

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 5149 - L2 Version 3
Chandra X-Ray Center

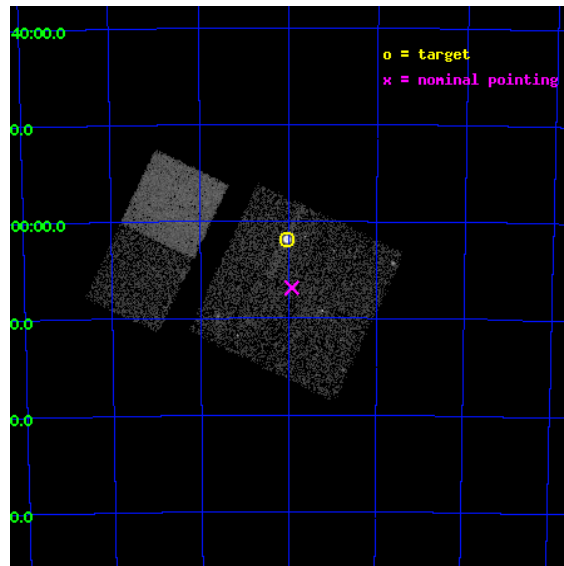
L2 Processing Date : Nov 9 2012

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1 Front

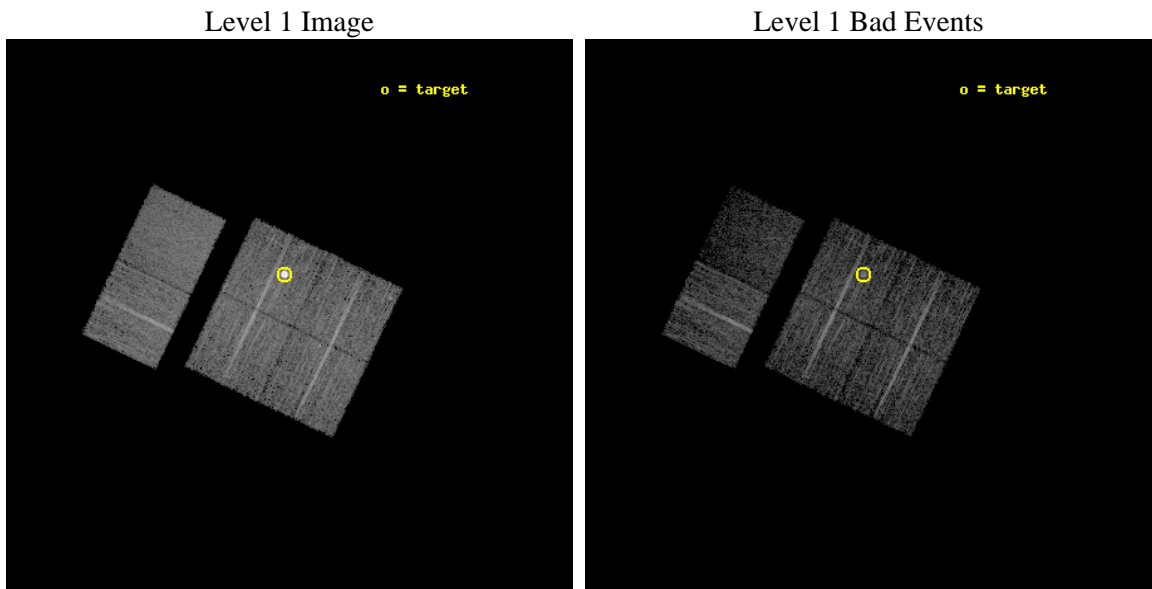
| | | |
|----------|--|---|
| seq_num | 590347 | Sequence number |
| obs_id | 5149 | Observation id |
| title | AO5A ACIS-I Calibration Observations of E0102-72 | Proposal title |
| observer | Dr. CXC Calibration | Principal investigator |
| object | E0102-72[I3,-120,-4.0,2.5,0] | Source name |
| dtcycle | 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 | 15.980897593731 | Nominal RA [deg] |
| dec_nom | -72.114771223929 | Nominal Dec [deg] |
| roll_nom | 295.5206401207 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 7667.1589812636 | Sum of GTIs [s] |
| livetime | 7570.072797634 | Livetime [s] |
| ontime0 | 7670.3999714255 | Sum of GTIs [s] |
| ontime1 | 7670.3999714255 | Sum of GTIs [s] |
| ontime2 | 7670.3999714255 | Sum of GTIs [s] |
| ontime3 | 7667.1589812636 | Sum of GTIs [s] |
| ontime6 | 7670.3999714255 | Sum of GTIs [s] |
| ontime7 | 7670.3999714255 | Sum of GTIs [s] |
| l2events | 56781 | Number of level 2 events |



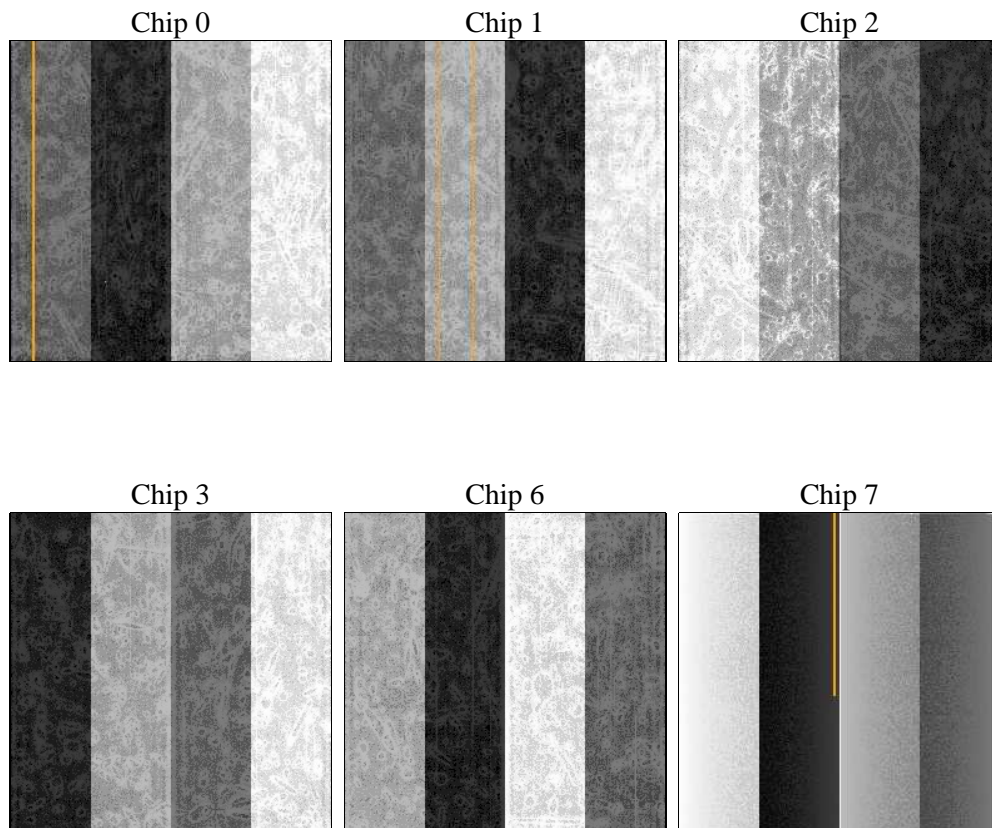
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 7913.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 7667.1589812636 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime0 | 7670.3999714255 | Sum of GTIs [s] |
| date | 2012-11-09T07:42:44 | Date and time of file creation | ontime1 | 7670.3999714255 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 7670.3999714255 | Sum of GTIs [s] |
| | | | ontime3 | 7667.1589812636 | Sum of GTIs [s] |
| | | | ontime6 | 7670.3999714255 | Sum of GTIs [s] |
| | | | ontime7 | 7670.3999714255 | Sum of GTIs [s] |
| | | | l1events | 242093 | Number of level 1 events |

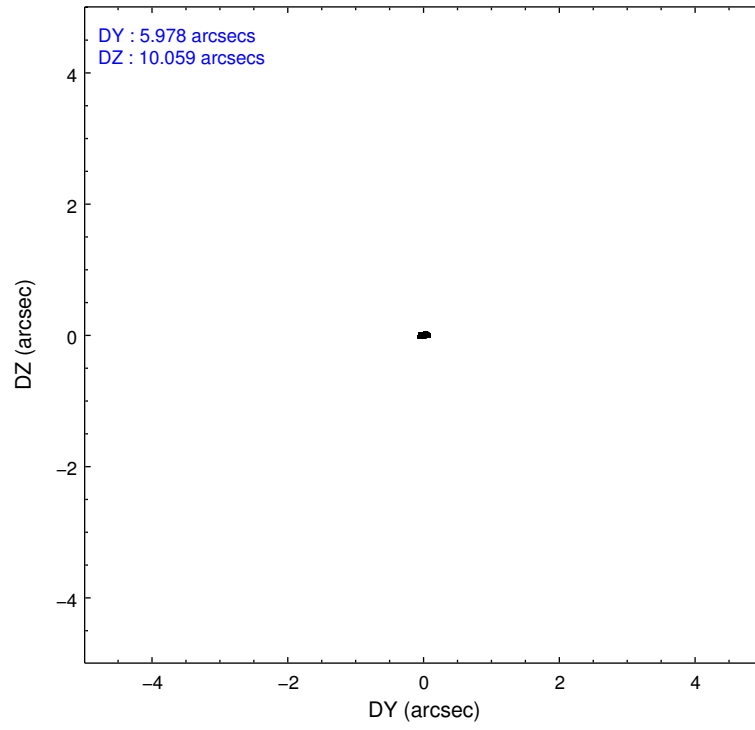
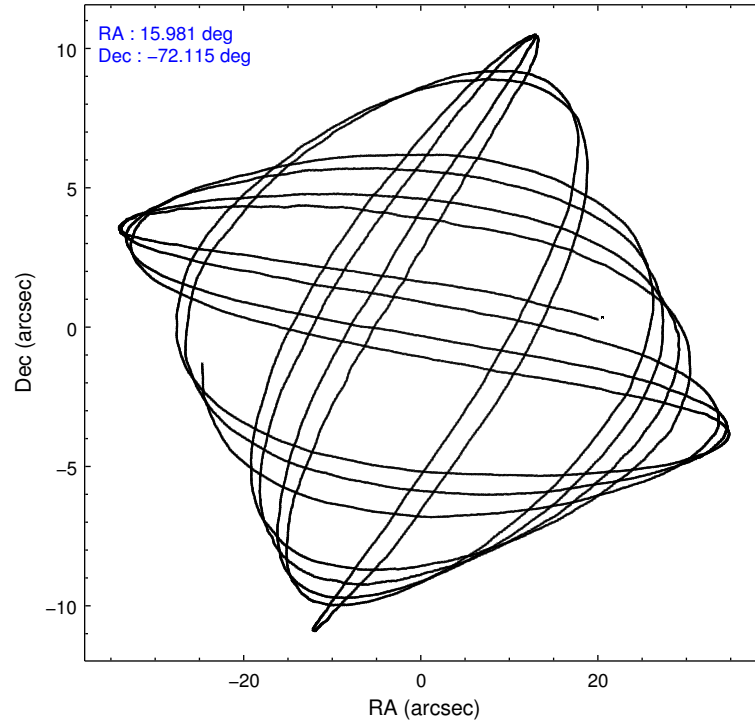
2.1.4 Events

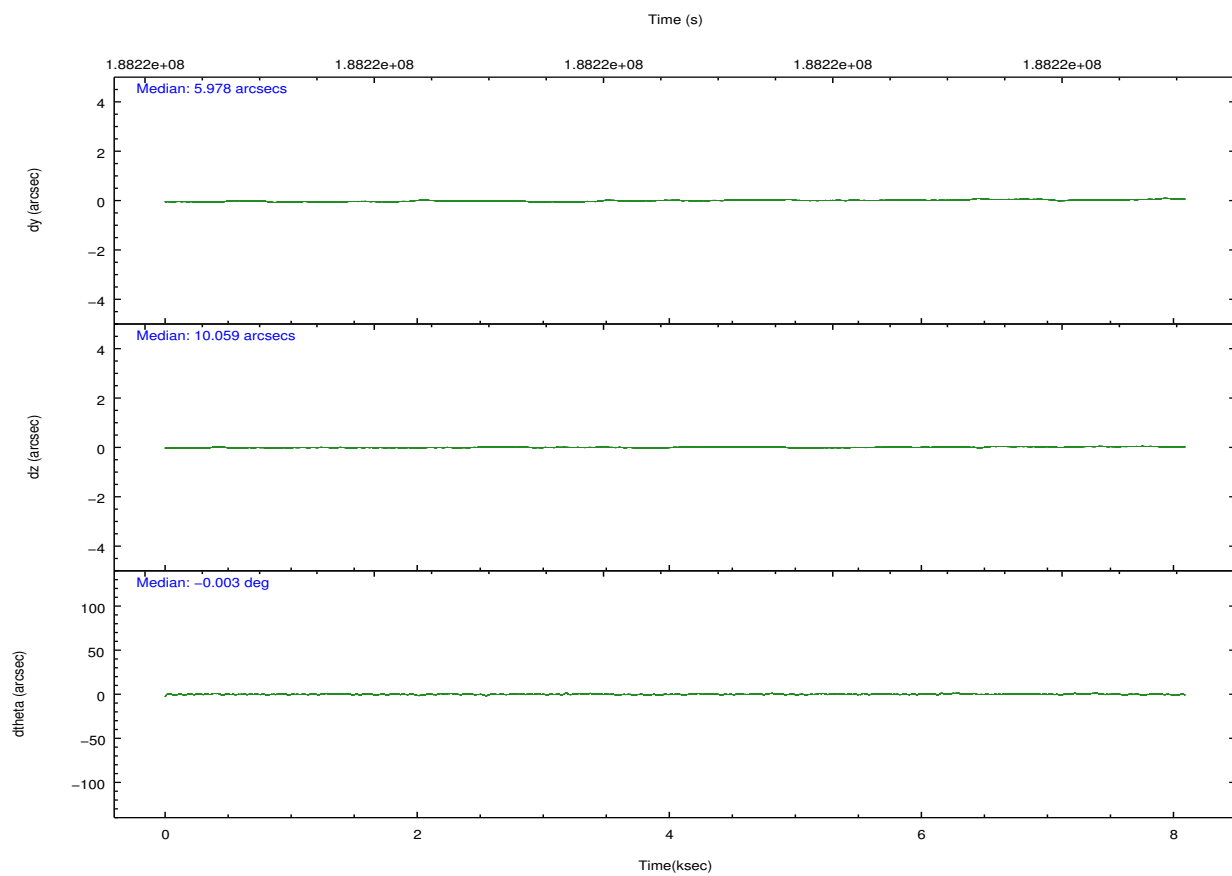
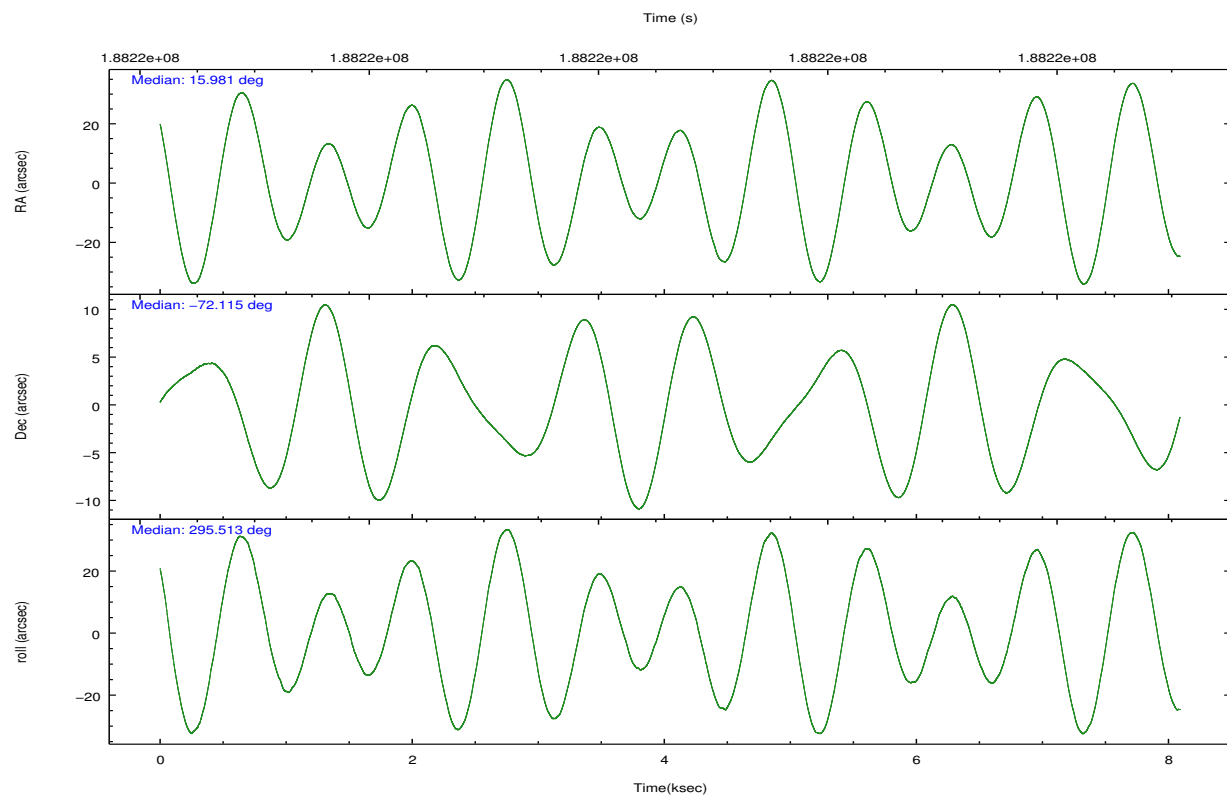
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 34500 | 34841 | 37349 | 59728 | 40003 | 35672 | grade 0 events | 1827 | 1647 | 1872 | 23068 | 1417 | 1855 |
| rejected events | 30310 | 30738 | 33268 | 31792 | 36138 | 17824 | | 5% | 4% | 5% | 38% | 3% | 5% |
| rejected % | 87% | 88% | 89% | 53% | 90% | 49% | grade 1 events | 13 | 15 | 20 | 168 | 14 | 31 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 874 | 800 | 834 | 2426 | 842 | 3867 |
| | | | | | | | | 2% | 2% | 2% | 4% | 2% | 10% |
| | | | | | | | grade 3 events | 472 | 455 | 401 | 848 | 421 | 1761 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 4 events | 408 | 433 | 430 | 838 | 406 | 1711 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 5 events | 1105 | 1197 | 1037 | 1272 | 1349 | 3827 |
| | | | | | | | | 3% | 3% | 2% | 2% | 3% | 10% |
| | | | | | | | grade 6 events | 610 | 770 | 544 | 766 | 780 | 8666 |
| | | | | | | | | 1% | 2% | 1% | 1% | 1% | 24% |
| | | | | | | | grade 7 events | 29191 | 29524 | 32211 | 30342 | 34774 | 13954 |
| | | | | | | | | 84% | 84% | 86% | 50% | 86% | 39% |

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 | 15.907343 | 15.98089759373081 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -72.099315 | -72.11477122392944 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 295.241955 | 295.5206401207012 | [s] Primary exposure time | 0.000000 | 3.2 |
| [s] Window start time (MET) | 181353664.184000 | 181353664.184000 | | | |
| [s] Window stop time (MET) | 189216064.184000 | 189216064.184000 | | | |
| [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) | 188216754.184000 | 188216378.30073 | | | |
| Observation start date | 2003-12-19T10:24:50 | 2003-12-19T10:19:38 | | | |
| [s] Observation end time (MET) | 188224667.184000 | 188224801.7511 | | | |
| Observation end date | 2003-12-19T12:36:43 | 2003-12-19T12:40:01 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



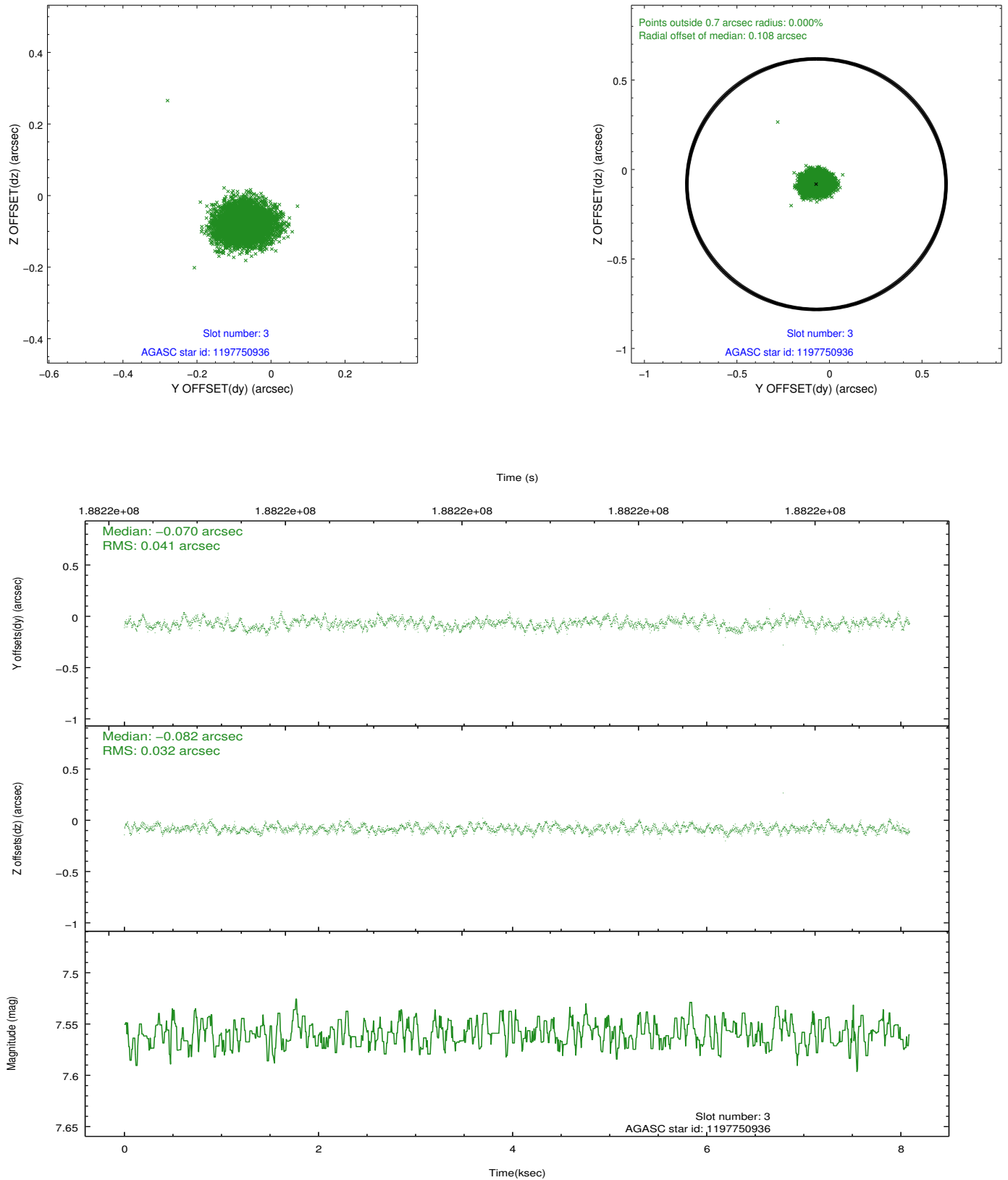


Slot Statistics

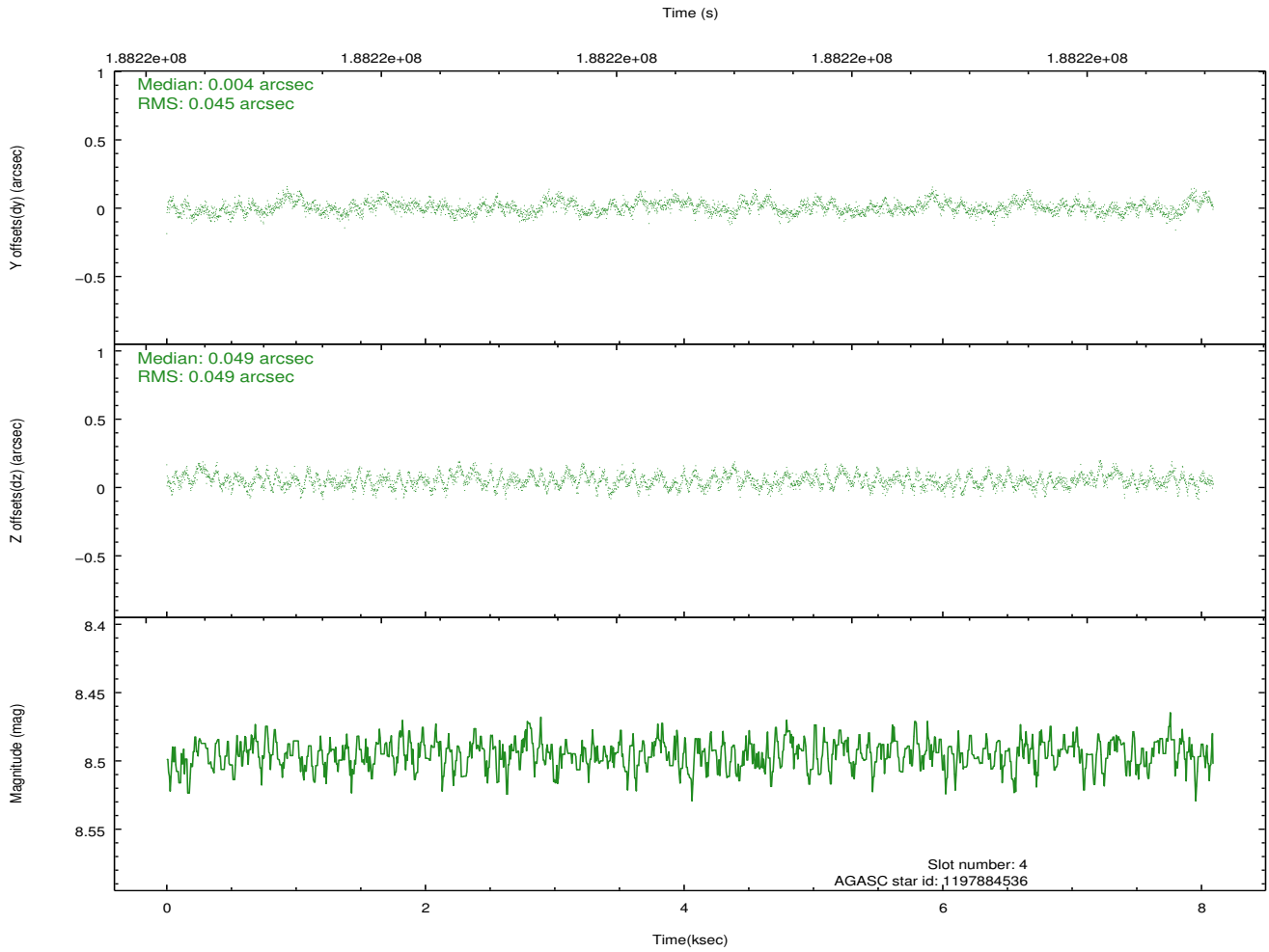
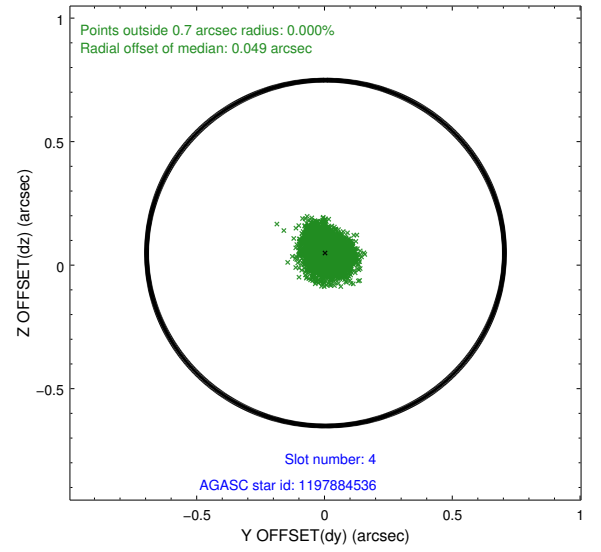
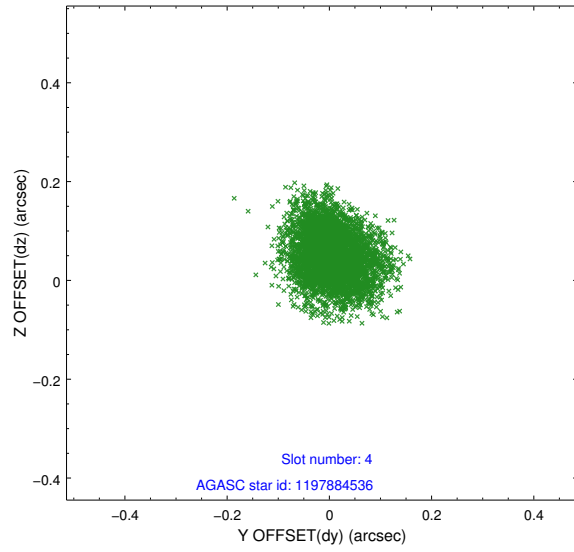
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.24 | 1974 | 0.031 | -0.008 | 0.006 | 0.011 | 0.000000 | 0.000000 | 933.79 | -833.52 |
| 1 | FID | ACIS-I-5 | 7.23 | 1974 | -0.066 | 0.078 | 0.009 | 0.016 | 0.000000 | 0.000000 | -1814.08 | 1063.64 |
| 2 | FID | ACIS-I-6 | 7.24 | 1974 | -0.057 | 0.001 | 0.010 | 0.019 | 0.000000 | 0.000000 | 398.43 | 1708.91 |
| 3 | GUIDE | 1197750936 | 7.56 | 3948 | -0.070 | -0.082 | 0.056 | 0.089 | 15.387940 | -71.549550 | -2039.99 | 307.57 |
| 4 | GUIDE | 1197884536 | 8.49 | 3947 | 0.004 | 0.049 | 0.071 | 0.114 | 17.160729 | -71.835289 | -247.23 | 1671.75 |
| 5 | GUIDE | 1197885104 | 9.35 | 3946 | 0.116 | 0.028 | 0.097 | 0.155 | 17.845067 | -72.189368 | 1234.24 | 1777.42 |
| 6 | GUIDE | 1197885328 | 7.24 | 3948 | -0.006 | -0.032 | 0.057 | 0.093 | 16.283090 | -71.733943 | -1007.39 | 944.89 |
| 7 | GUIDE | 1198189696 | 7.38 | 3947 | -0.041 | 0.033 | 0.059 | 0.095 | 15.223750 | -72.697522 | 1639.74 | -1581.38 |

2.4 Star Slots

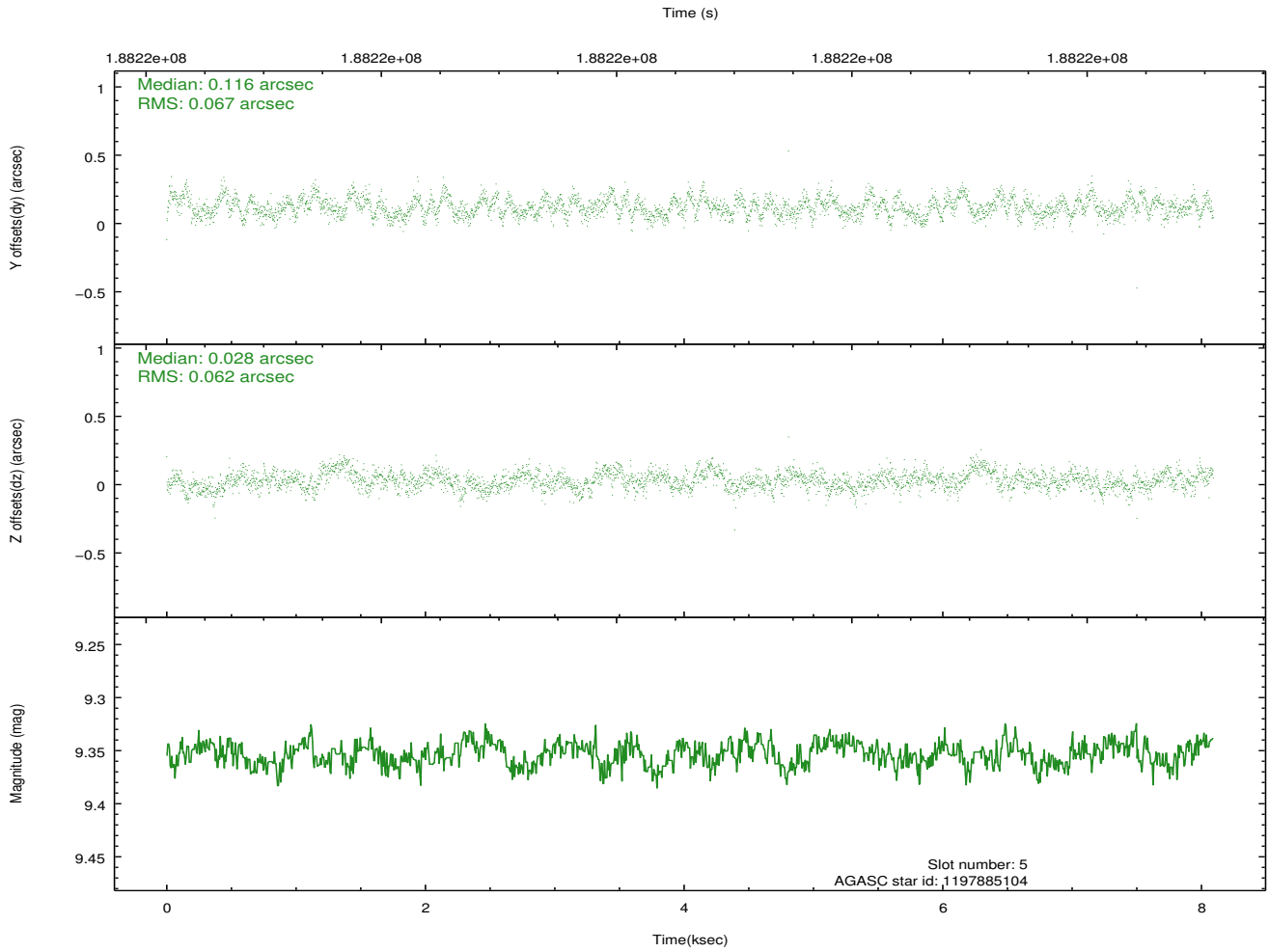
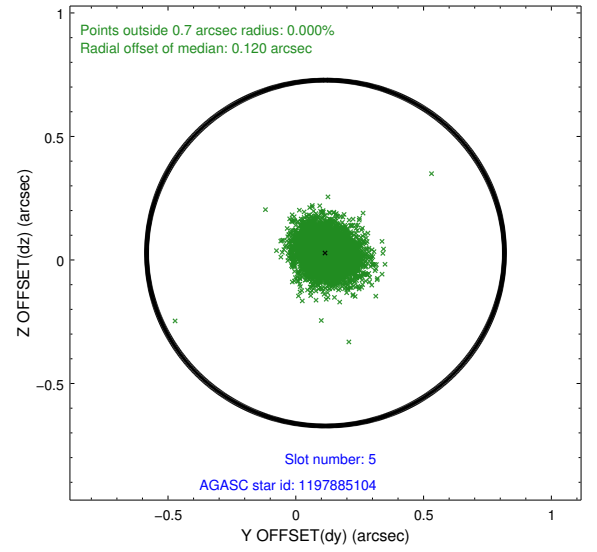
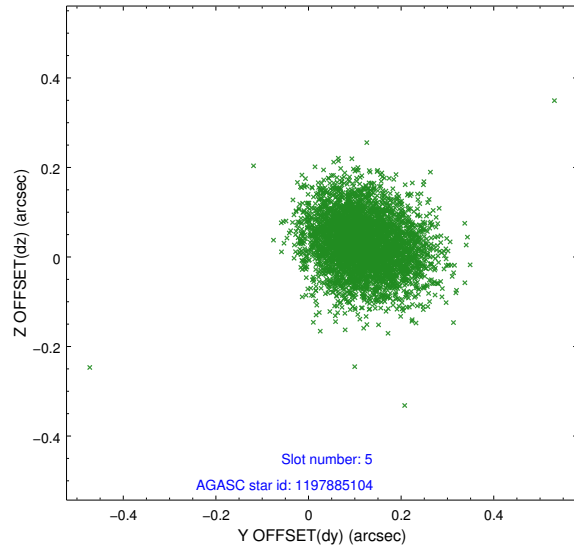
2.4.1 Slot 3



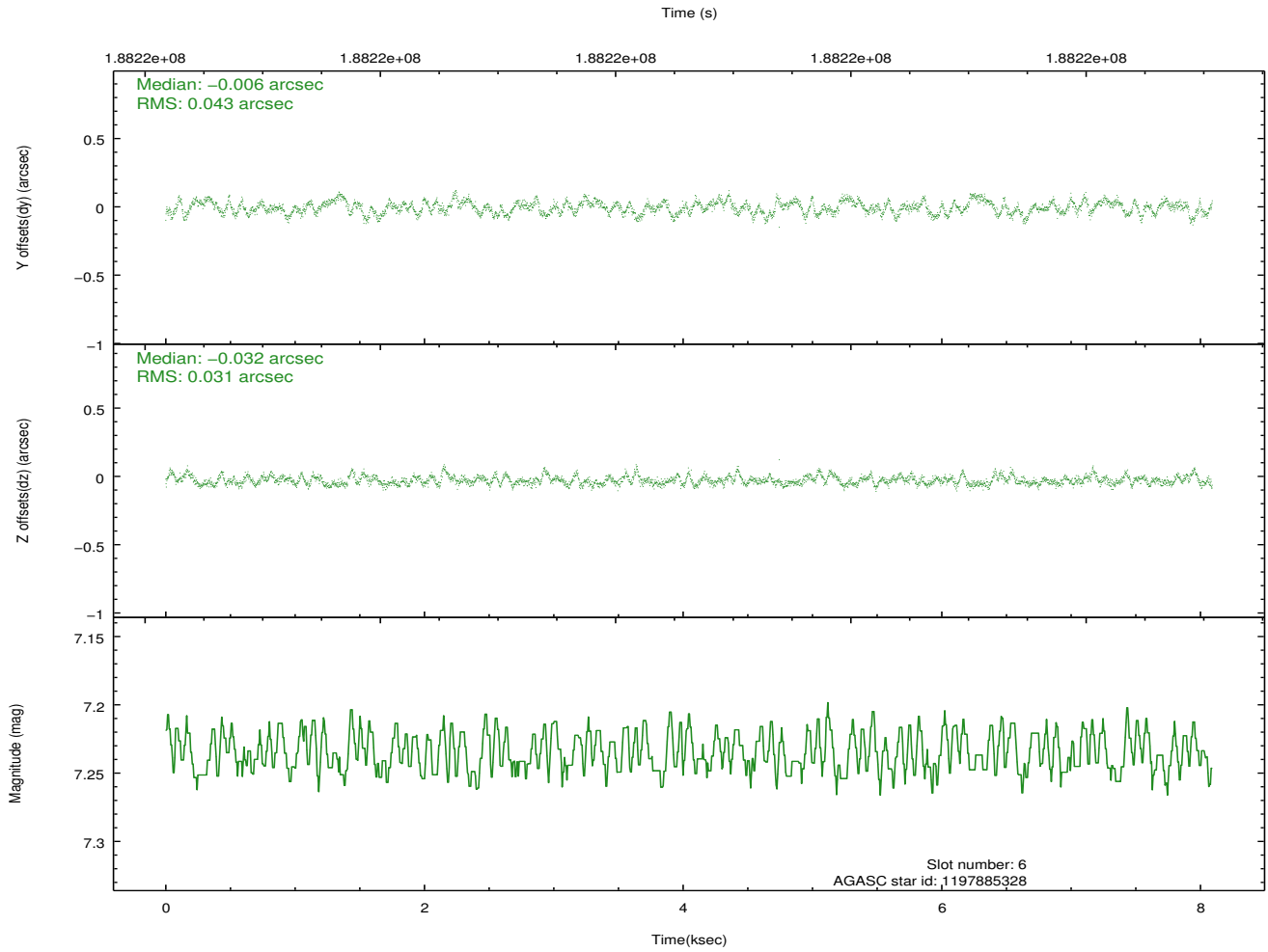
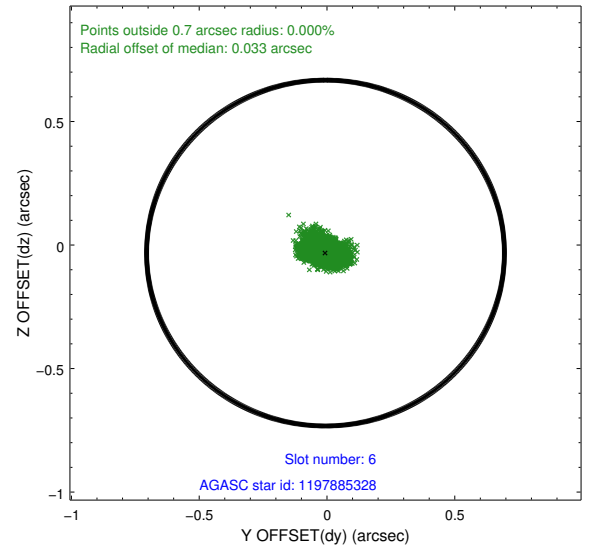
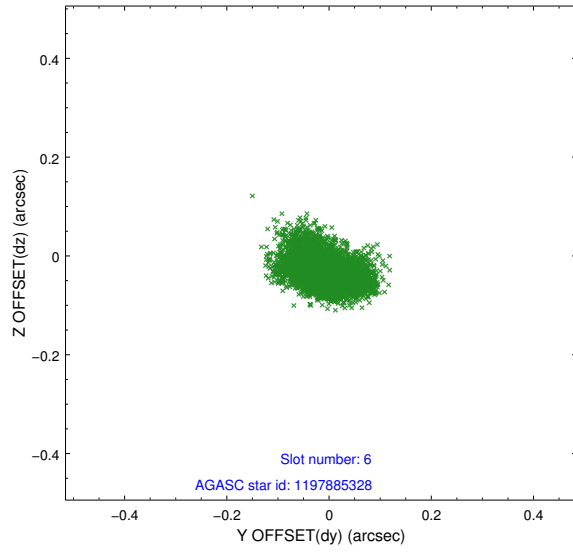
2.4.2 Slot 4



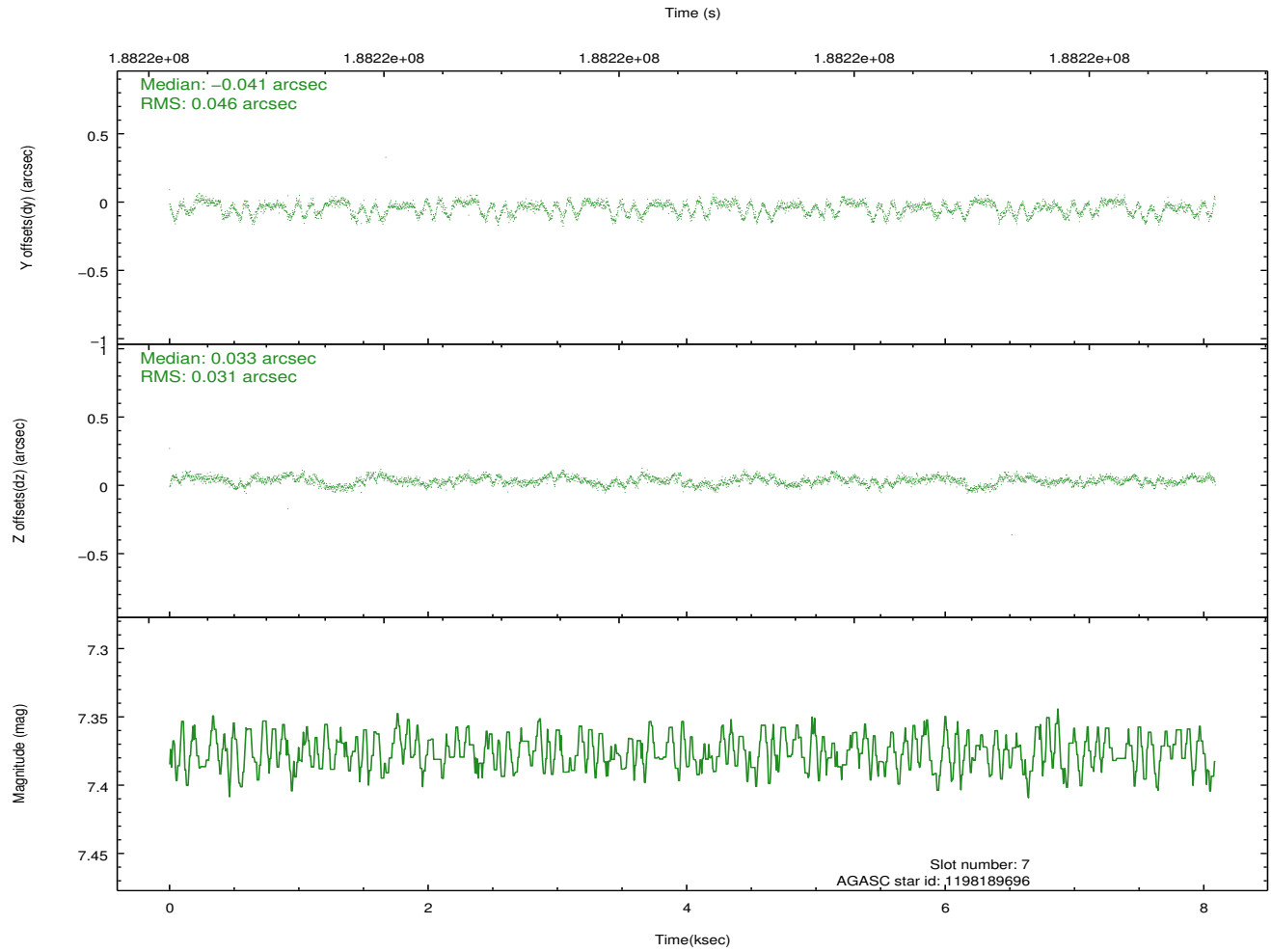
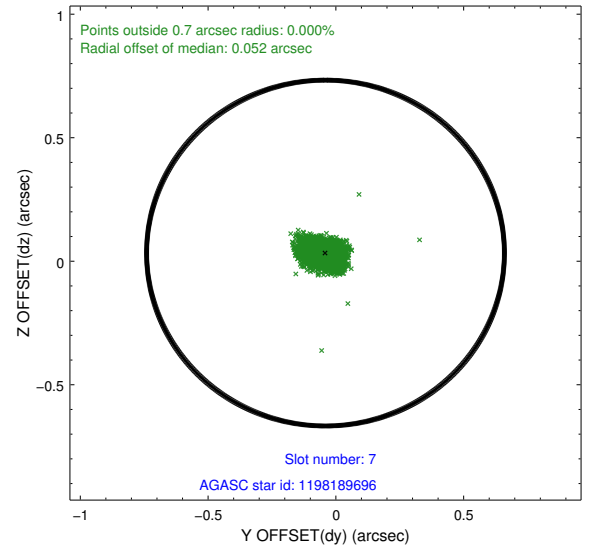
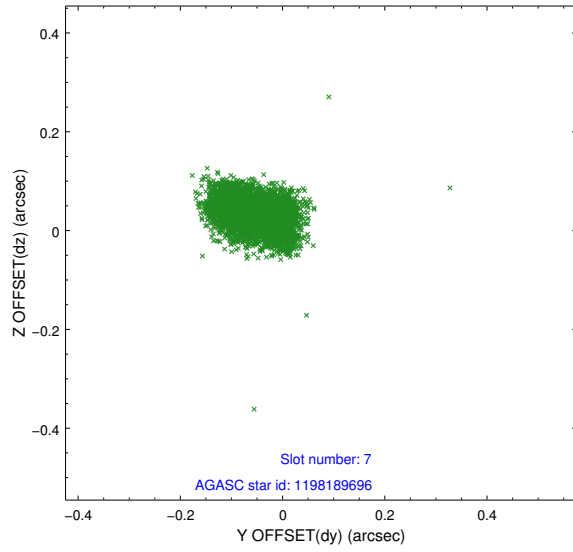
2.4.3 Slot 5



2.4.4 Slot 6

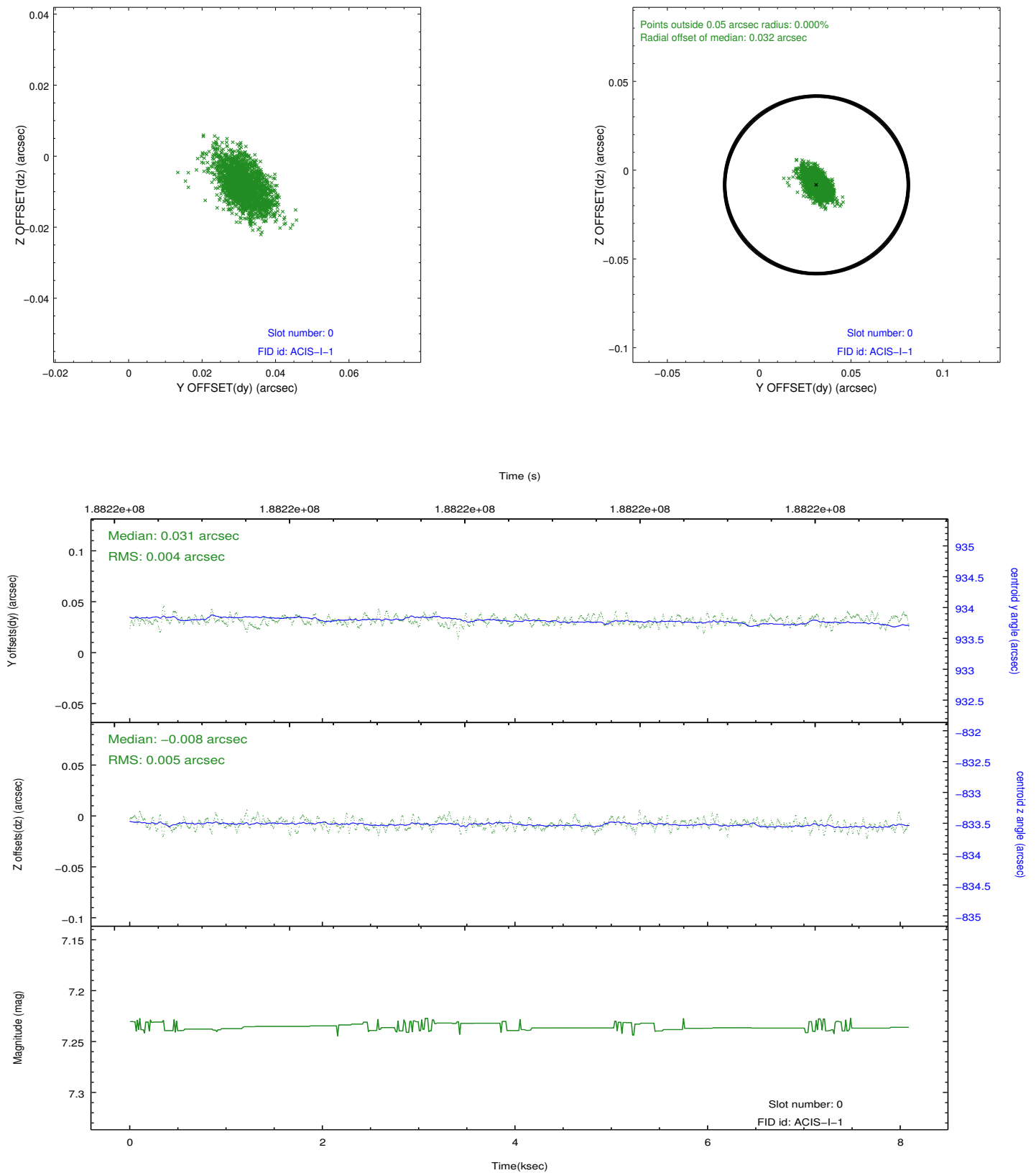


2.4.5 Slot 7

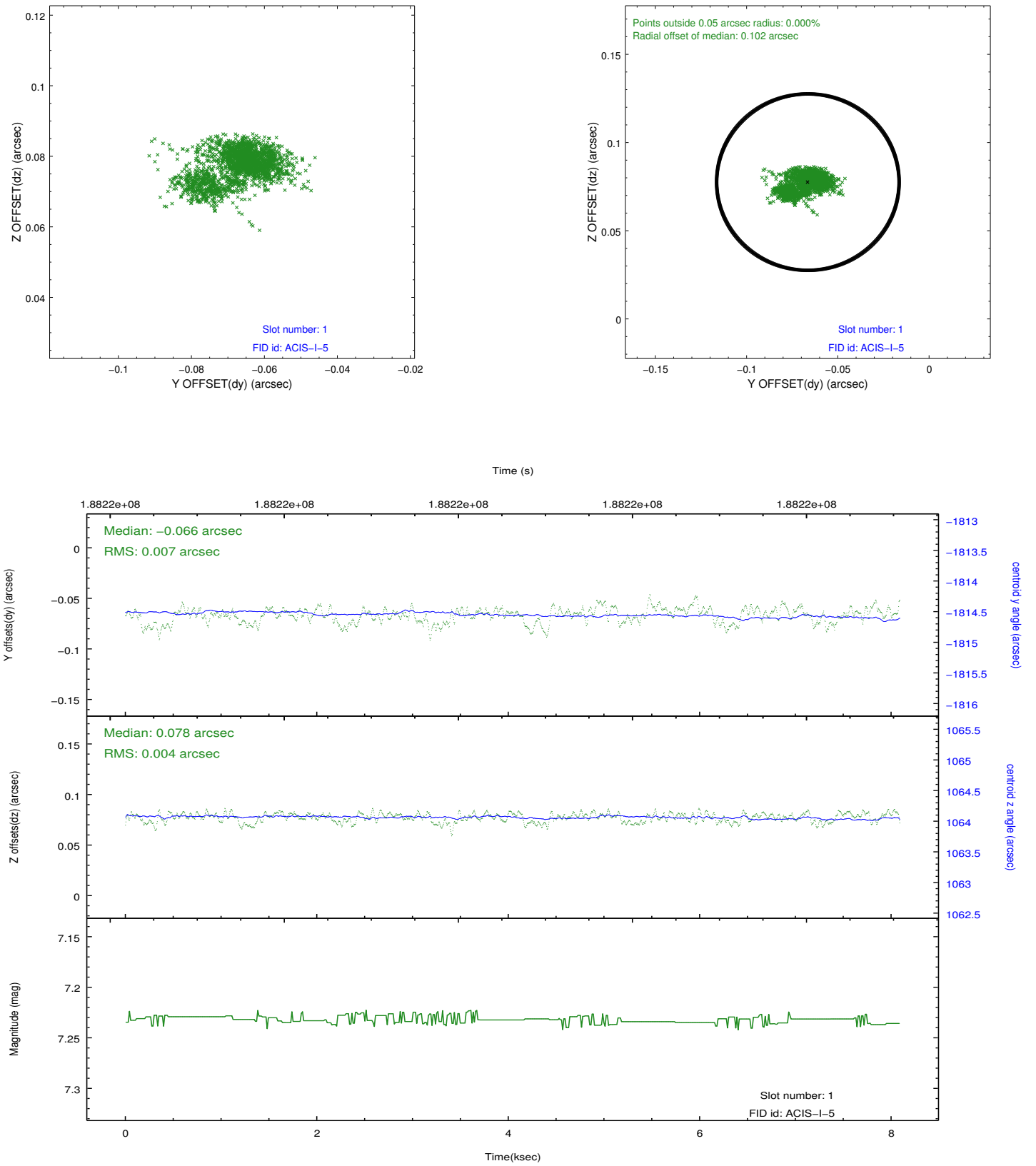


2.5 FID Slots

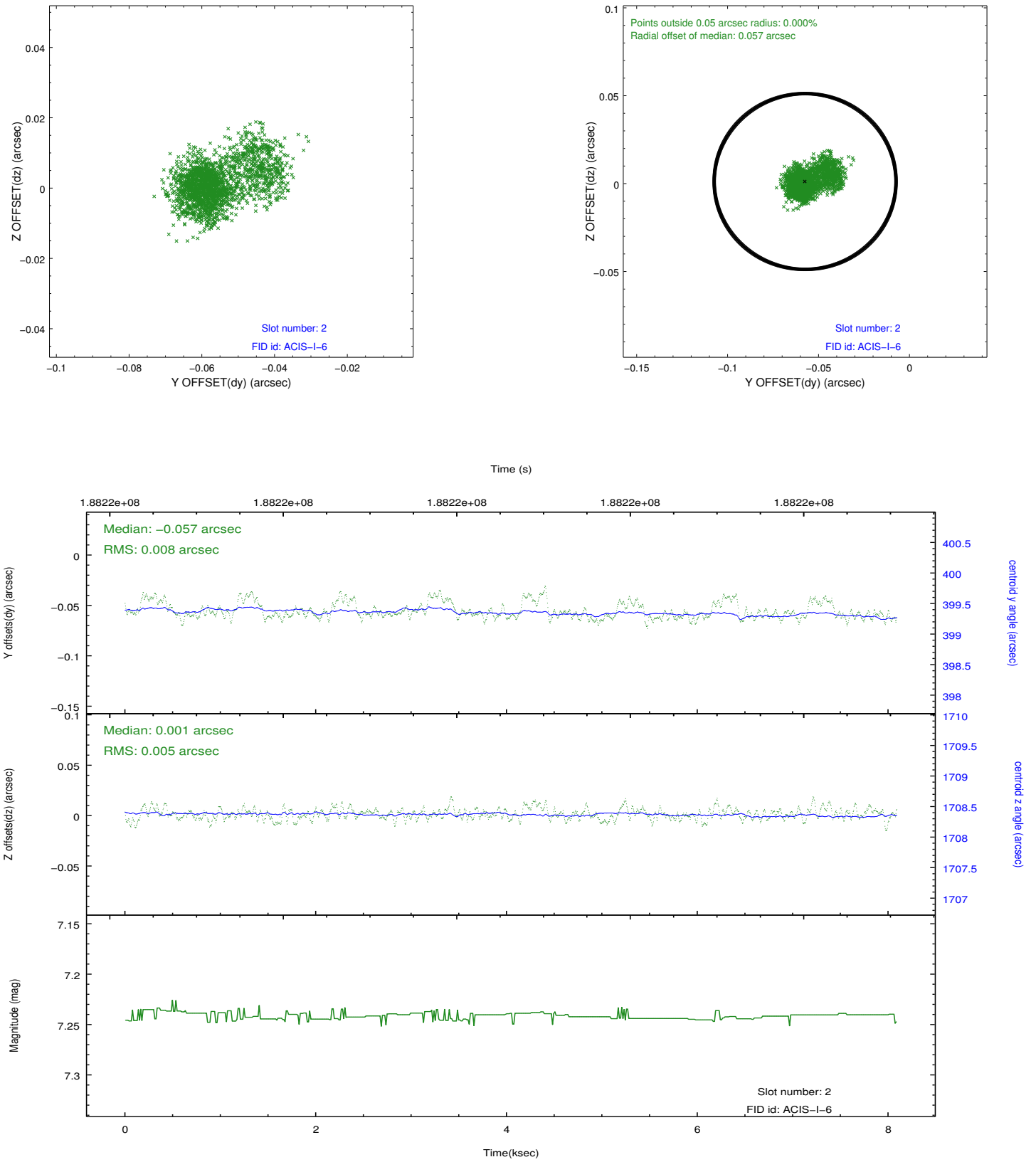
2.5.1 Slot 0



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) | 2012.12.03 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 7.67 |

A.2 Comments

Window constraint met.