

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 5786 - L2 Version 3  
Chandra X-Ray Center

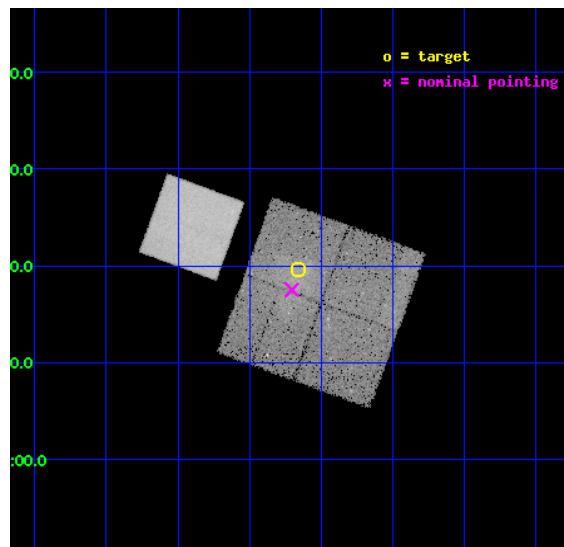
L2 Processing Date : Dec 30 2012

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# 1 Front

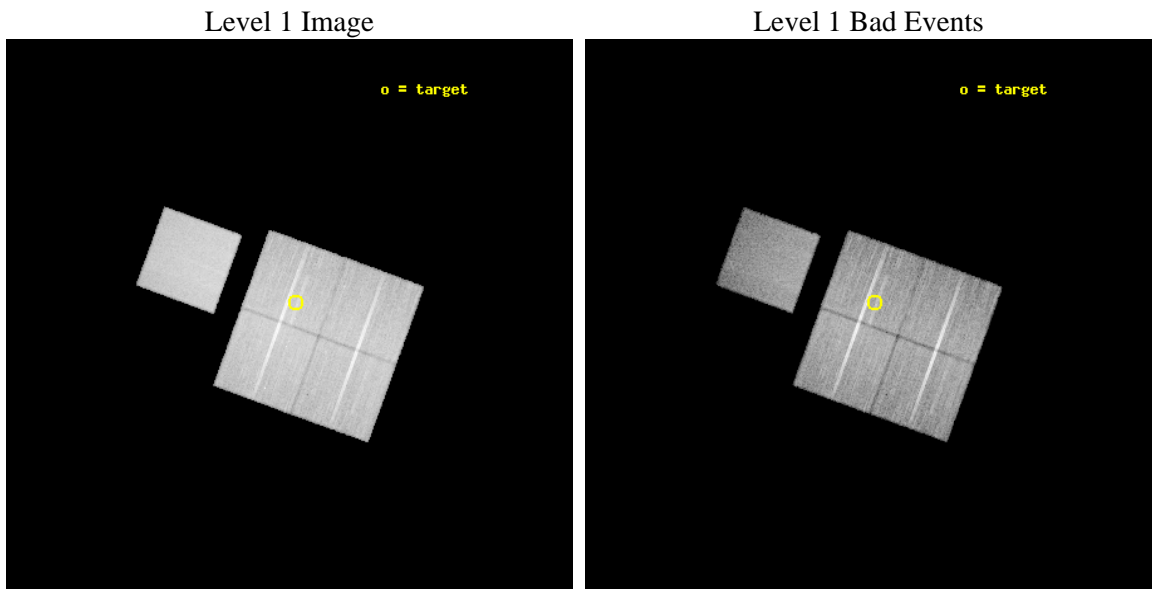
|          |   |   |
|----------|---|---|
| seq_num  | 800499  | Sequence number                             |
| obs_id   | 5786  | Observation id                              |
| title    | The supercluster-scale filament of galaxies ZwCl 2341.1+0000 at z=0.3 | Proposal title                              |
| observer | Dr Somak Raychaudhury   | Principal investigator                      |
| object   | ZwCl 2341.1+0000  | Source name                                 |
| dtcycle  | 0   | &#160                                       |
| cycle    | P   | events from which exps?<br>Prim/Second/Both |
| ra_targ  | 355.915   | Observer's specified target RA [deg]        |
| dec_targ | 0.327861  | Observer's specified target Dec [deg]       |
| ra_nom   | 355.92609327953   | Nominal RA [deg]                            |
| dec_nom  | 0.29187261929092  | Nominal Dec [deg]                           |
| roll_nom | 290.03953472907   | Nominal Roll [deg]                          |
| revision | 3   | Processing version of data                  |
| ontime   | 30175.358941823   | Sum of GTIs [s]                             |
| livetime | 29781.095662472   | Livetime [s]                                |
| ontime0  | 30178.499941945   | Sum of GTIs [s]                             |
| ontime1  | 30175.358951688   | Sum of GTIs [s]                             |
| ontime2  | 30178.499941945   | Sum of GTIs [s]                             |
| ontime3  | 30175.358941823   | Sum of GTIs [s]                             |
| ontime7  | 30178.499941945   | Sum of GTIs [s]                             |
| l2events | 164953  | Number of level 2 events                    |



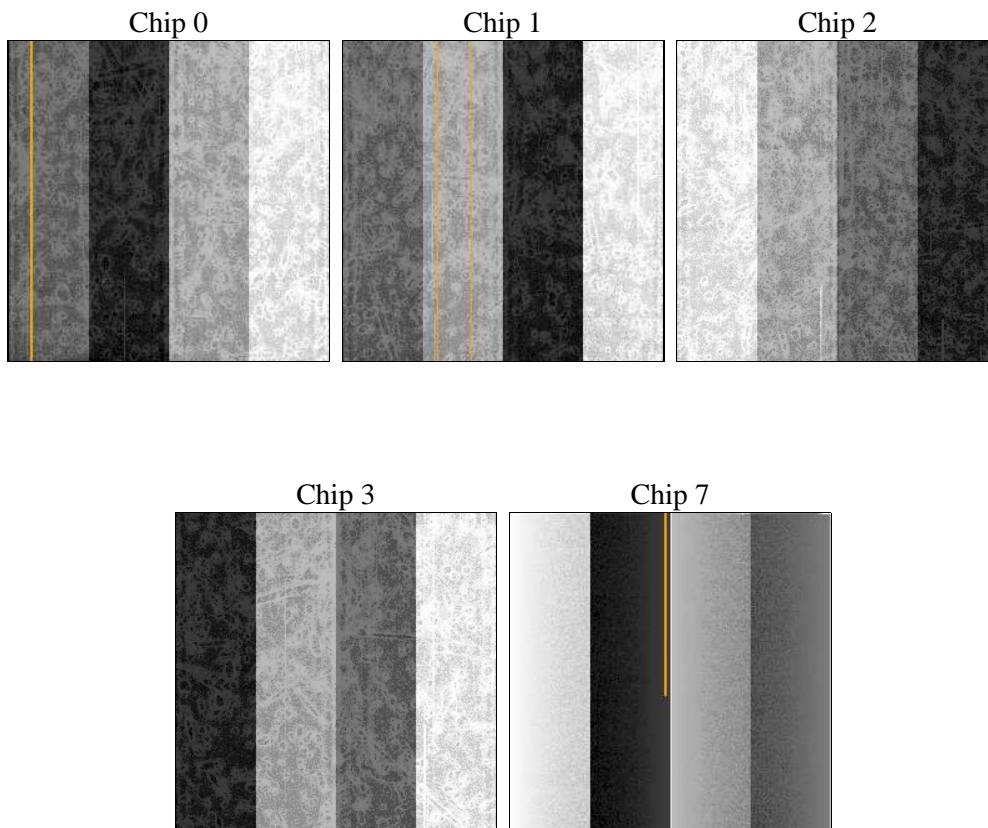
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 30000.000000    | [s] Scheduled observation exposure time |
| ascdsver | 8.5.1.1             | Processing system revision     | ontime         | 30175.358941823 | Sum of GTIs [s]                         |
| caldsver | 4.5.5               | &#160                          | ontime0        | 30178.499941945 | Sum of GTIs [s]                         |
| date     | 2012-12-30T20:26:29 | Date and time of file creation | ontime1        | 30175.358951688 | Sum of GTIs [s]                         |
| revision | 3                   | Processing version of data     | ontime2        | 30178.499941945 | Sum of GTIs [s]                         |
|          |                     |                                | ontime3        | 30175.358941823 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 30178.499941945 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 1011854         | Number of level 1 events                |

### 2.1.4 Events

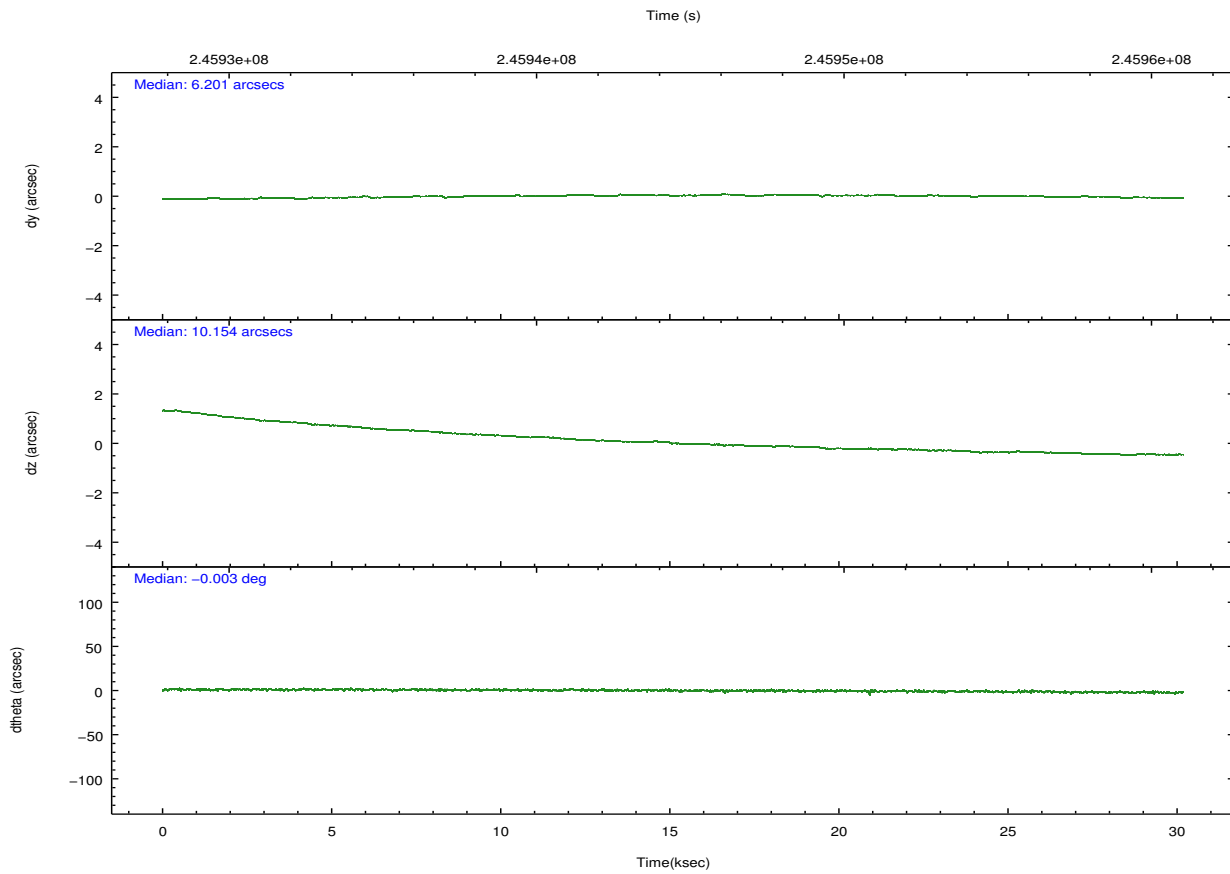
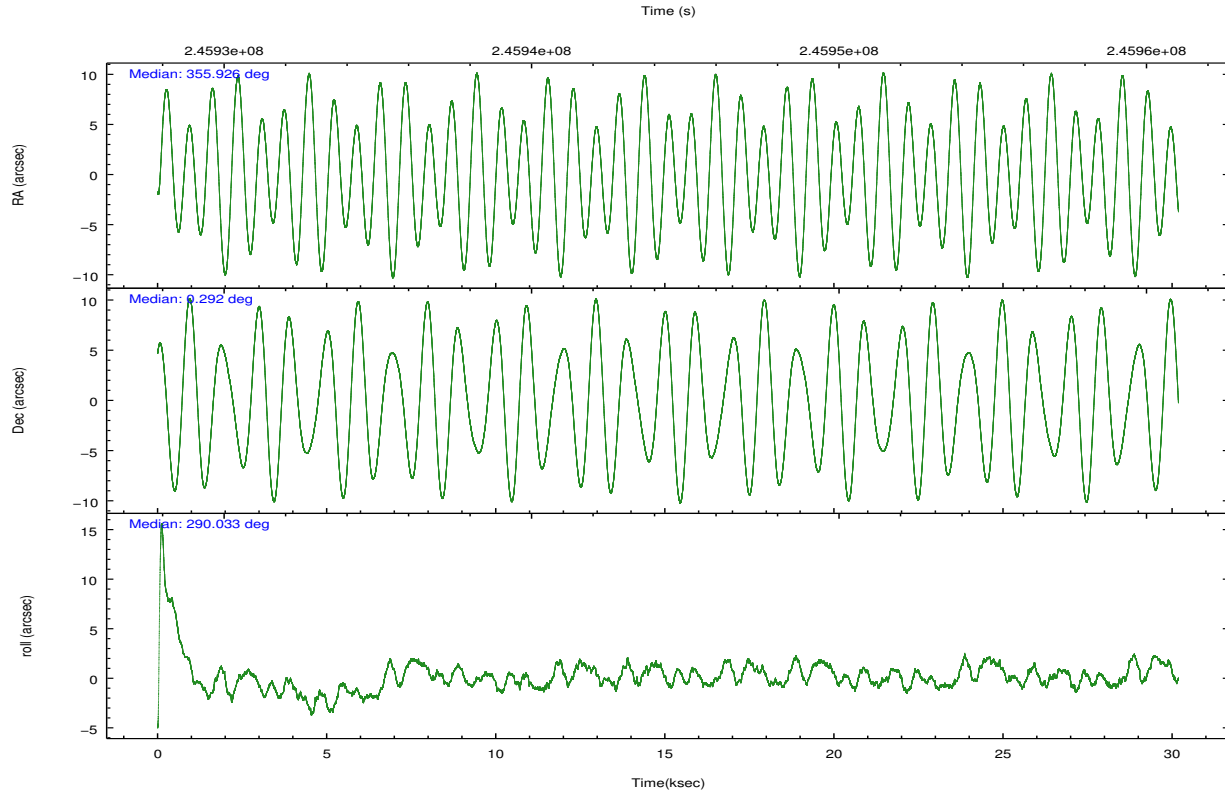
|                 | ccd 0  | ccd 1  | ccd 2  | ccd 3  | ccd 7  |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events  | 185585 | 190259 | 212720 | 198814 | 224476 |
| rejected events | 166322 | 168211 | 192033 | 176956 | 125949 |
| rejected %      | 89%    | 88%    | 90%    | 89%    | 56%    |

|                | ccd 0  | ccd 1  | ccd 2  | ccd 3  | ccd 7  |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 6639   | 8157   | 8447   | 9519   | 8625   |
|                | 3%     | 4%     | 3%     | 4%     | 3%     |
| grade 1 events | 121    | 93     | 104    | 107    | 213    |
|                | 0%     | 0%     | 0%     | 0%     | 0%     |
| grade 2 events | 4728   | 4904   | 4685   | 4306   | 19973  |
|                | 2%     | 2%     | 2%     | 2%     | 8%     |
| grade 3 events | 2252   | 2494   | 2085   | 2272   | 9413   |
|                | 1%     | 1%     | 0%     | 1%     | 4%     |
| grade 4 events | 2084   | 2436   | 2219   | 2223   | 9245   |
|                | 1%     | 1%     | 1%     | 1%     | 4%     |
| grade 5 events | 6805   | 7545   | 6403   | 8065   | 23765  |
|                | 3%     | 3%     | 3%     | 4%     | 10%    |
| grade 6 events | 3881   | 4405   | 3556   | 3829   | 52782  |
|                | 2%     | 2%     | 1%     | 1%     | 23%    |
| grade 7 events | 159075 | 160225 | 185221 | 168493 | 100460 |
|                | 85%    | 84%    | 87%    | 84%    | 44%    |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number          | 7         | 7       |
| Detector                          | ACIS-01237          | ACIS-01237           | 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                 | 355.905016          | 355.9260932795278    | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0.309373            | 0.2918726192909186   | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 289.830967          | 290.0395347290712    | [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    | -225.592463         | -225.5843688559632   |                                       |           |         |
| [mm] SIM translation stage offset | -8                  | -8.008084146966468   |                                       |           |         |
| [s] Observation start time (MET)  | 245929533.184000    | 245928303.76419      |                                       |           |         |
| Observation start date            | 2005-10-17T09:44:29 | 2005-10-17T09:25:03  |                                       |           |         |
| [s] Observation end time (MET)    | 245959533.184000    | 245960358.59066      |                                       |           |         |
| Observation end date              | 2005-10-17T18:04:29 | 2005-10-17T18:19:18  |                                       |           |         |
| Read mode                         | TIMED               | TIMED                |                                       |           |         |

## 2.3 Aspect

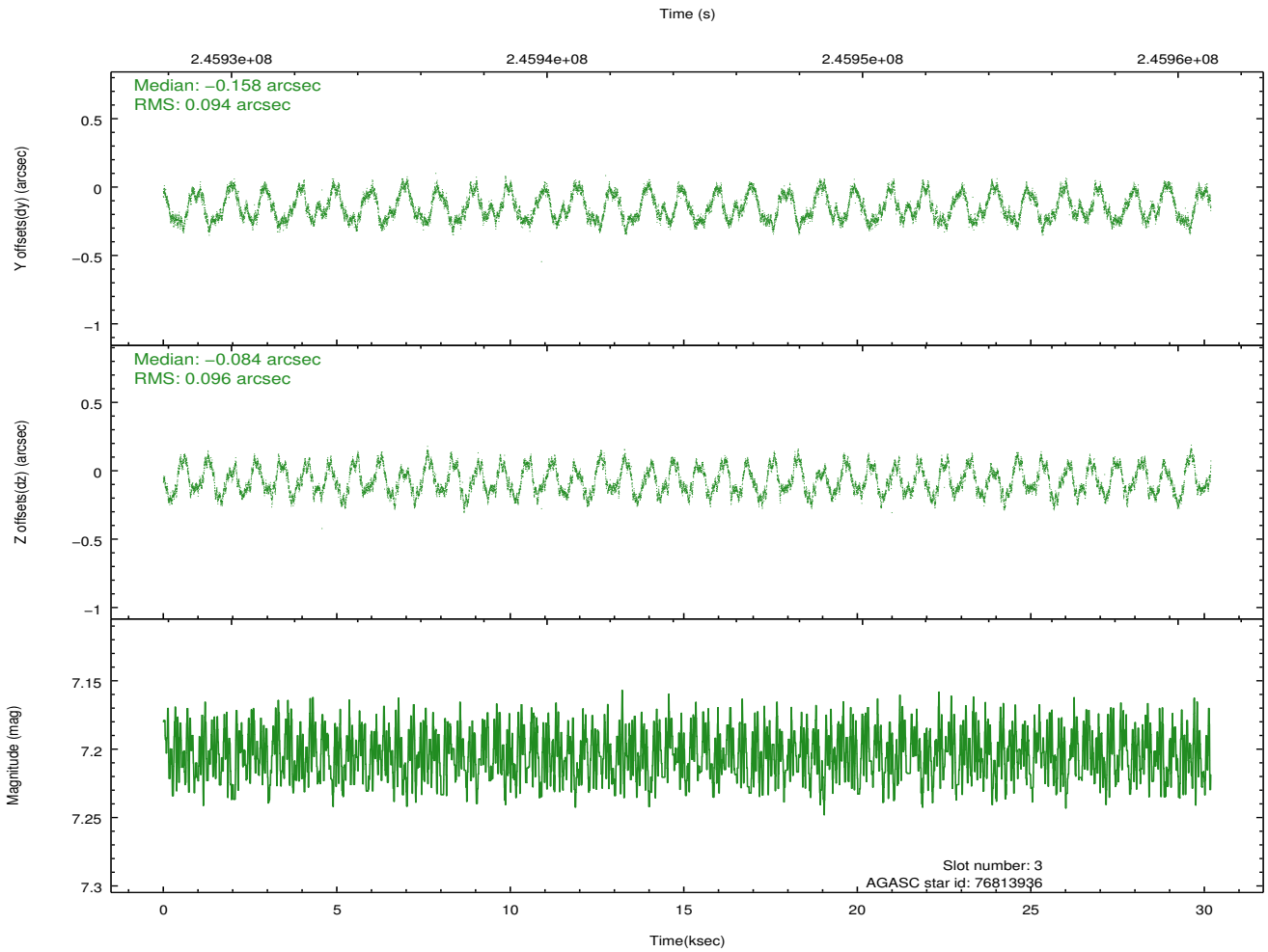
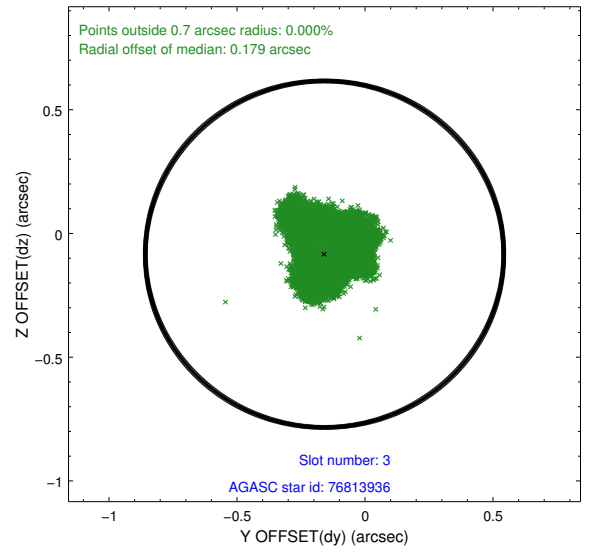
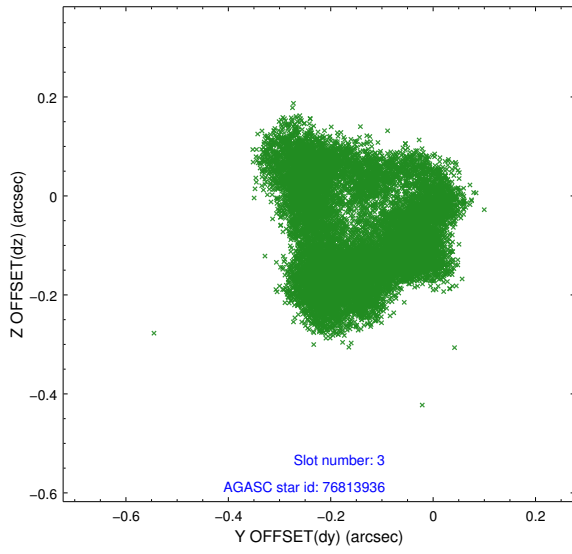


### Slot Statistics

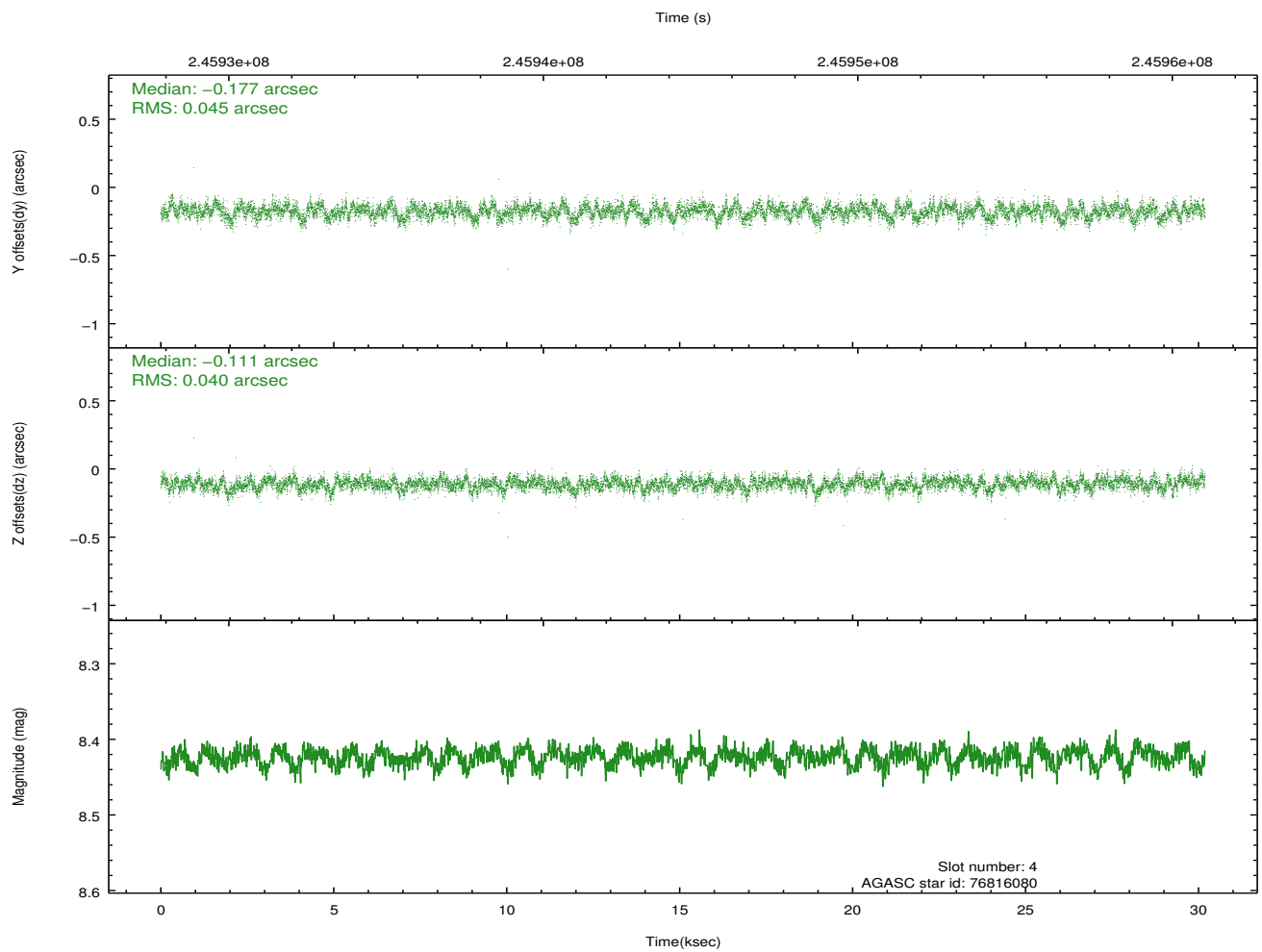
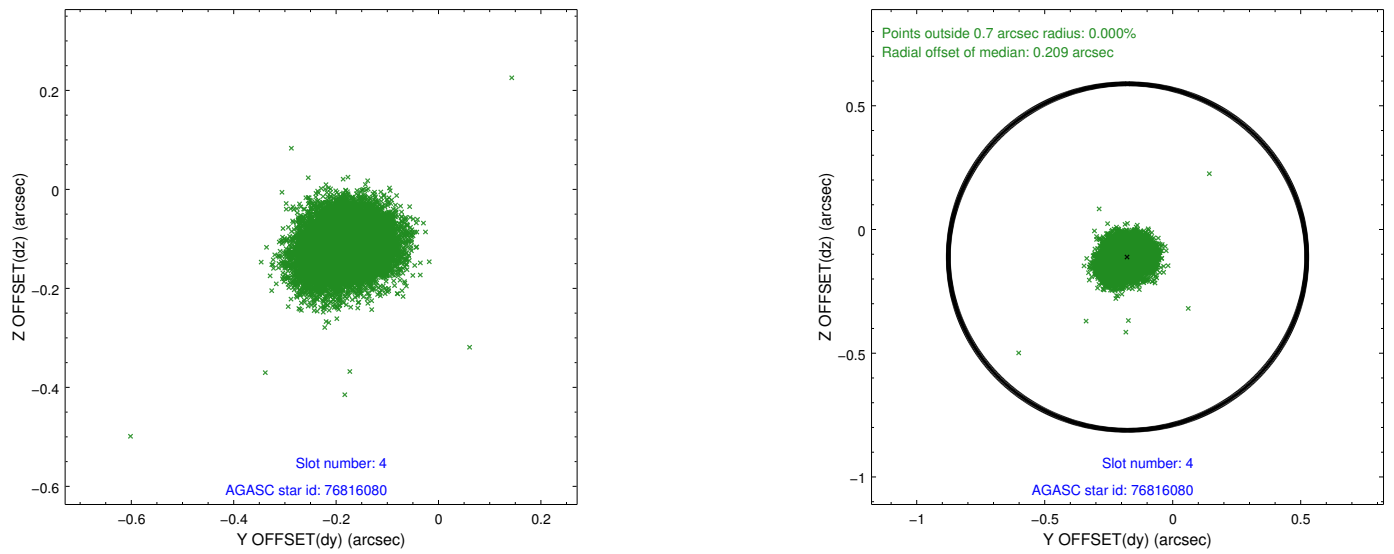
| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0    | FID    | ACIS-I-2  | 7.17 | 7362  | -0.051 | -0.047 | 0.010 | 0.018 | 0.000000   | 0.000000  | -761.27  | -1003.53 |
| 1    | FID    | ACIS-I-4  | 7.14 | 7363  | 0.067  | 0.049  | 0.007 | 0.012 | 0.000000   | 0.000000  | 2152.82  | 902.66   |
| 2    | FID    | ACIS-I-5  | 7.22 | 7362  | -0.117 | 0.067  | 0.010 | 0.017 | 0.000000   | 0.000000  | -1814.67 | 899.55   |
| 3    | GUIDE  | 76813936  | 7.20 | 14725 | -0.158 | -0.084 | 0.148 | 0.205 | 355.167647 | 0.415974  | -1261.31 | -2367.21 |
| 4    | GUIDE  | 76816080  | 8.42 | 14723 | -0.177 | -0.111 | 0.064 | 0.104 | 355.811078 | 0.904637  | -2130.59 | 408.73   |
| 5    | GUIDE  | 76816448  | 9.19 | 14711 | 0.038  | -0.051 | 0.118 | 0.182 | 355.330481 | 0.283128  | -612.40  | -1977.54 |
| 6    | GUIDE  | 688397848 | 8.61 | 14717 | 0.250  | 0.012  | 0.062 | 0.101 | 355.824310 | -0.155582 | 1476.62  | -840.82  |
| 7    | GUIDE  | 76816024  | 9.74 | 14703 | 0.036  | 0.221  | 0.119 | 0.187 | 355.674265 | 0.753651  | -1785.93 | -238.11  |

## 2.4 Star Slots

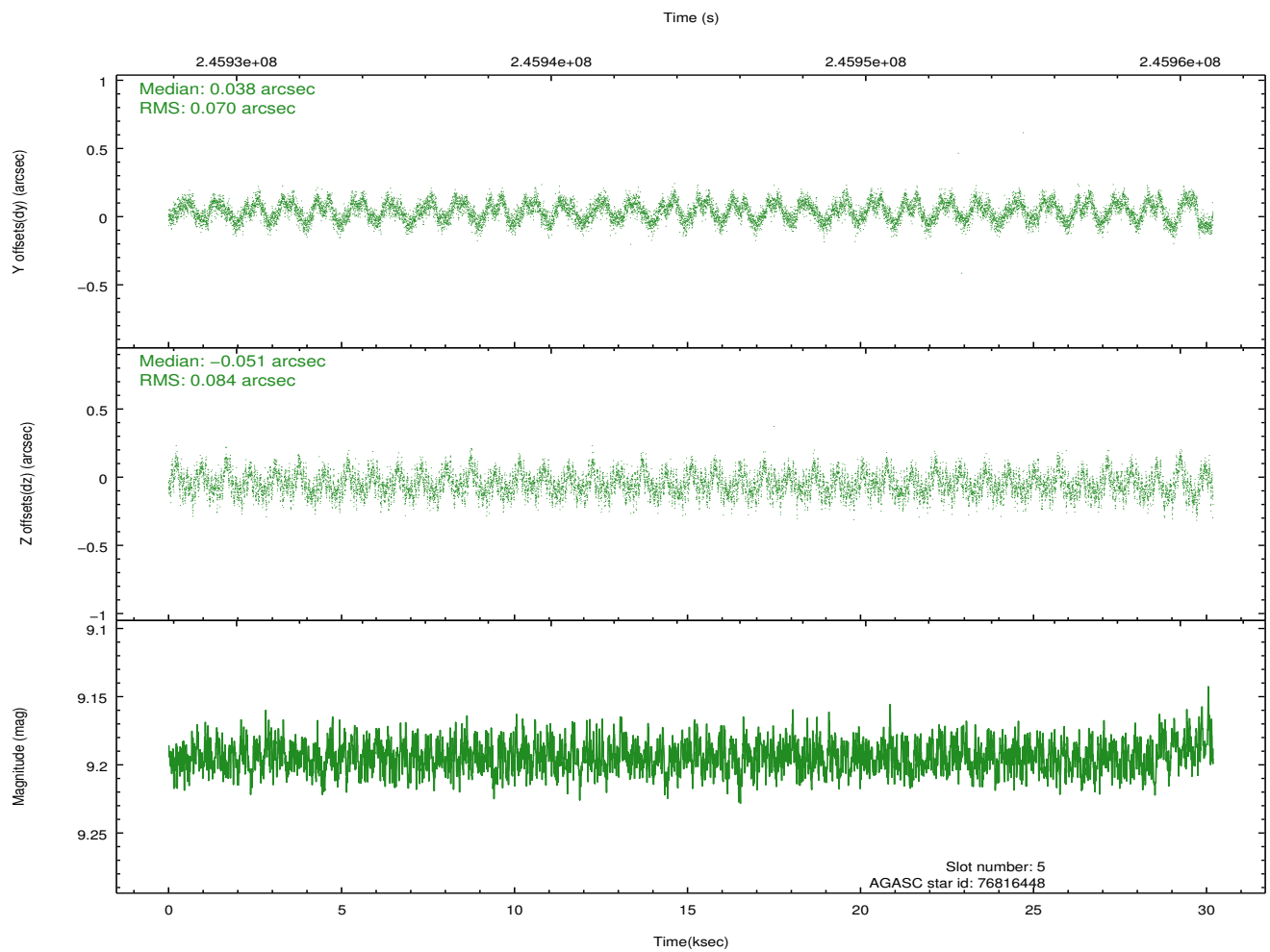
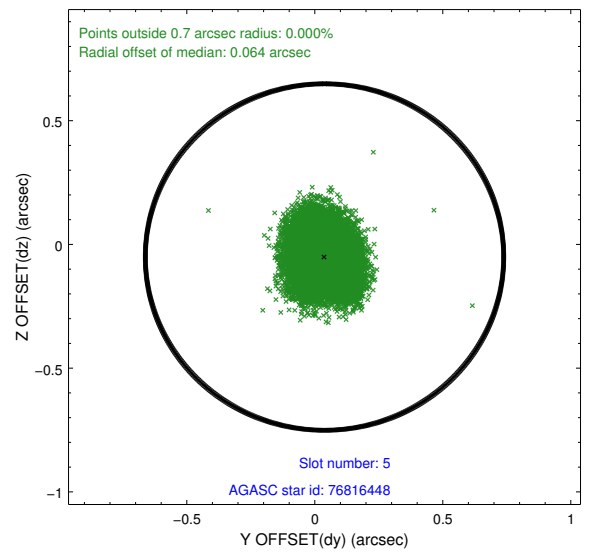
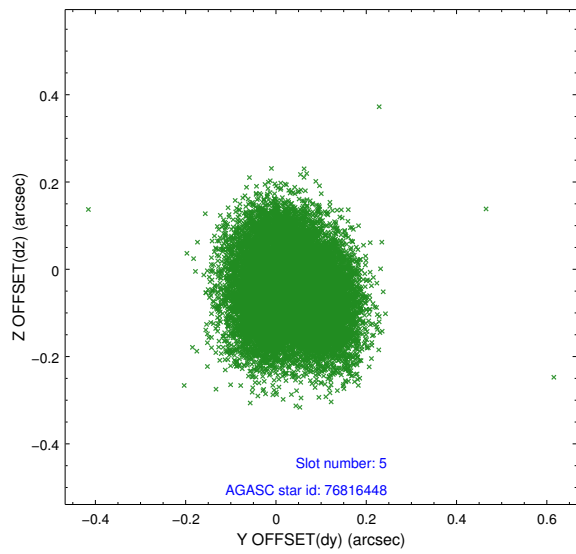
### 2.4.1 Slot 3



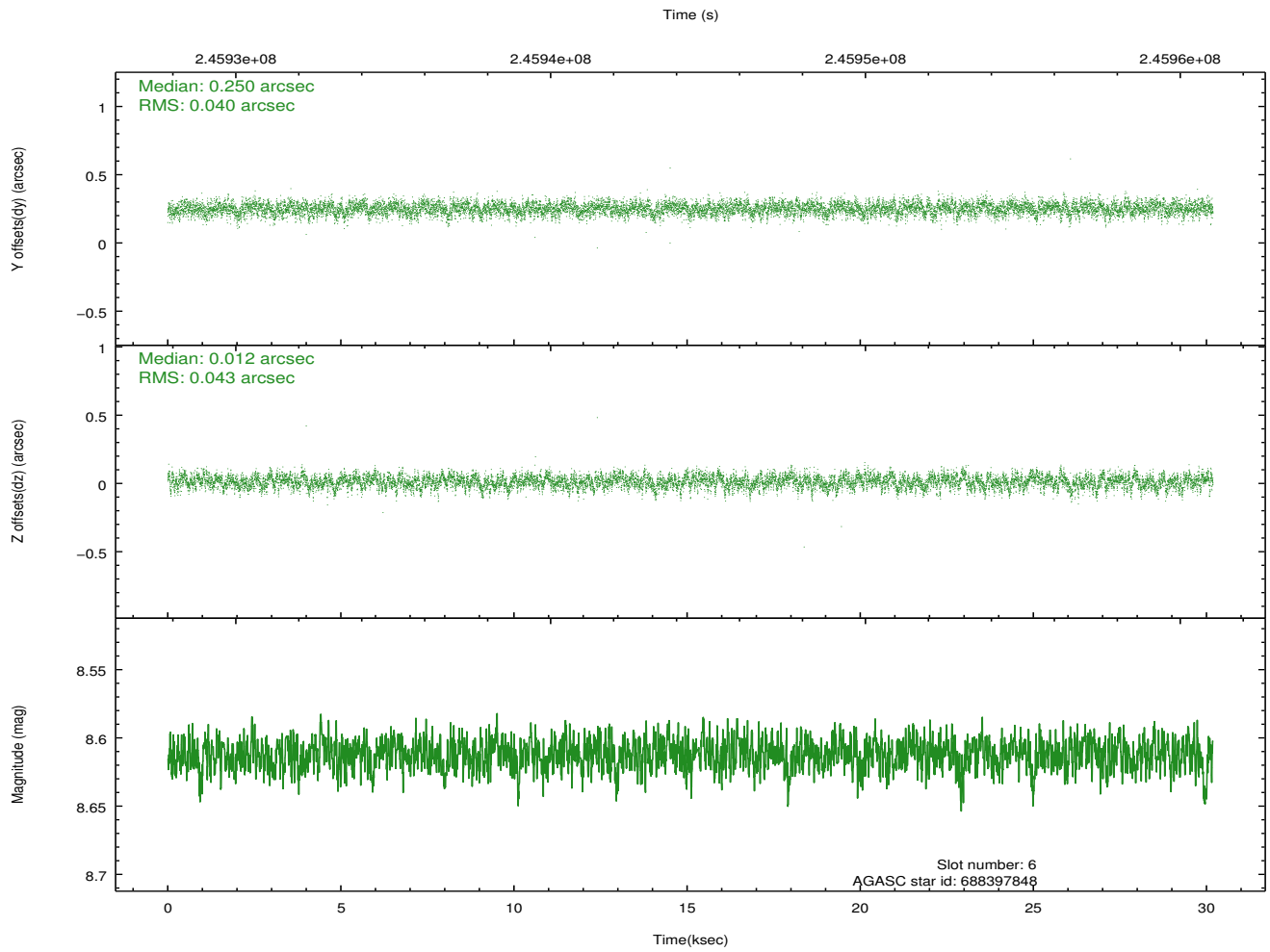
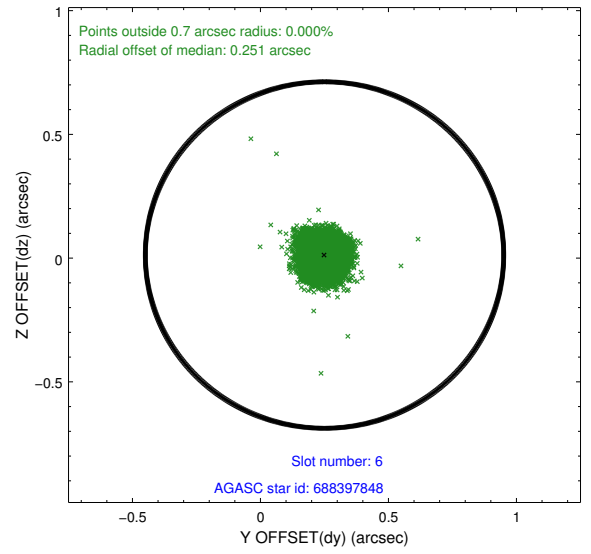
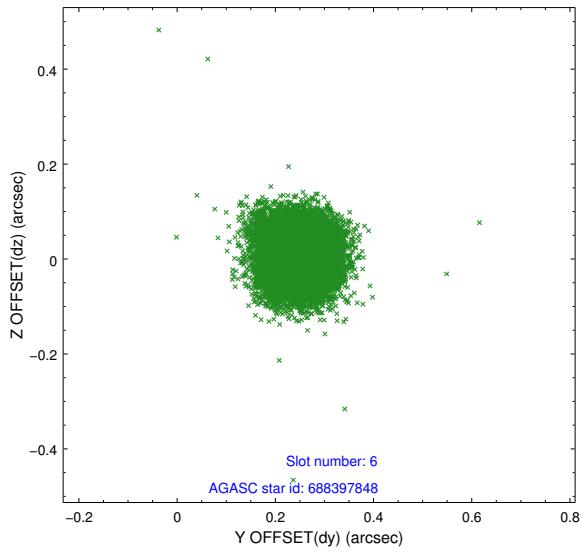
## 2.4.2 Slot 4



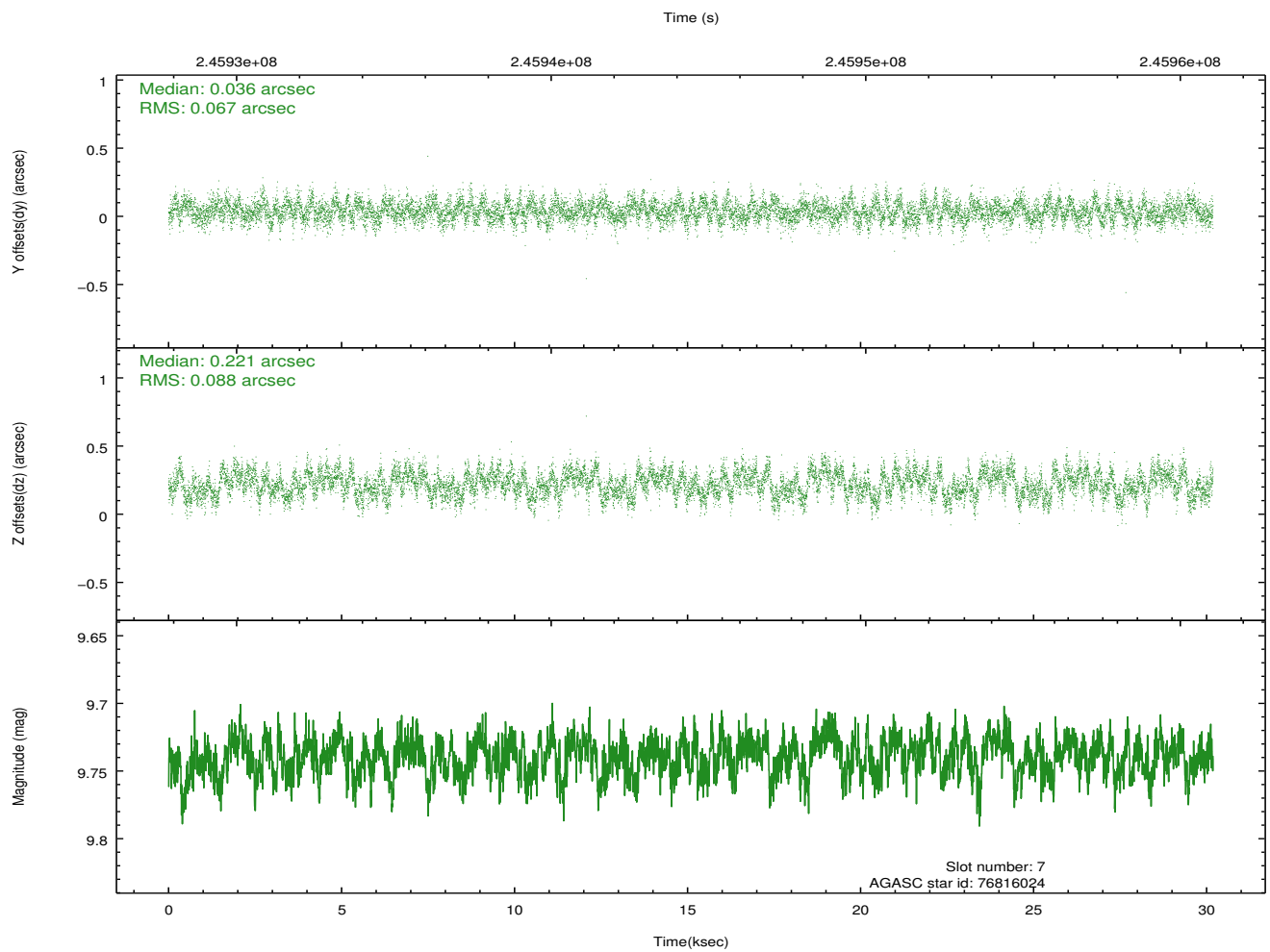
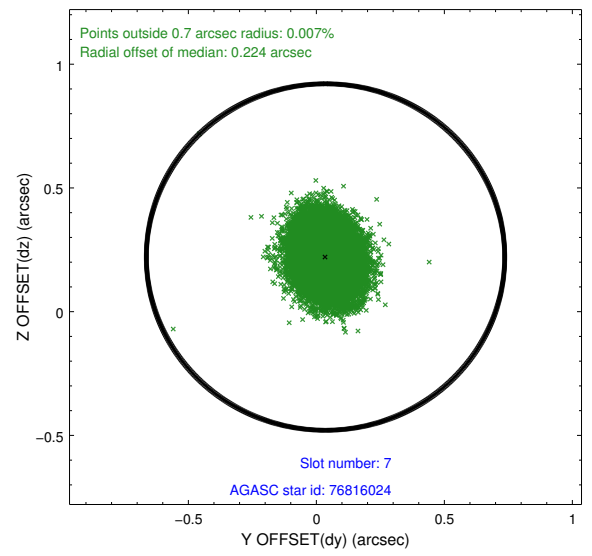
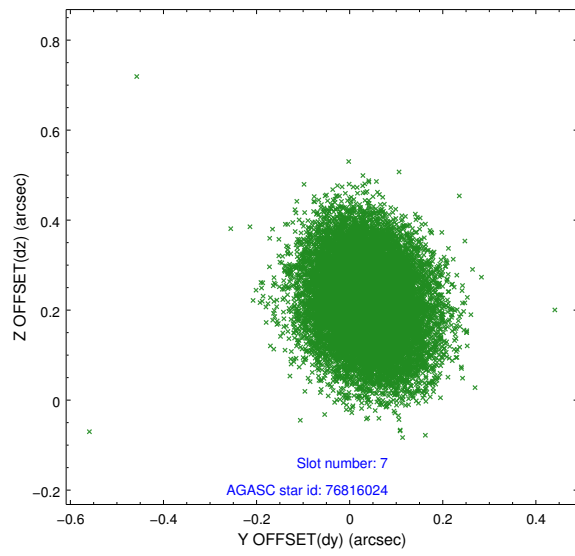
### 2.4.3 Slot 5



### 2.4.4 Slot 6

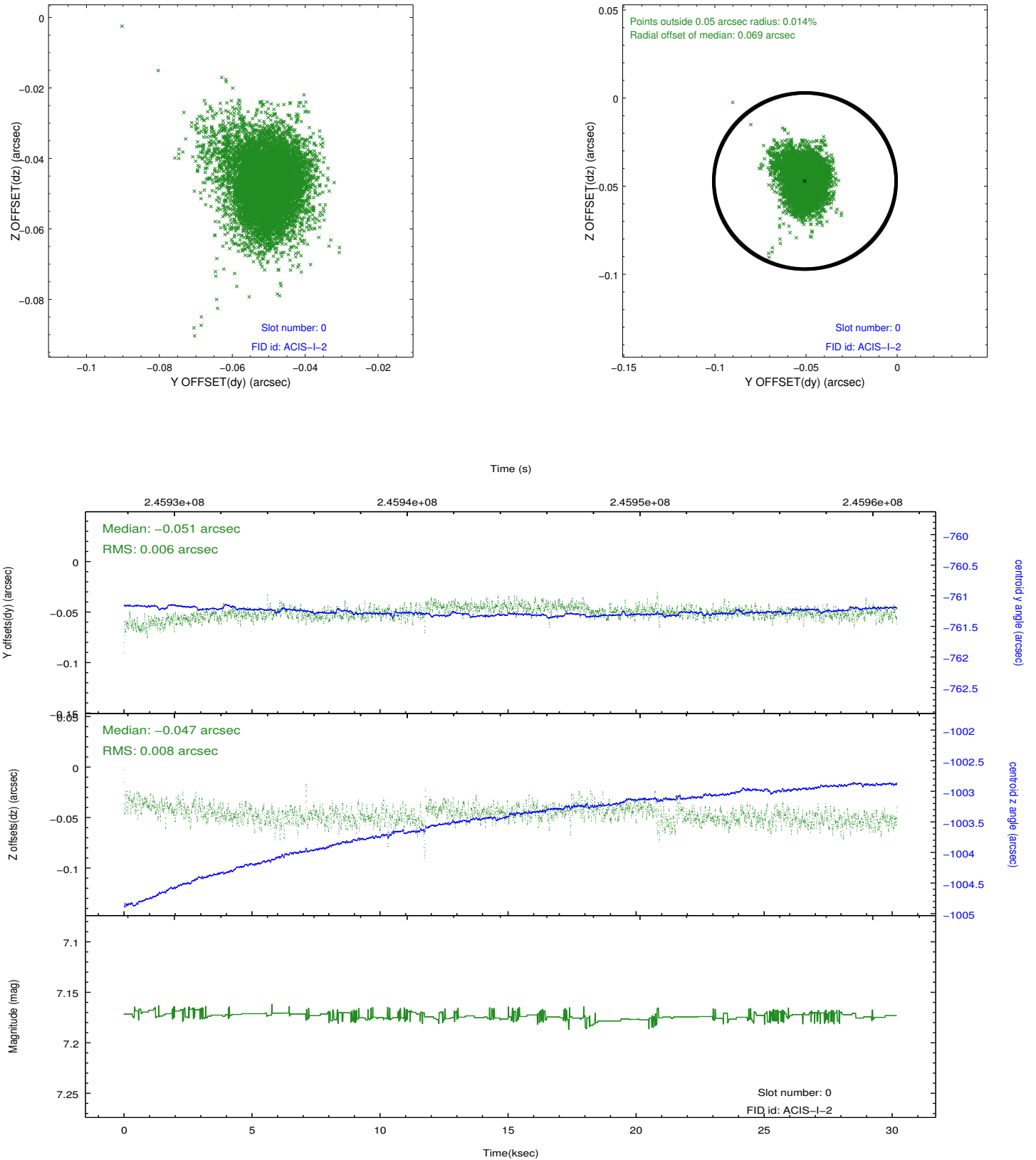


## 2.4.5 Slot 7

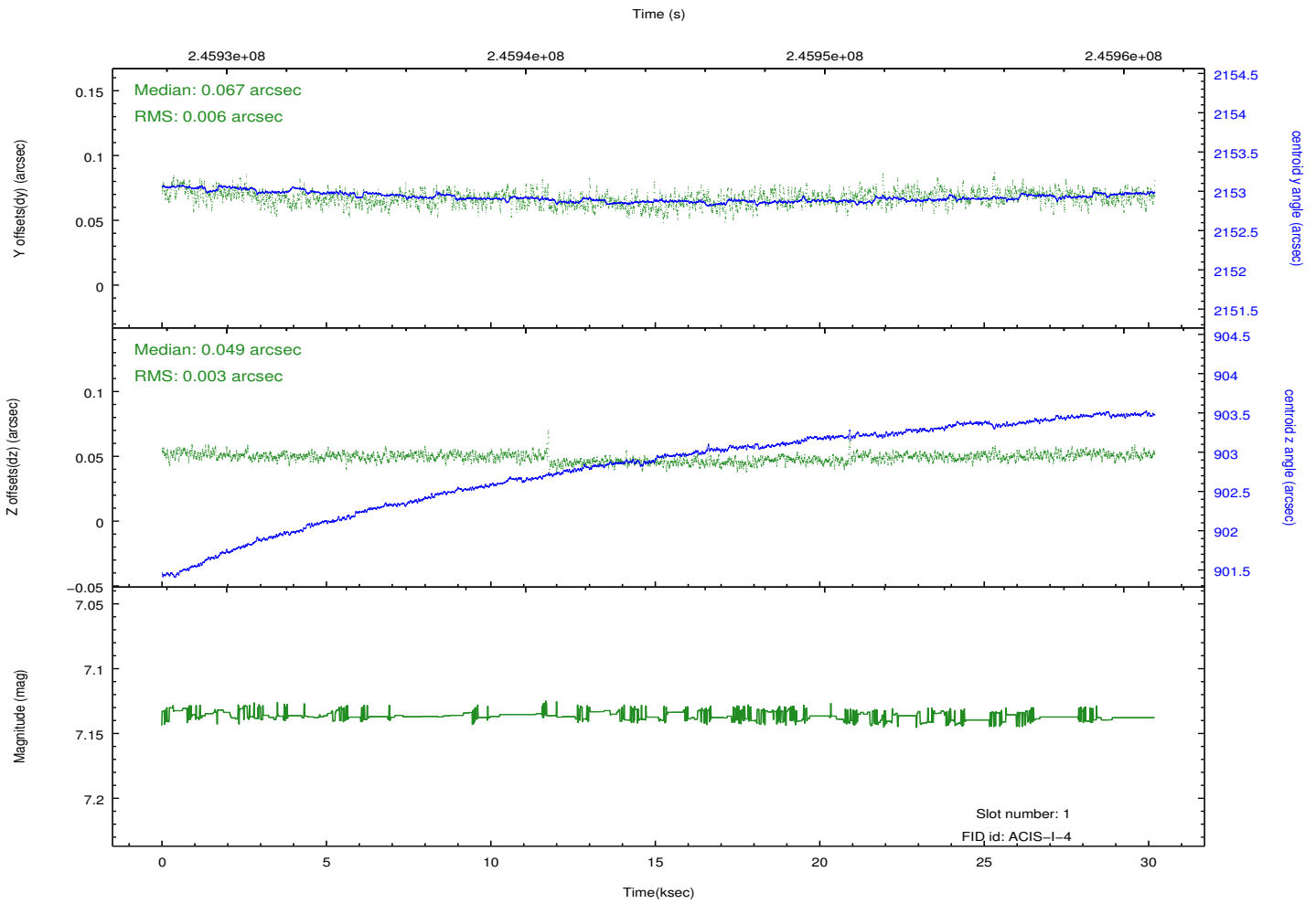
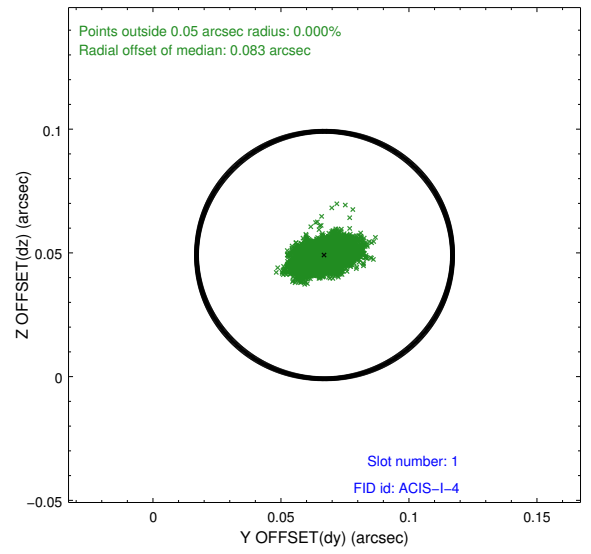
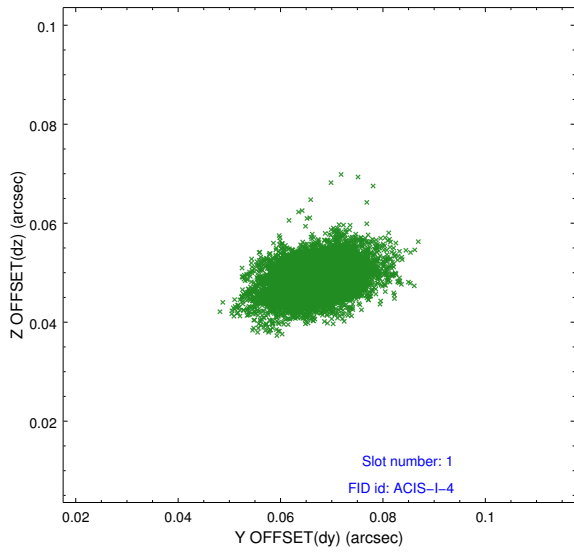


## 2.5 FID Slots

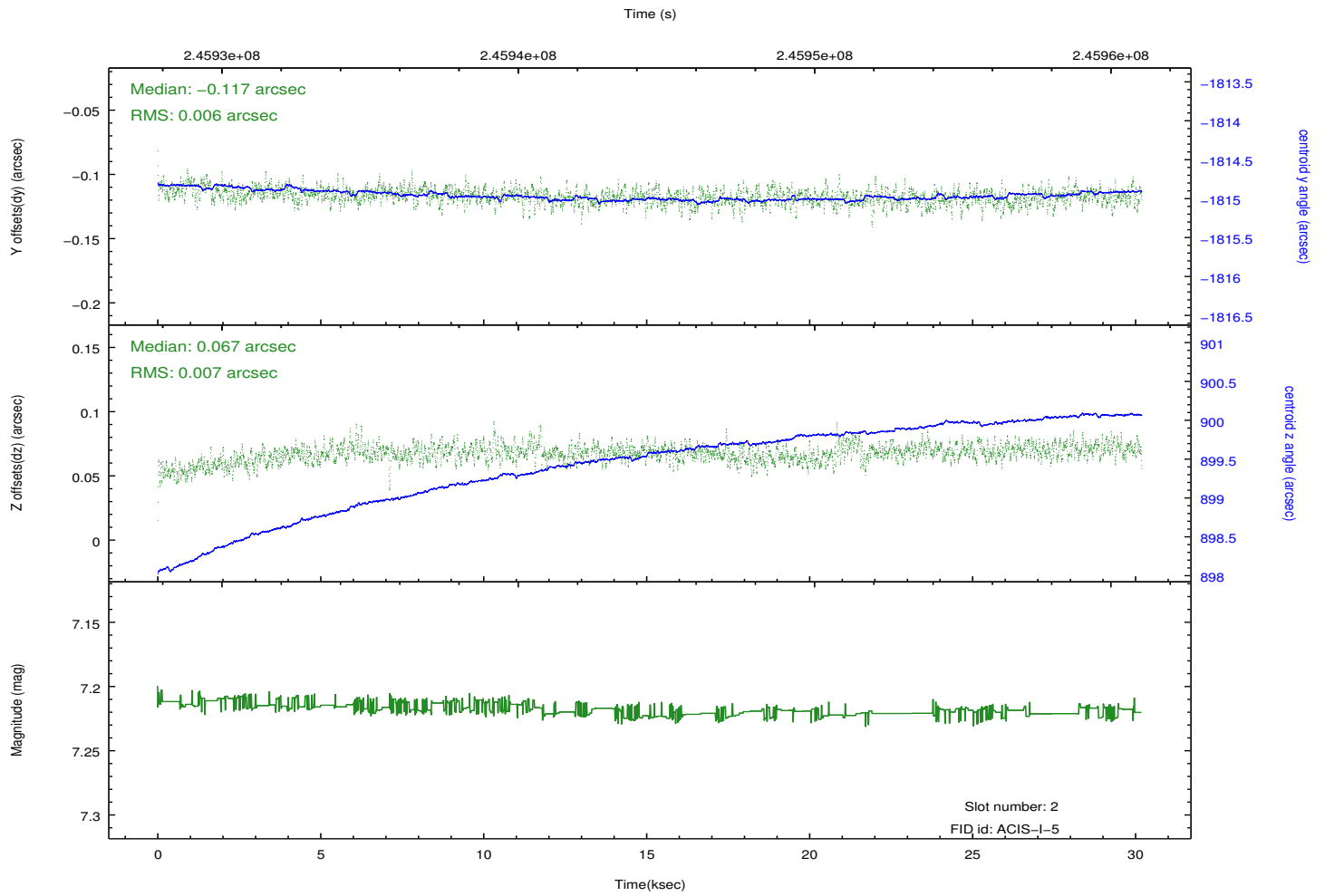
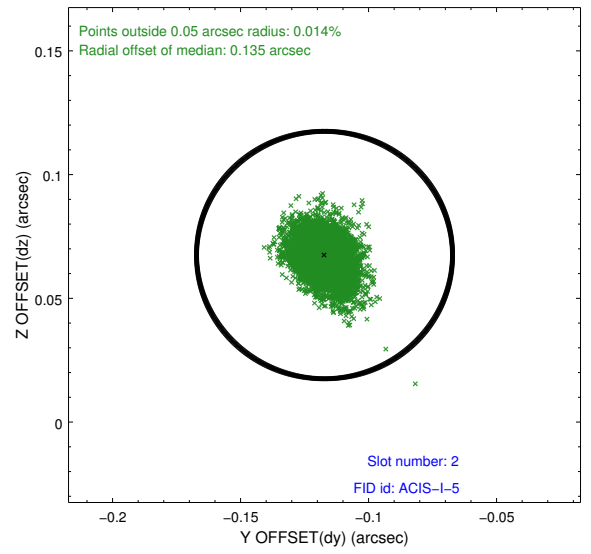
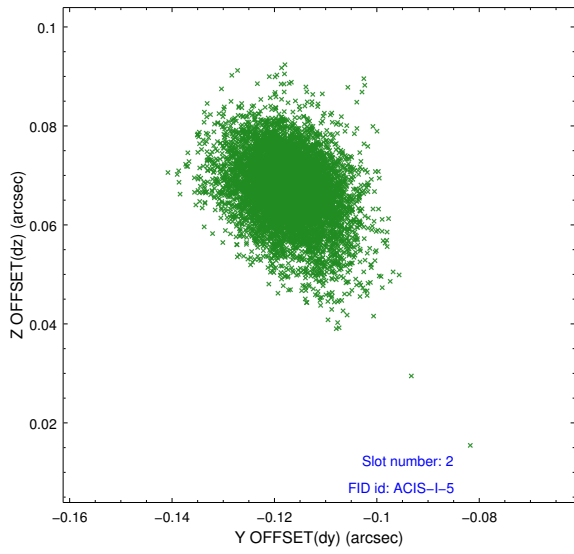
### 2.5.1 Slot 0



## 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)      | 2013.01.27    |
| V&V Edition                | 1             |
| V&V Disposition and Status | OK            |
| V&V Charge Time            | 30.17535      |

## A.2 Comments

Joint proposal with XMM.