

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13972 - L2 Version 1  
Chandra X-Ray Center

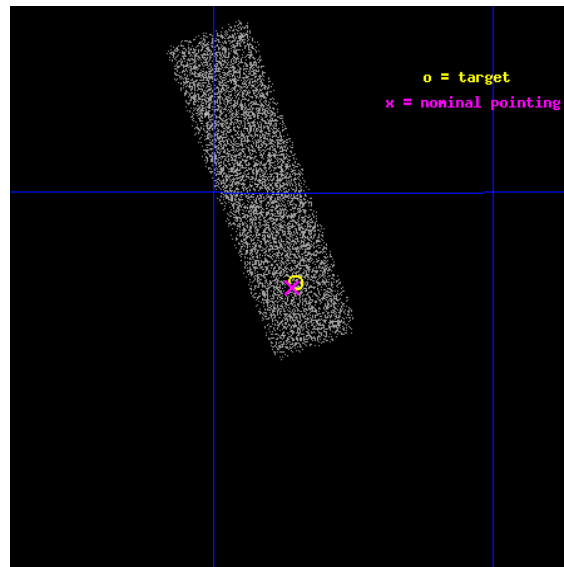
L2 Processing Date : Jun 15 2012

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# 1 Front

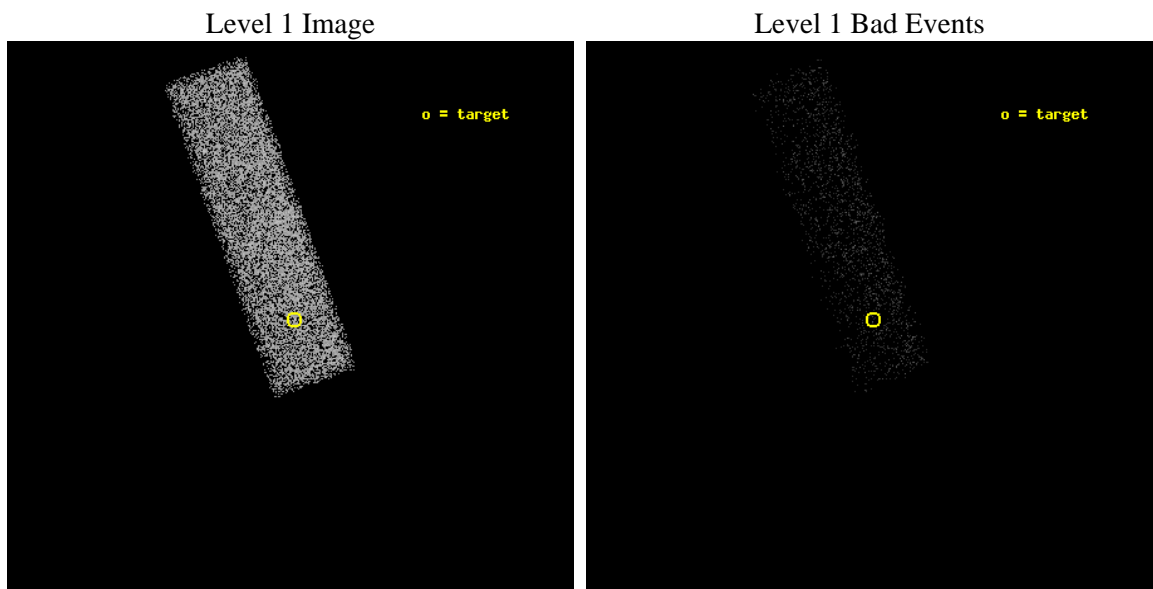
|           |   |   |
|-----------|---|---|
| seq_num   | 702693  | Sequence number                             |
| obs_id    | 13972   | Observation id                              |
| title     | Black Holes at the Centers of Nearby Dwarf Galaxies | Proposal title                              |
| observer  | Dr. Edward Moran                                    | Principal investigator                      |
| object    | J1005+1257  | Source name                                 |
| dtcycle   | 0   | &#160                                       |
| cycle     | P   | events from which exps?<br>Prim/Second/Both |
| ra_targ   | 151.463333  | Observer's specified target RA [deg]        |
| dec_targ  | 12.961306   | Observer's specified target Dec [deg]       |
| ra_nom    | 151.46521082399                                     | Nominal RA [deg]                            |
| dec_nom   | 12.958938829425                                     | Nominal Dec [deg]                           |
| roll_nom  | 250.29979104244                                     | Nominal Roll [deg]                          |
| revision  | 1   | Processing version of data                  |
| ontime    | 10060.800149977                                     | Sum of GTIs [s]                             |
| liveltime | 9569.8660229975                                     | Livetime [s]                                |
| ontime7   | 10060.800149977                                     | Sum of GTIs [s]                             |
| l2events  | 9310  | Number of level 2 events                    |



## 2 OBI

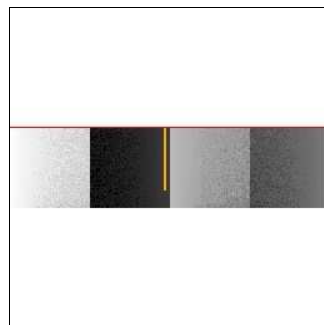
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 10000.000000    | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 10060.800149977 | Sum of GTIs [s]                         |
| caldsver | 4.4.10              | &#160                          | ontime7        | 10060.800149977 | Sum of GTIs [s]                         |
| date     | 2012-06-15T14:55:34 | Date and time of file creation | l1events       | 19662           | Number of level 1 events                |
| revision | 1                   | Processing version of data     |                |                 |   |

### 2.1.4 Events

|                 |              |
|-----------------|--------------|
|                 | <b>ccd 7</b> |
| level 1 events  | 19662        |
| rejected events | 10049        |
| rejected %      | 51%          |

|                |              |
|----------------|--------------|
|                | <b>ccd 7</b> |
| grade 0 events | 1000         |
|                | 5%           |
| grade 1 events | 26           |
|                | 0%           |
| grade 2 events | 1873         |
|                | 9%           |
| grade 3 events | 1110         |
|                | 5%           |
| grade 4 events | 1033         |
|                | 5%           |
| grade 5 events | 2170         |
|                | 11%          |
| grade 6 events | 4597         |
|                | 23%          |
| grade 7 events | 7853         |
|                | 39%          |

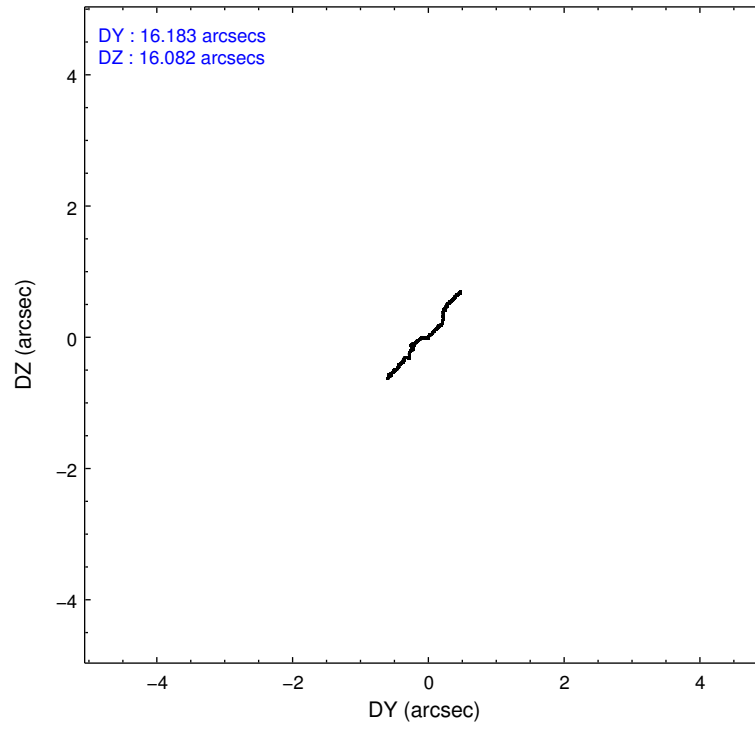
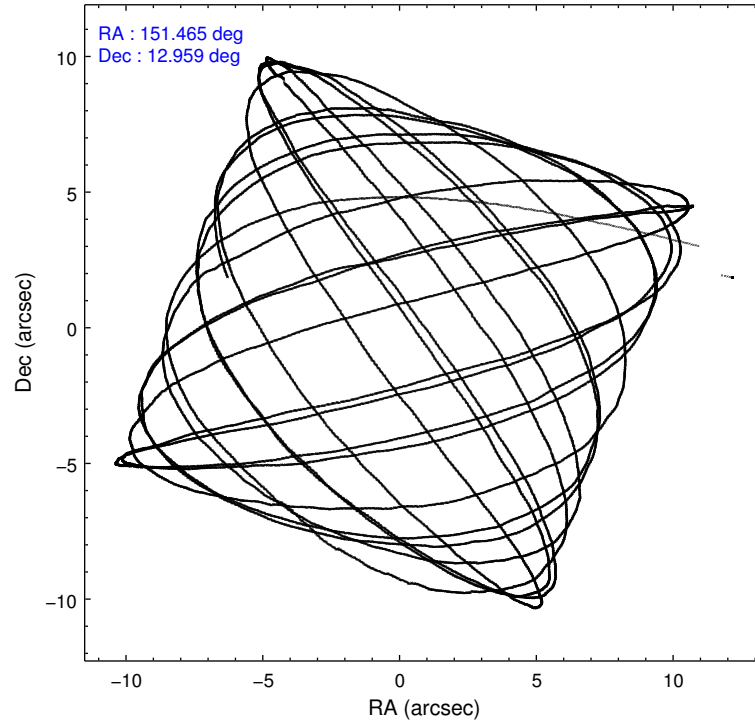


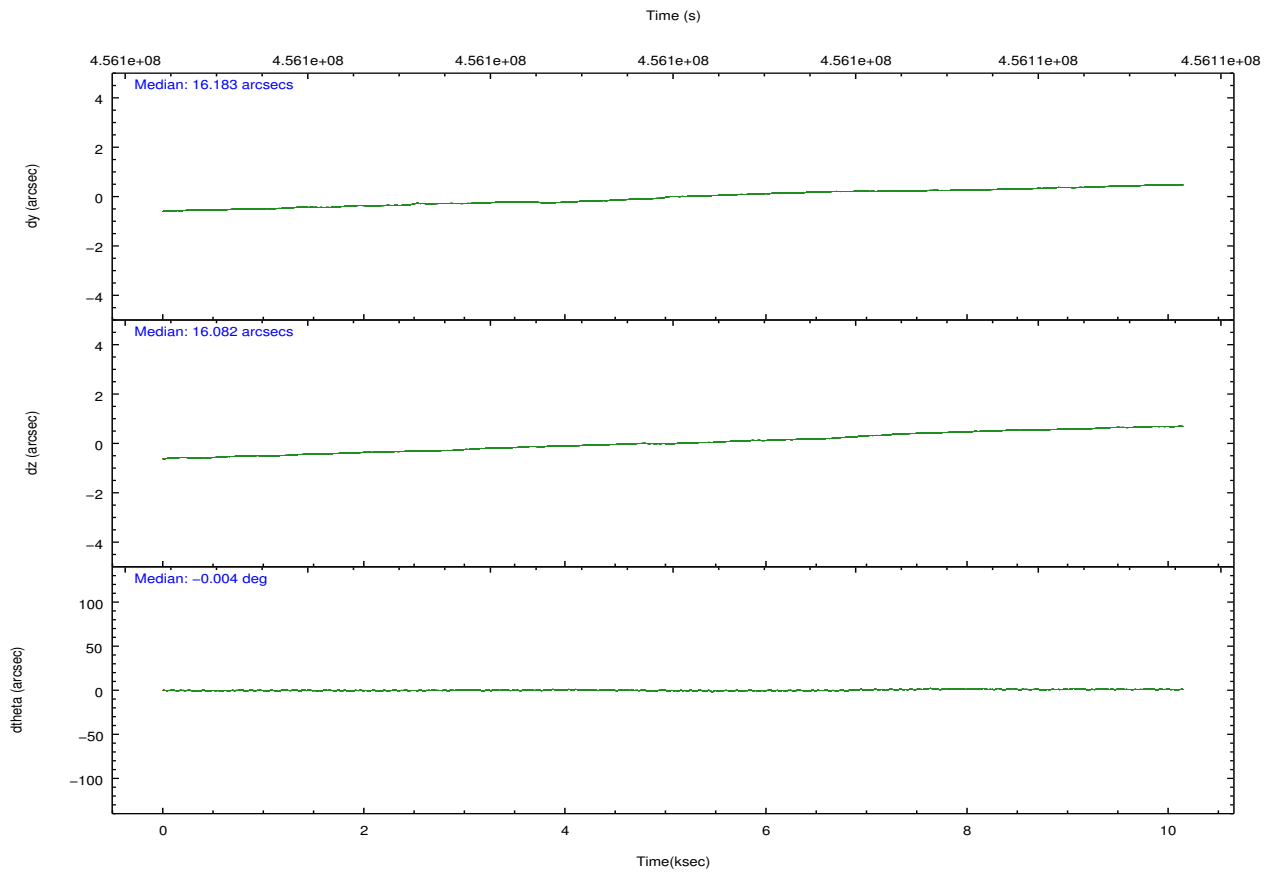
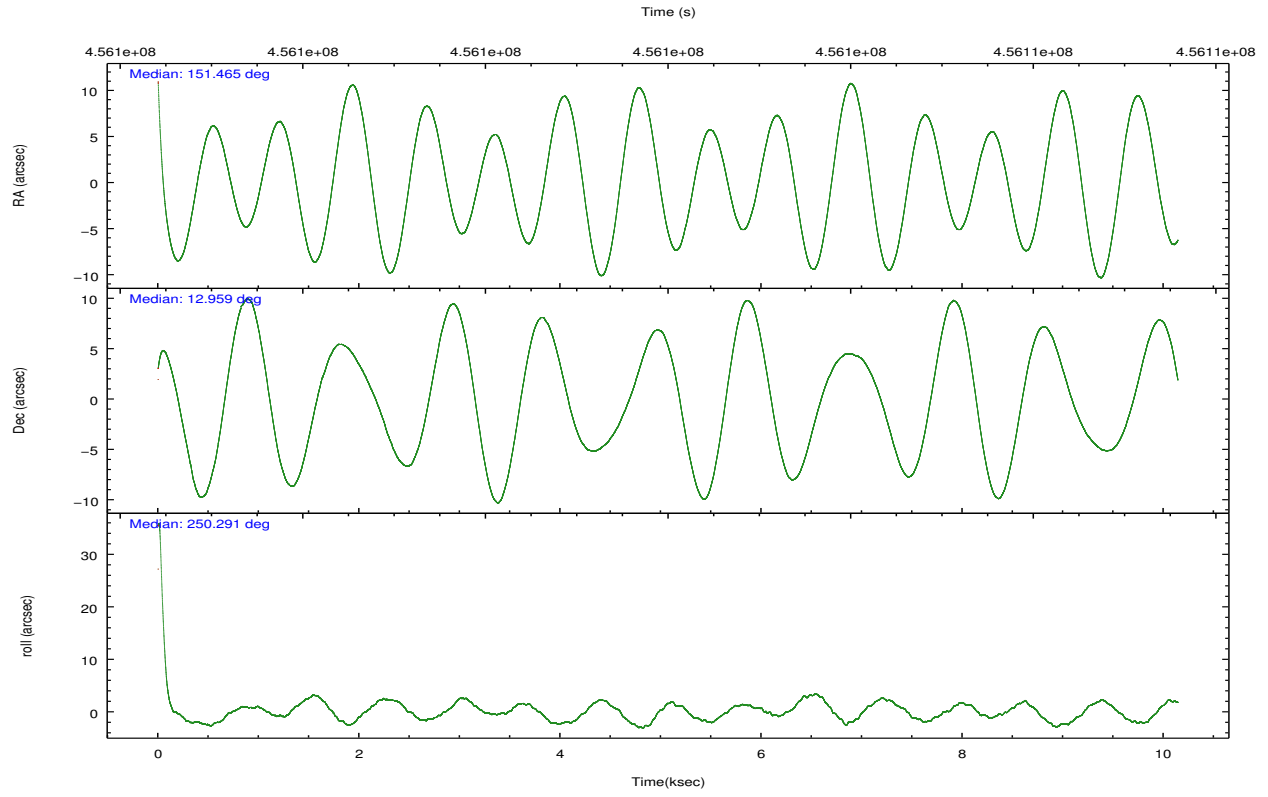
## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               |
|-----------------------------------|---------------------|----------------------|
| Instrument                        | ACIS                | ACIS                 |
| Detector                          | ACIS-7              | ACIS-7               |
| Grating                           | NONE                | NONE                 |
| Data mode                         | FAINT               | FAINT                |
| Observation mode                  | POINTING            | POINTING             |
| [deg] Pointing RA                 | 151.459841          | 151.4652108239858    |
| [deg] Pointing Dec                | 12.985744           | 12.95893882942506    |
| [deg] Pointing Roll               | 250.144320          | 250.2997910424446    |
| [mm] SIM focus pos                | -0.684267           | -0.6828225247311905  |
| [mm] SIM defocus                  | 0                   | 0.001444936568705701 |
| [mm] SIM translation stage pos    | -190.132523         | -190.1400660498719   |
| [mm] SIM translation stage offset | 0                   | 0.00754346686406393  |
| [s] Observation start time (MET)  | 456097076.184000    | 456096065.6146       |
| Observation start date            | 2012-06-14T21:36:50 | 2012-06-14T21:21:05  |
| [s] Observation end time (MET)    | 456107076.184000    | 456108008.91523      |
| Observation end date              | 2012-06-15T00:23:30 | 2012-06-15T00:40:08  |
| Read mode                         | TIMED               | TIMED                |

| Parameter                             | Planned   | Actual  |
|---------------------------------------|-----------|---------|
| Obspar format version number          | 7         | 7       |
| Obspar file type                      | PREDICTED | ACTUAL  |
| Obspar update status                  | NONE      | UPDATED |
| Number of optional ACIS chips dropped | 0         | 0       |
| On-chip summing requested             | N         | N       |
| Subarray requested                    | CUSTOM    | 1/4     |
| Subarray start row                    | 385       | 385     |
| Subarray row count                    | 256       | 256     |
| Alternating exposures requested       | N         | N       |
| [s] Primary exposure time             | 0.000000  | 0.8     |

## 2.3 Aspect



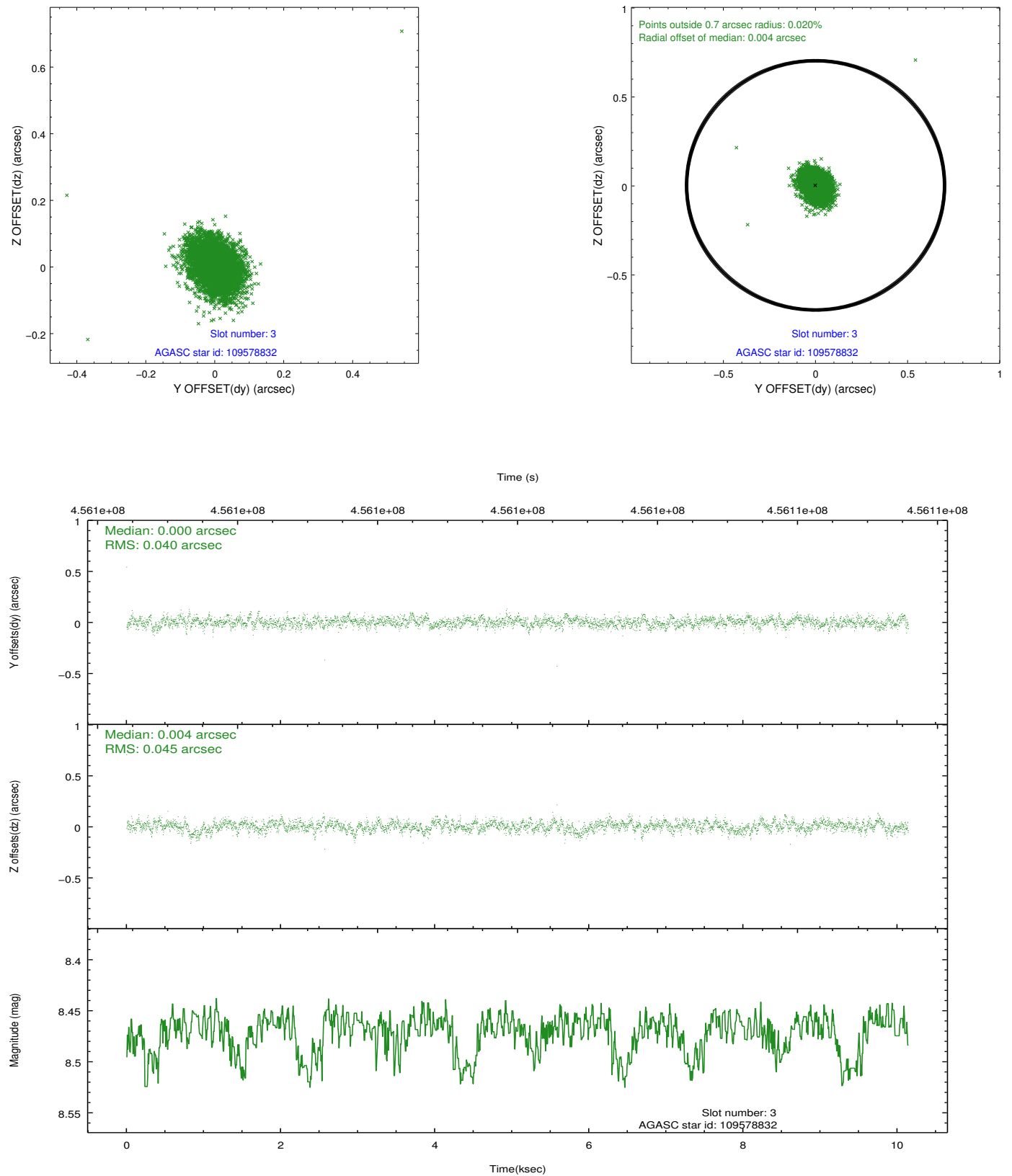


### Slot Statistics

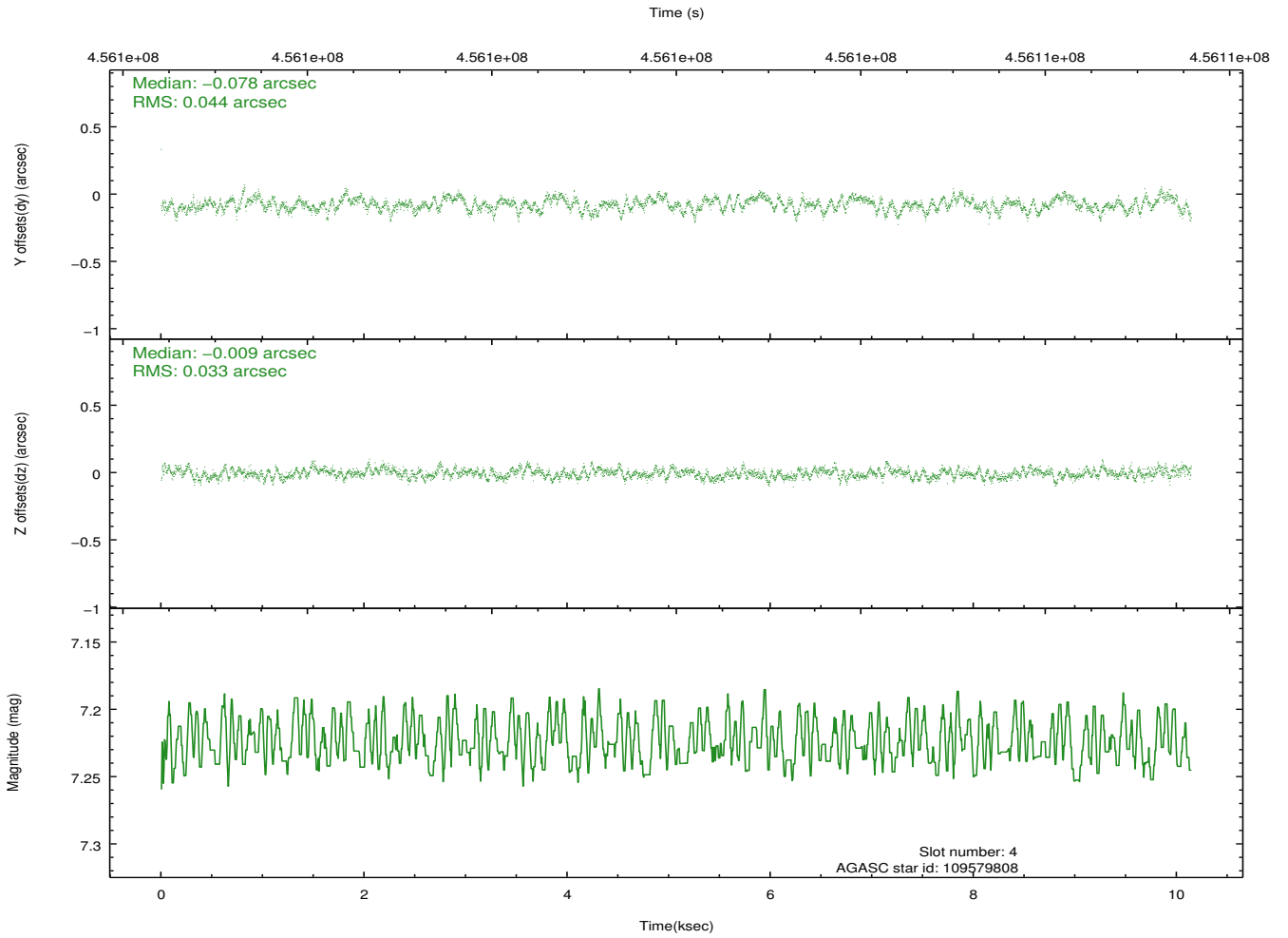
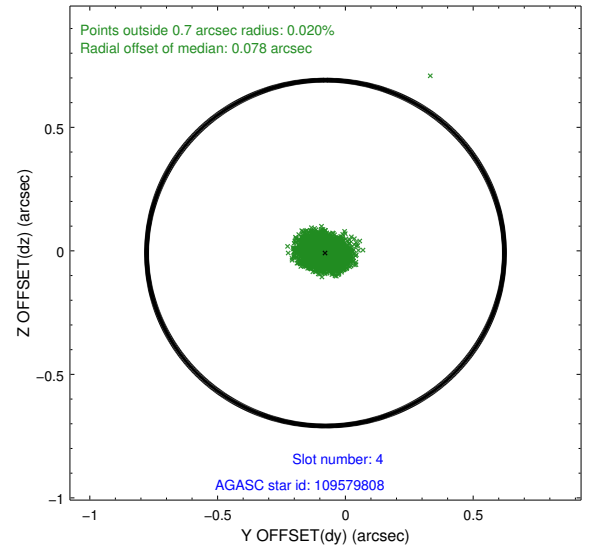
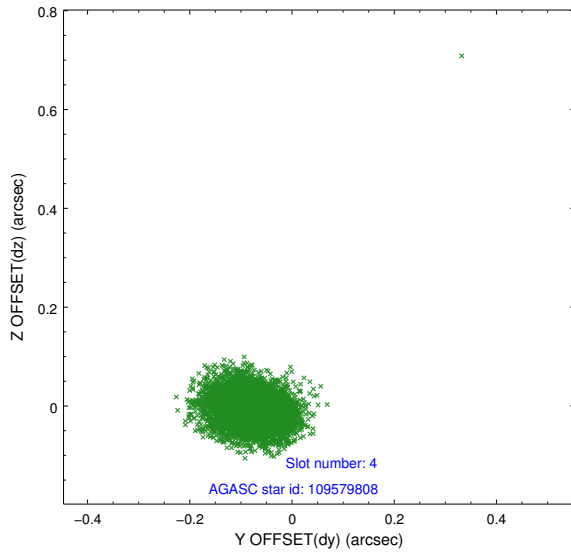
| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0    | FID    | ACIS-S-2  | 6.93 | 2475  | -0.126 | -0.030 | 0.014 | 0.025 | 0.000000   | 0.000000  | -769.26  | -1737.56 |
| 1    | FID    | ACIS-S-4  | 7.02 | 2475  | 0.253  | 0.068  | 0.010 | 0.018 | 0.000000   | 0.000000  | 2144.15  | 170.48   |
| 2    | FID    | ACIS-S-5  | 7.04 | 2475  | -0.161 | -0.031 | 0.013 | 0.022 | 0.000000   | 0.000000  | -1821.48 | 164.65   |
| 3    | GUIDE  | 109578832 | 8.47 | 4947  | 0.000  | 0.004  | 0.062 | 0.102 | 151.896046 | 13.028933 | -667.77  | 1383.50  |
| 4    | GUIDE  | 109579808 | 7.22 | 4949  | -0.078 | -0.009 | 0.057 | 0.092 | 151.110007 | 13.595092 | -1647.85 | -1896.10 |
| 5    | GUIDE  | 109583536 | 8.78 | 4947  | 0.021  | 0.003  | 0.083 | 0.134 | 152.151485 | 13.126373 | -1303.26 | 2107.56  |
| 6    | GUIDE  | 109584104 | 7.71 | 4949  | -0.033 | -0.037 | 0.069 | 0.116 | 151.655187 | 12.782068 | 456.49   | 895.10   |
| 7    | GUIDE  | 109578248 | 8.19 | 4943  | 0.088  | 0.035  | 0.058 | 0.095 | 150.905672 | 13.468219 | -975.96  | -2414.60 |

## 2.4 Star Slots

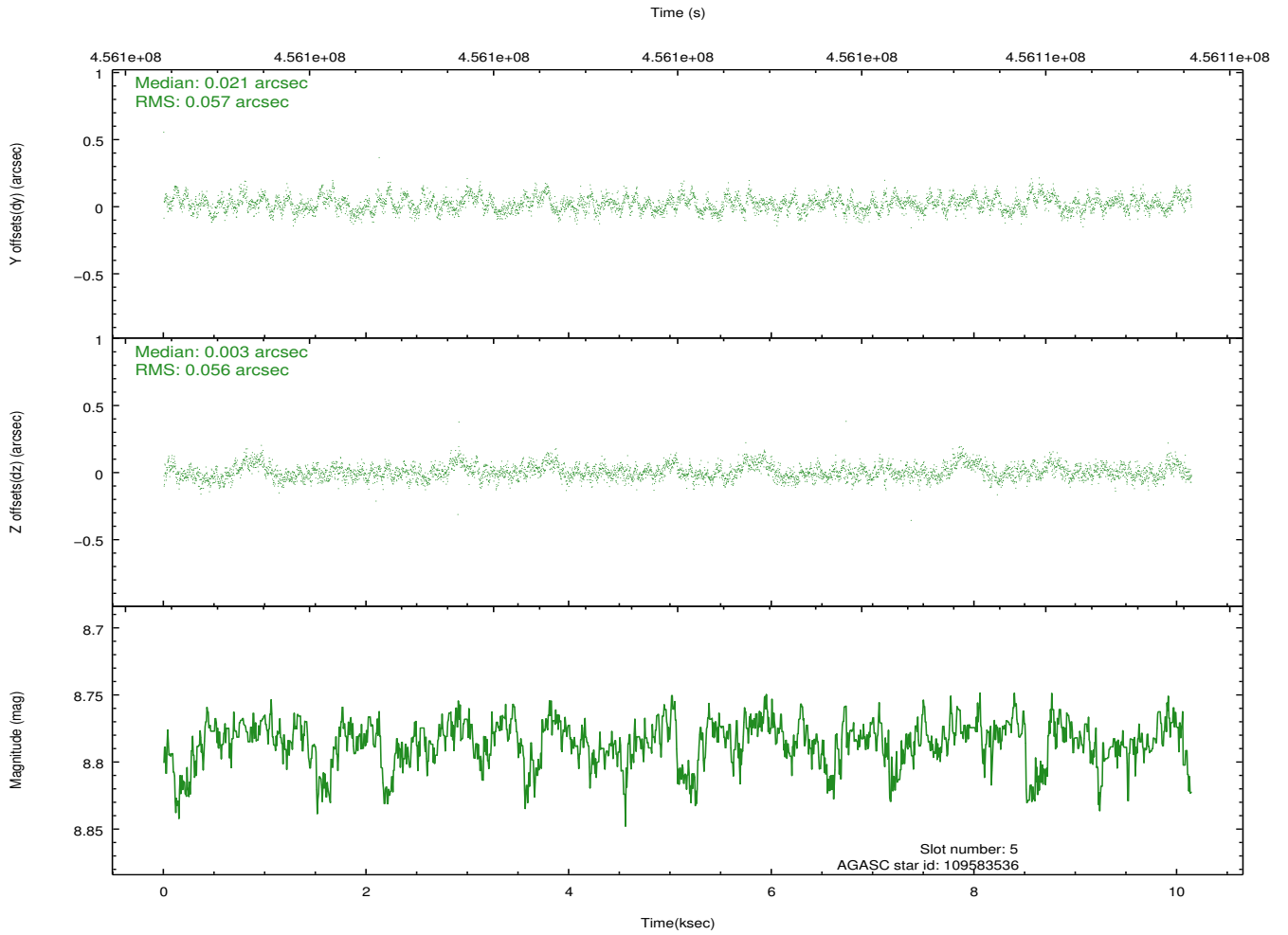
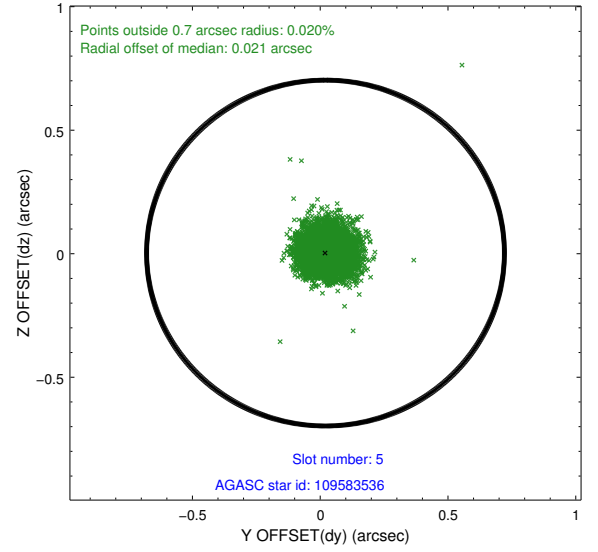
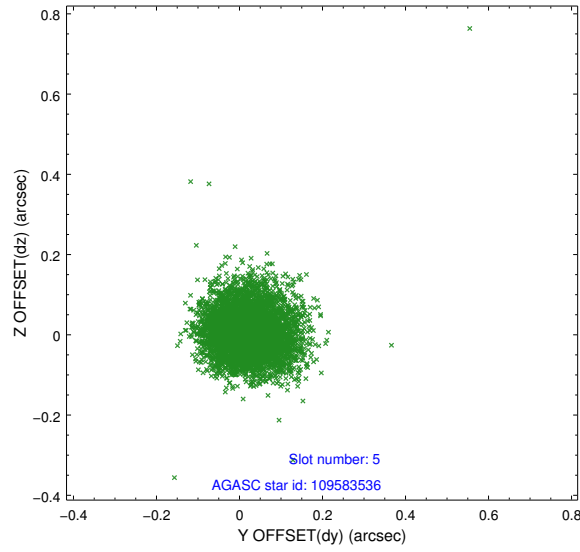
### 2.4.1 Slot 3



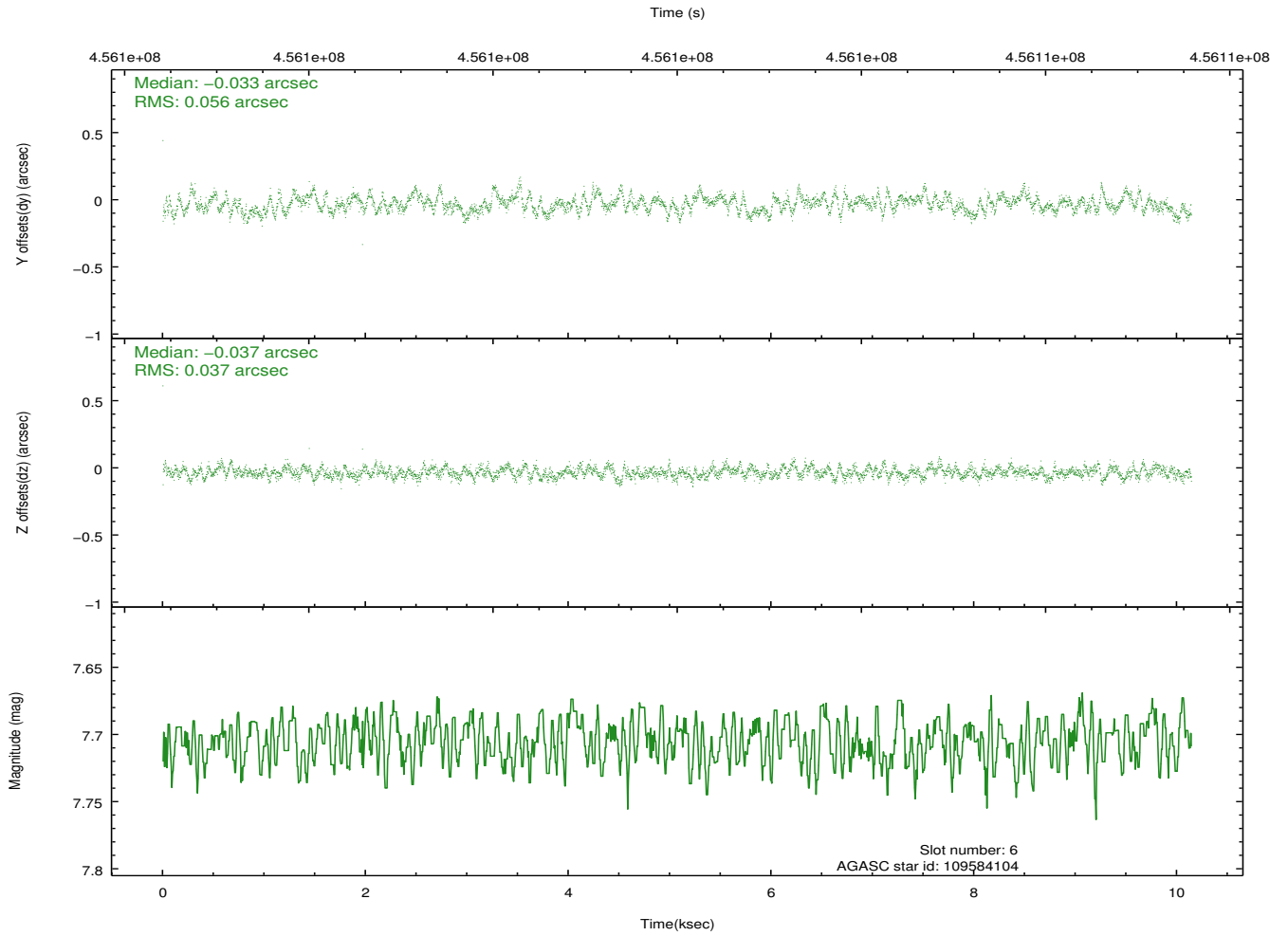
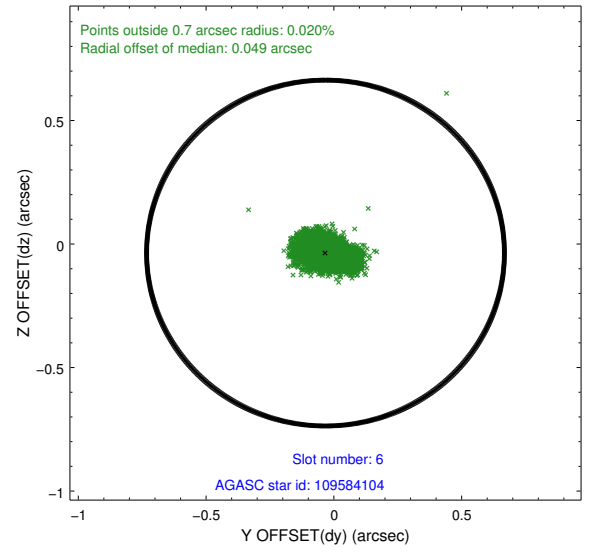
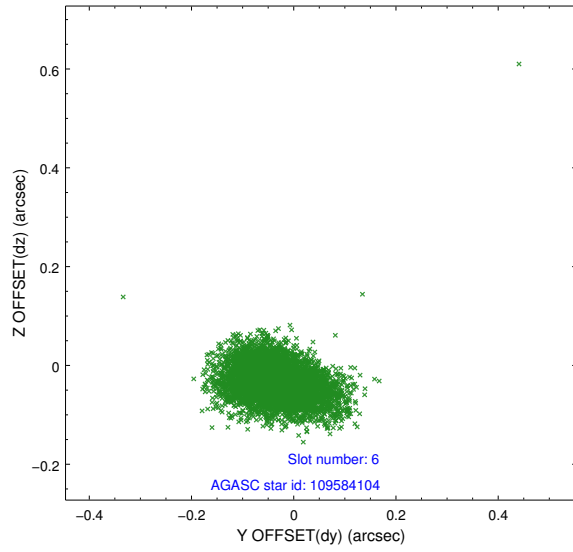
## 2.4.2 Slot 4



### 2.4.3 Slot 5

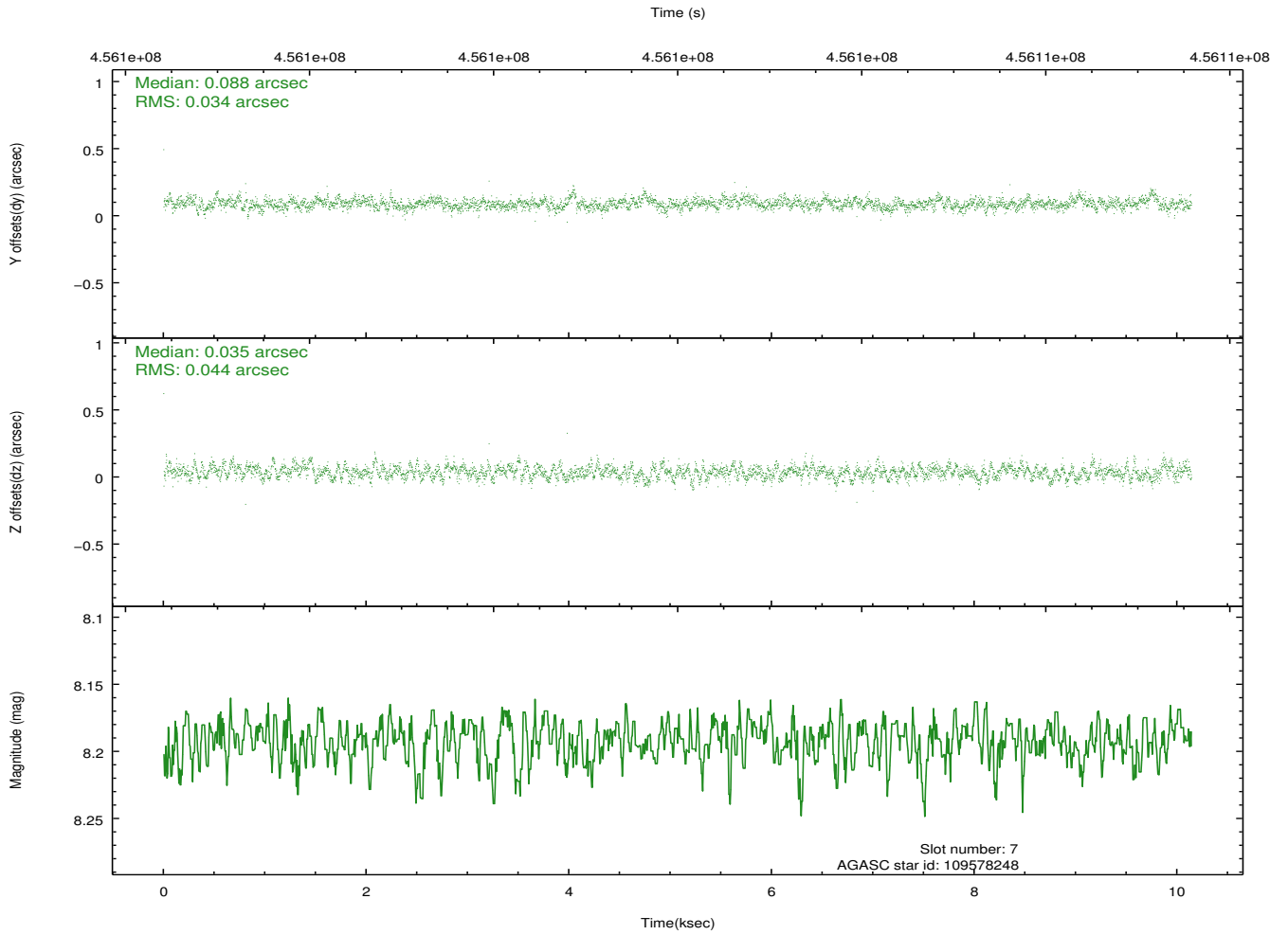
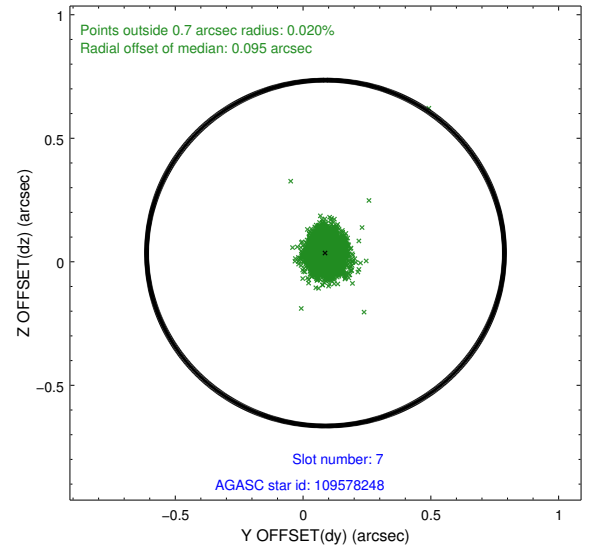
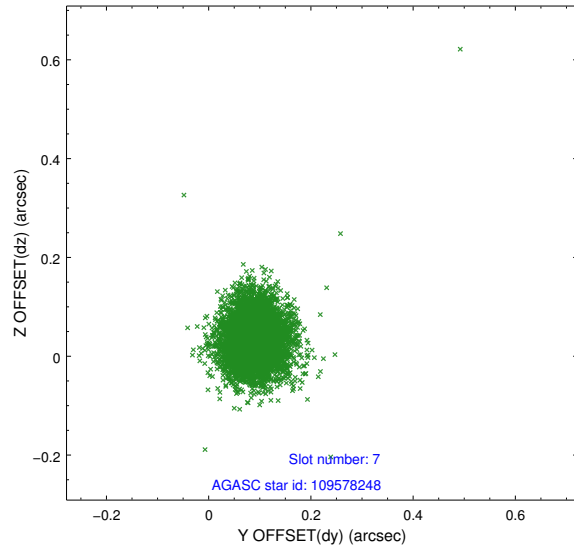


## 2.4.4 Slot 6



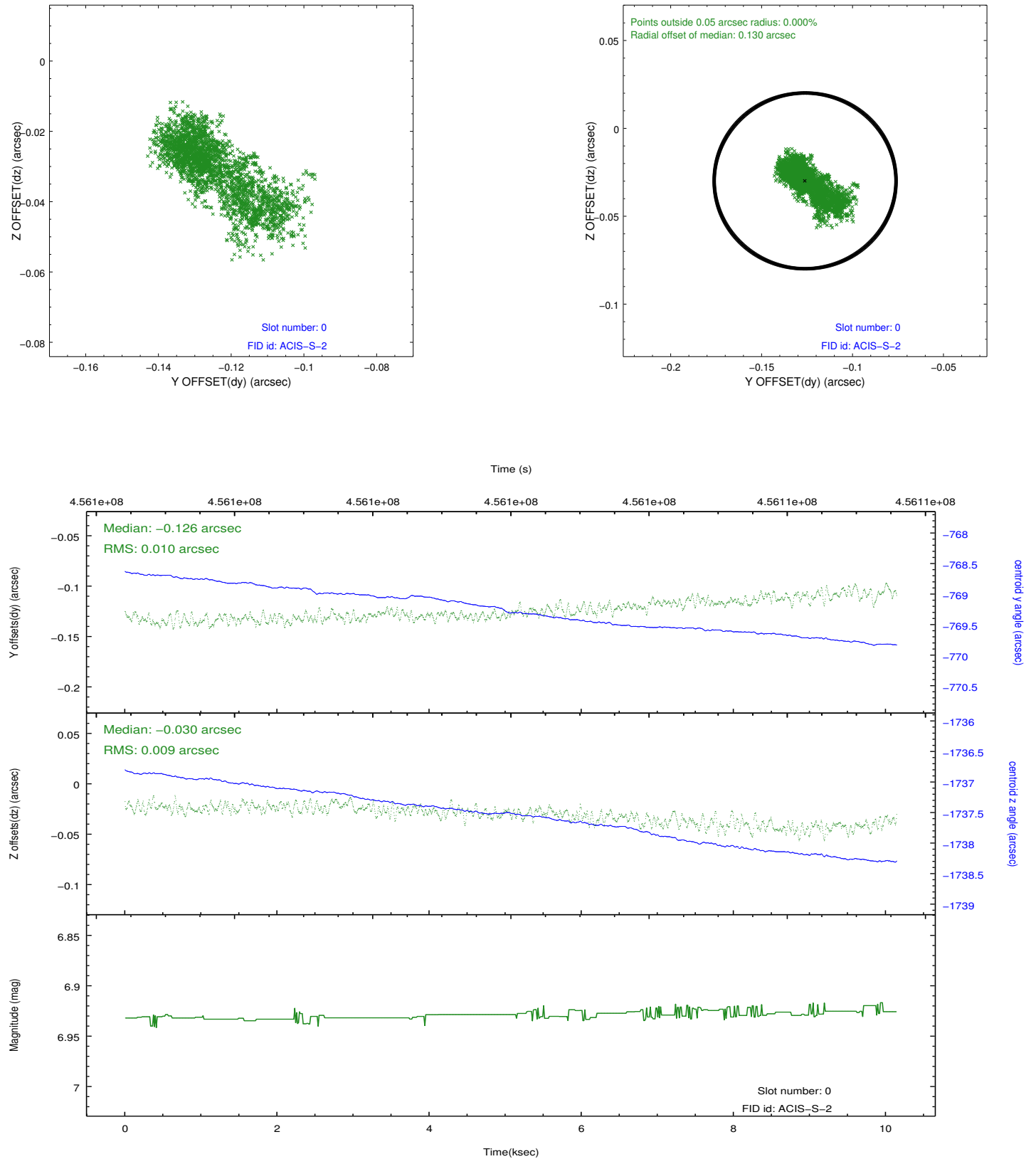


## 2.4.5 Slot 7

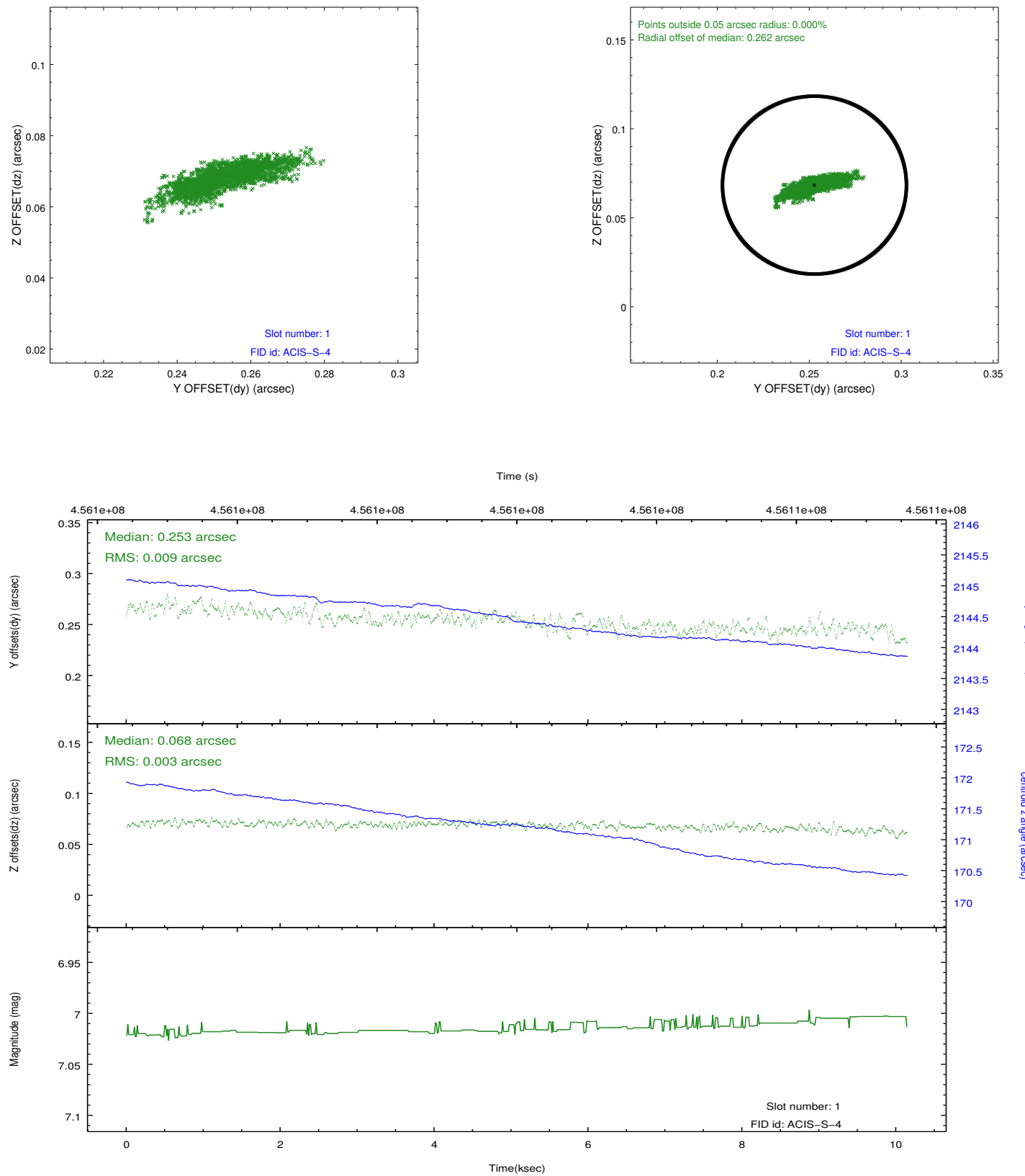


## 2.5 FID Slots

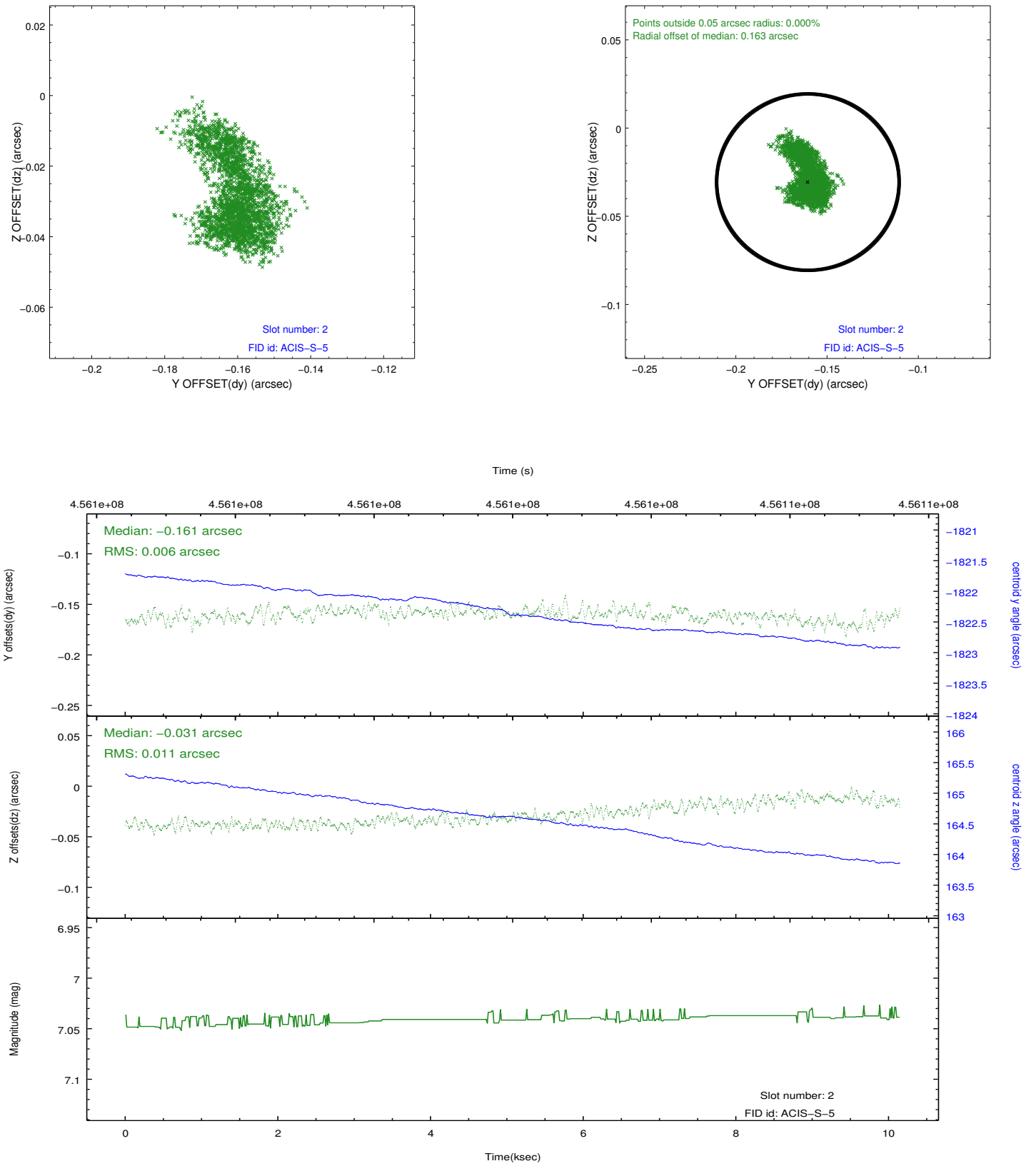
### 2.5.1 Slot 0



## 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)      | 2012.06.15      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 10.060800149977 |

### A.2 Comments