

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 8154 - L2 Version 2  
Chandra X-Ray Center

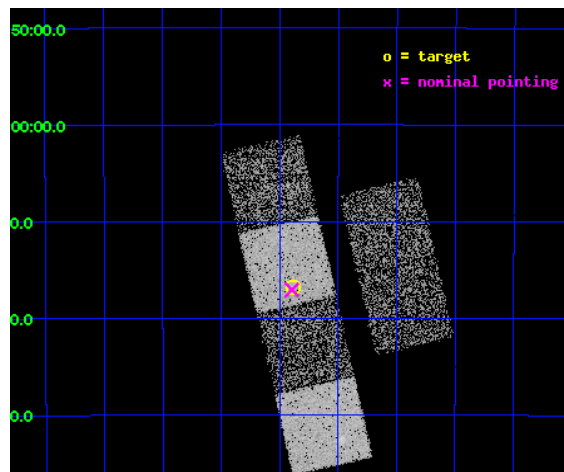
L2 Processing Date : May 3 2012

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# 1 Front

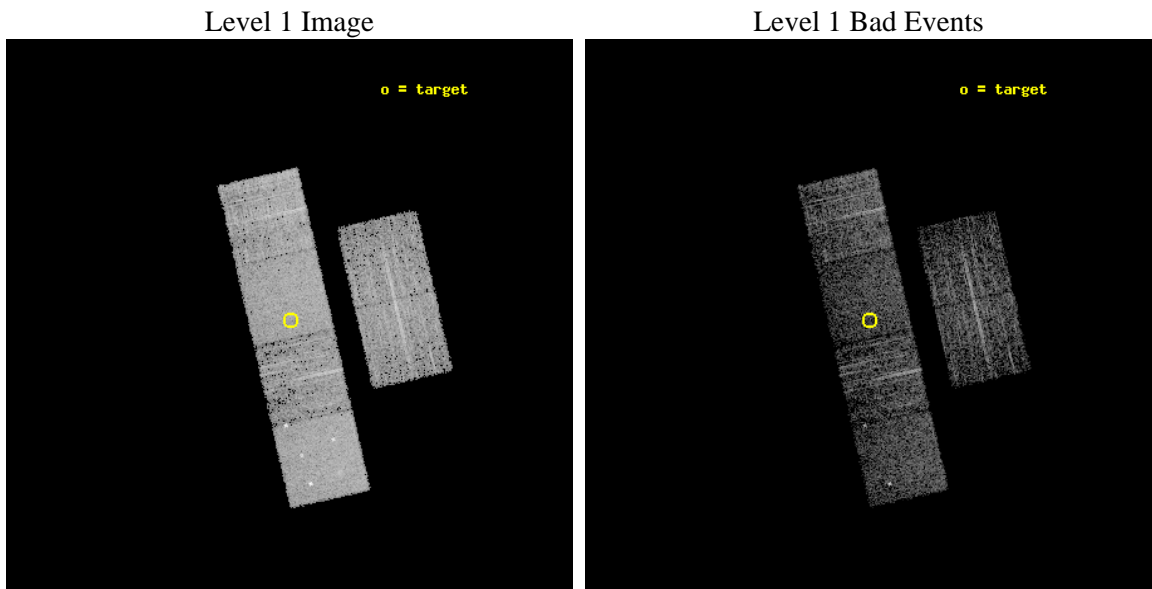
|          |  |   |
|----------|--|---|
| seq_num  | 900695   | Sequence number                             |
| obs_id   | 8154   | Observation id                              |
| title    | ChICAGO GTO: Chandra Identification of Compact ASCA Galactic Objects | &#160                                       |
| observer | Dr. Stephen Murray   | Principal investigator                      |
| object   | AX J172623-3516  | Source name                                 |
| dtcycle  | 0  | &#160                                       |
| cycle    | P  | events from which exps?<br>Prim/Second/Both |
| ra_targ  | 261.597083   | Observer's specified<br>target RA [deg]     |
| dec_targ | -35.28   | Observer's specified<br>target Dec [deg]    |
| ra_nom   | 261.59897453873  | Nominal RA [deg]                            |
| dec_nom  | -35.28451285737  | Nominal Dec [deg]                           |
| roll_nom | 257.14808393117  | Nominal Roll [deg]                          |
| revision | 2  | Processing version of<br>data               |
| ontime   | 2339.1999913454  | Sum of GTIs [s]                             |
| livetime | 2309.5796325579  | Livetime [s]                                |
| ontime2  | 2339.1999913454  | Sum of GTIs [s]                             |
| ontime3  | 2339.1999913454  | Sum of GTIs [s]                             |
| ontime5  | 2339.1999913454  | Sum of GTIs [s]                             |
| ontime6  | 2339.1999913454  | Sum of GTIs [s]                             |
| ontime7  | 2339.1999913454  | Sum of GTIs [s]                             |
| ontime8  | 2332.6835105419  | Sum of GTIs [s]                             |
| l2events | 37599  | Number of level 2<br>events                 |



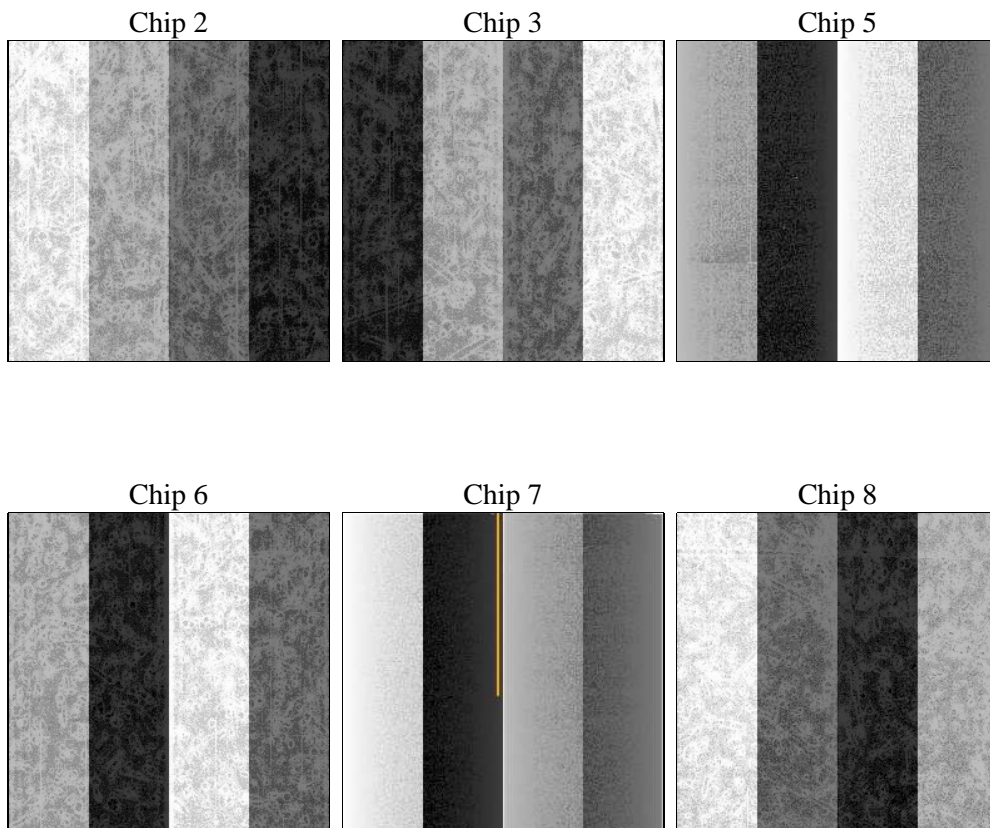
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 2580.000000     | [s] Scheduled observation exposure time |
| ascdsver | 8.4.4               | Processing system revision     | ontime         | 2339.1999913454 | Sum of GTIs [s]                         |
| caldbver | 4.4.9               | &#160                          | ontime2        | 2339.1999913454 | Sum of GTIs [s]                         |
| date     | 2012-05-03T12:28:35 | Date and time of file creation | ontime3        | 2339.1999913454 | Sum of GTIs [s]                         |
| revision | 2                   | Processing version of data     | ontime5        | 2339.1999913454 | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 2339.1999913454 | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 2339.1999913454 | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 2332.6835105419 | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 164975          | Number of level 1 events                |

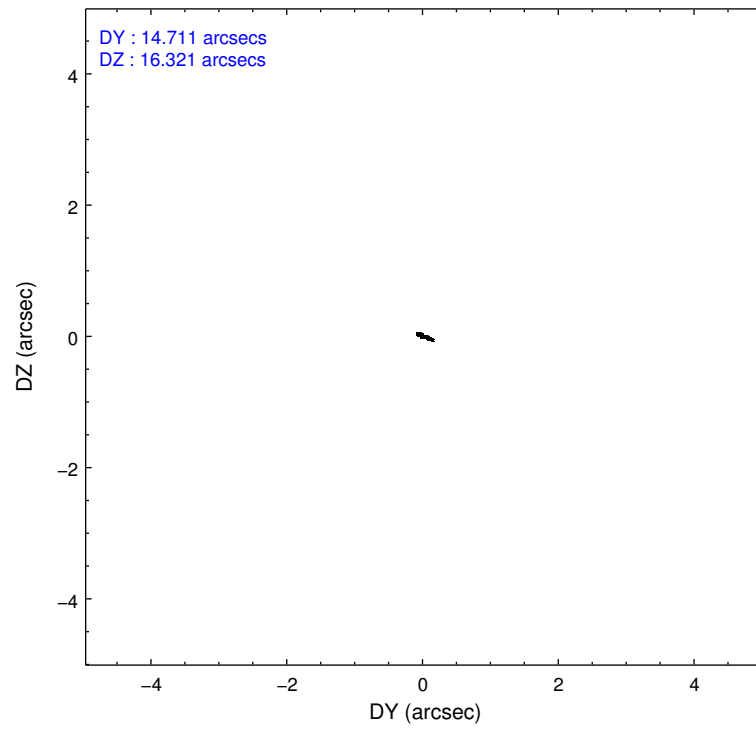
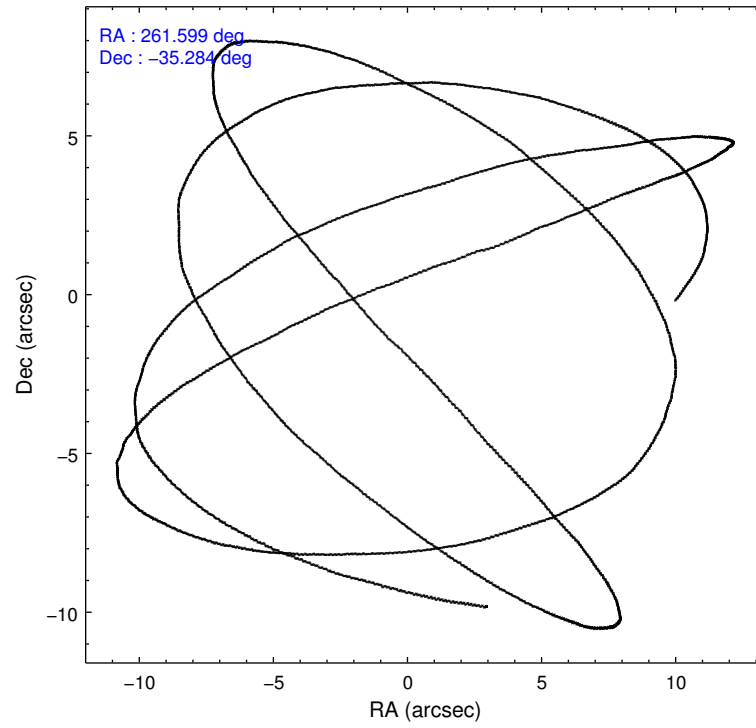
### 2.1.4 Events

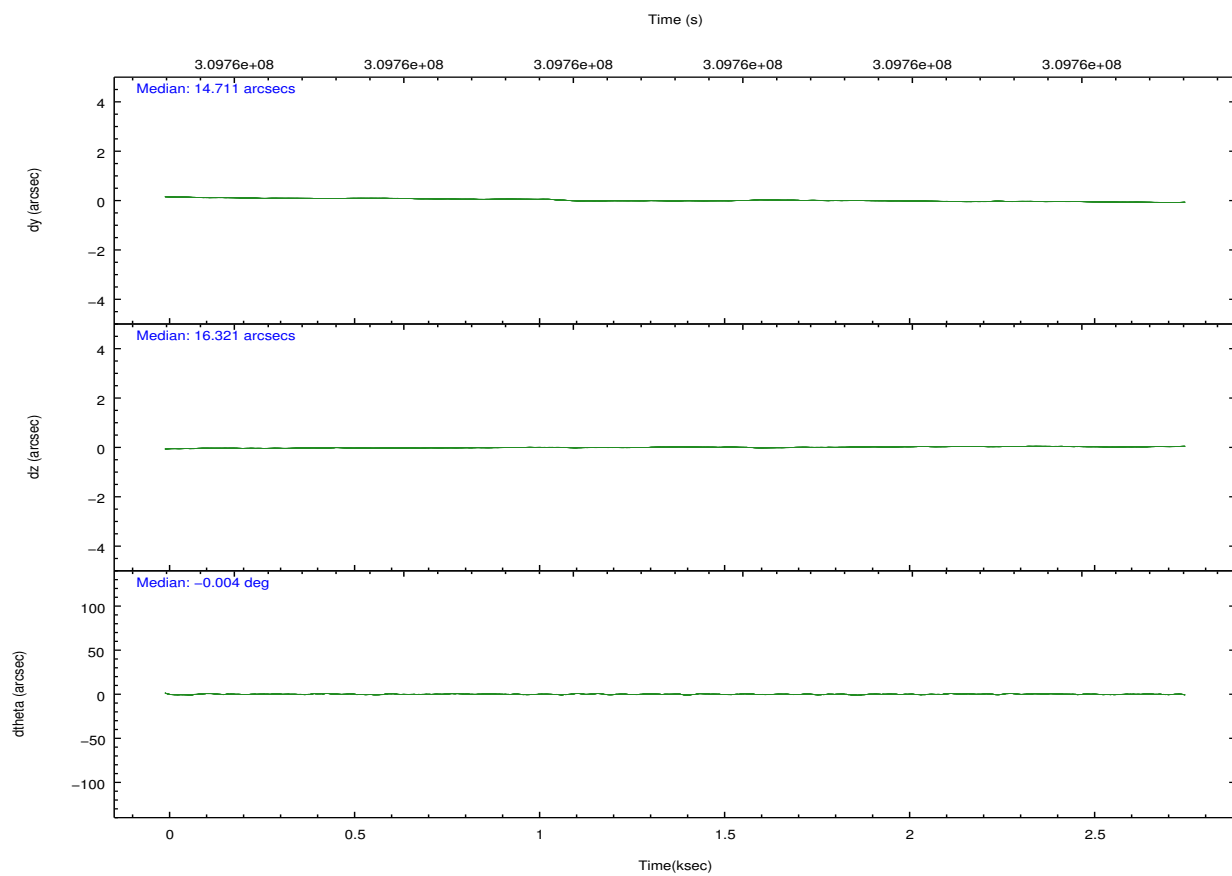
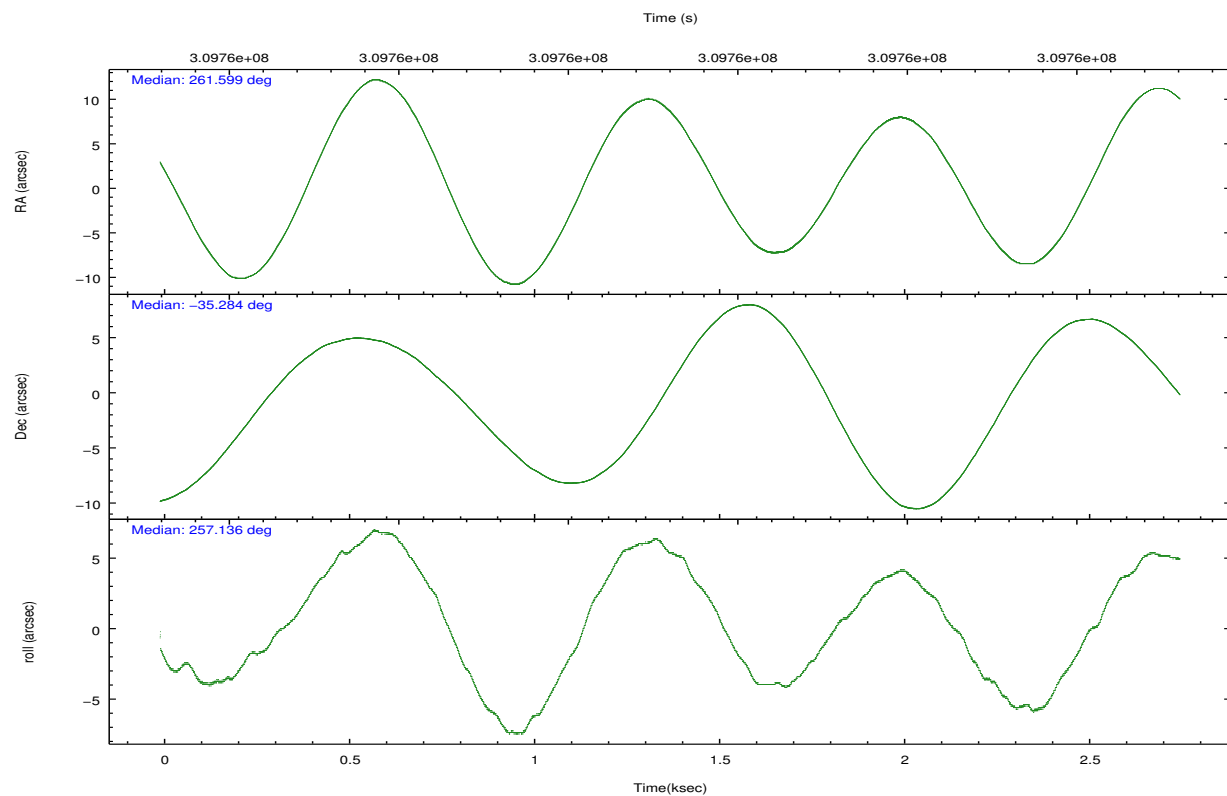
|                 | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |                | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 23002 | 21492 | 35416 | 22092 | 30644 | 32329 | grade 0 events | 1244  | 1207  | 1840  | 1079  | 1119  | 2196  |
| rejected events | 20193 | 18769 | 19043 | 19277 | 17561 | 25373 |                | 5%    | 5%    | 5%    | 4%    | 3%    | 6%    |
| rejected %      | 87%   | 87%   | 53%   | 87%   | 57%   | 78%   | grade 1 events | 12    | 13    | 328   | 16    | 38    | 31    |
|                 |       |       |       |       |       |       |                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
|                 |       |       |       |       |       |       | grade 2 events | 613   | 546   | 4973  | 626   | 2757  | 1569  |
|                 |       |       |       |       |       |       |                | 2%    | 2%    | 14%   | 2%    | 8%    | 4%    |
|                 |       |       |       |       |       |       | grade 3 events | 235   | 276   | 608   | 253   | 1103  | 720   |
|                 |       |       |       |       |       |       |                | 1%    | 1%    | 1%    | 1%    | 3%    | 2%    |
|                 |       |       |       |       |       |       | grade 4 events | 245   | 244   | 631   | 272   | 1077  | 657   |
|                 |       |       |       |       |       |       |                | 1%    | 1%    | 1%    | 1%    | 3%    | 2%    |
|                 |       |       |       |       |       |       | grade 5 events | 906   | 1034  | 2566  | 1013  | 2858  | 1372  |
|                 |       |       |       |       |       |       |                | 3%    | 4%    | 7%    | 4%    | 9%    | 4%    |
|                 |       |       |       |       |       |       | grade 6 events | 478   | 453   | 8343  | 589   | 7044  | 1821  |
|                 |       |       |       |       |       |       |                | 2%    | 2%    | 23%   | 2%    | 22%   | 5%    |
|                 |       |       |       |       |       |       | grade 7 events | 19269 | 17719 | 16127 | 18244 | 14648 | 23963 |
|                 |       |       |       |       |       |       |                | 83%   | 82%   | 45%   | 82%   | 47%   | 74%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number          | 7         | 7       |
| Detector                          | ACIS-235678         | ACIS-235678          | Obspar file type                      | PREDICTED | ACTUAL  |
| Grating                           | NONE                | NONE                 | Obspar update status                  | NONE      | UPDATED |
| Data mode                         | FAINT               | FAINT                | CCD I0 on                             | N         | N       |
| Observation mode                  | POINTING            | POINTING             | CCD I1 on                             | N         | N       |
| [deg] Pointing RA                 | 261.588684          | 261.5989745387328    | CCD I2 on                             | O2        | Y       |
| [deg] Pointing Dec                | -35.258569          | -35.28451285737019   | CCD I3 on                             | O3        | Y       |
| [deg] Pointing Roll               | 256.985528          | 257.1480839311683    | CCD S0 on                             | N         | N       |
| [mm] SIM focus pos                | -0.684267           | -0.6828225247311905  | CCD S1 on                             | O1        | Y       |
| [mm] SIM defocus                  | 0                   | 0.001444936568705701 | CCD S2 on                             | O5        | Y       |
| [mm] SIM translation stage pos    | -190.132523         | -190.1425803651734   | CCD S3 on                             | Y         | Y       |
| [mm] SIM translation stage offset | 0                   | 0.01005778216563158  | CCD S4 on                             | O4        | Y       |
| [s] Observation start time (MET)  | 309755588.184000    | 309755153.63623      | CCD S5 on                             | N         | N       |
| Observation start date            | 2007-10-26T03:12:03 | 2007-10-26T03:05:53  | Number of optional ACIS chips dropped | 0         | 0       |
| [s] Observation end time (MET)    | 309758168.184000    | 309758392.63638      | On-chip summing requested             | N         | N       |
| Observation end date              | 2007-10-26T03:55:03 | 2007-10-26T03:59:52  | Subarray requested                    | NONE      | NONE    |
| Read mode                         | TIMED               | TIMED                | Alternating exposures requested       | N         | N       |
|                                   |                     |                      | [s] Primary exposure time             | 0.000000  | 3.2     |

## 2.3 Aspect





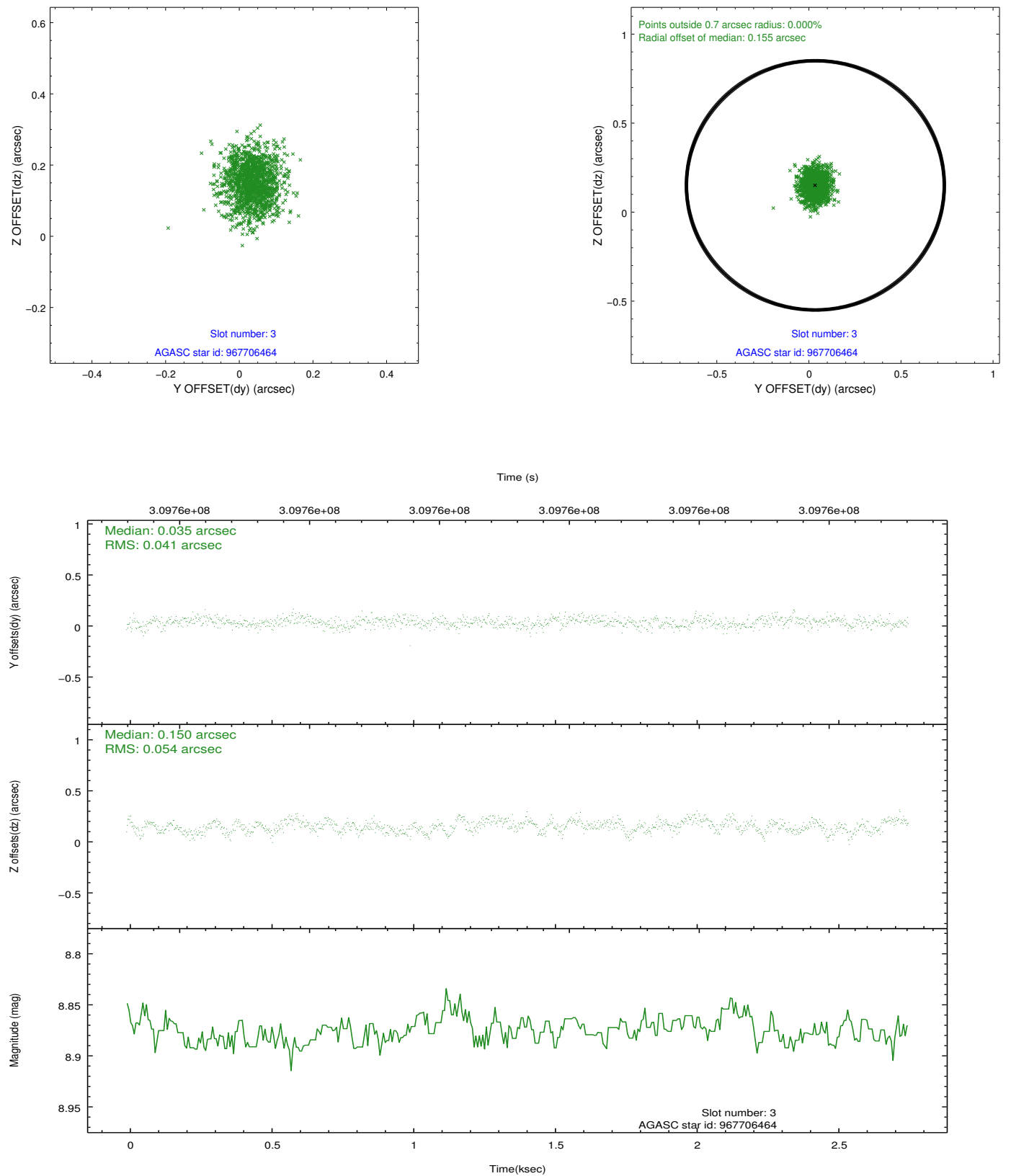
### Slot Statistics

| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec        | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0    | FID    | ACIS-S-2  | 7.09 | 672   | -0.081 | -0.033 | 0.007 | 0.011 | 0.000000   | 0.000000   | -767.79  | -1737.71 |
| 1    | FID    | ACIS-S-4  | 7.19 | 671   | 0.199  | 0.048  | 0.005 | 0.010 | 0.000000   | 0.000000   | 2144.71  | 168.40   |
| 2    | FID    | ACIS-S-5  | 7.22 | 672   | -0.149 | -0.006 | 0.006 | 0.011 | 0.000000   | 0.000000   | -1817.69 | 164.71   |
| 3    | GUIDE  | 967706464 | 8.88 | 1345  | 0.035  | 0.150  | 0.073 | 0.119 | 261.477528 | -34.851379 | -1352.99 | -649.66  |
| 4    | GUIDE  | 967707128 | 9.10 | 1346  | -0.301 | 0.065  | 0.085 | 0.137 | 261.767640 | -34.671396 | -2178.62 | 40.14    |
| 5    | GUIDE  | 967708296 | 8.87 | 1346  | -0.025 | -0.143 | 0.072 | 0.115 | 261.914006 | -35.390296 | 247.63   | 1037.84  |
| 6    | GUIDE  | 967709784 | 9.04 | 1344  | -0.435 | -0.290 | 0.074 | 0.122 | 261.025089 | -35.287716 | 480.81   | -1587.82 |
| 7    | GUIDE  | 967711376 | 7.05 | 1345  | 0.726  | 0.217  | 0.059 | 0.093 | 261.036431 | -34.798453 | -1239.41 | -1963.37 |

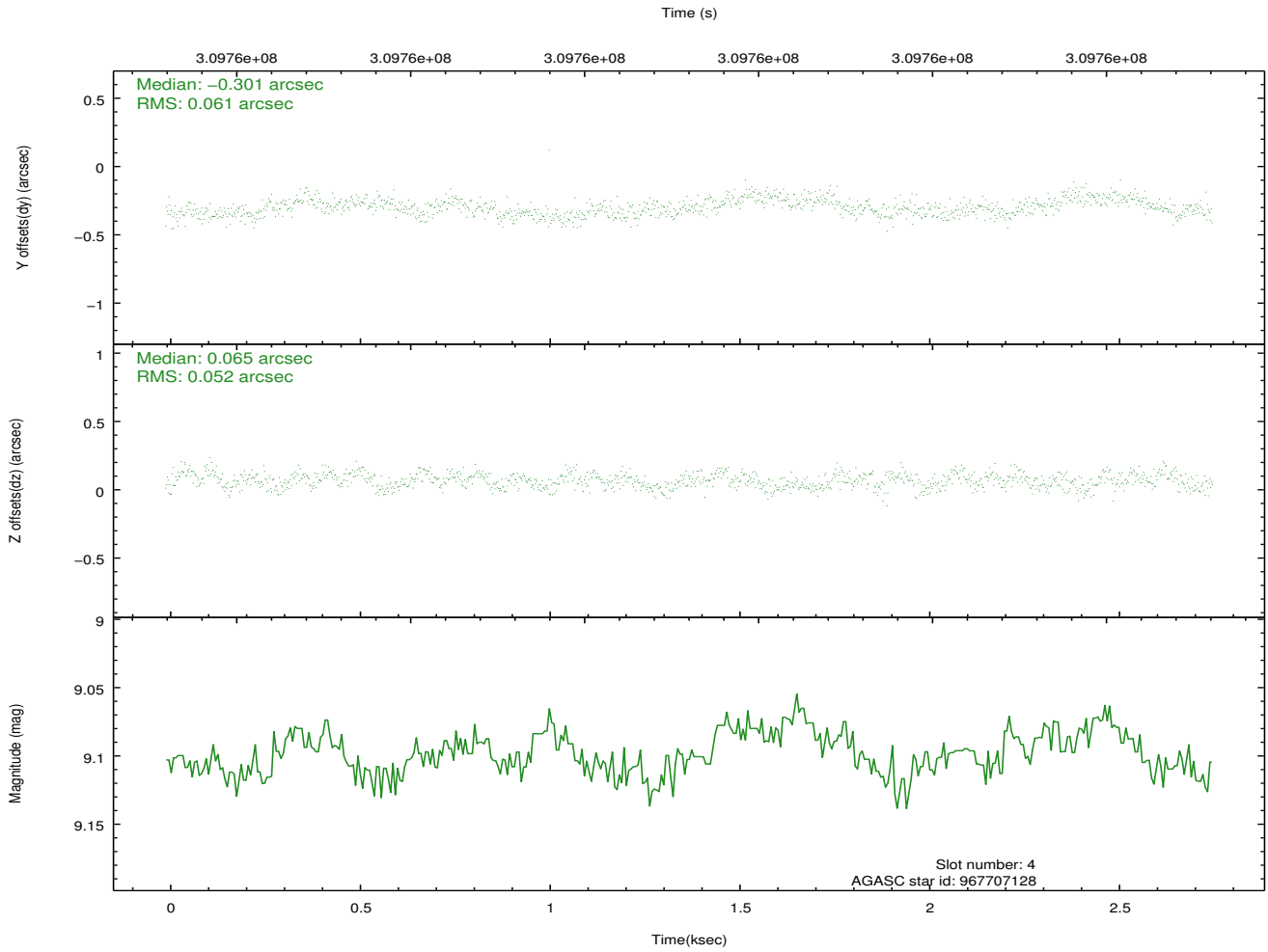
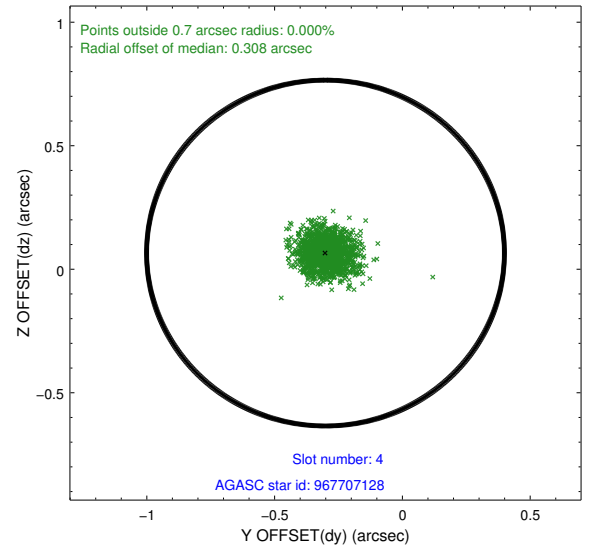
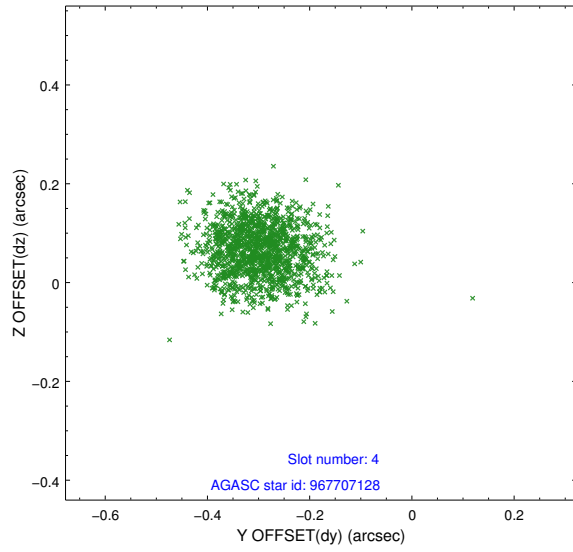


## 2.4 Star Slots

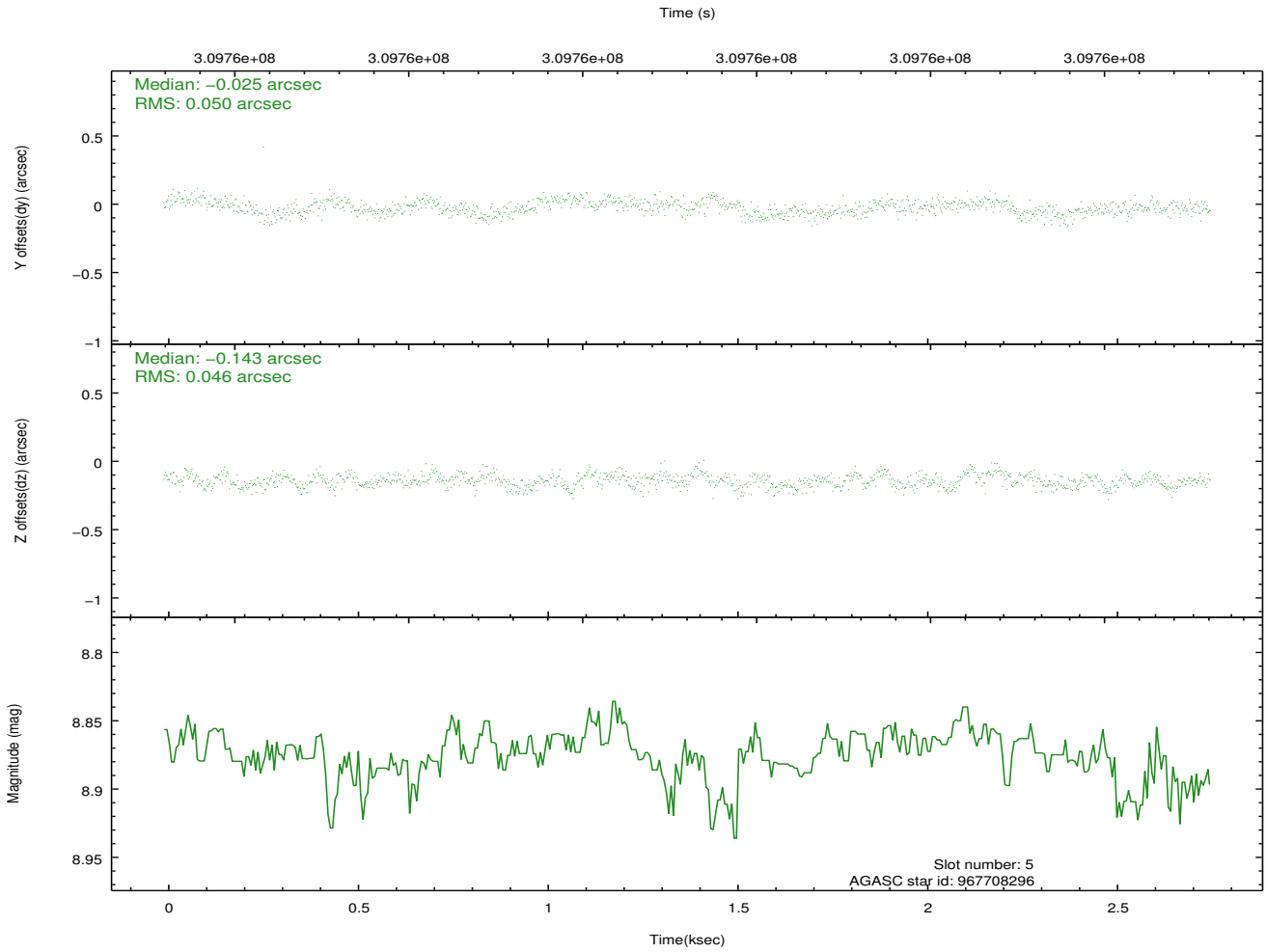
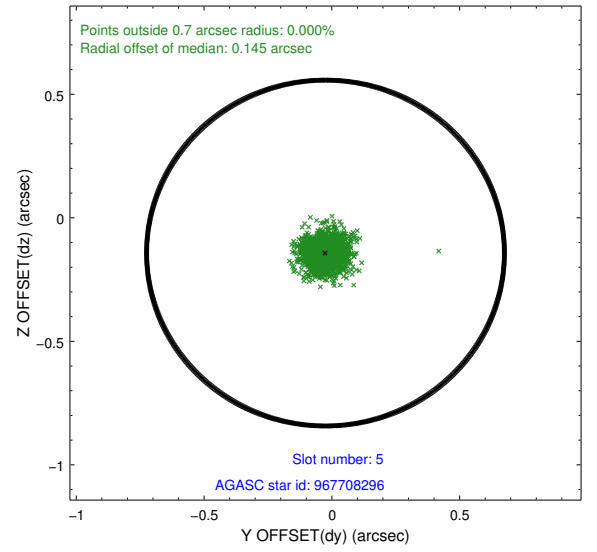
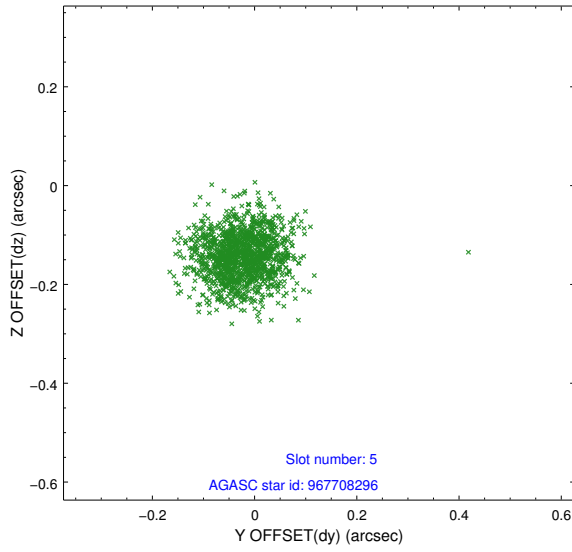
### 2.4.1 Slot 3



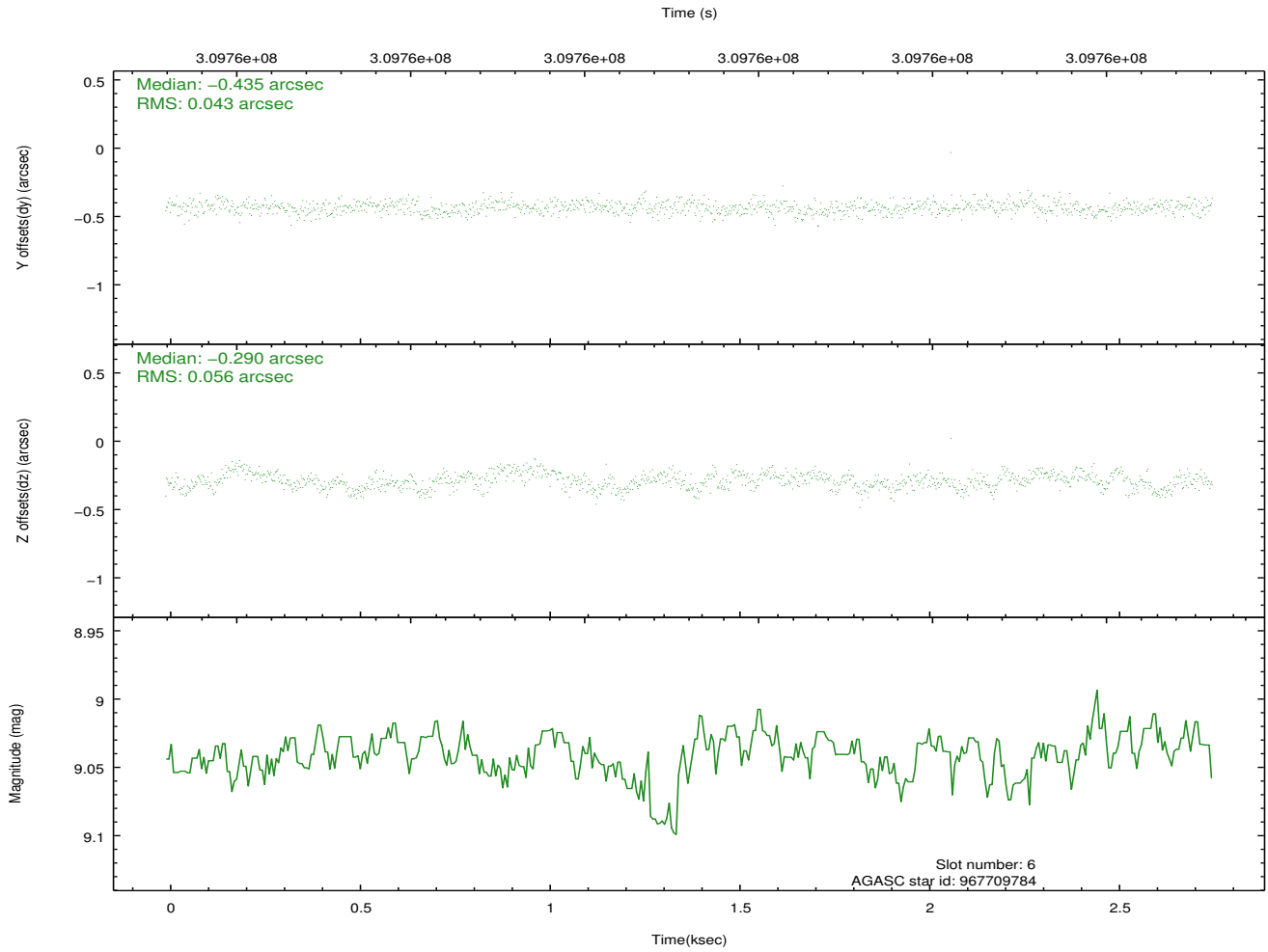
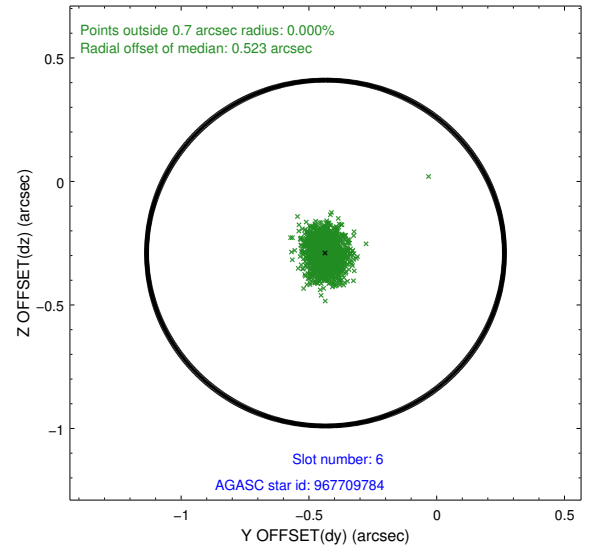
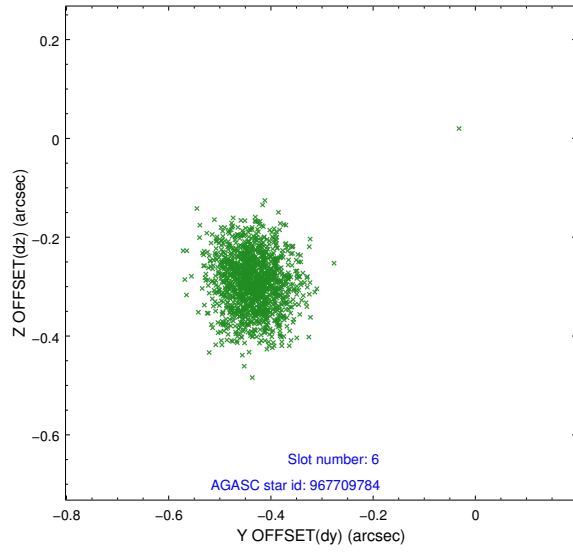
## 2.4.2 Slot 4



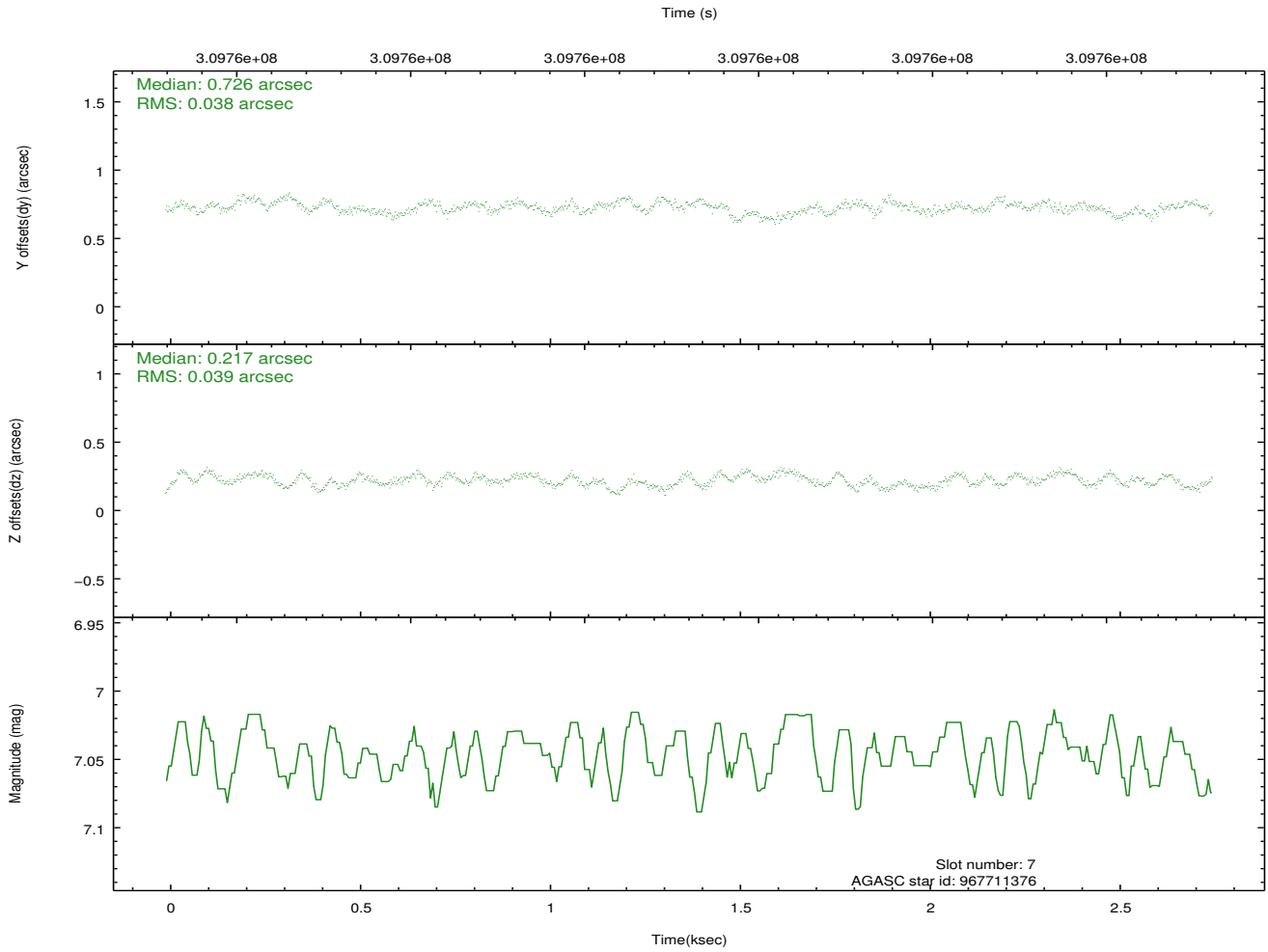
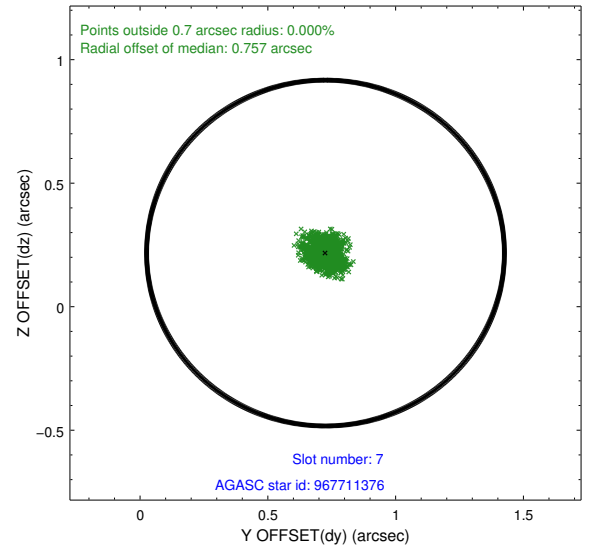
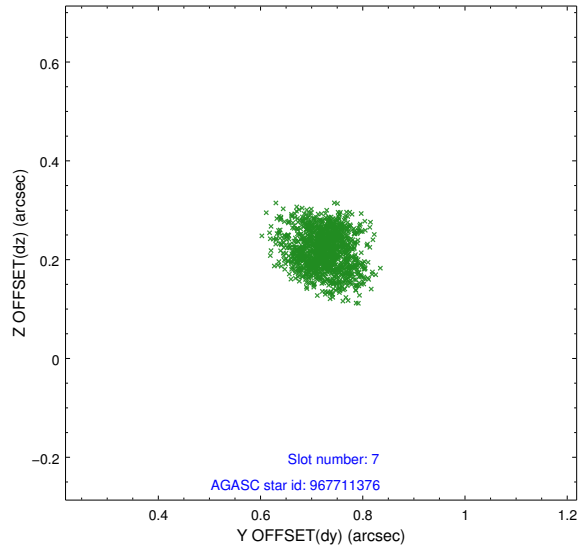
### 2.4.3 Slot 5



## 2.4.4 Slot 6

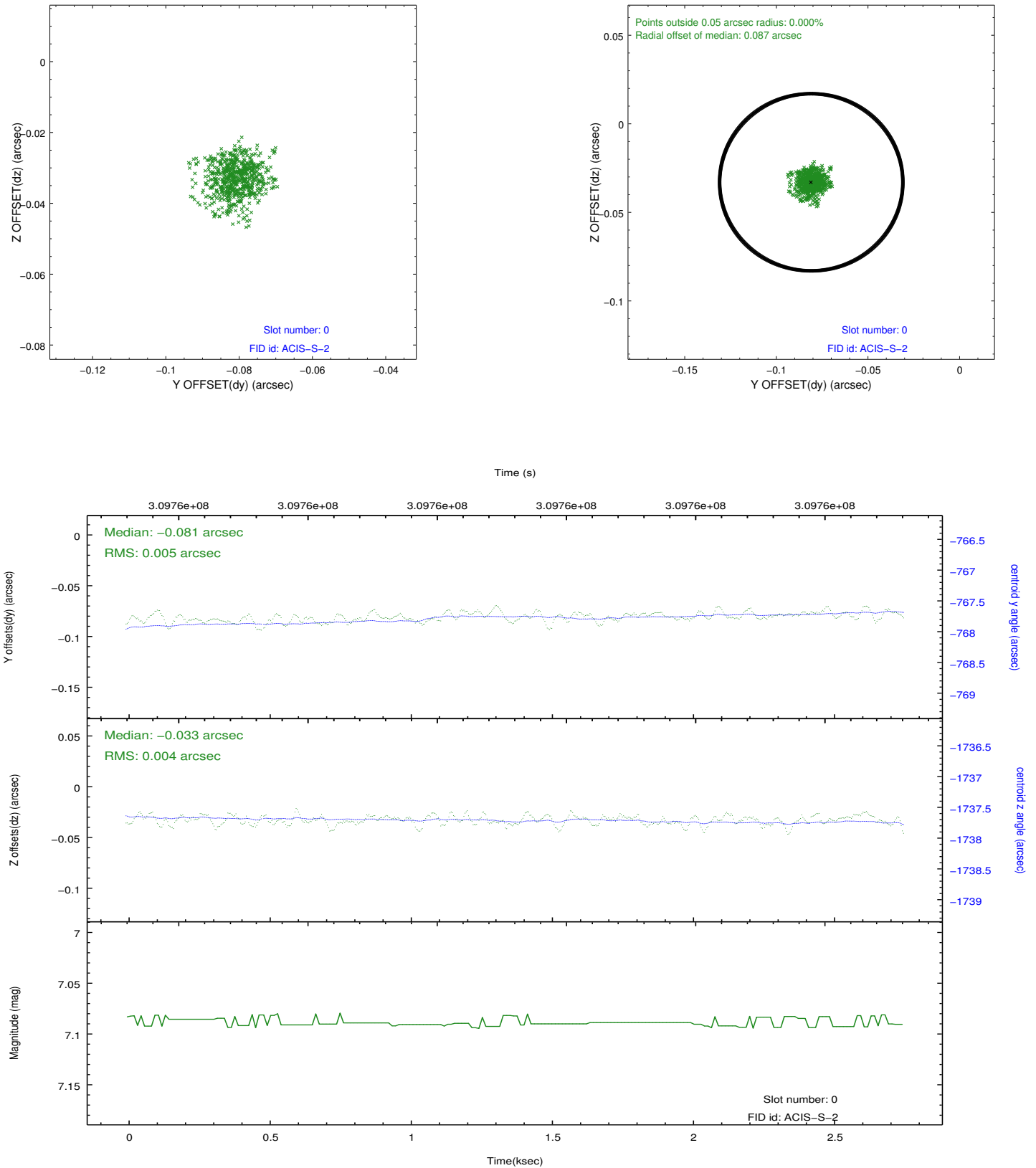


## 2.4.5 Slot 7

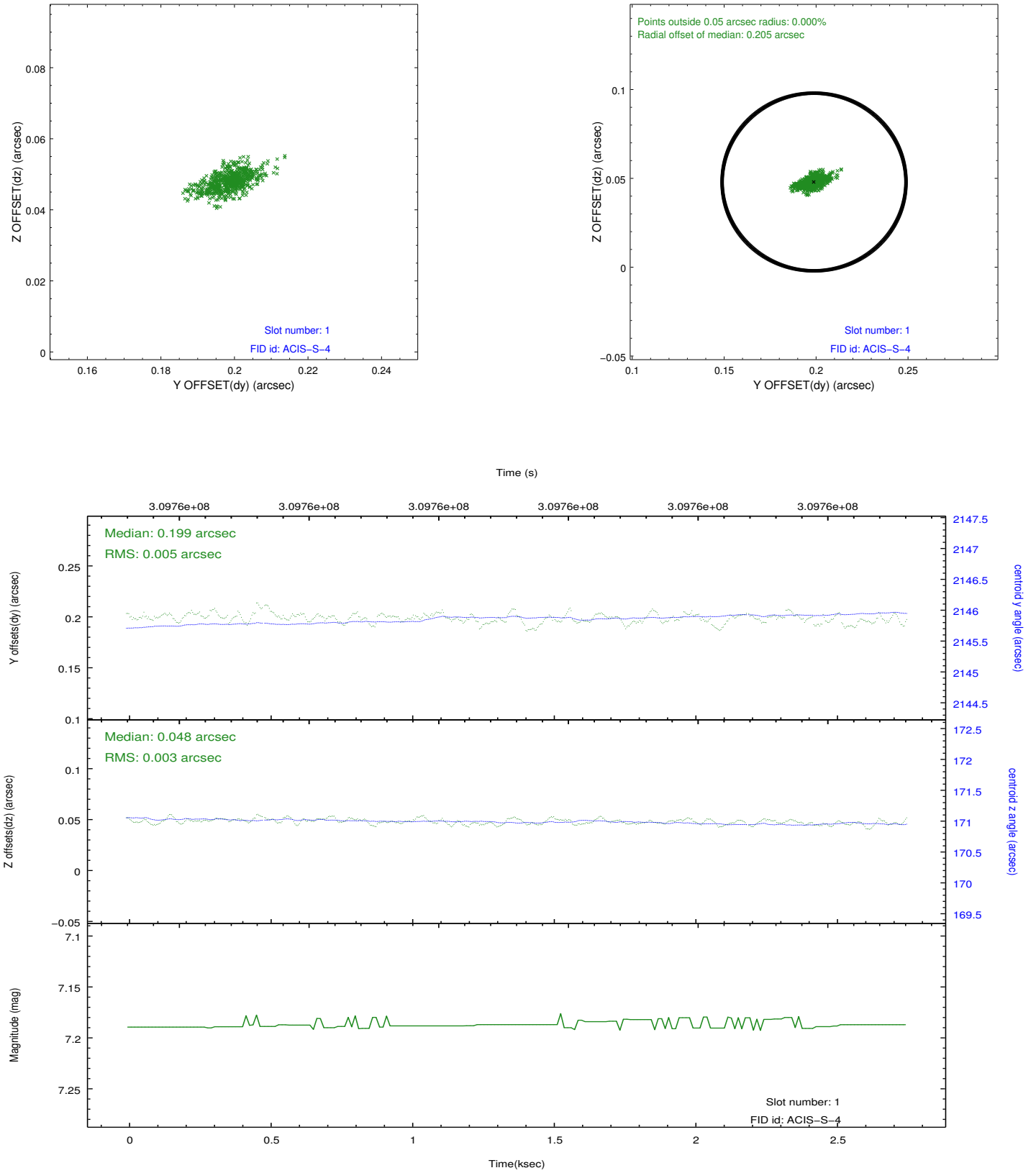


## 2.5 FID Slots

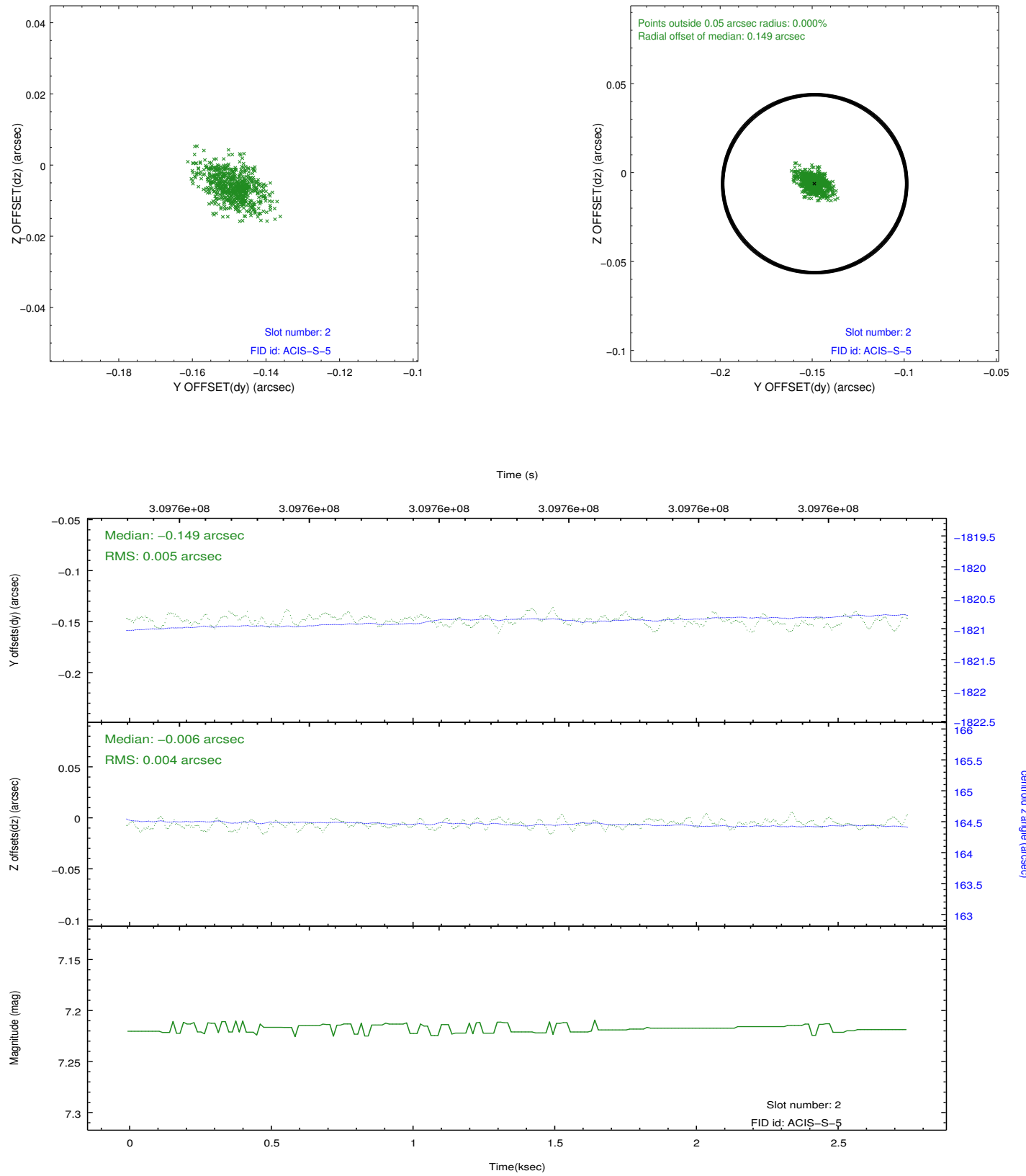
### 2.5.1 Slot 0



## 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)      | 2012.05.04 |
| V&V Edition                | 1          |
| V&V Disposition and Status | OK         |
| V&V Charge Time            | 2.33919999 |

### A.2 Comments