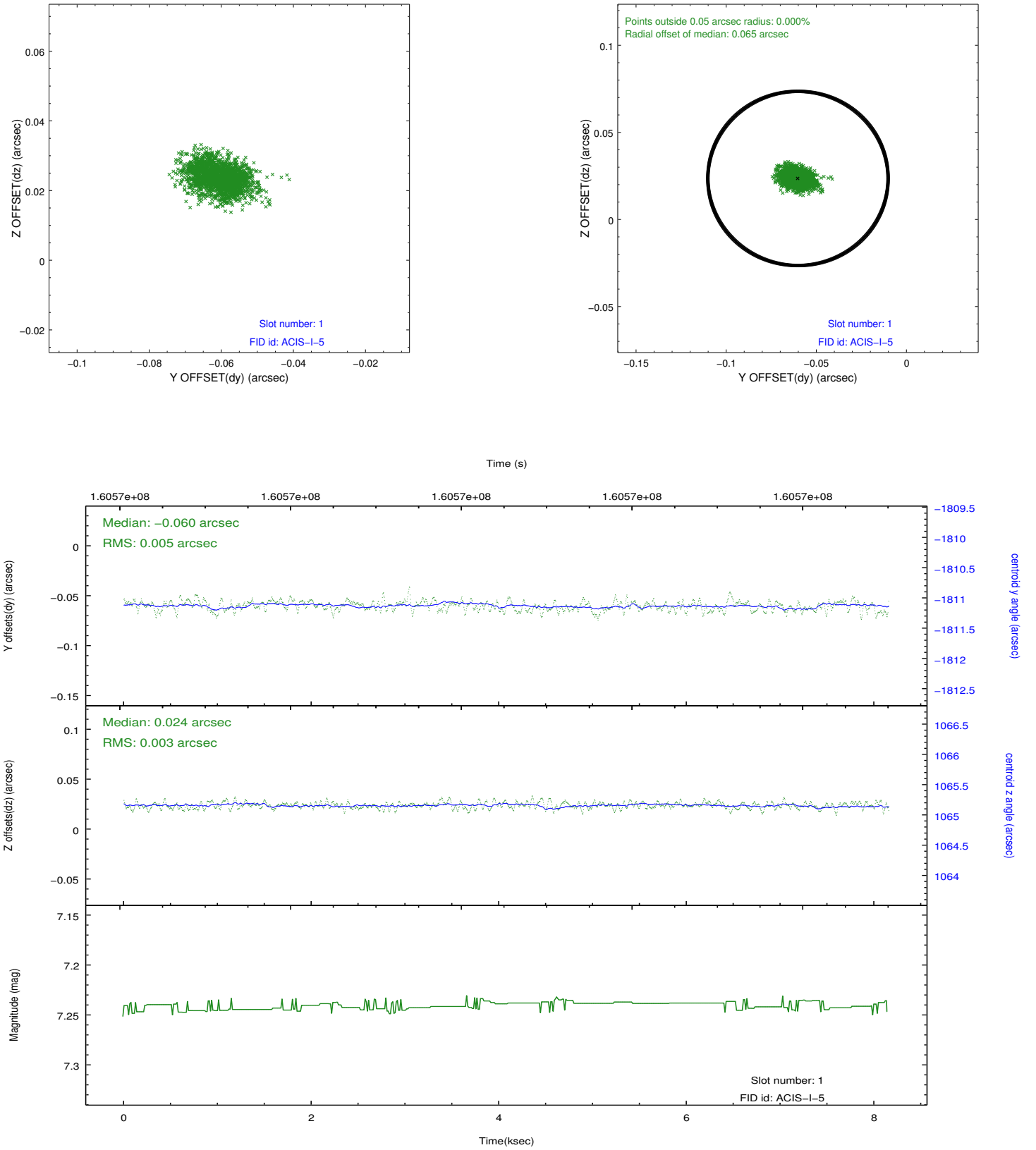


2.5 FID Slots

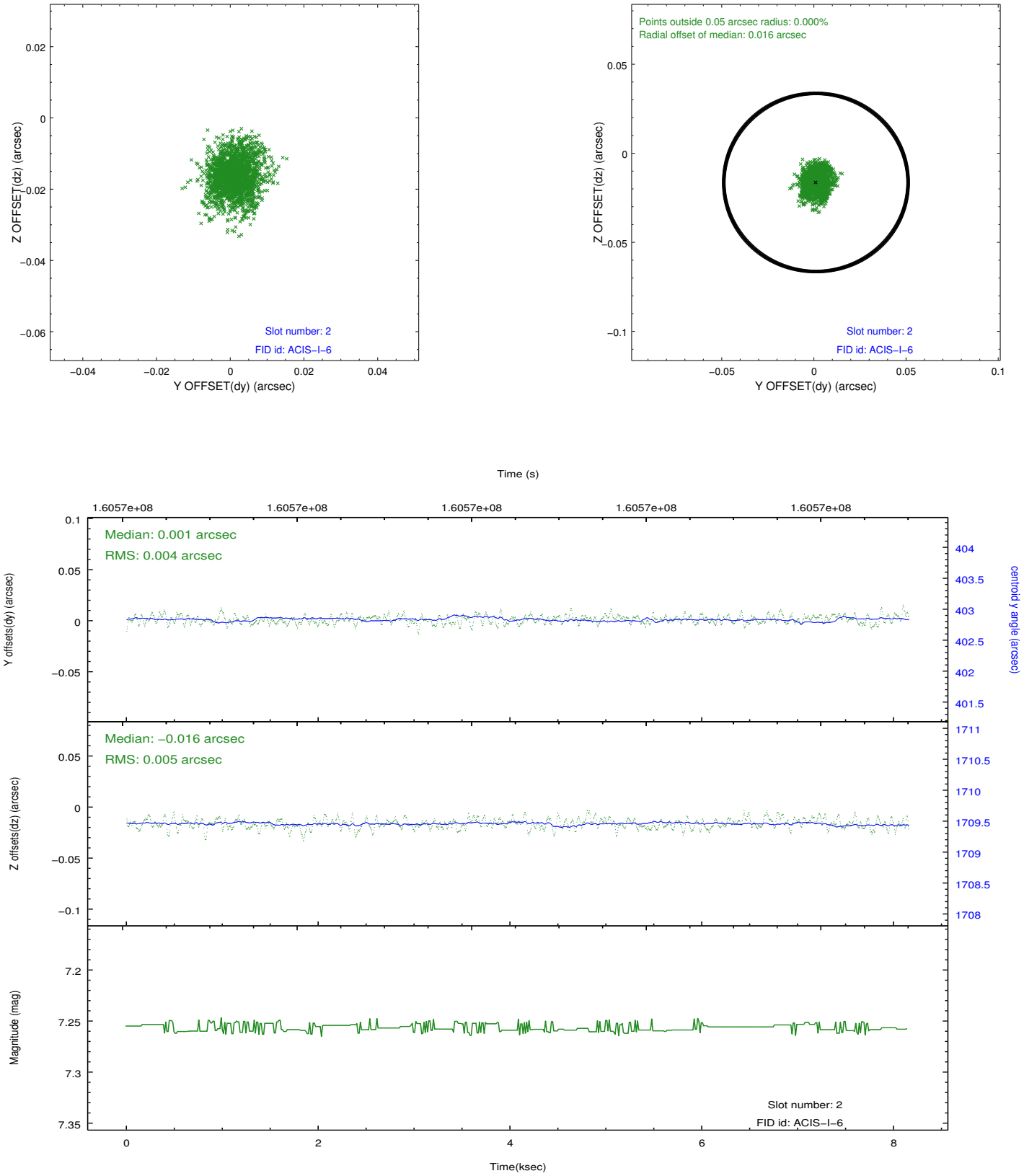
2.5.1 Slot 0



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) | 2012.11.05 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 7.734 |

A.2 Comments

Window constraint satisfied.