

V&V Reference Report

L2 ASCDS Version : 8.5.1

Observation 5597 - L2 Version 3
Chandra X-Ray Center

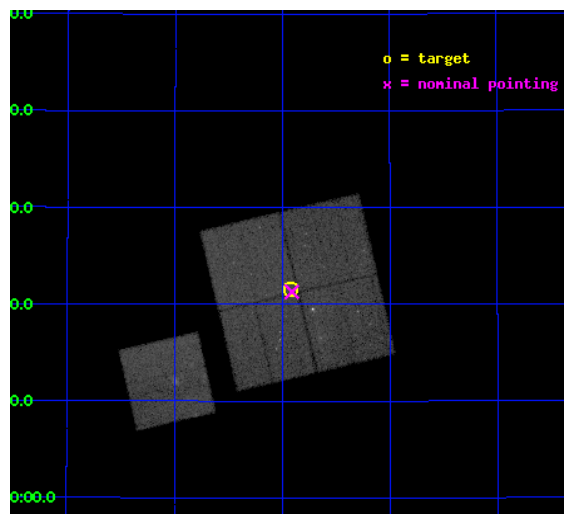
L2 Processing Date : Dec 15 2012

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1 Front

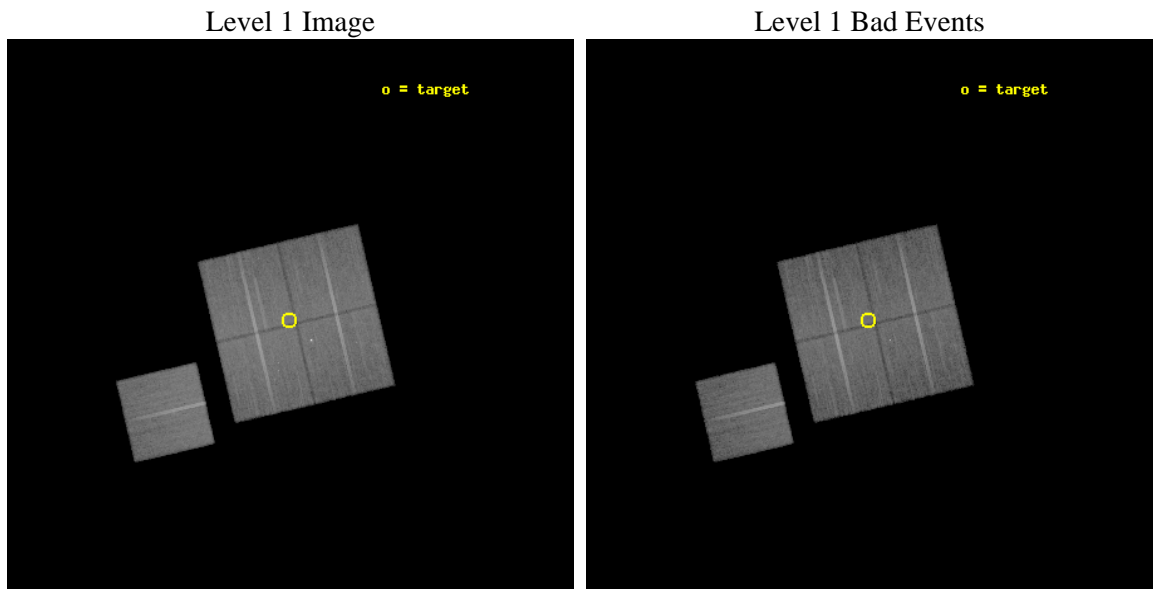
| | | |
|----------|---|---|
| seq_num | 701021 | Sequence number |
| obs_id | 5597 | Observation id |
| title | An X-ray study of the hot gas environment around the nearby radio galaxy IC 310 | Proposal title |
| observer | Dr. Stephen Murray | Principal investigator |
| object | IC 310 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 49.231587 | Observer's specified target RA [deg] |
| dec_targ | 41.358783 | Observer's specified target Dec [deg] |
| ra_nom | 49.227951118301 | Nominal RA [deg] |
| dec_nom | 41.355035454268 | Nominal Dec [deg] |
| roll_nom | 256.85043074132 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 25488.199950963 | Sum of GTIs [s] |
| livetime | 25155.177854464 | Livetime [s] |
| ontime0 | 25485.059030354 | Sum of GTIs [s] |
| ontime1 | 25488.199950963 | Sum of GTIs [s] |
| ontime2 | 25481.917960584 | Sum of GTIs [s] |
| ontime3 | 25488.199950963 | Sum of GTIs [s] |
| ontime6 | 25485.059030354 | Sum of GTIs [s] |
| l2events | 162158 | Number of level 2 events |



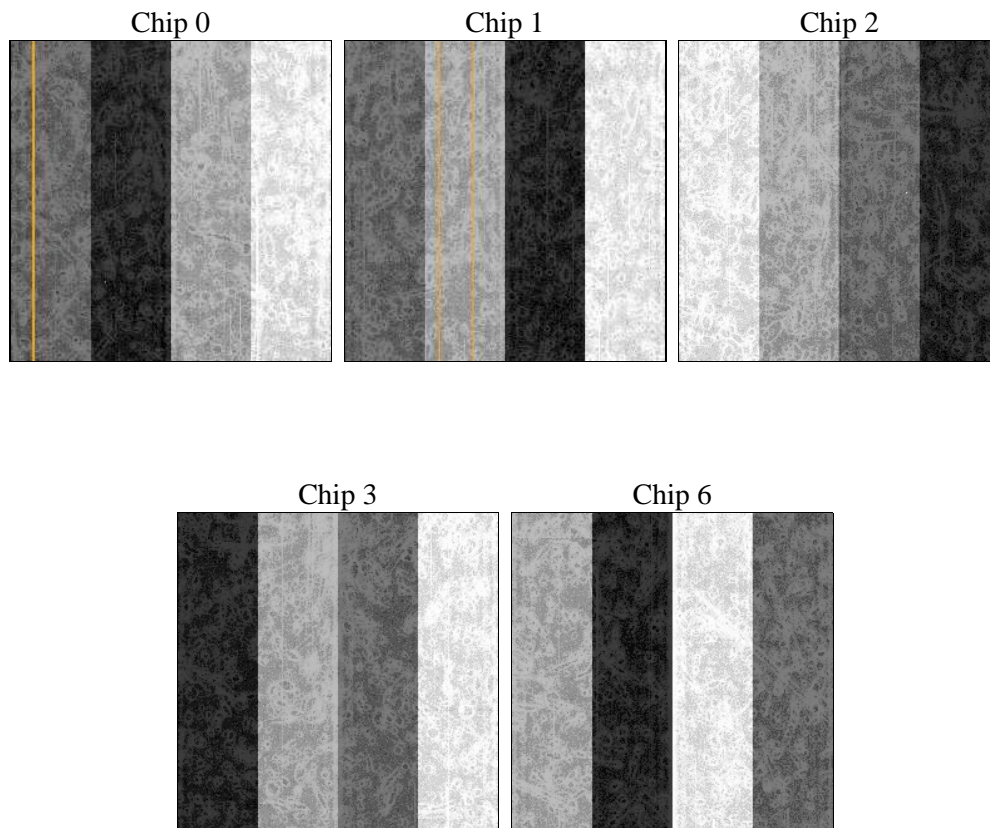
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 25310.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.5.1 | Processing system revision | ontime | 25488.199950963 | Sum of GTIs [s] |
| caldbver | 4.5.5 | | ontime0 | 25485.059030354 | Sum of GTIs [s] |
| date | 2012-12-15T05:19:14 | Date and time of file creation | ontime1 | 25488.199950963 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 25481.917960584 | Sum of GTIs [s] |
| | | | ontime3 | 25488.199950963 | Sum of GTIs [s] |
| | | | ontime6 | 25485.059030354 | Sum of GTIs [s] |
| | | | l1events | 1046496 | Number of level 1 events |

2.1.4 Events

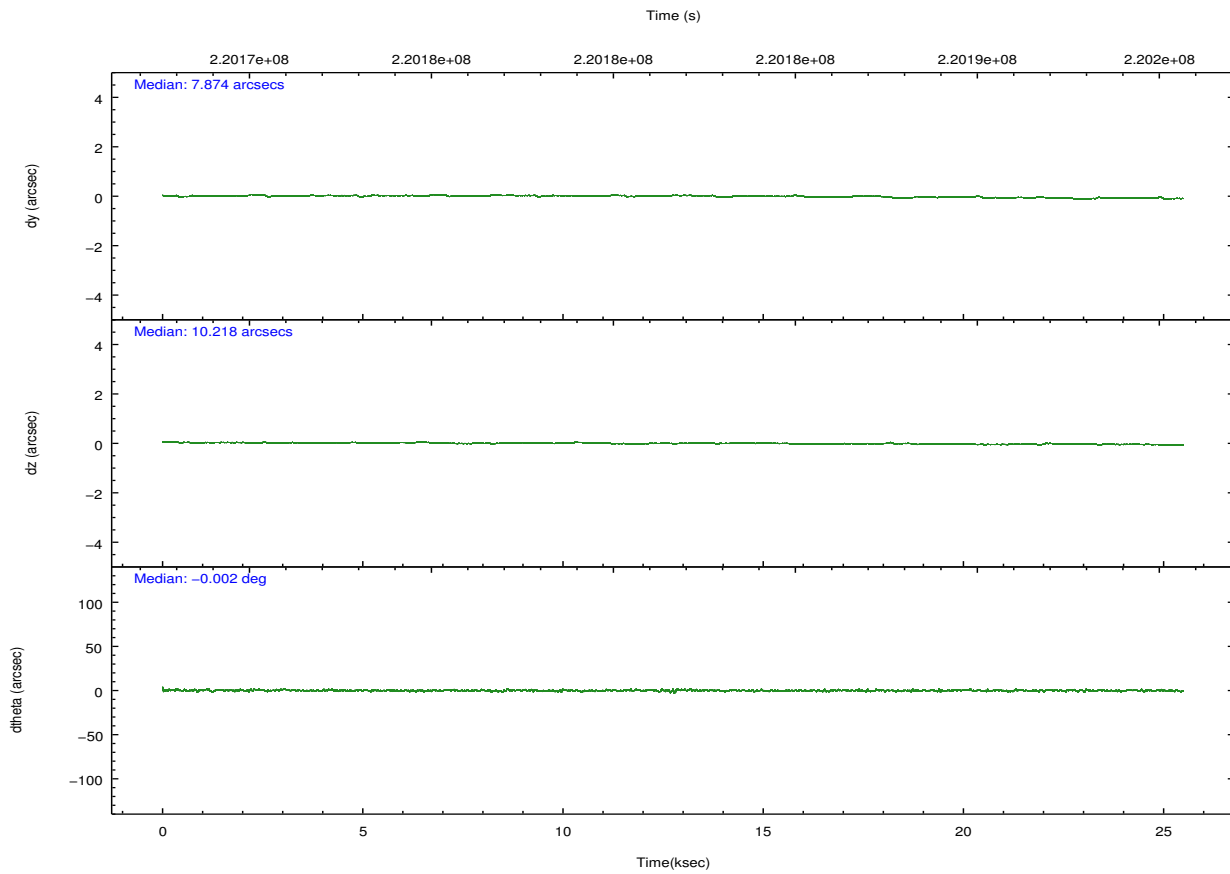
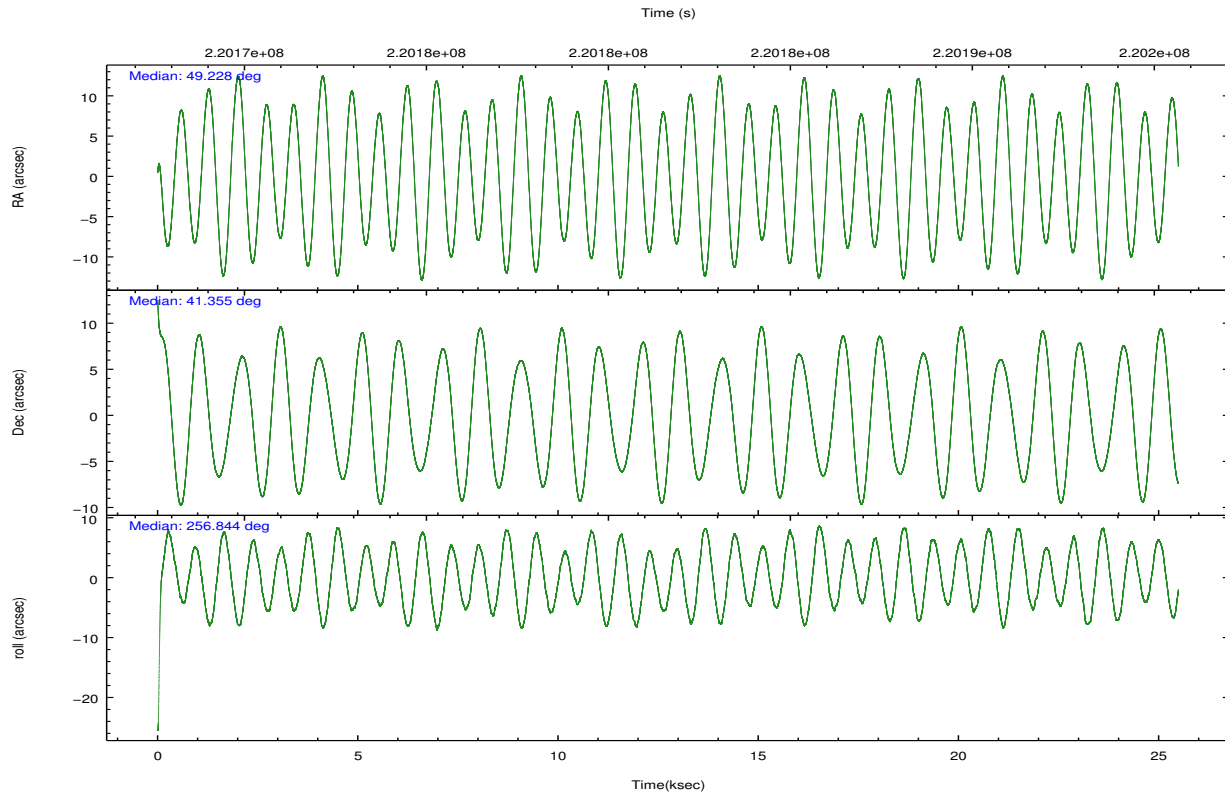
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 201010 | 194774 | 215159 | 216302 | 219251 |
| rejected events | 161950 | 161514 | 180696 | 178420 | 182094 |
| rejected % | 80% | 82% | 83% | 82% | 83% |

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 21693 | 16184 | 19297 | 21759 | 20143 |
| | 10% | 8% | 8% | 10% | 9% |
| grade 1 events | 719 | 128 | 187 | 168 | 133 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 6957 | 6438 | 5894 | 6015 | 6338 |
| | 3% | 3% | 2% | 2% | 2% |
| grade 3 events | 3001 | 2761 | 2606 | 2795 | 2802 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 2852 | 2727 | 2604 | 2759 | 2766 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 8533 | 8669 | 7781 | 9171 | 8926 |
| | 4% | 4% | 3% | 4% | 4% |
| grade 6 events | 4680 | 5269 | 4190 | 4680 | 5232 |
| | 2% | 2% | 1% | 2% | 2% |
| grade 7 events | 152575 | 152598 | 172600 | 168955 | 172911 |
| | 75% | 78% | 80% | 78% | 78% |

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 | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 49.217228 | 49.22795111830101 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 41.381205 | 41.35503545426807 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 256.648843 | 256.8504307413221 | [s] Primary exposure time | 0.000000 | 3.1 |
| [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) | 220169081.184000 | 220168051.79041 | | | |
| Observation start date | 2004-12-23T06:03:37 | 2004-12-23T05:47:31 | | | |
| [s] Observation end time (MET) | 220194391.184000 | 220194845.29162 | | | |
| Observation end date | 2004-12-23T13:05:27 | 2004-12-23T13:14:05 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect

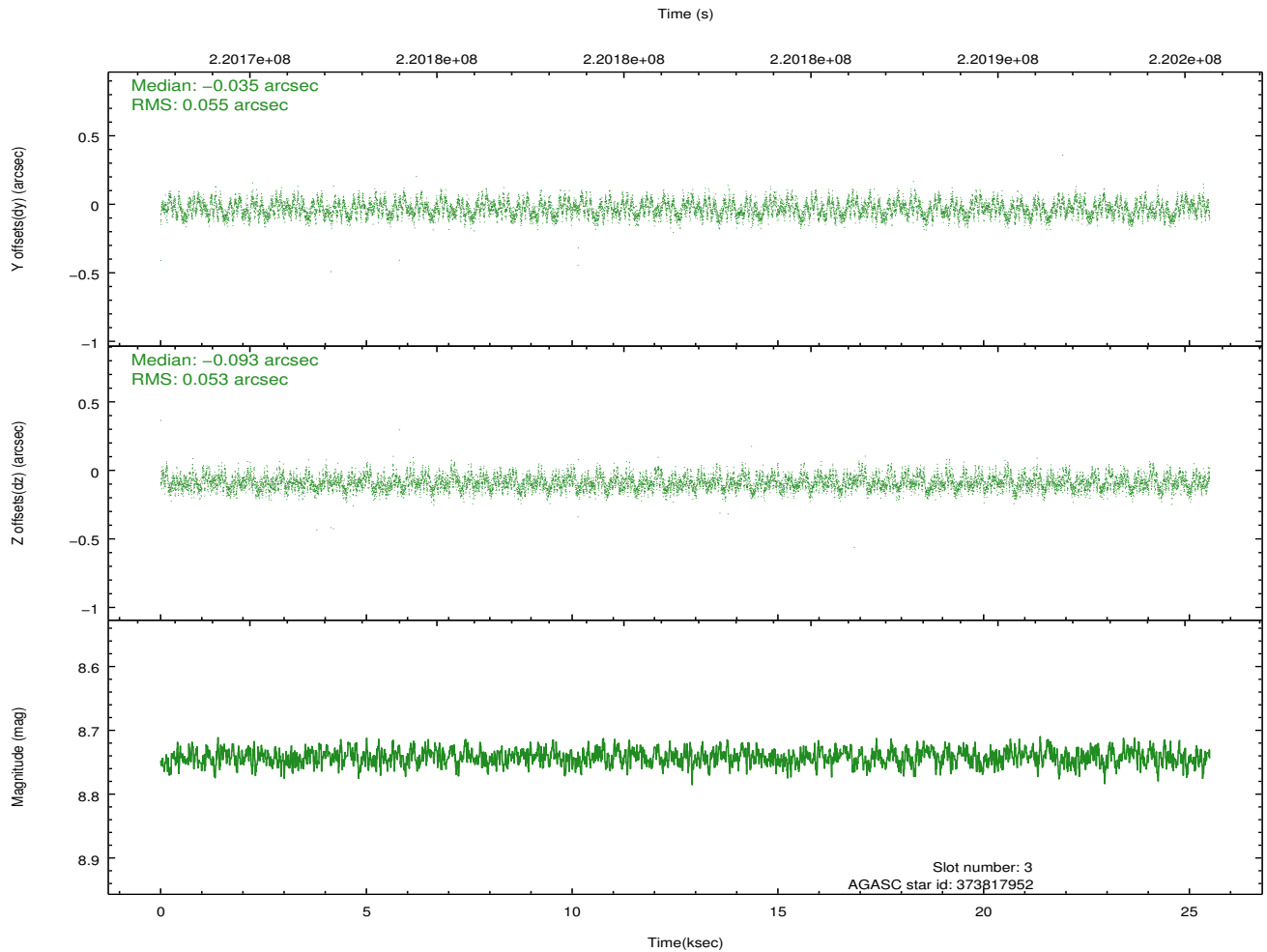
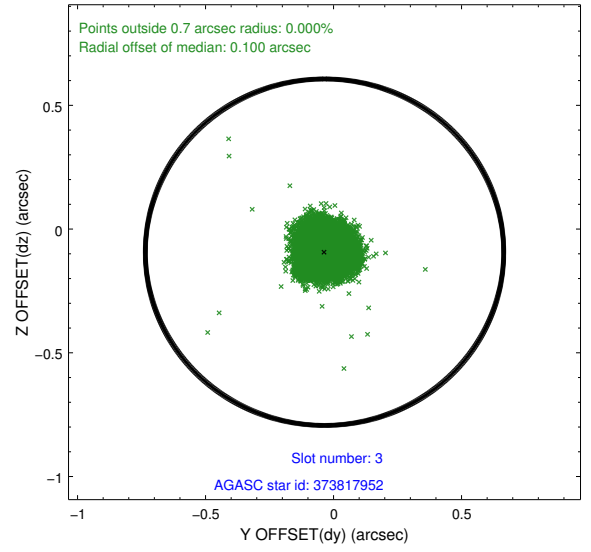
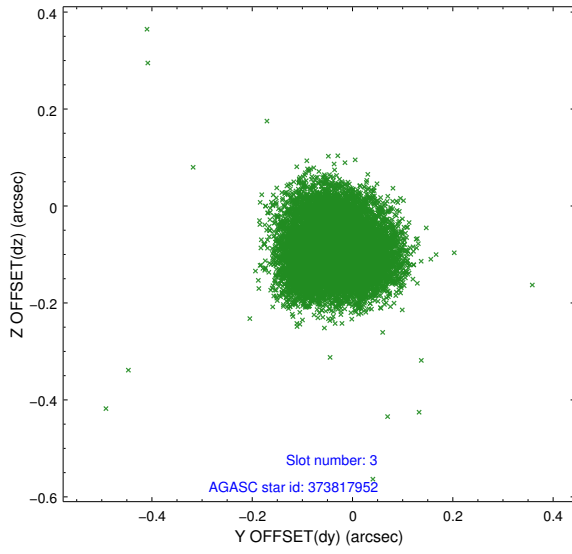


Slot Statistics

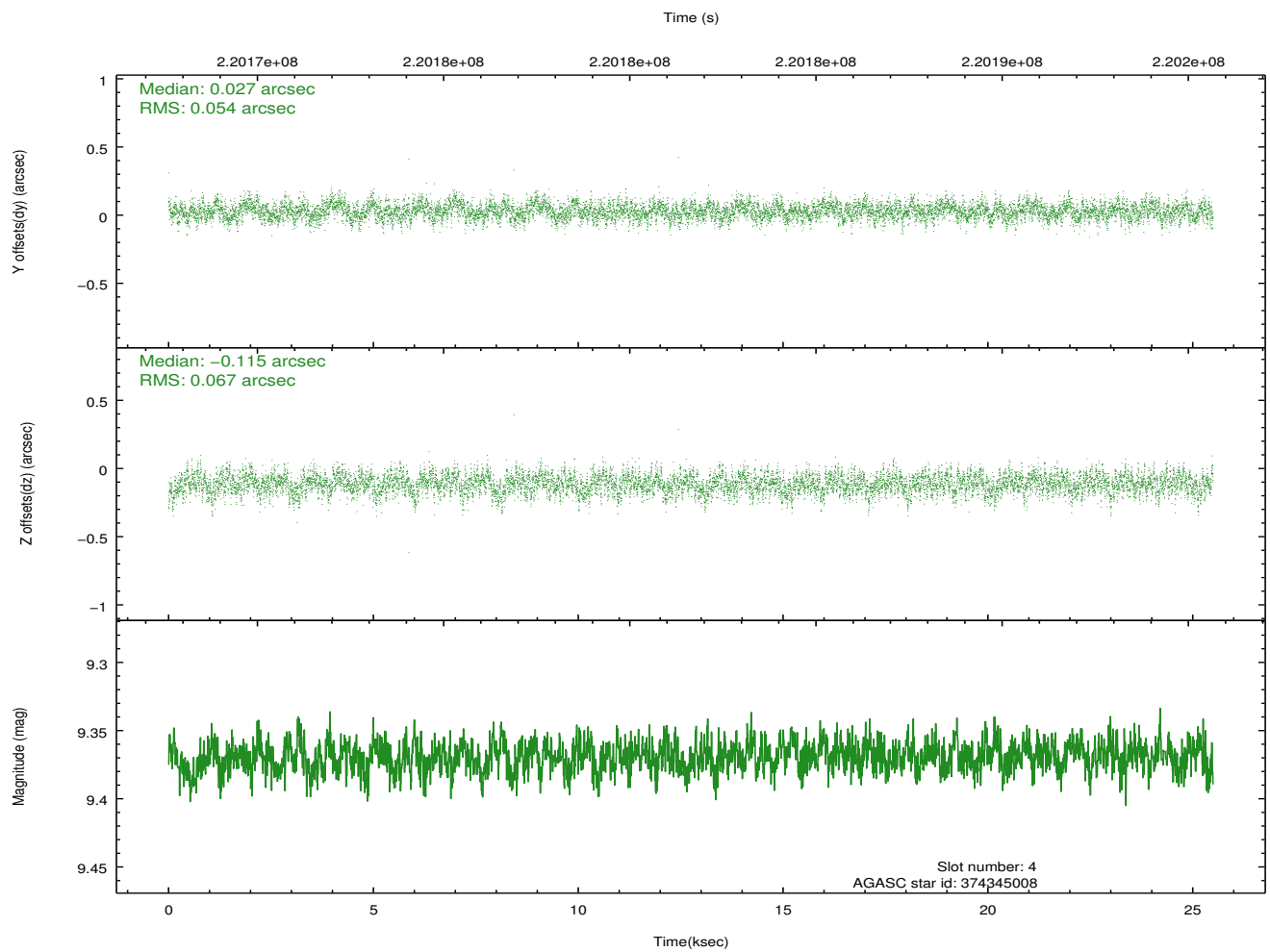
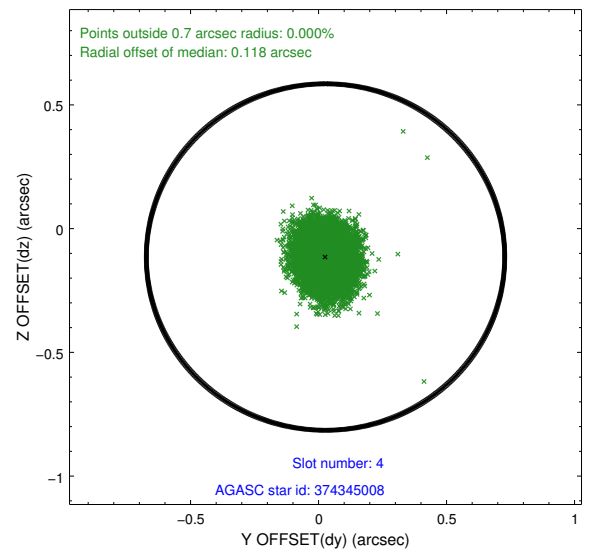
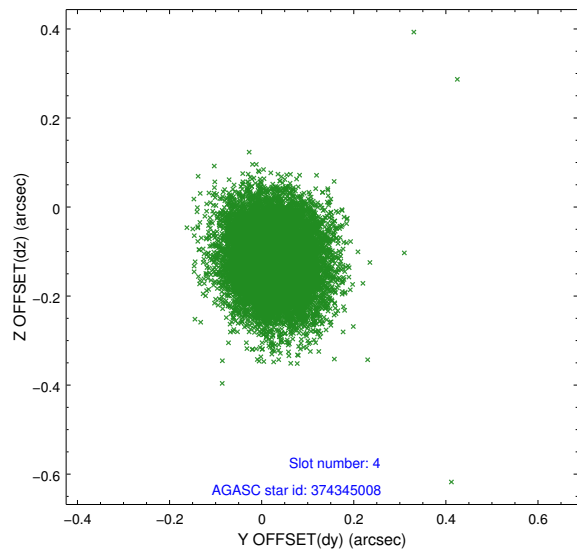
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0 | FID | ACIS-I-4 | 7.17 | 6218 | 0.144 | 0.020 | 0.008 | 0.014 | 0.000000 | 0.000000 | 2151.90 | 1066.19 |
| 1 | FID | ACIS-I-5 | 7.23 | 6219 | -0.248 | 0.015 | 0.006 | 0.011 | 0.000000 | 0.000000 | -1816.30 | 1064.07 |
| 2 | FID | ACIS-I-6 | 7.25 | 6217 | 0.004 | 0.033 | 0.009 | 0.015 | 0.000000 | 0.000000 | 397.23 | 1708.40 |
| 3 | GUIDE | 373817952 | 8.74 | 12436 | -0.035 | -0.093 | 0.082 | 0.126 | 49.913424 | 40.978510 | 966.34 | 2174.14 |
| 4 | GUIDE | 374345008 | 9.37 | 12426 | 0.027 | -0.115 | 0.091 | 0.149 | 48.768668 | 41.619367 | -557.75 | -1372.99 |
| 5 | GUIDE | 374355168 | 8.56 | 12430 | -0.056 | -0.118 | 0.072 | 0.115 | 48.517523 | 41.466988 | 128.48 | -1909.50 |
| 6 | GUIDE | 373831072 | 9.47 | 12425 | 0.156 | 0.204 | 0.095 | 0.153 | 49.776828 | 40.594328 | 2398.50 | 2141.86 |
| 7 | GUIDE | 376070040 | 8.41 | 12431 | -0.089 | 0.122 | 0.079 | 0.129 | 50.072031 | 41.897206 | -2347.14 | 1797.32 |

2.4 Star Slots

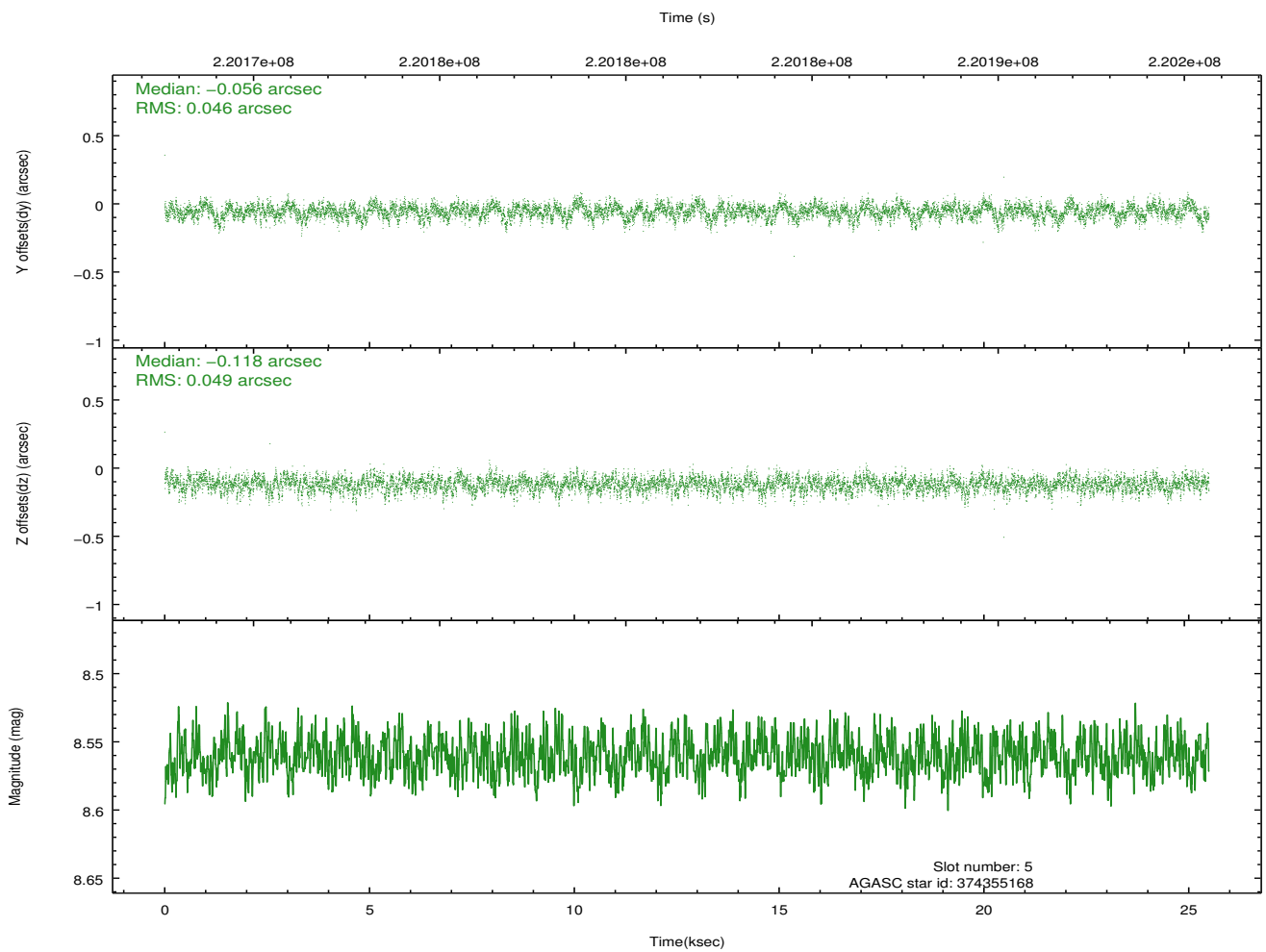
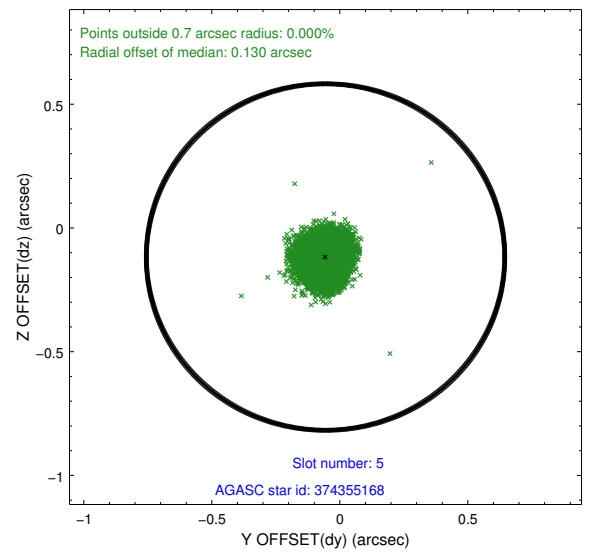
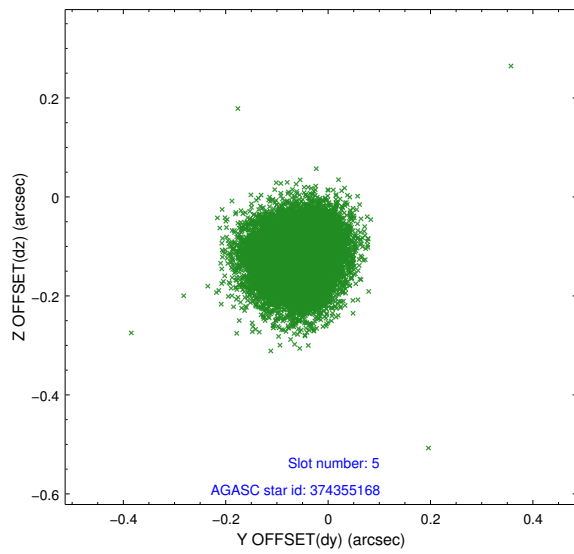
2.4.1 Slot 3



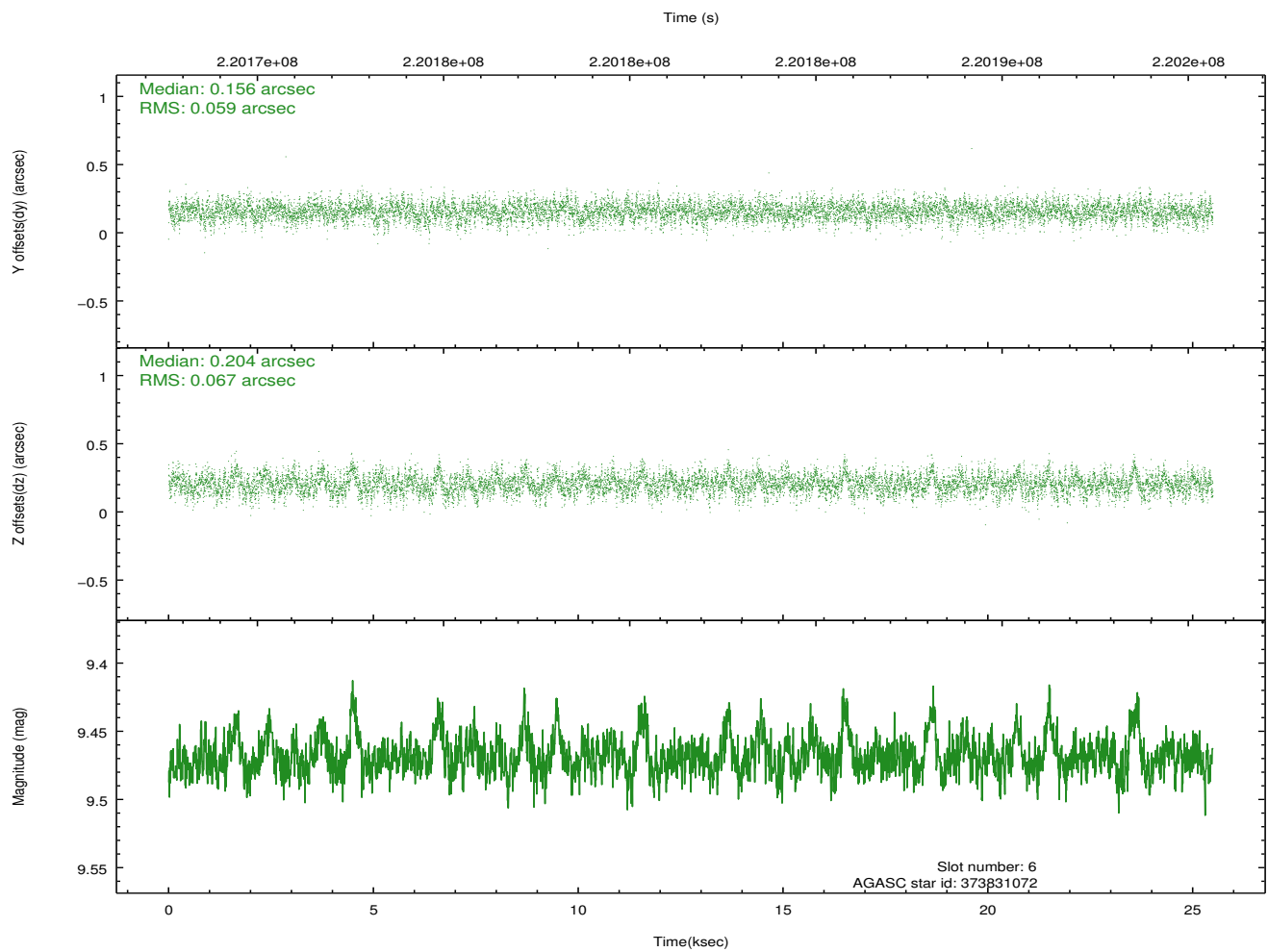
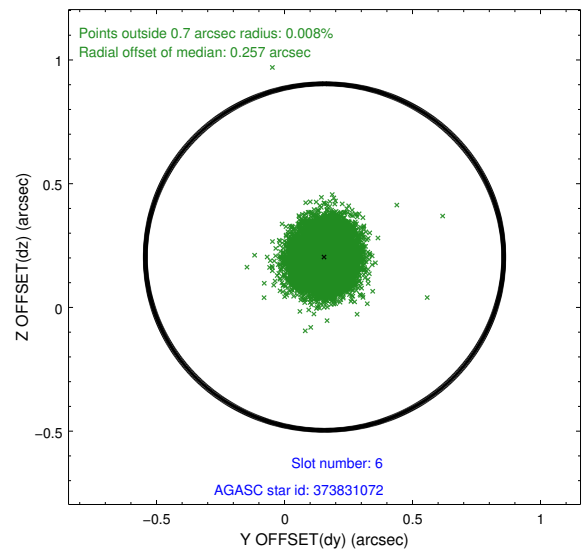
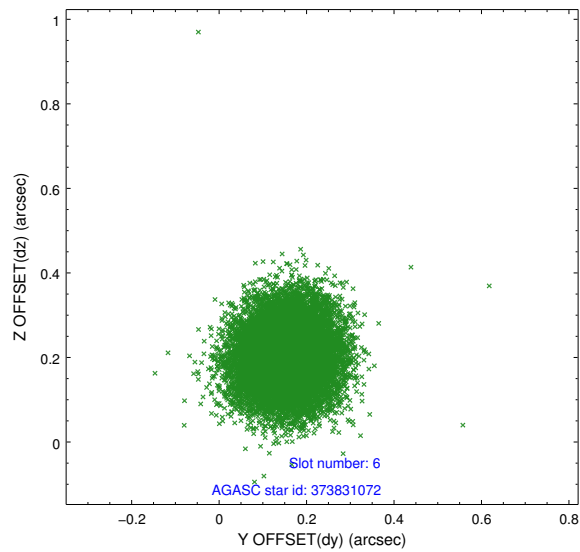
2.4.2 Slot 4



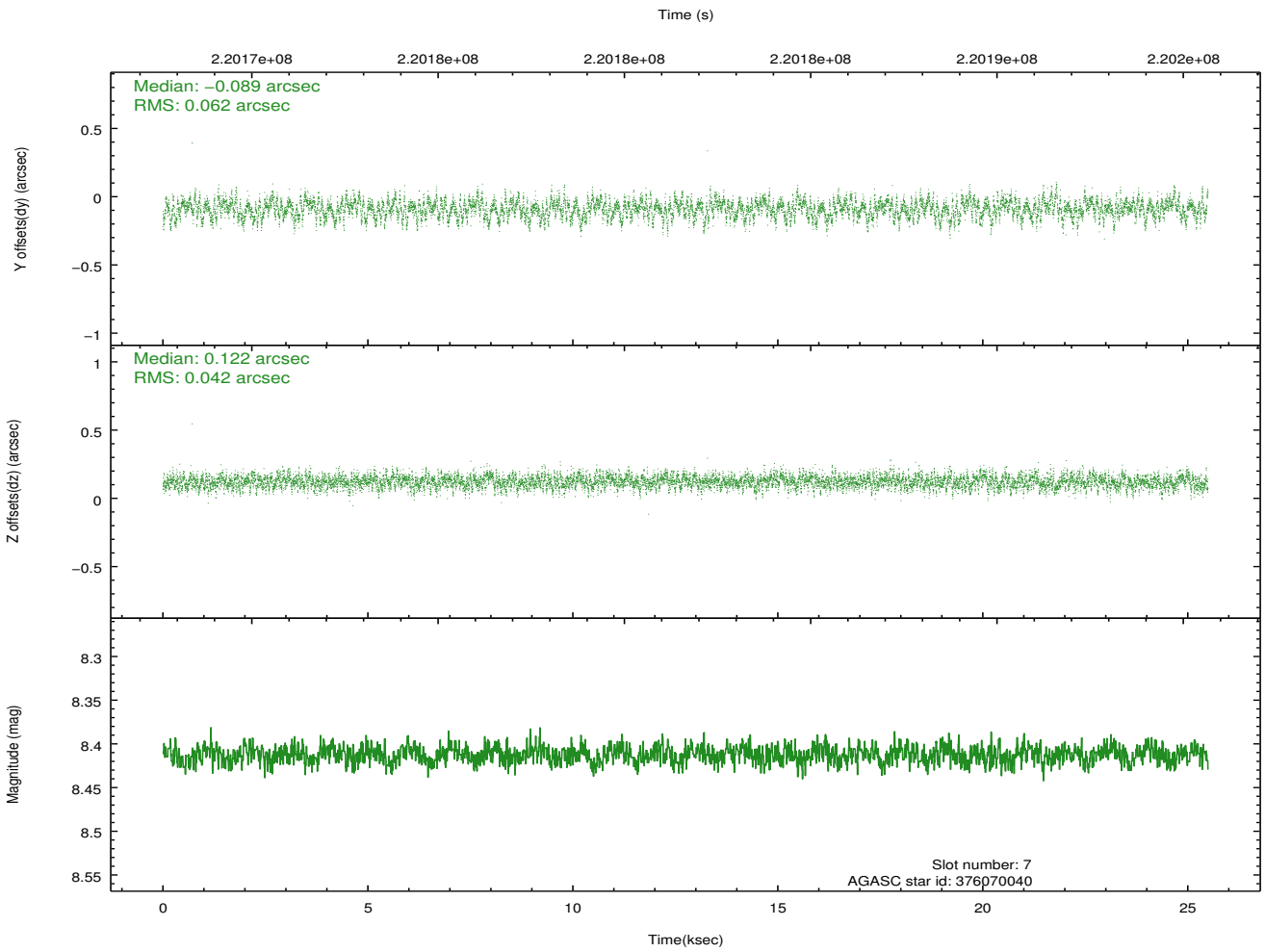
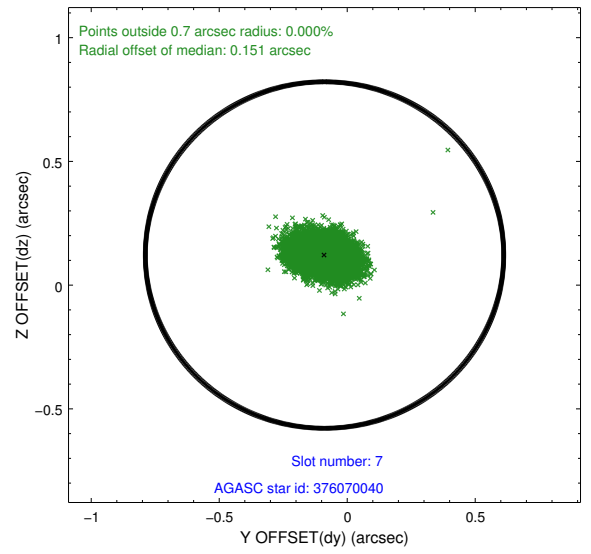
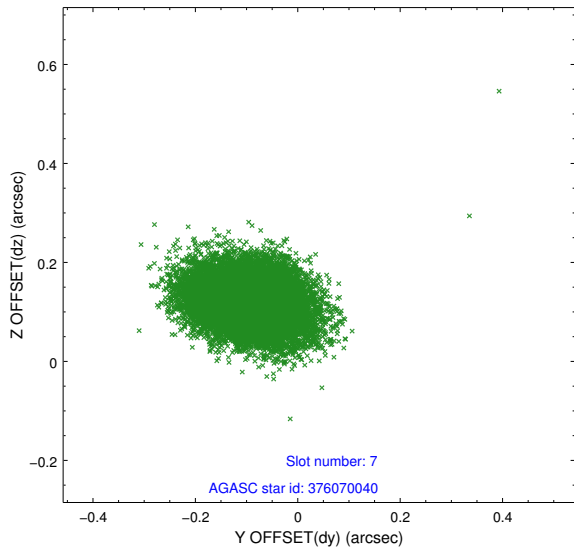
2.4.3 Slot 5



2.4.4 Slot 6

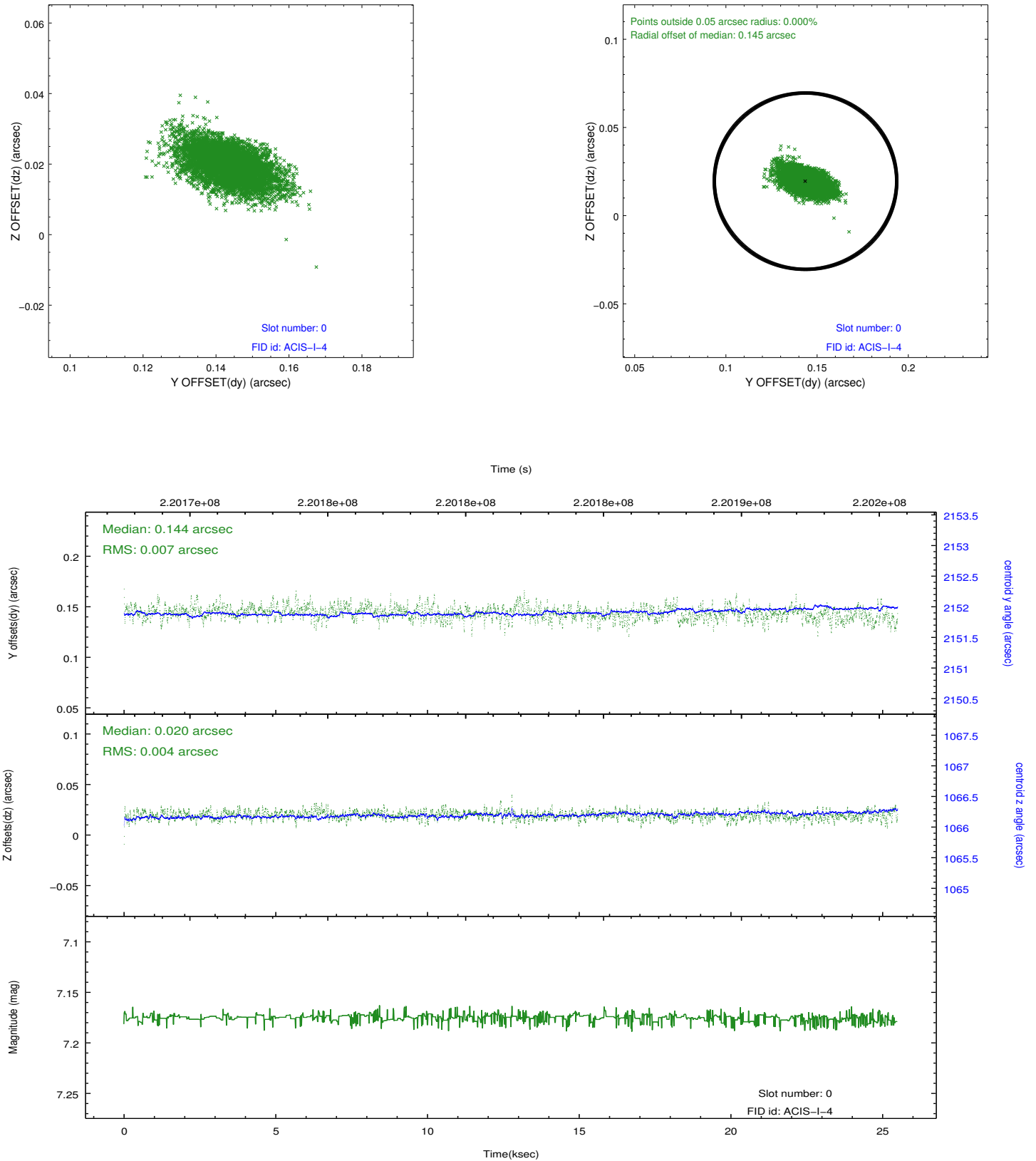


2.4.5 Slot 7

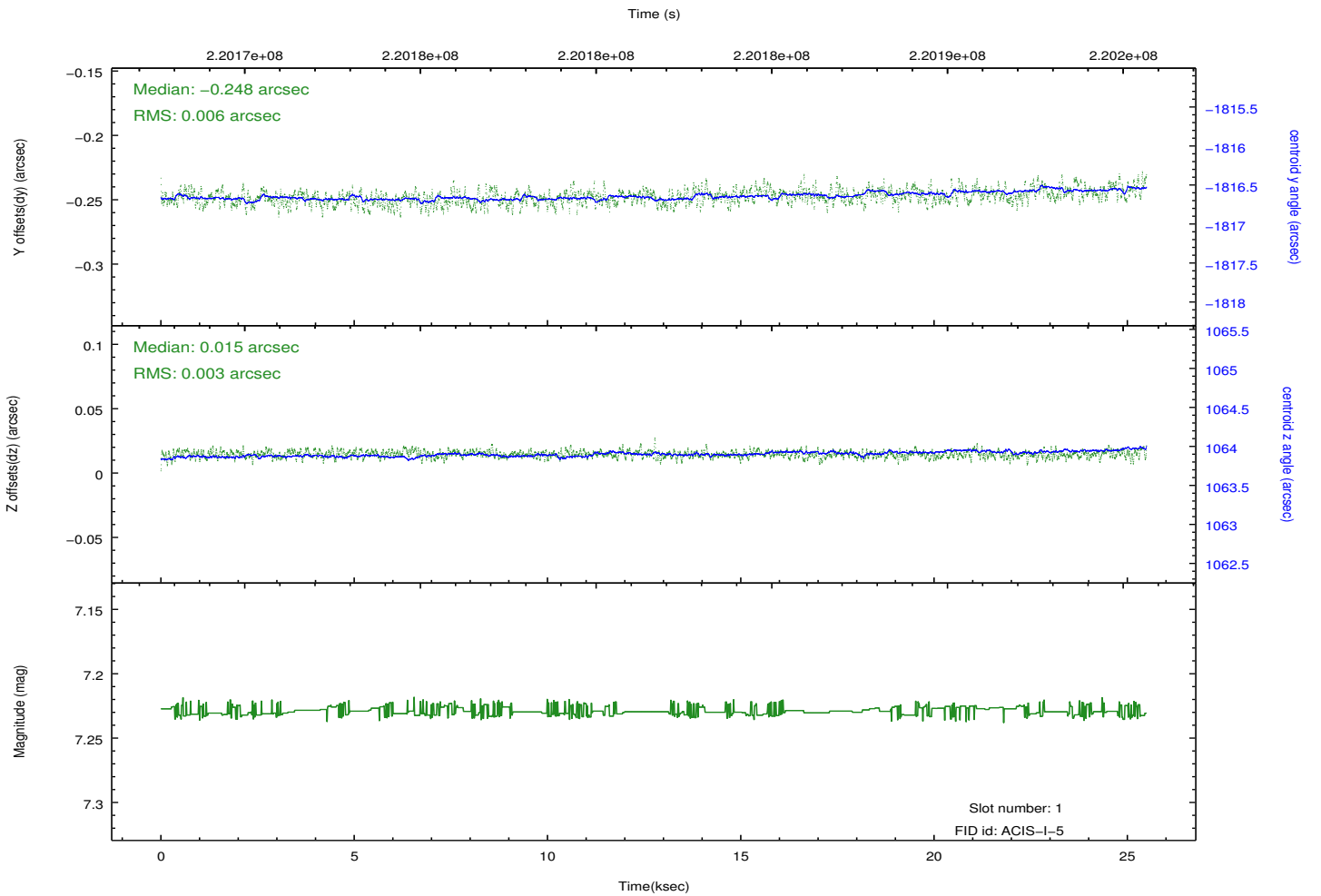
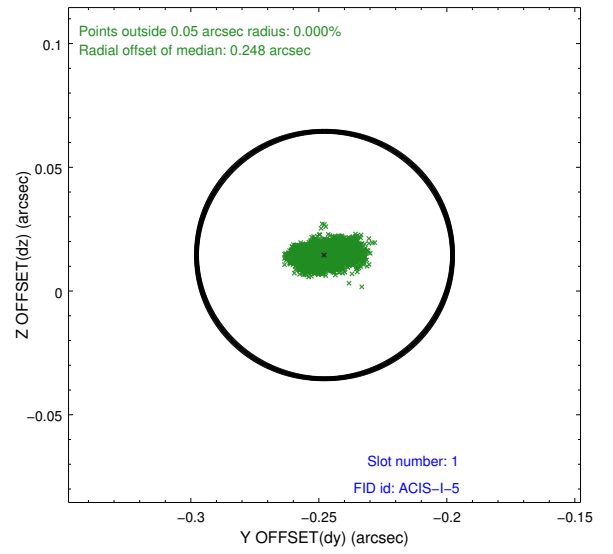
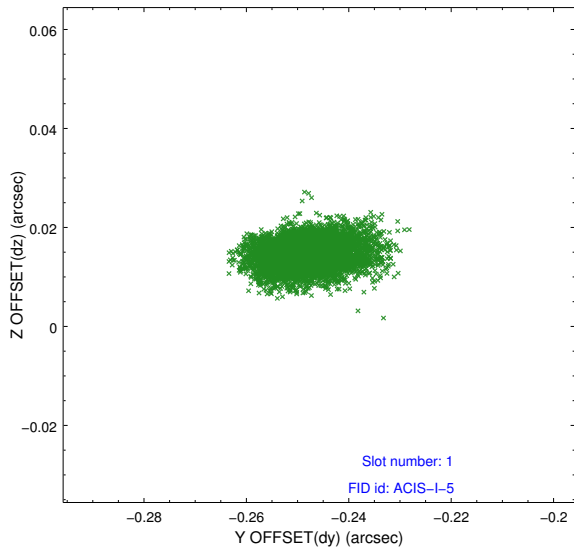


2.5 FID Slots

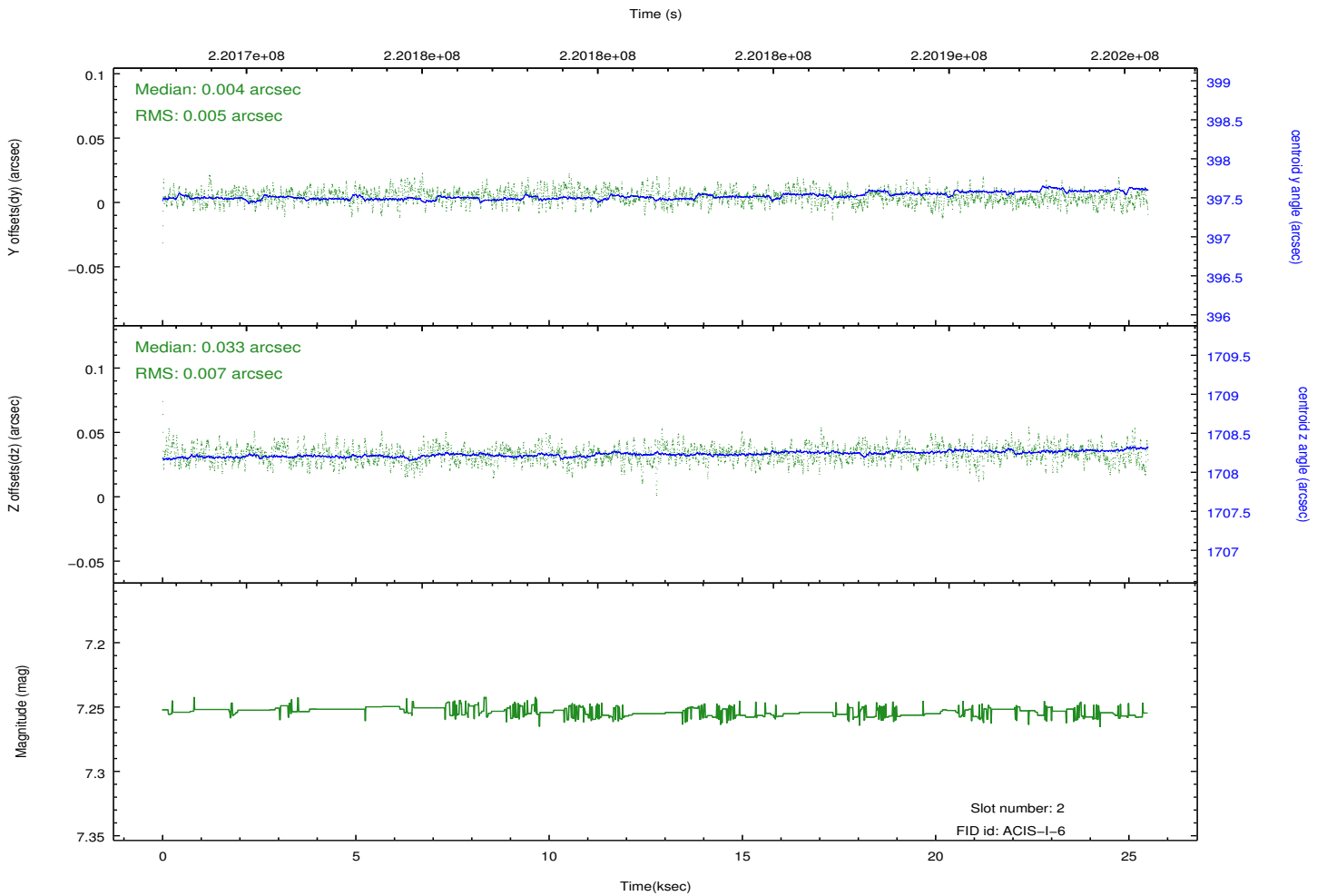
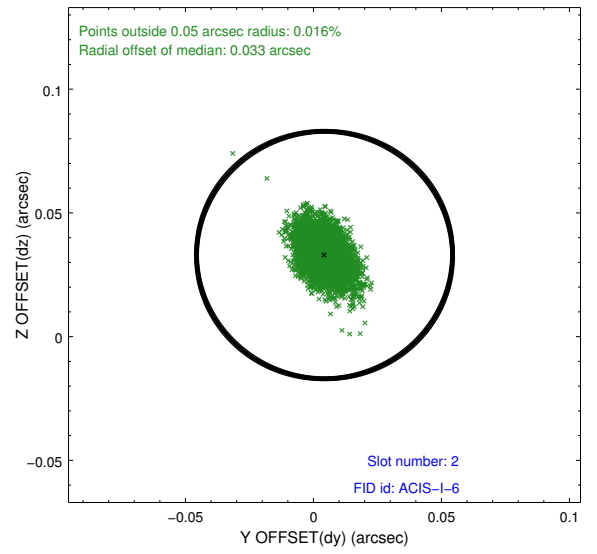
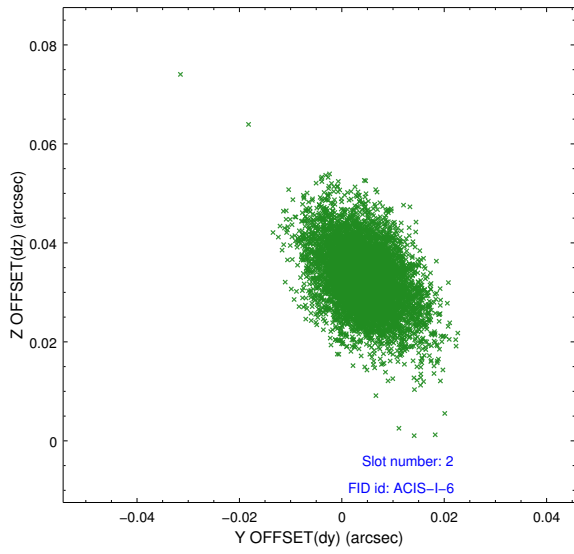
2.5.1 Slot 0



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) | 2013.01.07 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 25.48819 |

A.2 Comments