

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 10957 - L2 Version 2
Chandra X-Ray Center

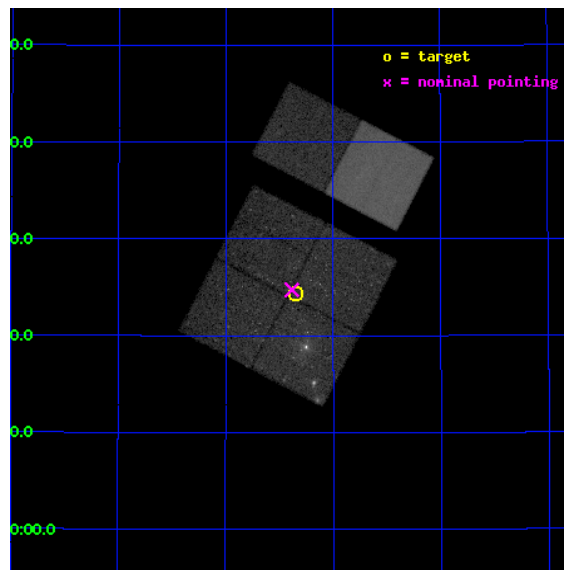
L2 Processing Date : Jun 21 2012

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1 Front

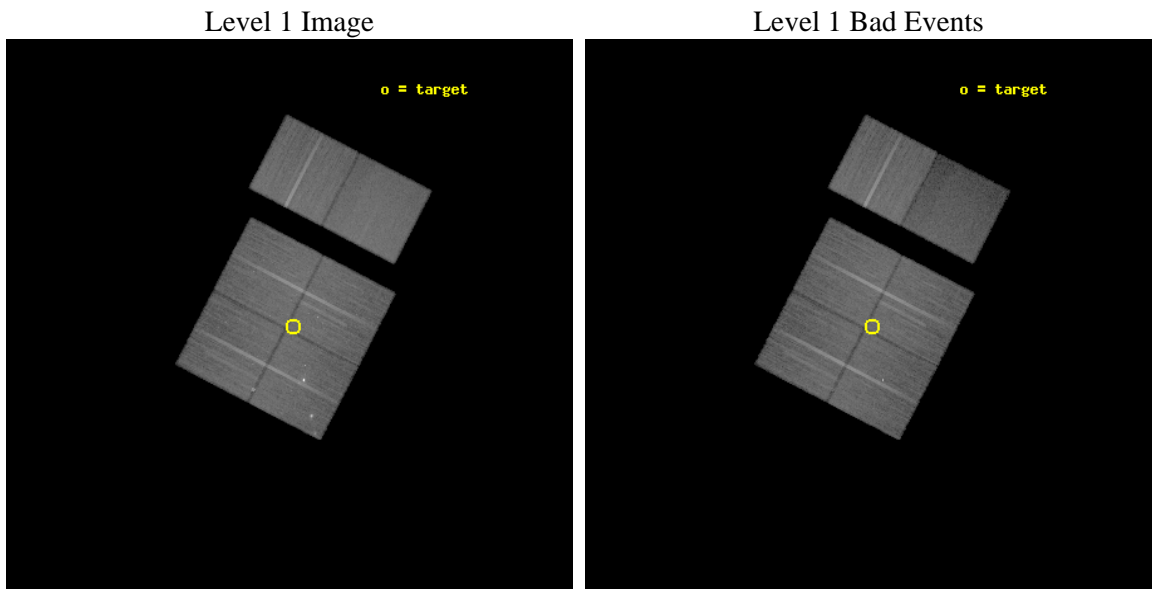
| | | |
|----------|-------------------------------|---|
| seq_num | 200589 | Sequence number |
| obs_id | 10957 | Observation id |
| title | The Chandra Cygnus OB2 Survey | Proposal title |
| observer | Dr. Jeremy Drake | Principal investigator |
| object | Cygnus OB2 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 308.338374 | Observer's specified target RA [deg] |
| dec_targ | 41.406768 | Observer's specified target Dec [deg] |
| ra_nom | 308.3460587283 | Nominal RA [deg] |
| dec_nom | 41.412459046458 | Nominal Dec [deg] |
| roll_nom | 27.403608059375 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 29446.399890363 | Sum of GTIs [s] |
| livetime | 29073.531844458 | Livetime [s] |
| ontime0 | 29446.399890363 | Sum of GTIs [s] |
| ontime1 | 29436.677059054 | Sum of GTIs [s] |
| ontime2 | 29446.399890363 | Sum of GTIs [s] |
| ontime3 | 29446.399890363 | Sum of GTIs [s] |
| ontime6 | 29439.917899966 | Sum of GTIs [s] |
| ontime7 | 29446.399890363 | Sum of GTIs [s] |
| l2events | 251025 | Number of level 2 events |



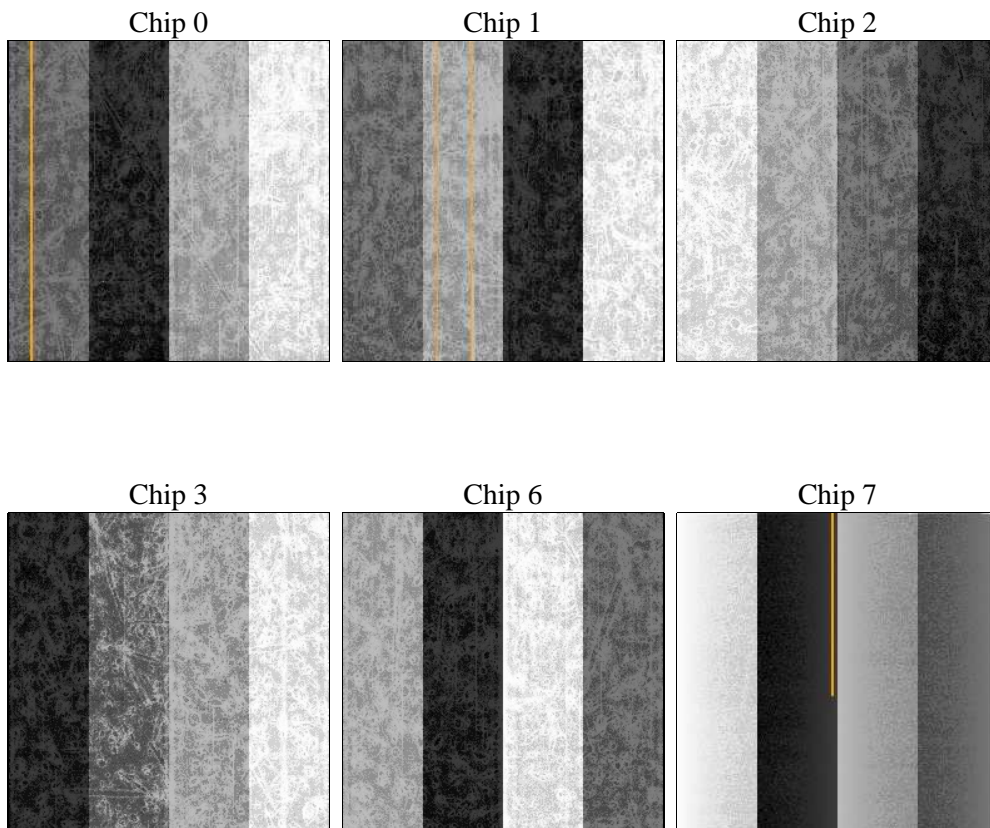
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 29400.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 29446.399890363 | Sum of GTIs [s] |
| caldbver | 4.4.10 | | ontime0 | 29446.399890363 | Sum of GTIs [s] |
| date | 2012-06-21T15:28:56 | Date and time of file creation | ontime1 | 29436.677059054 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 29446.399890363 | Sum of GTIs [s] |
| | | | ontime3 | 29446.399890363 | Sum of GTIs [s] |
| | | | ontime6 | 29439.917899966 | Sum of GTIs [s] |
| | | | ontime7 | 29446.399890363 | Sum of GTIs [s] |
| | | | l1events | 1368043 | Number of level 1 events |

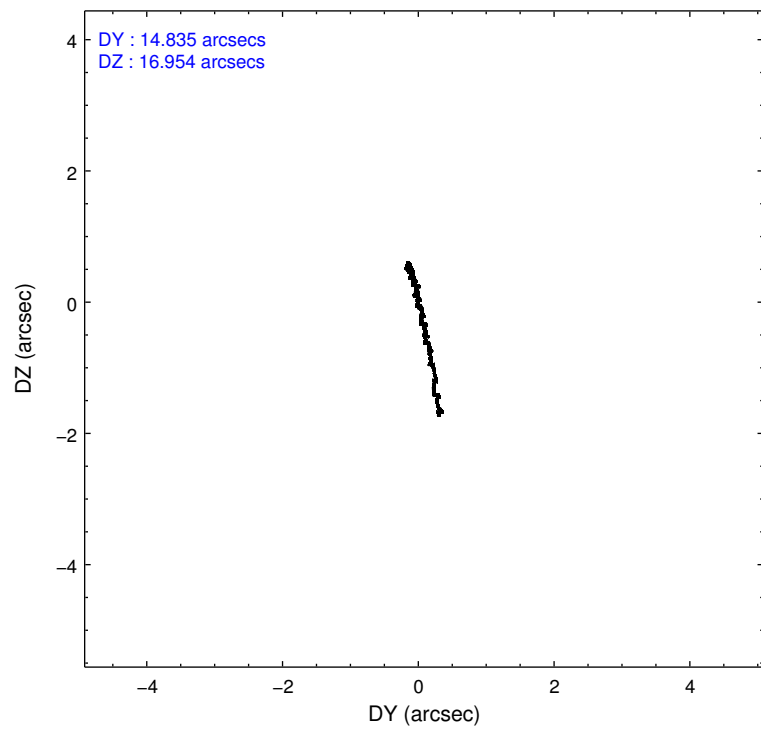
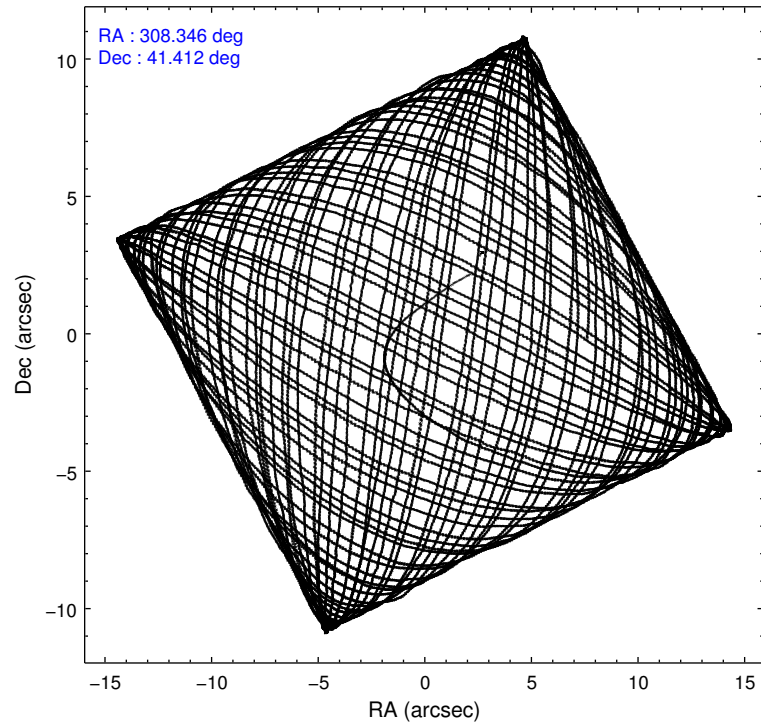
2.1.4 Events

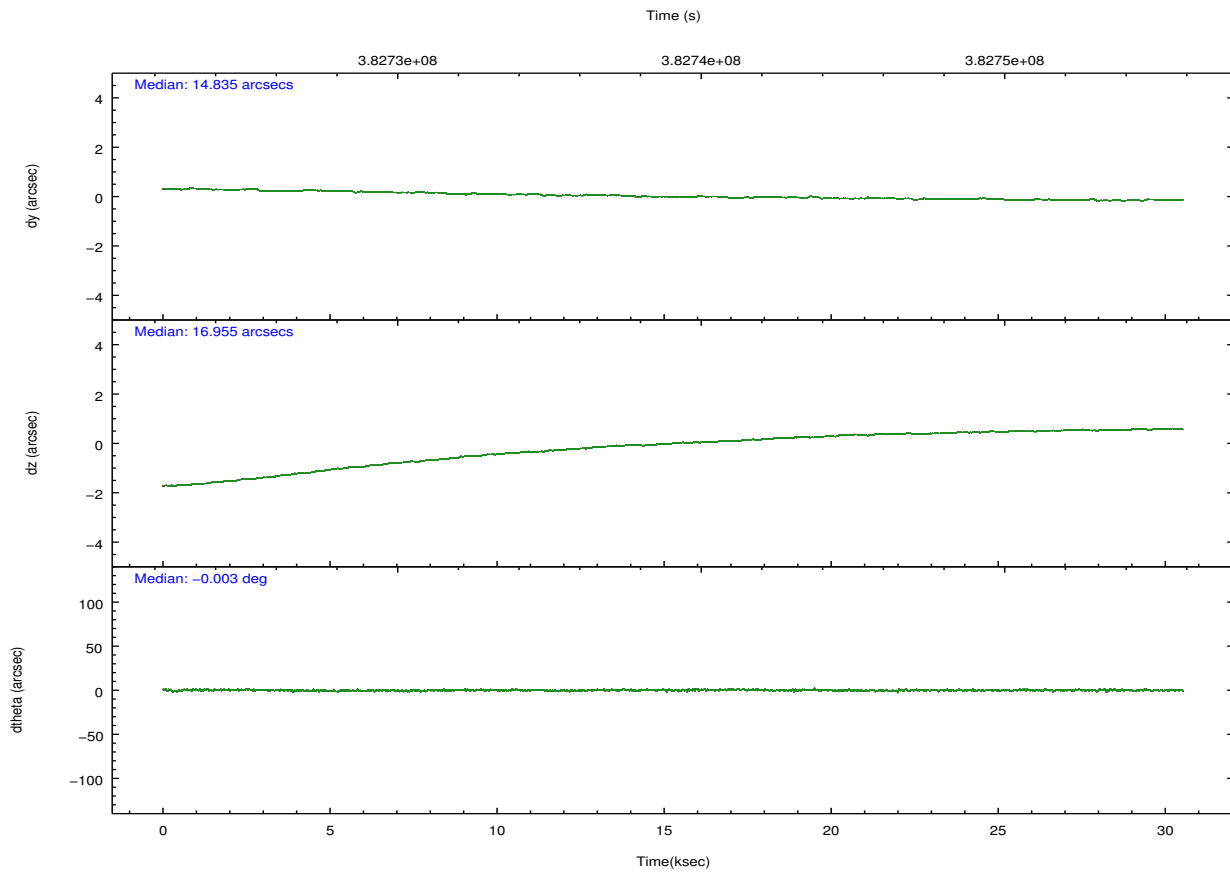
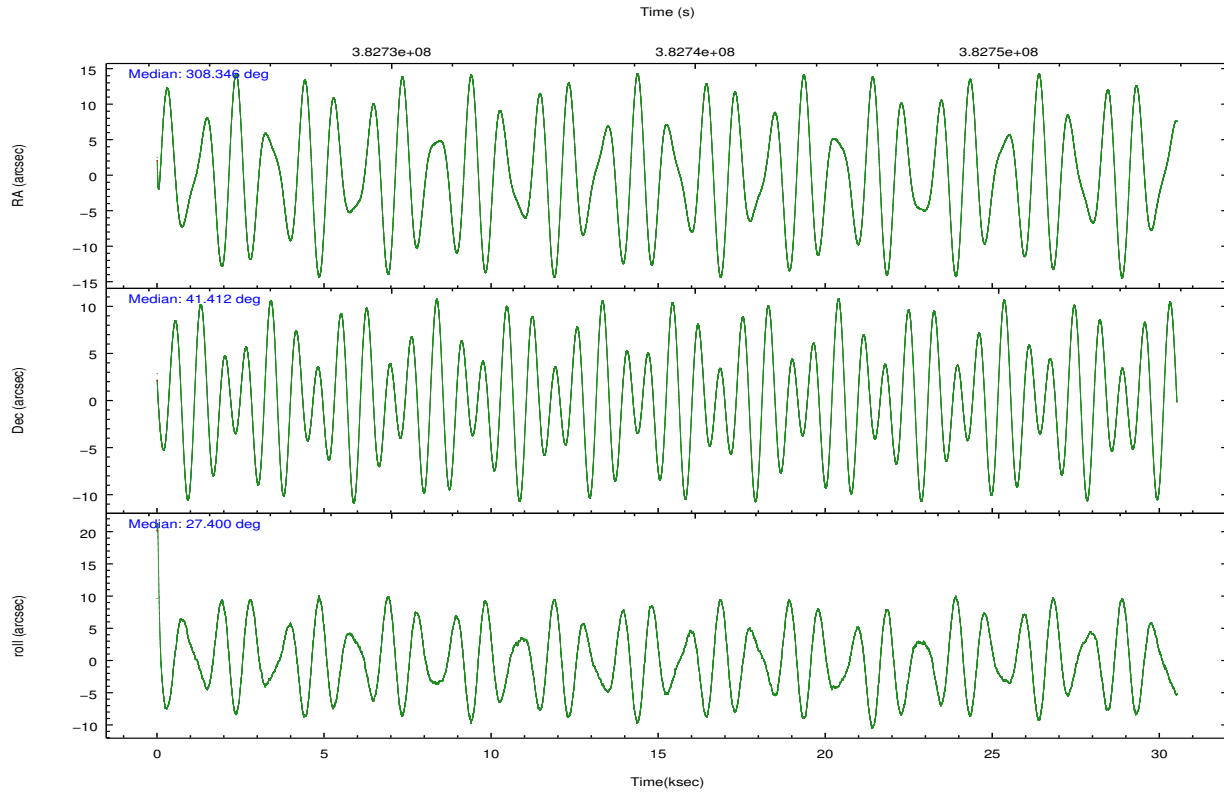
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|-------|
| level 1 events | 211624 | 242099 | 230028 | 225863 | 234769 | 223660 | grade 0 events | 13036 | 35029 | 11491 | 13355 | 9440 | 11578 |
| rejected events | 182796 | 184015 | 203467 | 197551 | 209766 | 112627 | | 6% | 14% | 4% | 5% | 4% | 5% |
| rejected % | 86% | 76% | 88% | 87% | 89% | 50% | grade 1 events | 199 | 1183 | 167 | 166 | 125 | 354 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 6167 | 9485 | 6014 | 5542 | 5612 | 23950 |
| | | | | | | | | 2% | 3% | 2% | 2% | 2% | 10% |
| | | | | | | | grade 3 events | 2754 | 3962 | 2416 | 2668 | 2516 | 10290 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 4 events | 2505 | 3900 | 2539 | 2415 | 2473 | 10298 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 5 events | 7180 | 8275 | 6979 | 8211 | 8240 | 23934 |
| | | | | | | | | 3% | 3% | 3% | 3% | 3% | 10% |
| | | | | | | | grade 6 events | 4368 | 5713 | 4101 | 4335 | 4965 | 54927 |
| | | | | | | | | 2% | 2% | 1% | 1% | 2% | 24% |
| | | | | | | | grade 7 events | 175415 | 174552 | 196321 | 189171 | 201398 | 88329 |
| | | | | | | | | 82% | 72% | 85% | 83% | 85% | 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 | CCD I0 on | Y | Y |
| Observation mode | POINTING | POINTING | CCD I1 on | Y | Y |
| [deg] Pointing RA | 308.326415 | 308.3460587282965 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | 41.389217 | 41.41245904645844 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 27.207908 | 27.40360805937544 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | CCD S1 on | N | N |
| [mm] SIM defocus | 0 | 0.001439871863259334 | CCD S2 on | O2 | Y |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | CCD S3 on | O1 | Y |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 382724937.184000 | 382722707.8783 | CCD S5 on | N | N |
| Observation start date | 2010-02-16T16:27:51 | 2010-02-16T15:51:47 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 382754337.184000 | 382754471.09241 | On-chip summing requested | N | N |
| Observation end date | 2010-02-17T00:37:51 | 2010-02-17T00:41:11 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect





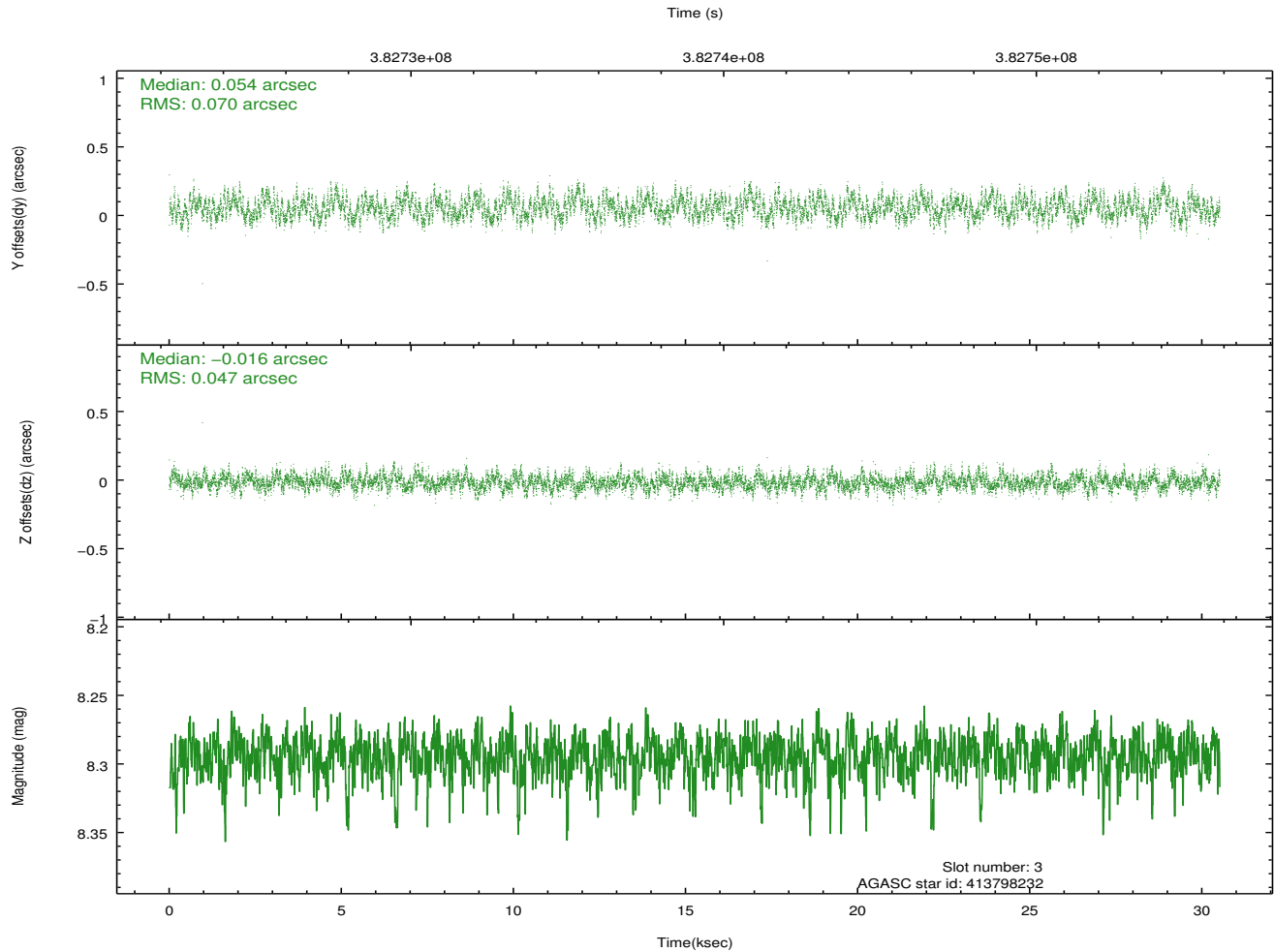
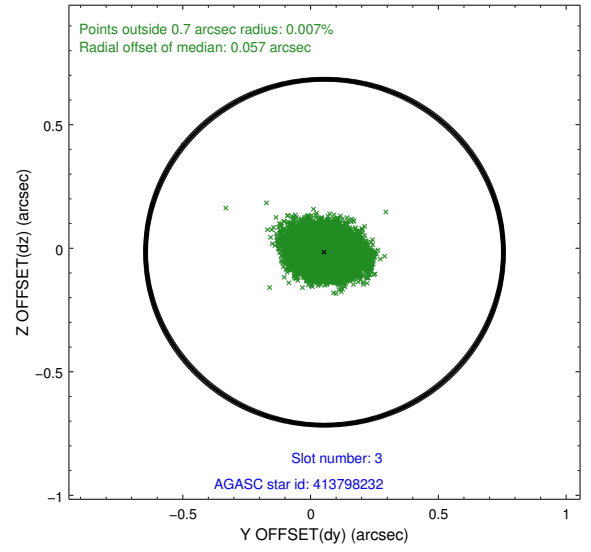
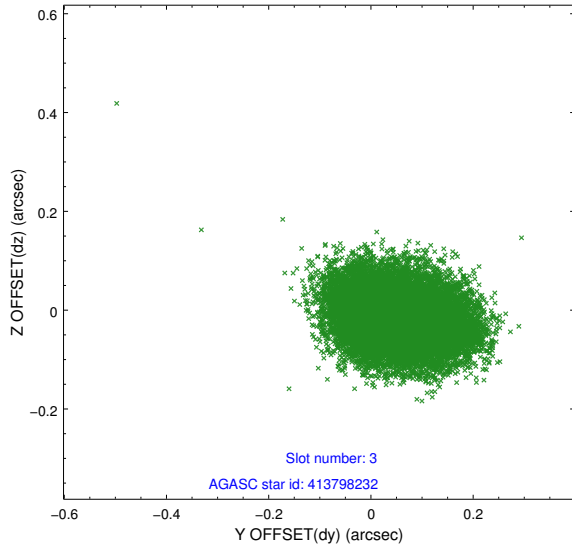
Slot Statistics

| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-2 | 6.93 | 7443 | -0.095 | -0.091 | 0.017 | 0.030 | 0.000000 | 0.000000 | -769.67 | -846.86 |
| 1 | FID | ACIS-I-4 | 6.94 | 7445 | 0.185 | 0.081 | 0.014 | 0.025 | 0.000000 | 0.000000 | 2144.61 | 1059.49 |
| 2 | FID | ACIS-I-5 | 6.99 | 7444 | -0.189 | 0.079 | 0.014 | 0.022 | 0.000000 | 0.000000 | -1823.52 | 1057.36 |
| 3 | GUIDE | 413798232 | 8.29 | 14884 | 0.054 | -0.016 | 0.091 | 0.144 | 309.116117 | 41.044272 | 1343.85 | -2076.12 |
| 4 | GUIDE | 413805792 | 7.33 | 14888 | -0.049 | 0.057 | 0.061 | 0.098 | 307.778748 | 40.858024 | -2197.79 | -1014.54 |
| 5 | GUIDE | 414327600 | 9.13 | 14876 | -0.095 | -0.026 | 0.091 | 0.147 | 309.215107 | 41.434576 | 2213.50 | -940.37 |
| 6 | GUIDE | 413796456 | 8.69 | 14880 | 0.135 | 0.049 | 0.091 | 0.141 | 308.312084 | 40.613132 | -1311.63 | -2466.88 |
| 7 | GUIDE | 414324232 | 8.31 | 14885 | -0.047 | -0.064 | 0.055 | 0.090 | 308.637806 | 41.996627 | 1741.40 | 1565.13 |

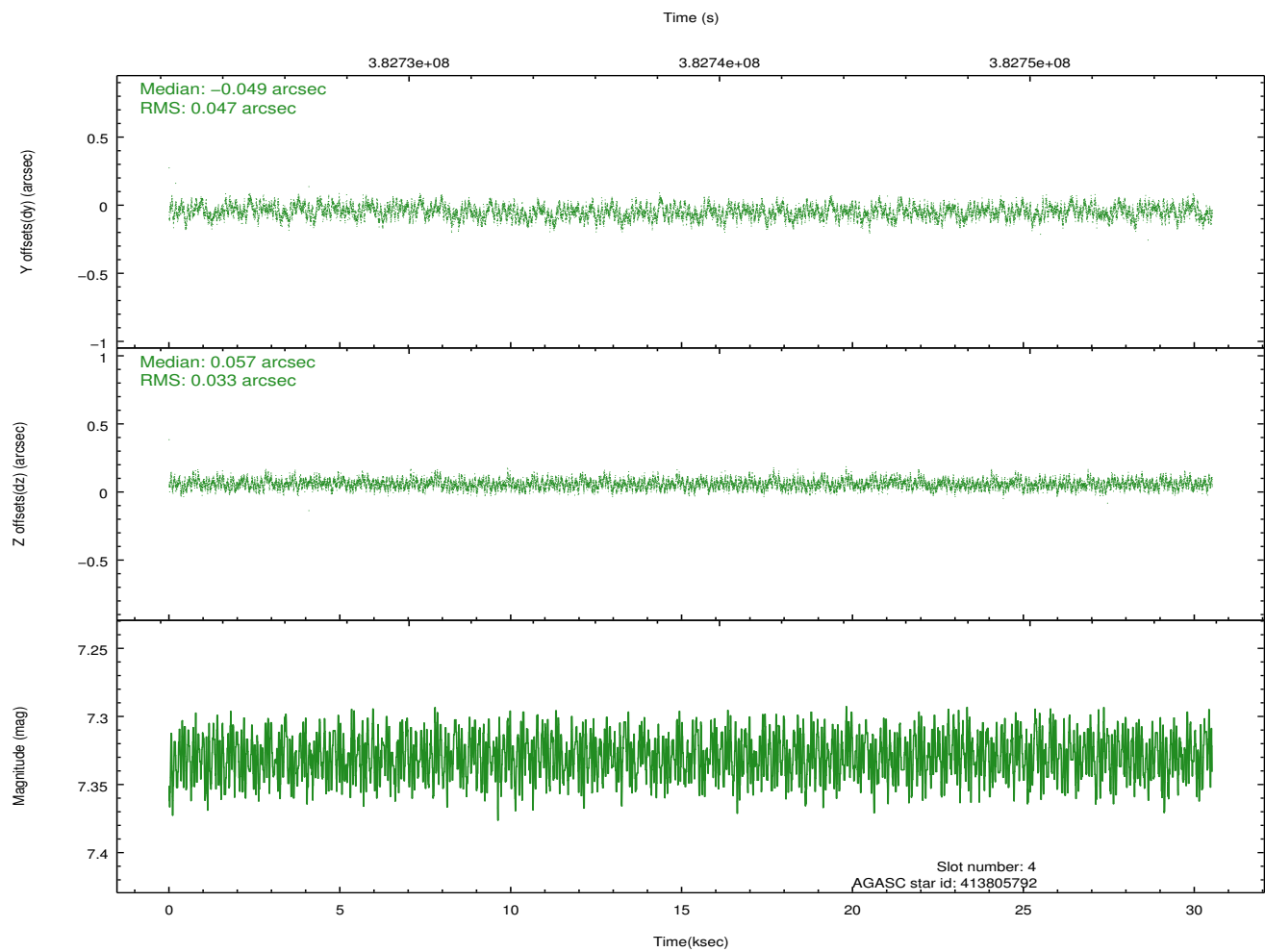
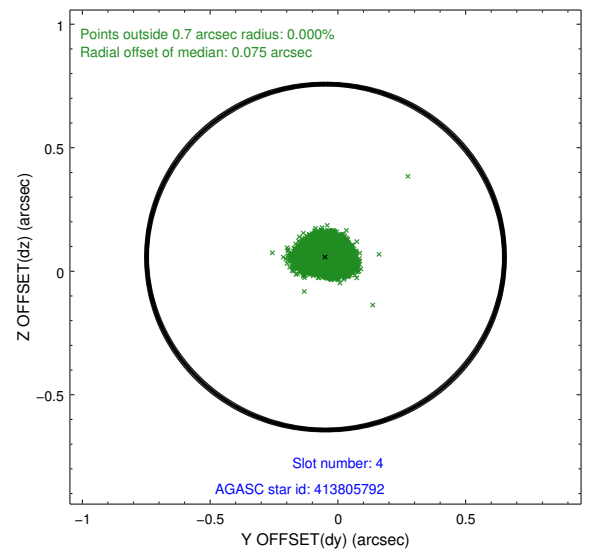
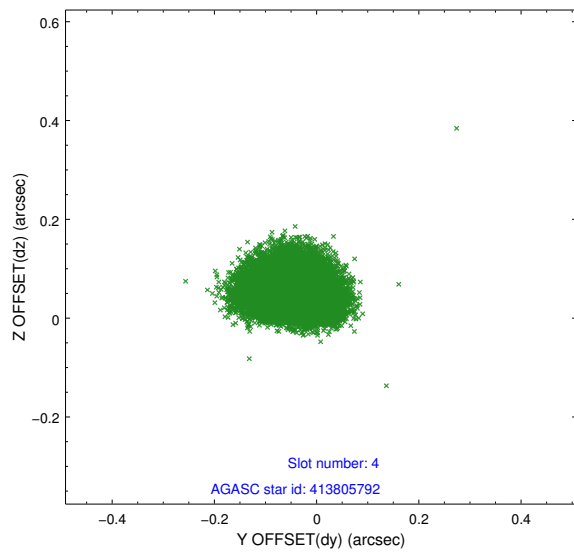
∞

2.4 Star Slots

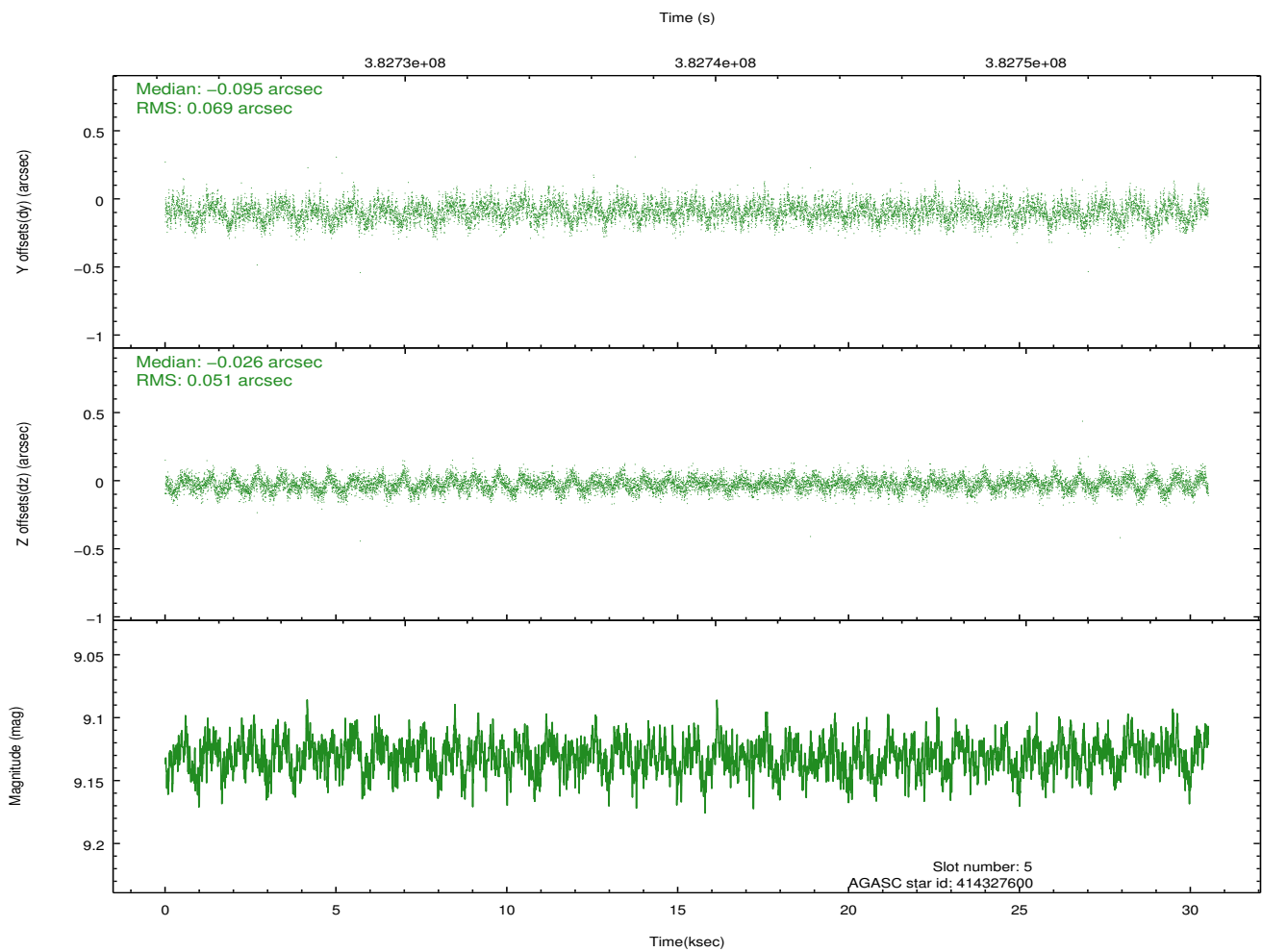
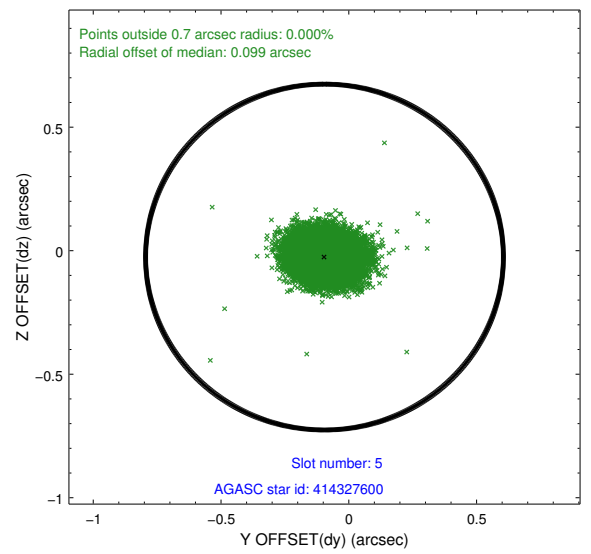
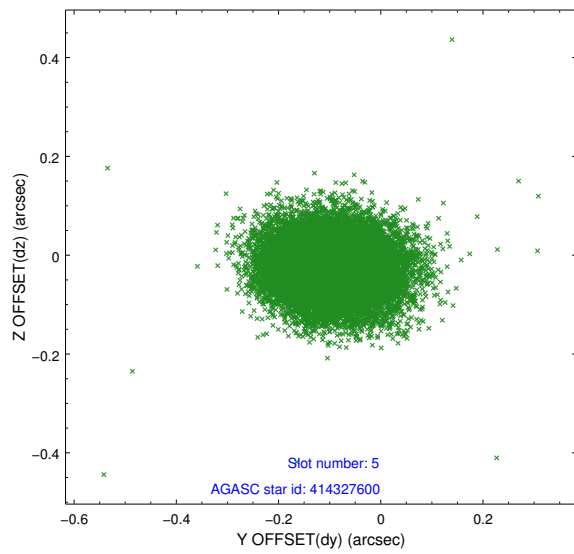
2.4.1 Slot 3



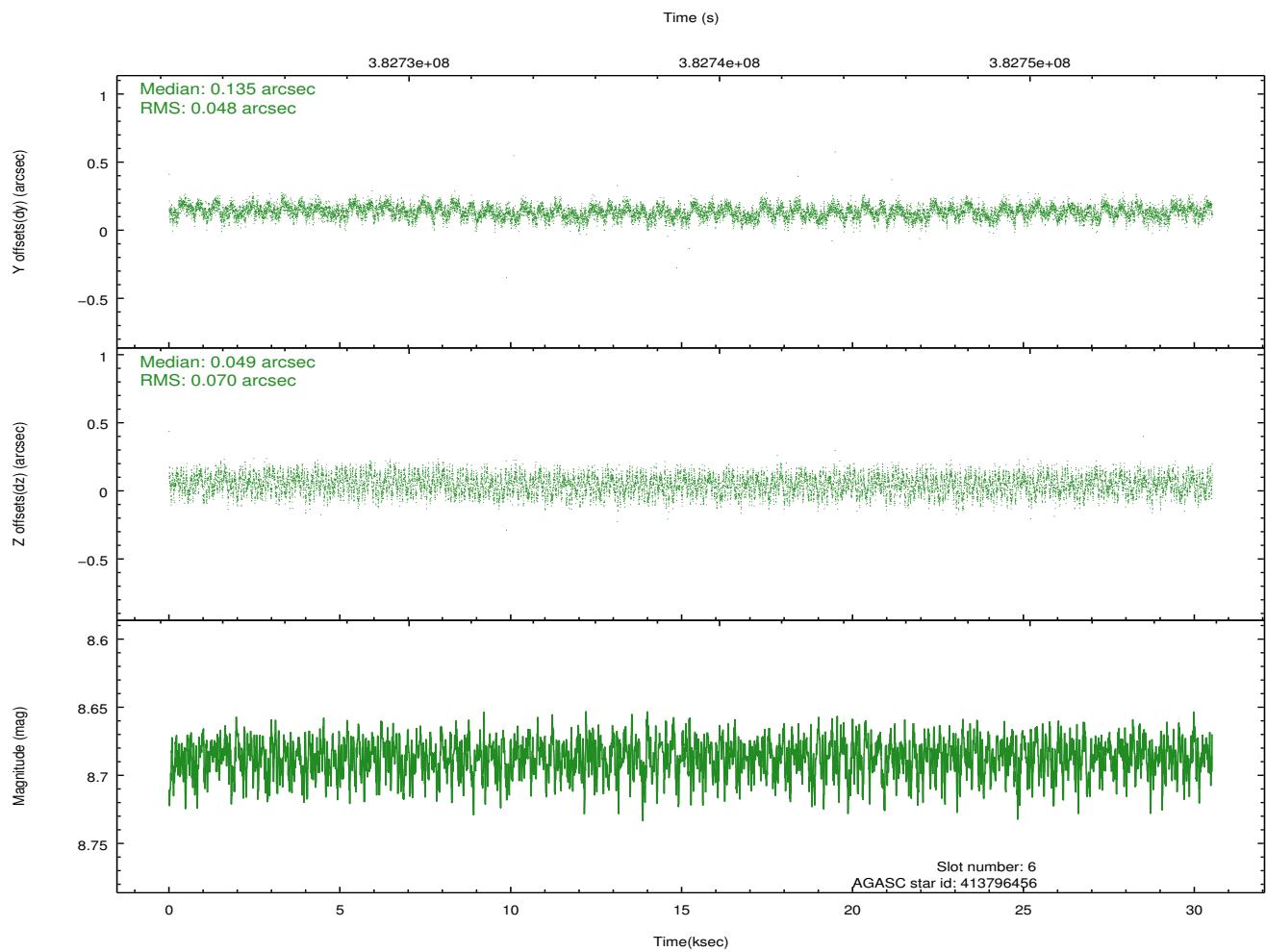
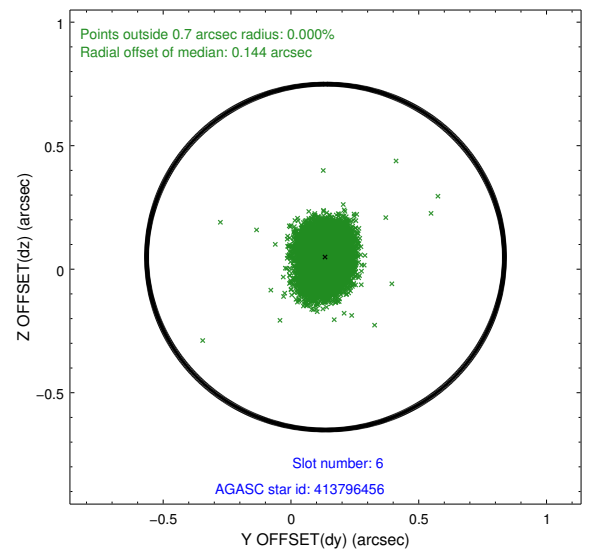
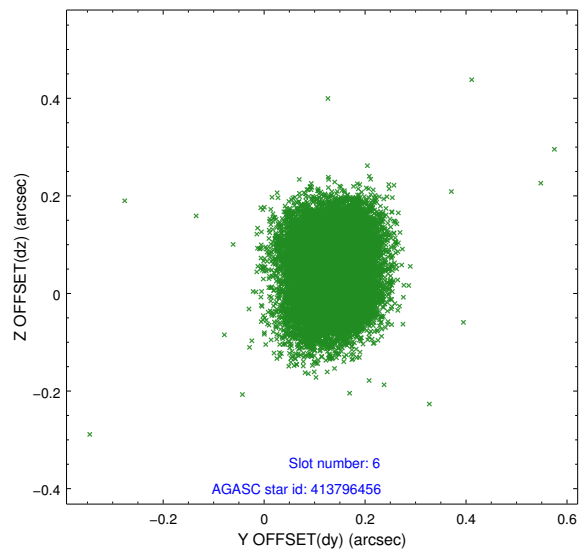
2.4.2 Slot 4



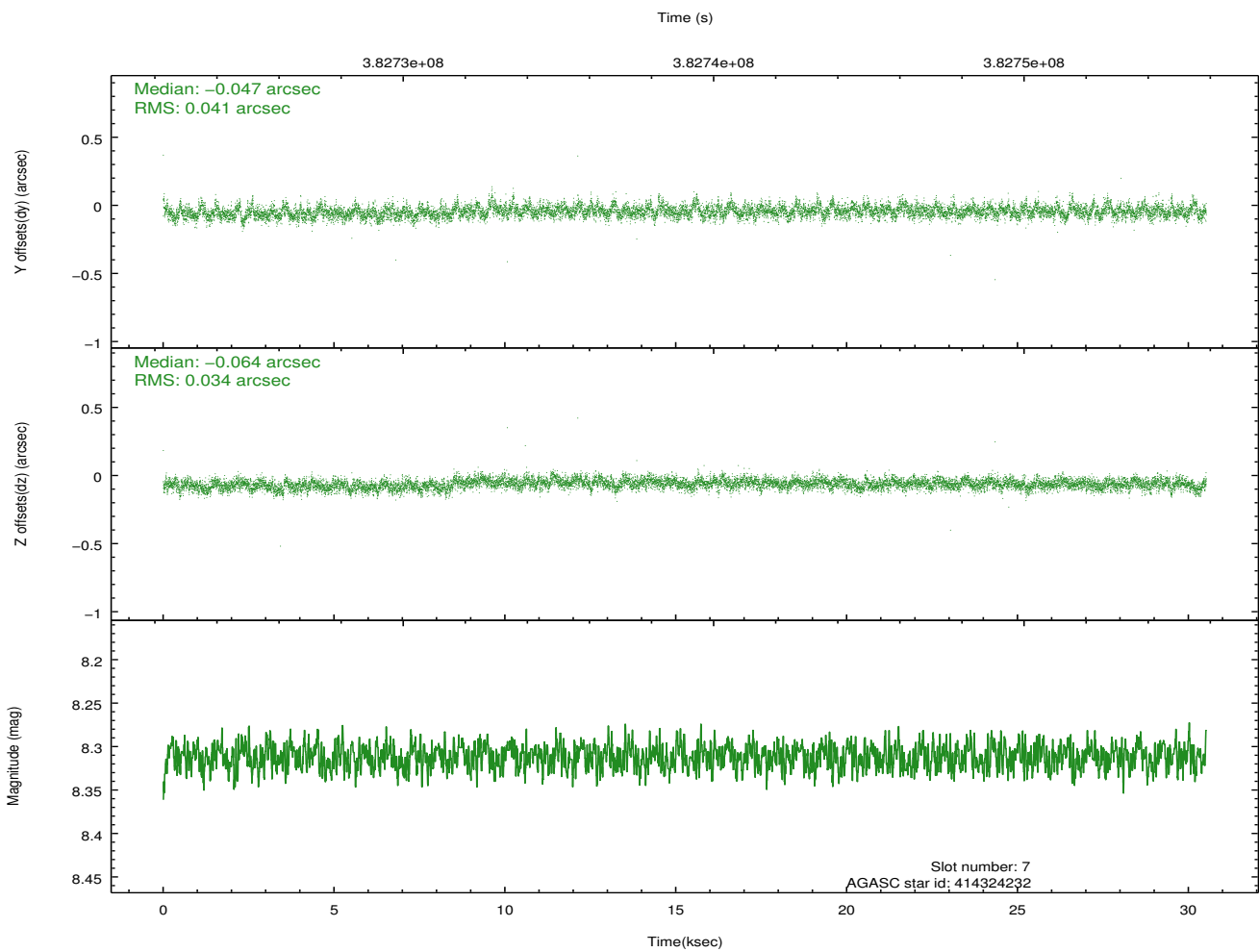
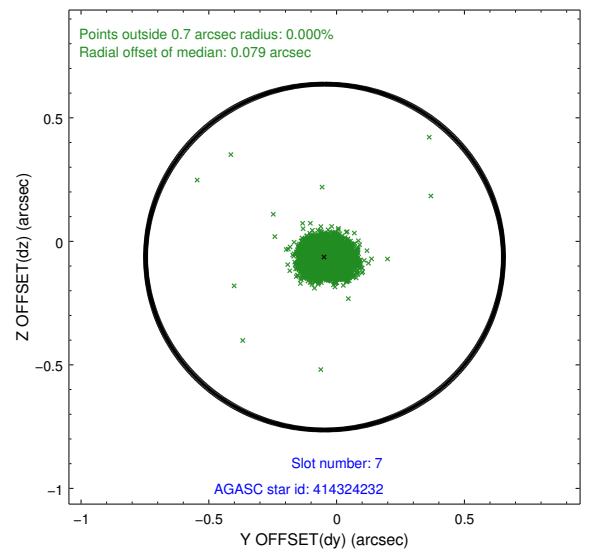
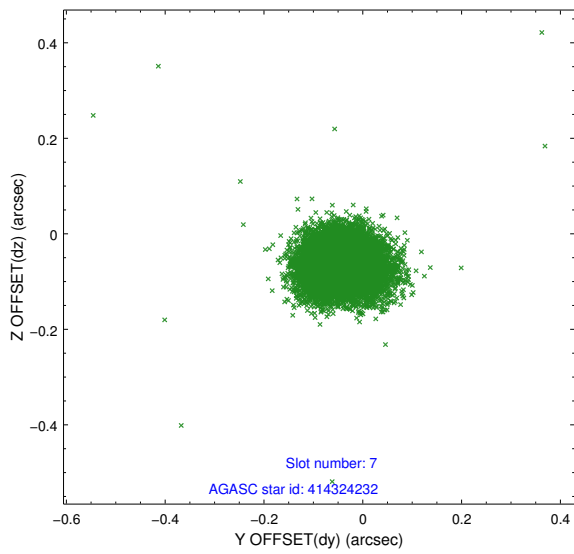
2.4.3 Slot 5



2.4.4 Slot 6

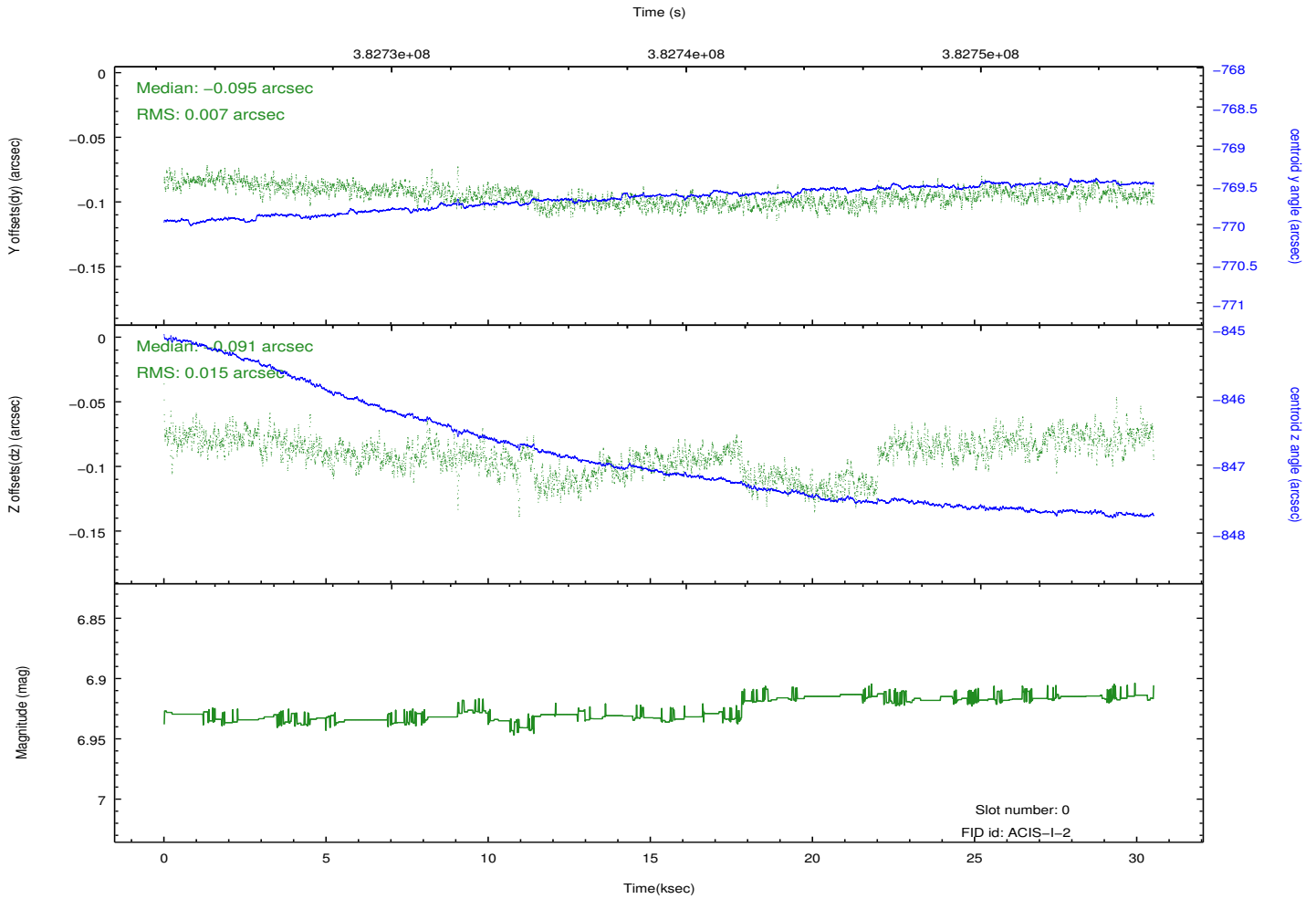
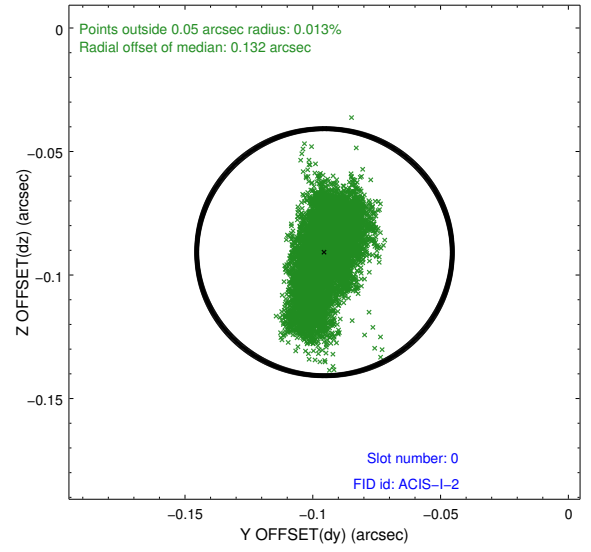
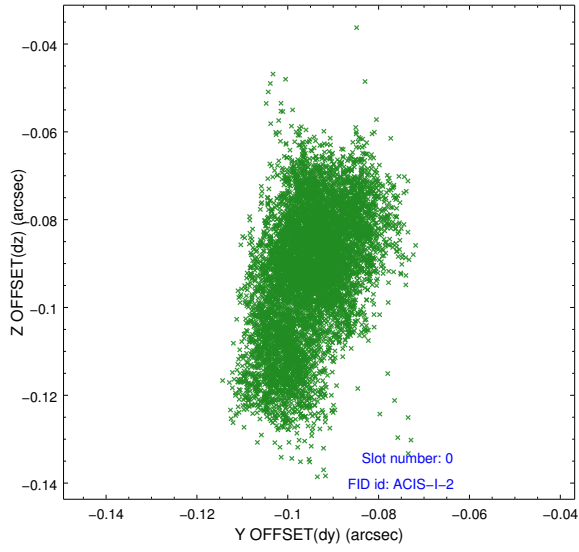


2.4.5 Slot 7

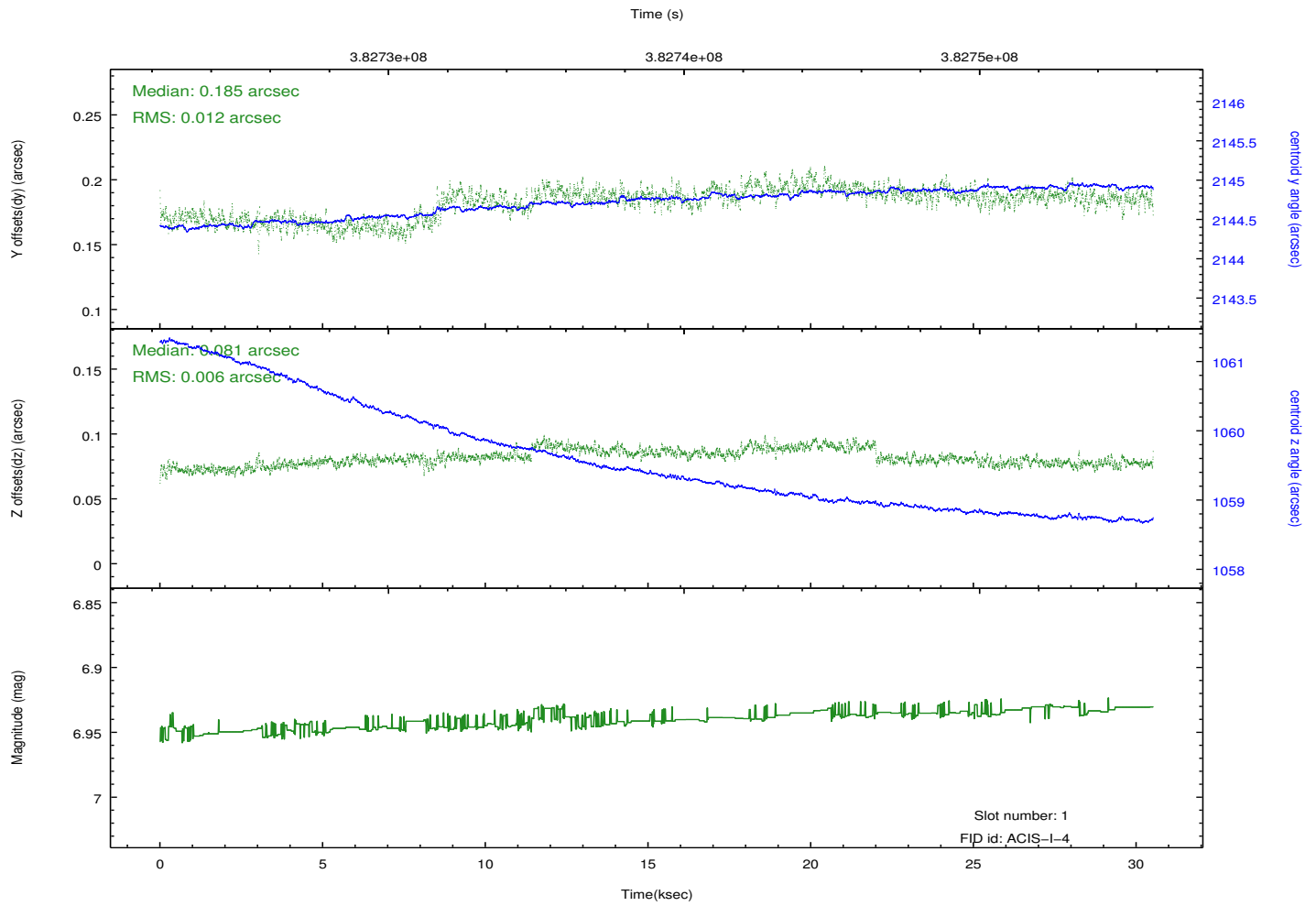
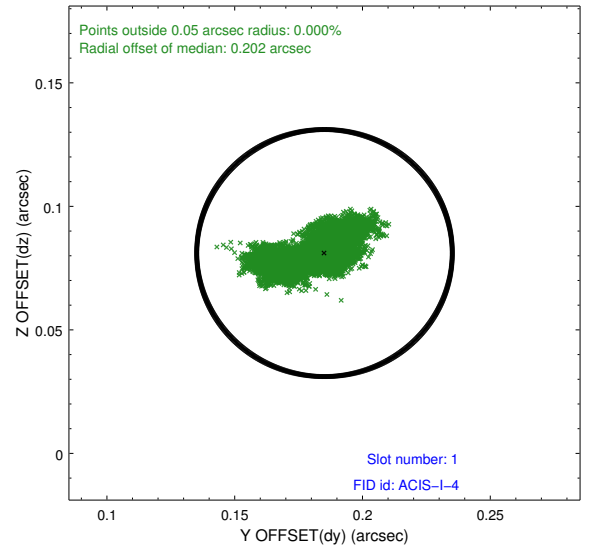
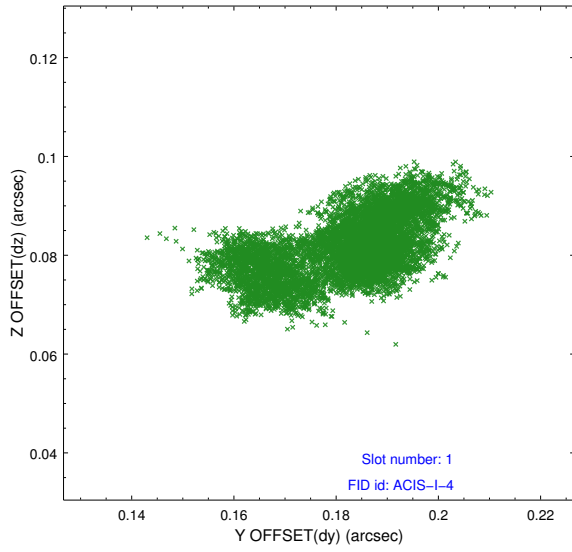


2.5 FID Slots

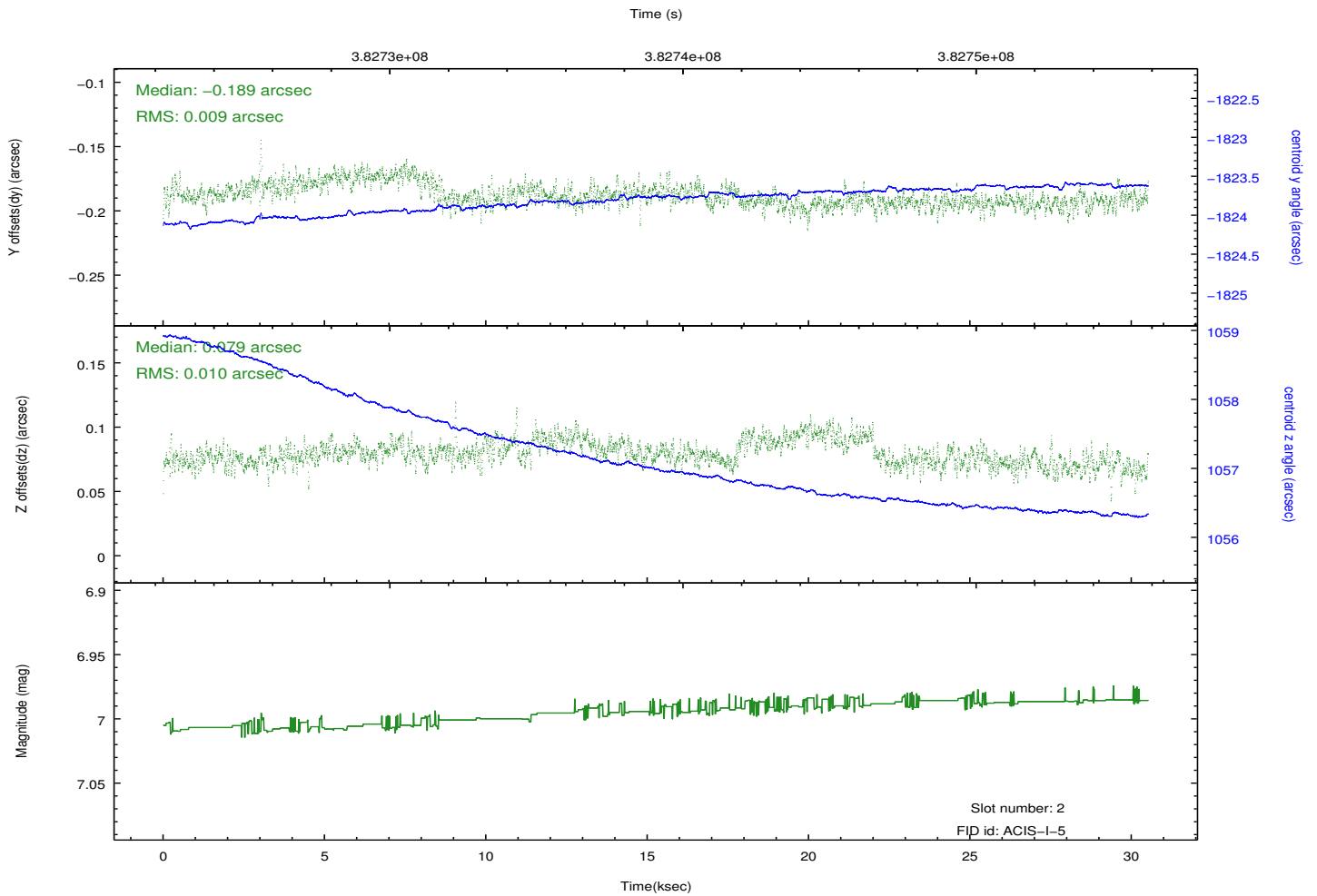
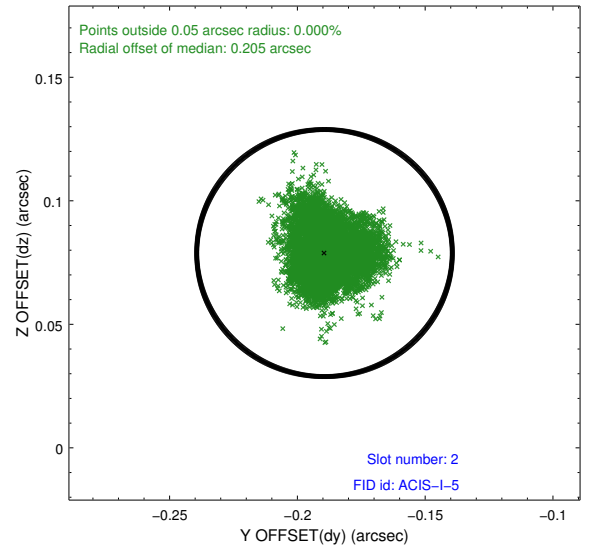
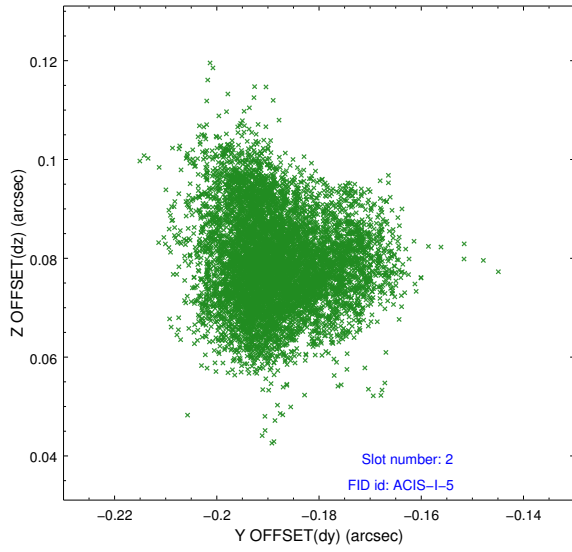
2.5.1 Slot 0



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) | 2012.06.27 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 29.446399890363 |

A.2 Comments

Roll preference met.