

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 4343 - L2 Version 3  
Chandra X-Ray Center

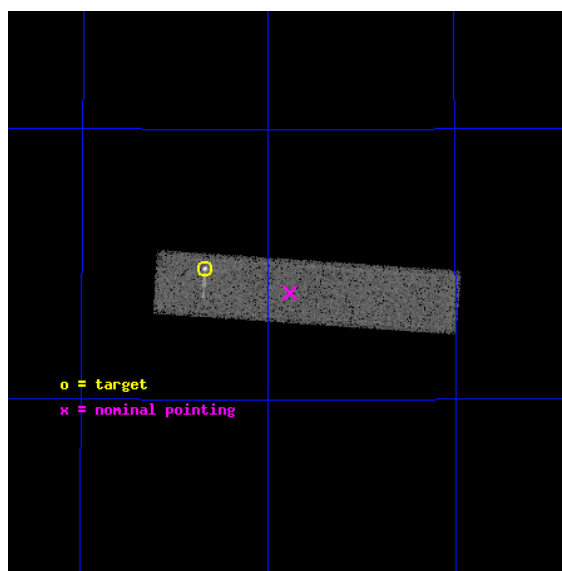
L2 Processing Date : Oct 23 2012

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# 1 Front

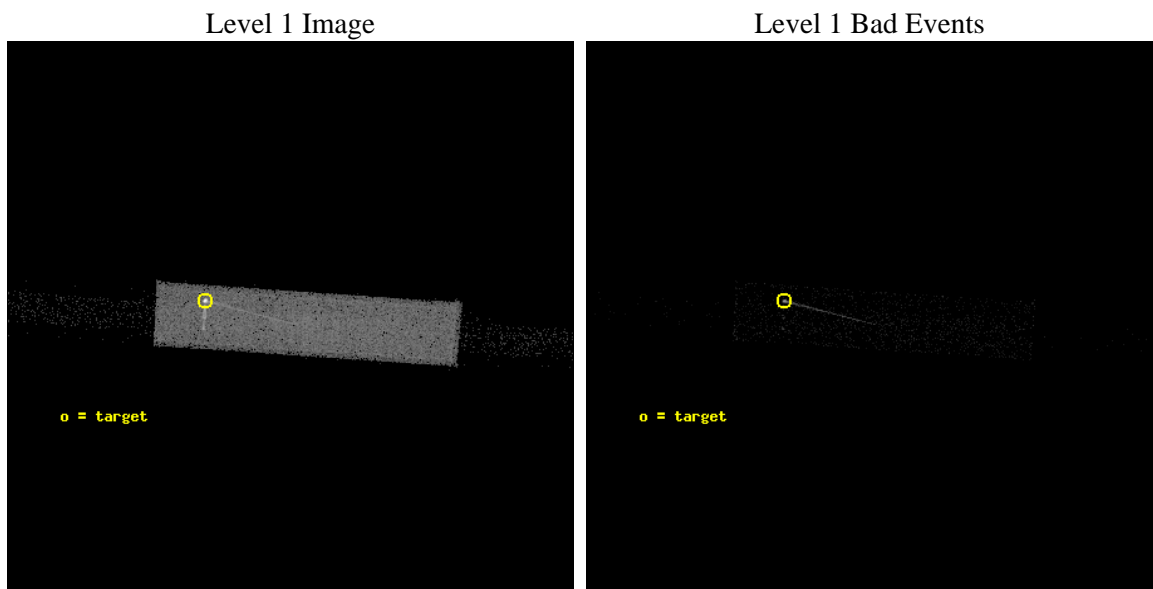
|          |   |                                       |
|----------|---|---------------------------------------|
| seq_num  | 290303  | Sequence number                       |
| obs_id   | 4343  | Observation id                        |
| title    | AO4A CALIBRATION OBSERVATIONS TO MONITOR SPATIAL VARIATIONS IN THE HRC-S GAIN | Proposal title                        |
| observer | Dr. CXC Calibration   | Principal investigator                |
| object   | ARLAC   | Source name                           |
| ra_targ  | 332.17  | Observer's specified target RA [deg]  |
| dec_targ | 45.742306   | Observer's specified target Dec [deg] |
| ra_nom   | 331.94204795077   | Nominal RA [deg]                      |
| dec_nom  | 45.698259857131   | Nominal Dec [deg]                     |
| roll_nom | 3.8028933827767   | Nominal Roll [deg]                    |
| revision | 3   | Processing version of data            |
| ontime   | 1142.1062980592   | [s]                                   |
| livetime | 1135.9936235839   | Ontime multiplied by DTCOR            |
| l2events | 42377   | Number of level 2 events              |



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 1000.000000     | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 1142.1062980592 | [s]                                     |
| caldsver | 4.5.2               | &#160                          | l1events       | 69687           | Number of level 1 events                |
| date     | 2012-10-23T09:25:27 | Date and time of file creation |                |                 |   |
| revision | 3                   | Processing version of data     |                |                 |   |

### 2.1.3 Events

Level 1 Events

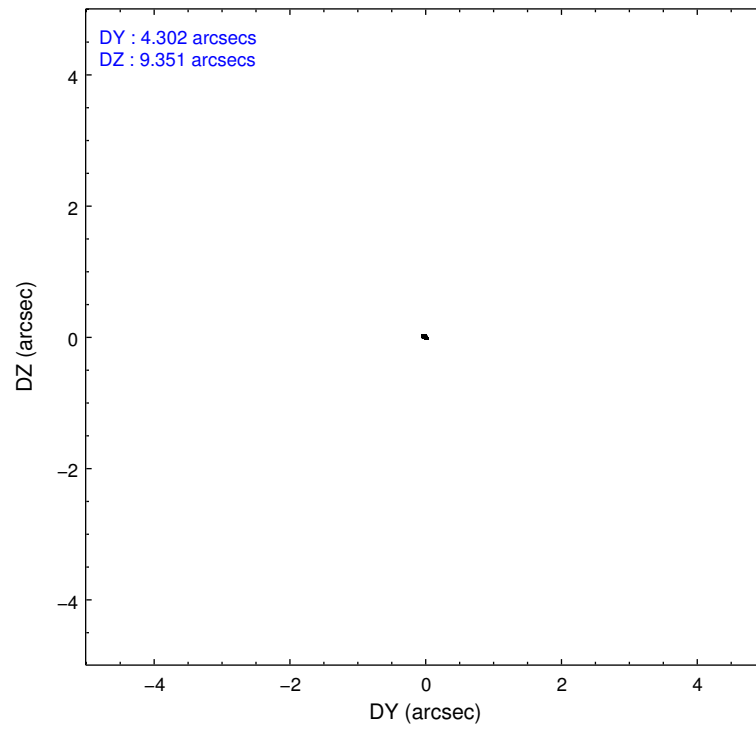
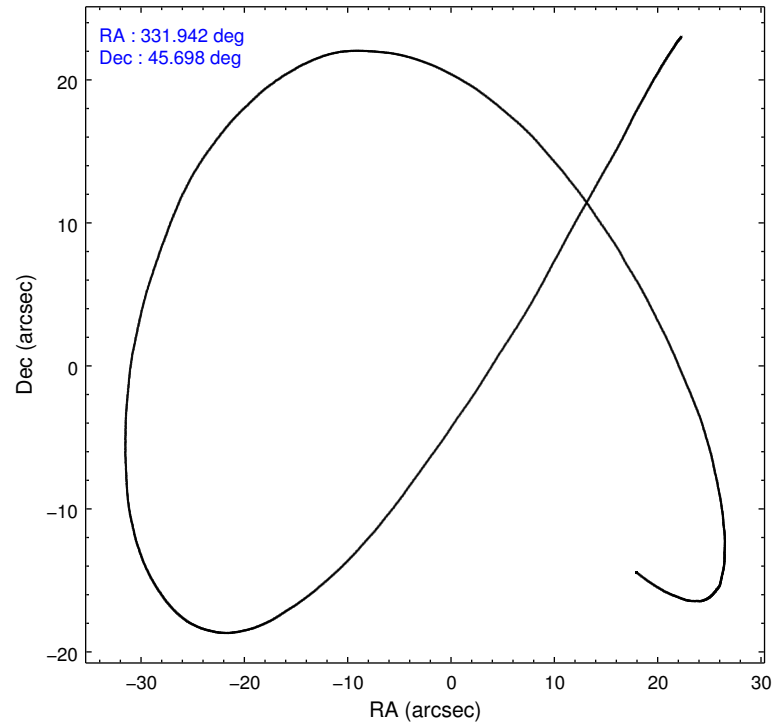
|                 | <b>segment<br/>1</b> | <b>segment<br/>2</b> | <b>segment<br/>3</b> |
|-----------------|----------------------|----------------------|----------------------|
| level 1 events  | 1161                 | 67393                | 1133                 |
| rejected events | 1161                 | 15515                | 1133                 |
| rejected %      | 100%                 | 23%                  | 100%                 |

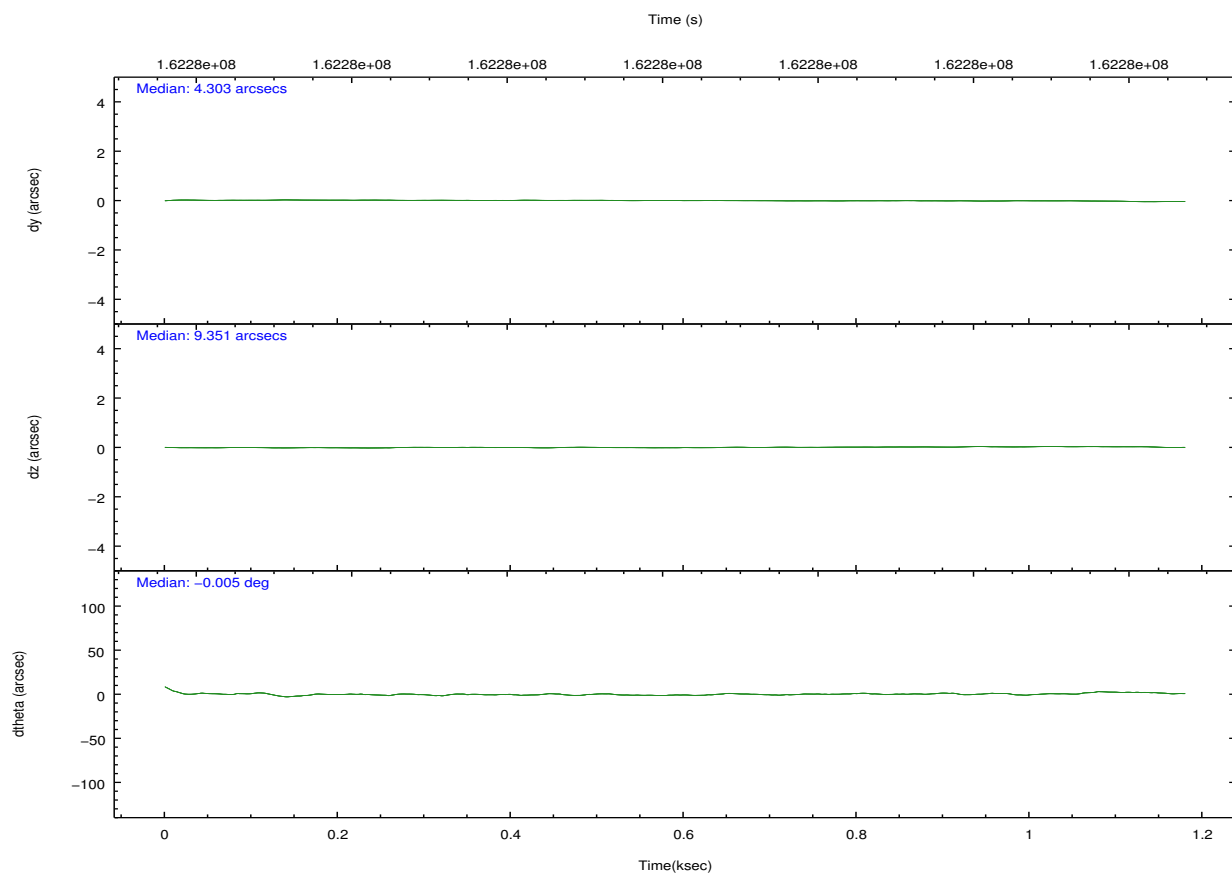
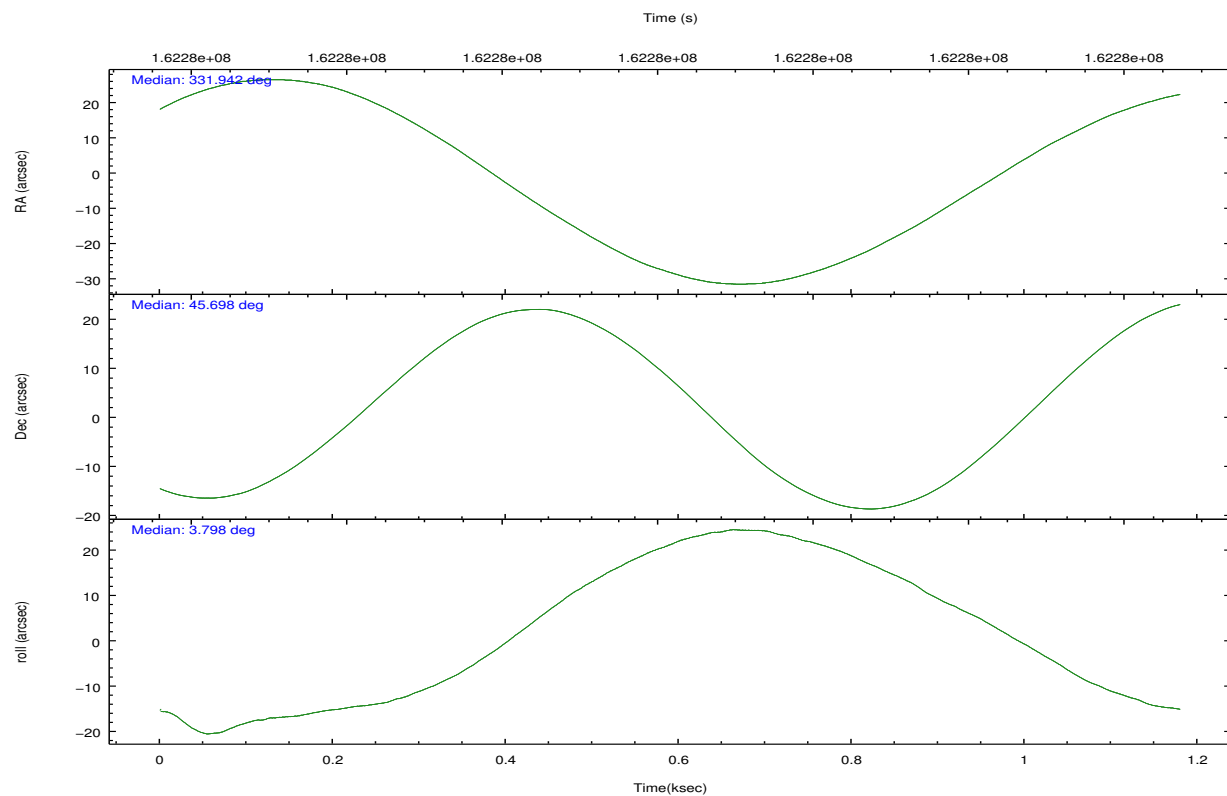
## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               |
|-----------------------------------|---------------------|----------------------|
| Instrument                        | HRC                 | HRC                  |
| Detector                          | HRC-S               | HRC-S                |
| Grating                           | NONE                | NONE                 |
| Data mode                         | OBSERVING           | OBSERVING            |
| Observation mode                  | POINTING            | POINTING             |
| [deg] Pointing RA                 | 331.908664          | 331.9420479507725    |
| [deg] Pointing Dec                | 45.681504           | 45.69825985713061    |
| [deg] Pointing Roll               | 3.759454            | 3.802893382776735    |
| [mm] SIM focus pos                | -1.429586           | -1.428180813131781   |
| [mm] SIM defocus                  | 0.1037507710433287  | 0.1051558262725154   |
| [mm] SIM translation stage pos    | 250.455976          | 250.466033080201     |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |
| [s] Observation start time (MET)  | 162278405.184000    | 162278029.5689       |
| Observation start date            | 2003-02-22T05:19:01 | 2003-02-22T05:13:49  |
| [s] Observation end time (MET)    | 162279405.184000    | 162279539.39397      |
| Observation end date              | 2003-02-22T05:35:41 | 2003-02-22T05:38:59  |

| Parameter                    | Planned   | Actual  |
|------------------------------|-----------|---------|
| Obspar format version number | 7         | 7       |
| Obspar file type             | PREDICTED | ACTUAL  |
| Obspar update status         | NONE      | UPDATED |

## 2.3 Aspect





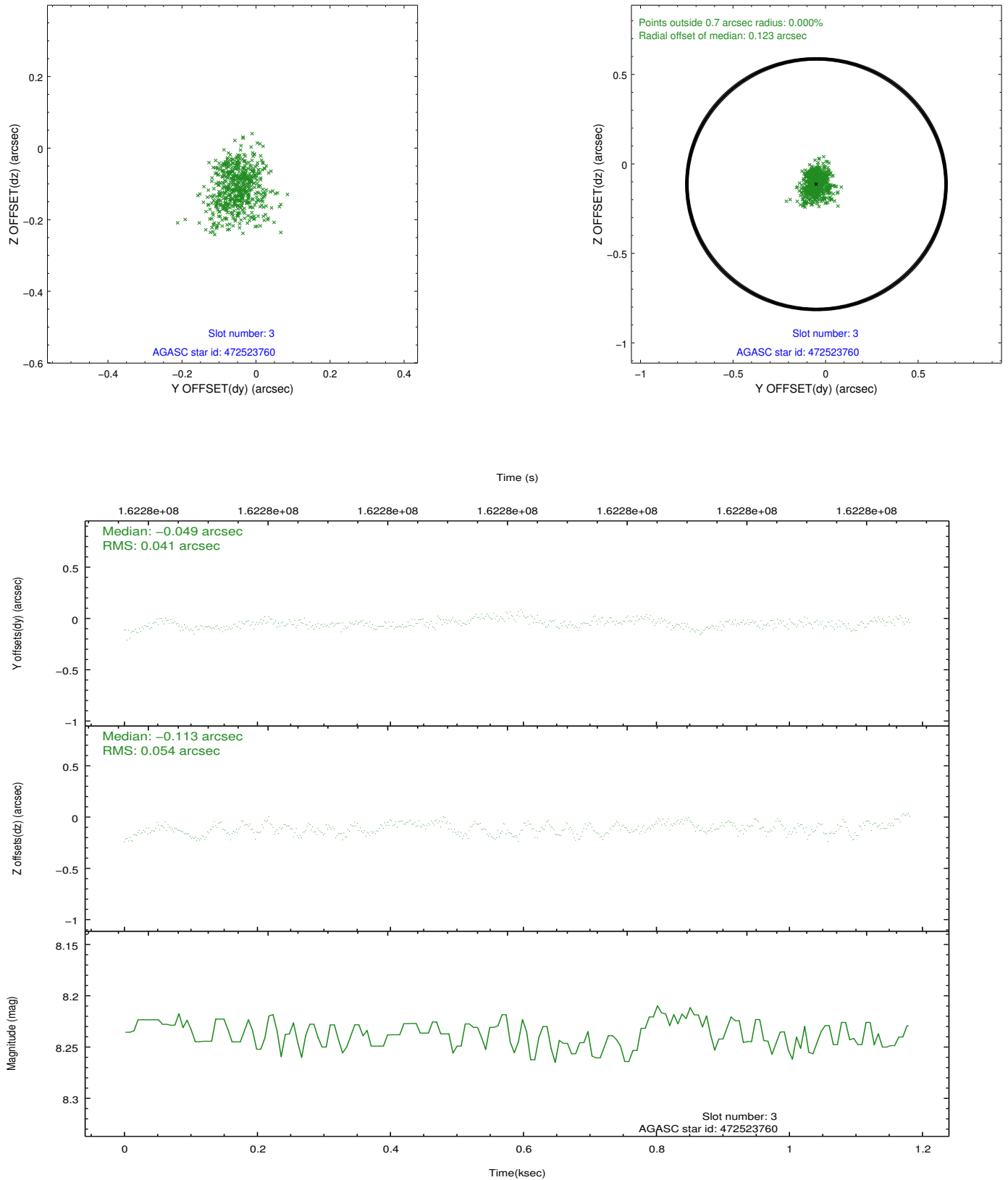
### Slot Statistics

| slot | status | id        | mag   | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z   |
|------|--------|-----------|-------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0    | FID    | HRC-S-1   | 7.01  | 288   | 0.181  | -0.107 | 0.005 | 0.010 | 0.000000   | 0.000000  | -1158.31 | -457.99  |
| 1    | FID    | HRC-S-2   | 7.00  | 288   | 0.076  | -0.108 | 0.012 | 0.023 | 0.000000   | 0.000000  | 1237.25  | -452.16  |
| 2    | FID    | HRC-S-4   | 6.98  | 288   | 0.146  | -0.090 | 0.011 | 0.022 | 0.000000   | 0.000000  | 1244.18  | 572.61   |
| 3    | GUIDE  | 472523760 | 8.24  | 577   | -0.049 | -0.113 | 0.073 | 0.119 | 331.645363 | 45.403260 | -730.68  | -953.50  |
| 4    | GUIDE  | 472527720 | 6.99  | 577   | 0.019  | -0.119 | 0.057 | 0.090 | 331.460205 | 45.112509 | -1273.11 | -1966.51 |
| 5    | GUIDE  | 472655152 | 9.44  | 573   | 0.156  | -0.034 | 0.091 | 0.150 | 332.504239 | 45.862991 | 1529.87  | 557.78   |
| 6    | GUIDE  | 472659832 | 9.48  | 577   | 0.026  | 0.077  | 0.105 | 0.175 | 332.780399 | 46.098139 | 2272.17  | 1368.59  |
| 7    | GUIDE  | 472652872 | 10.11 | 576   | -0.147 | 0.175  | 0.147 | 0.240 | 332.255928 | 45.019274 | 728.64   | -2430.84 |

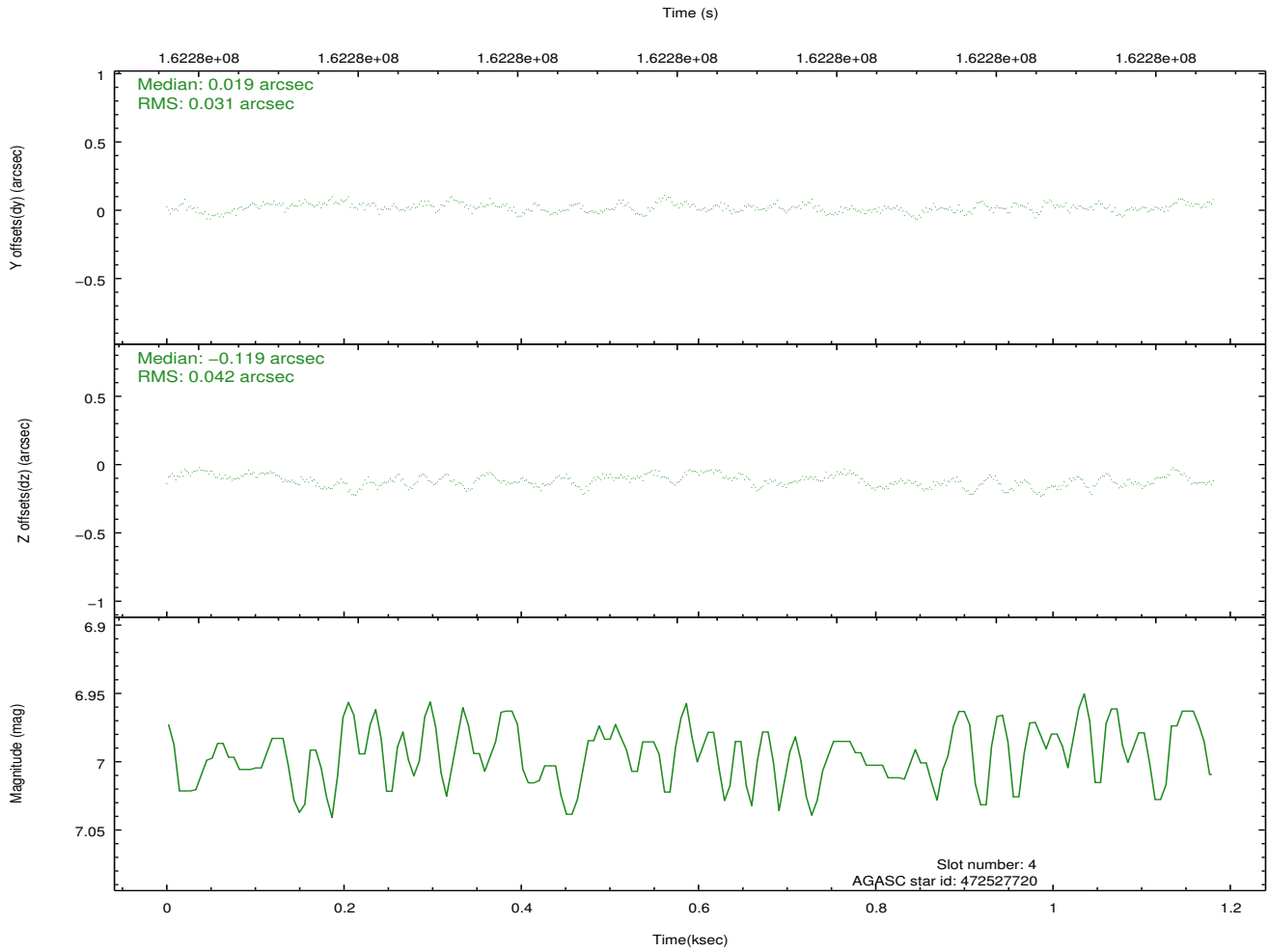
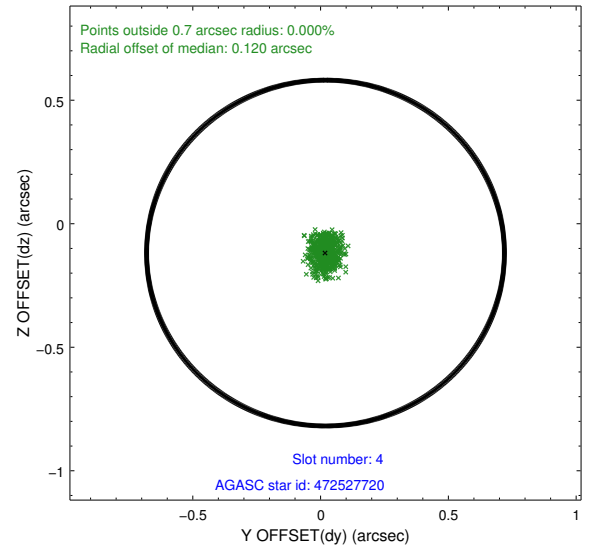
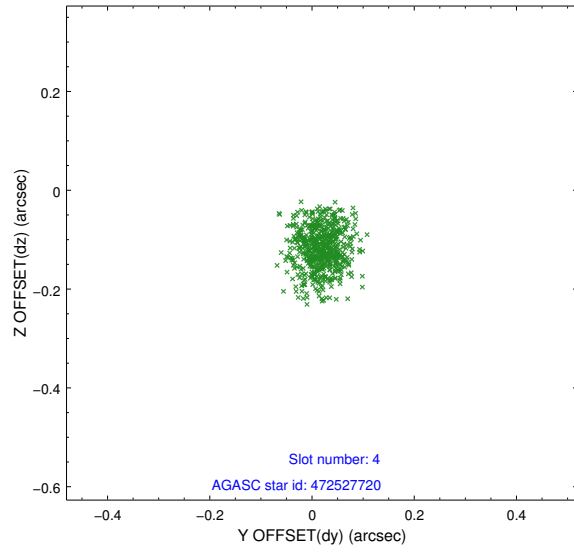


## 2.4 Star Slots

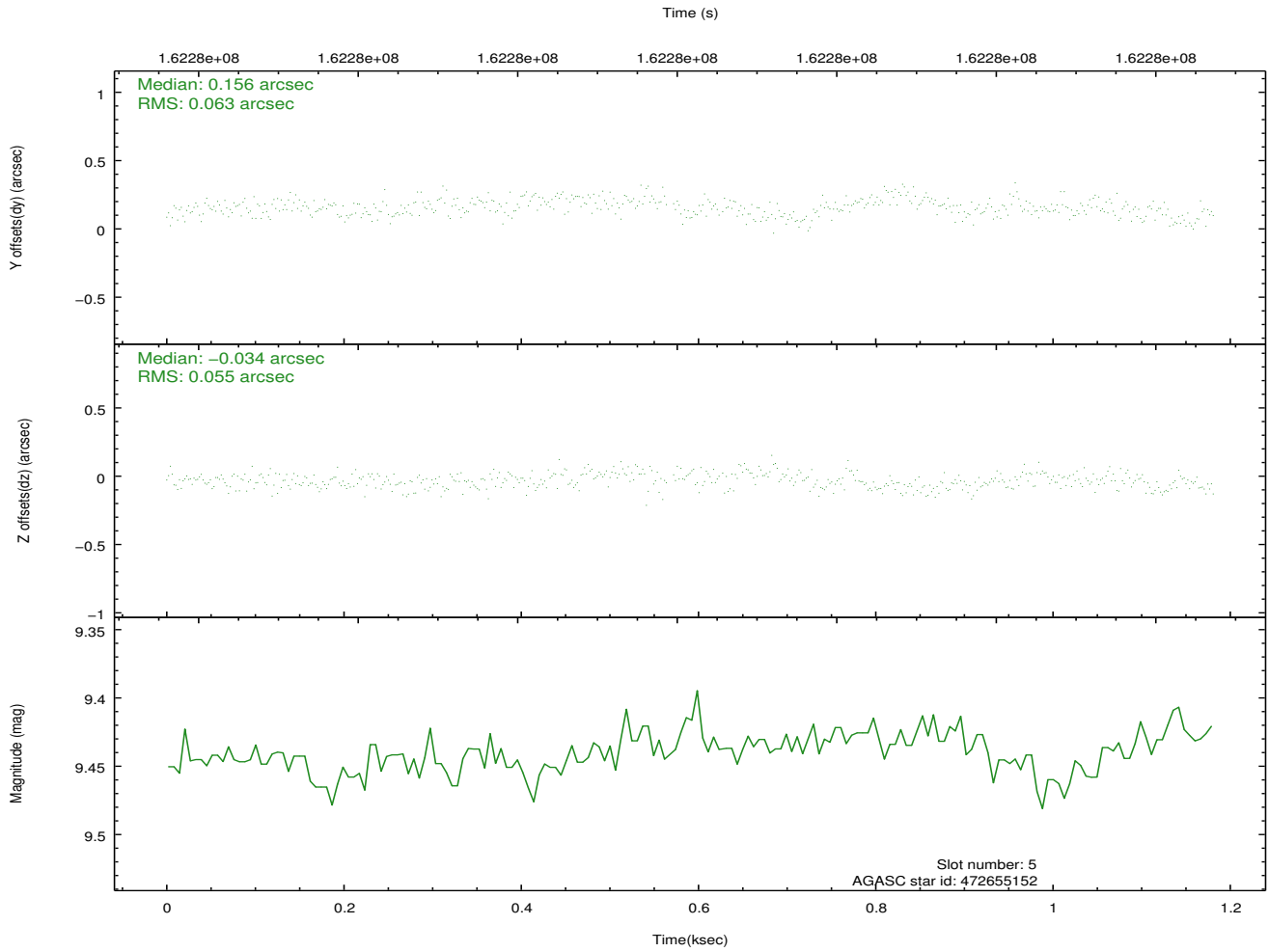
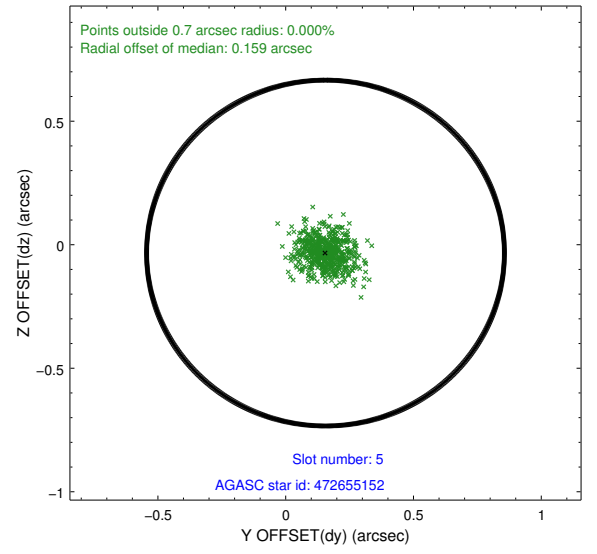
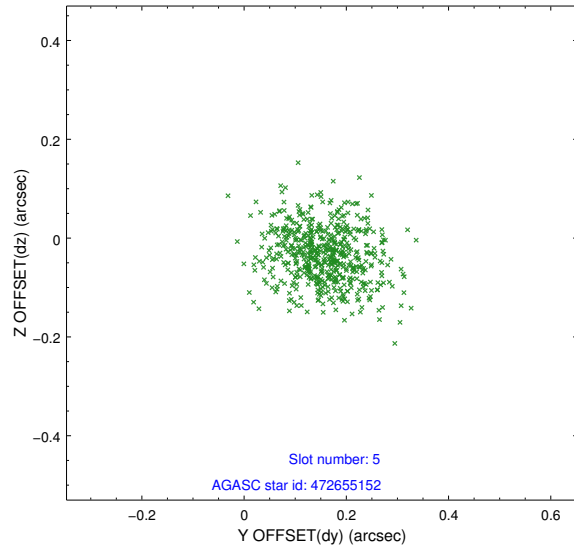
### 2.4.1 Slot 3



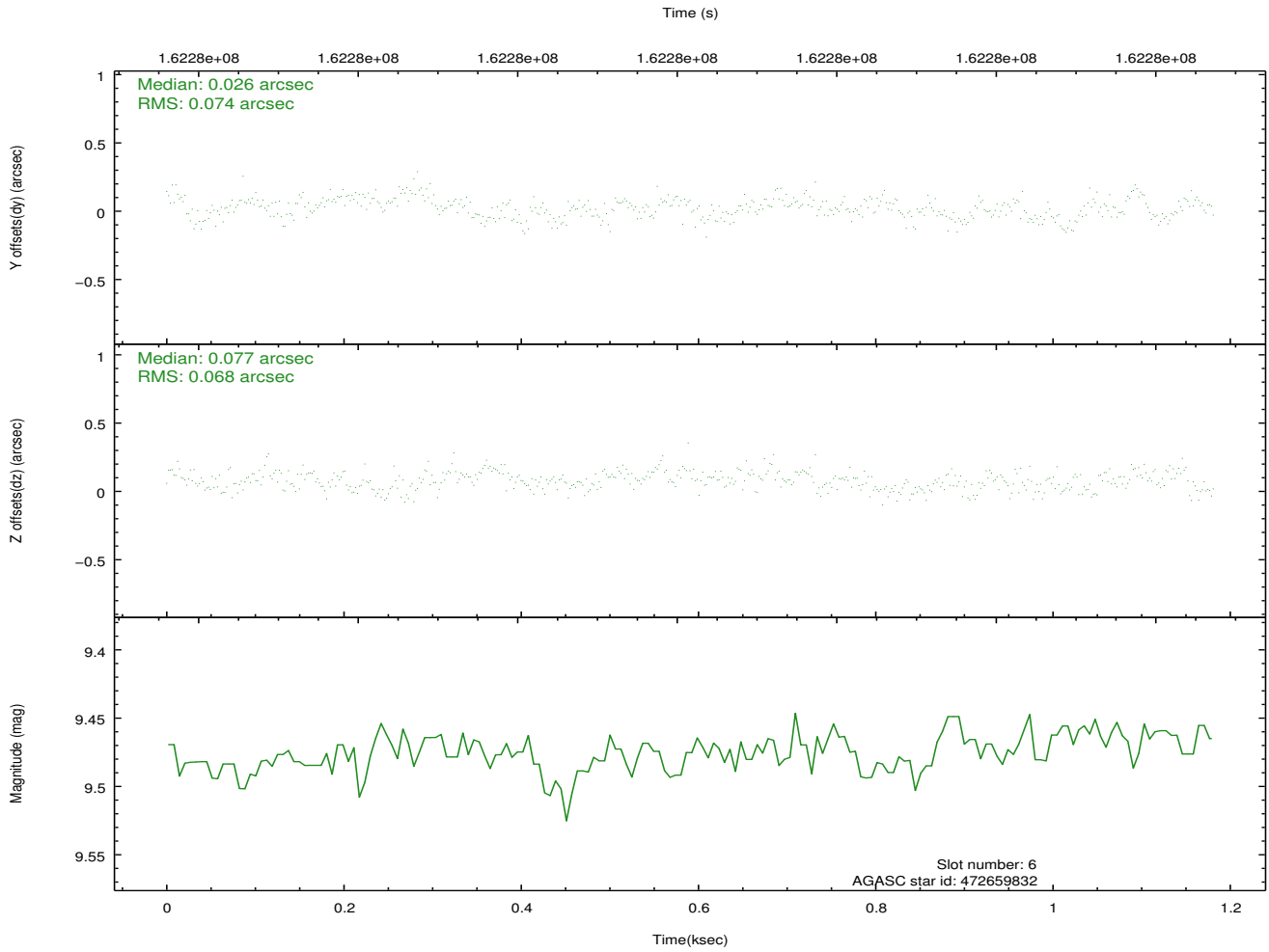
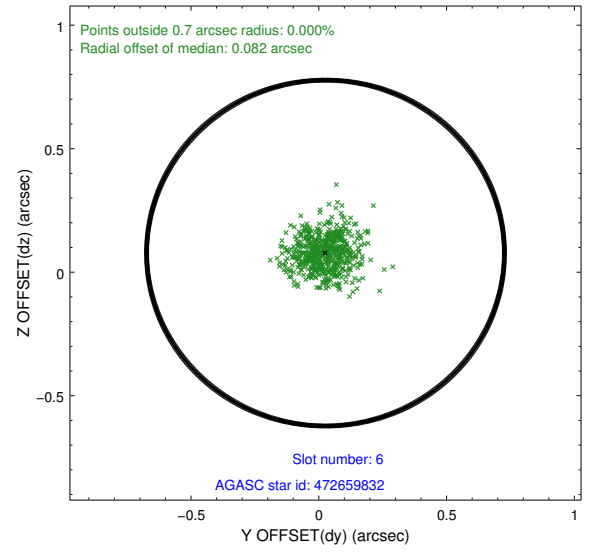
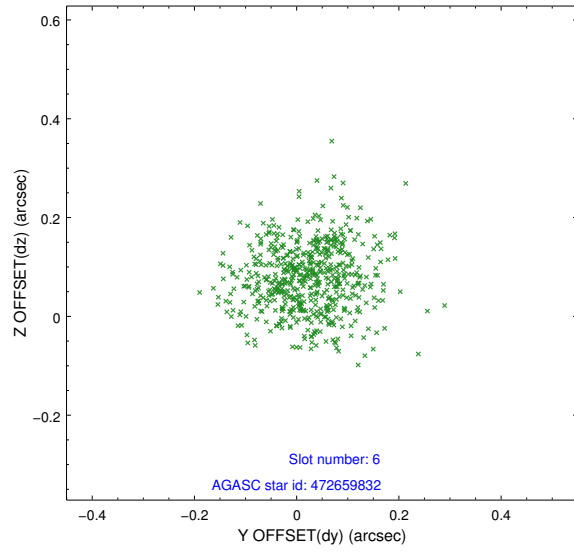
## 2.4.2 Slot 4



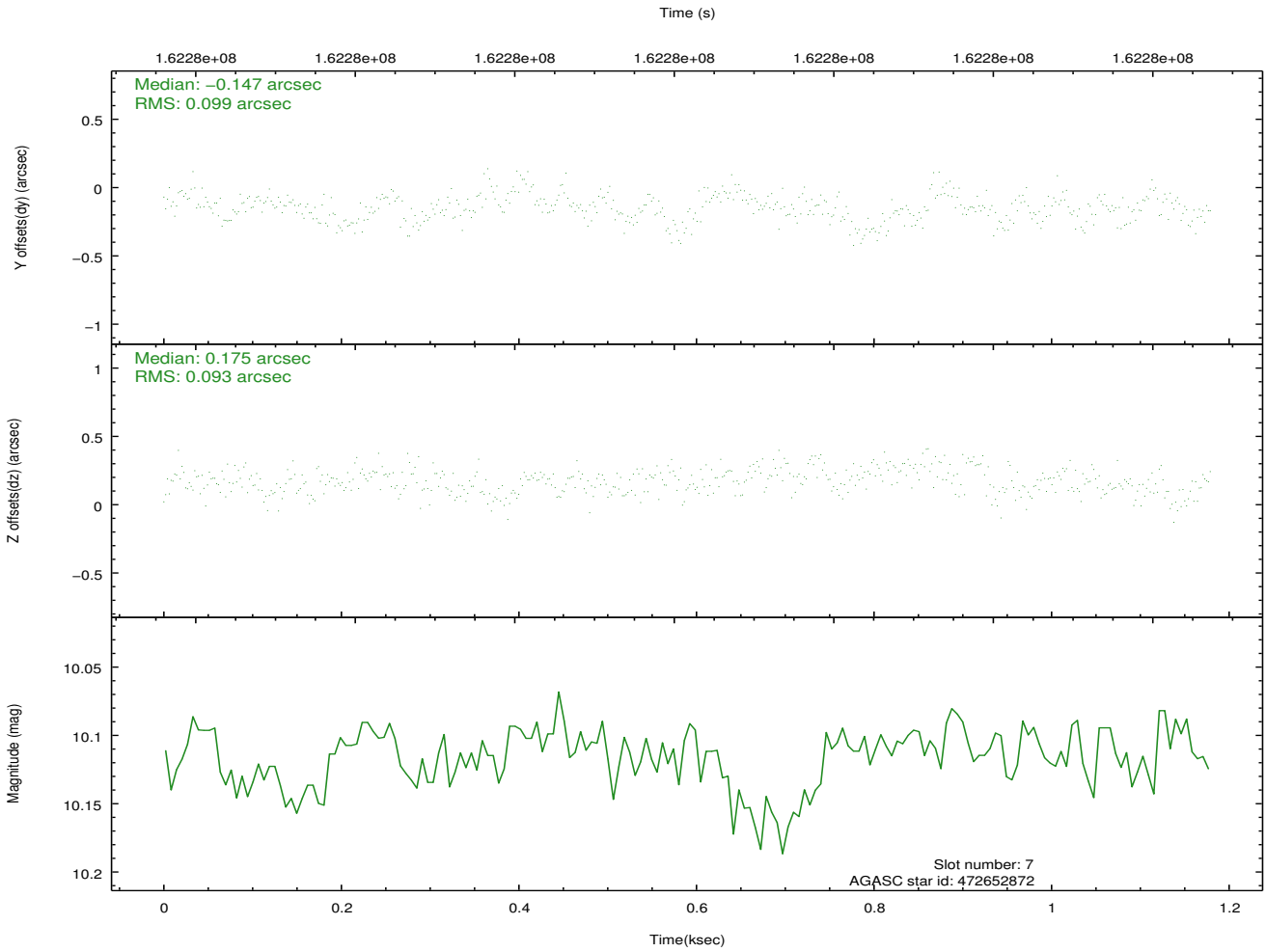
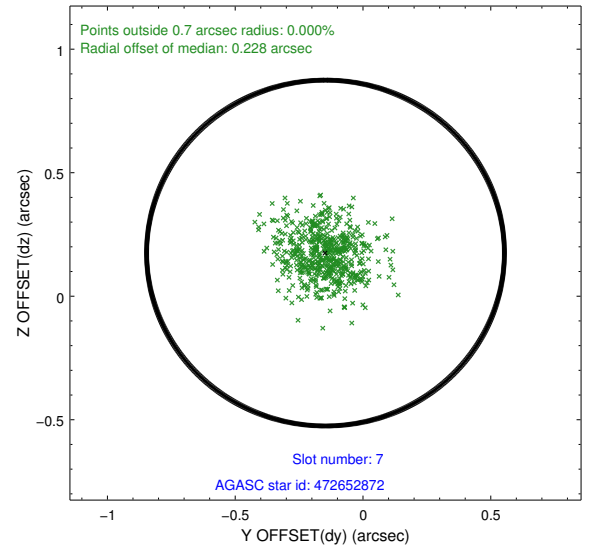
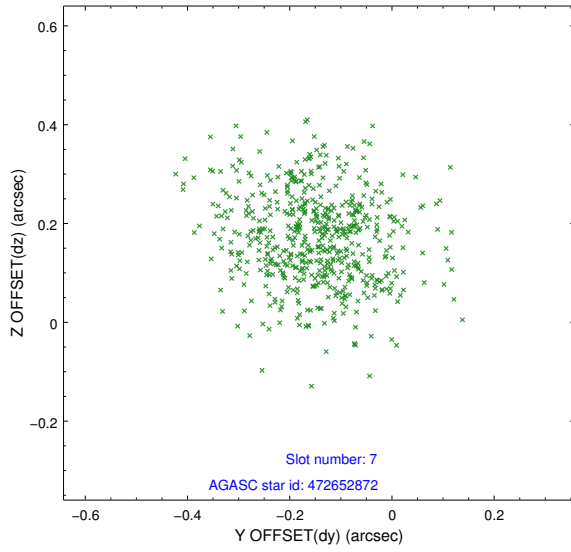
### 2.4.3 Slot 5



## 2.4.4 Slot 6

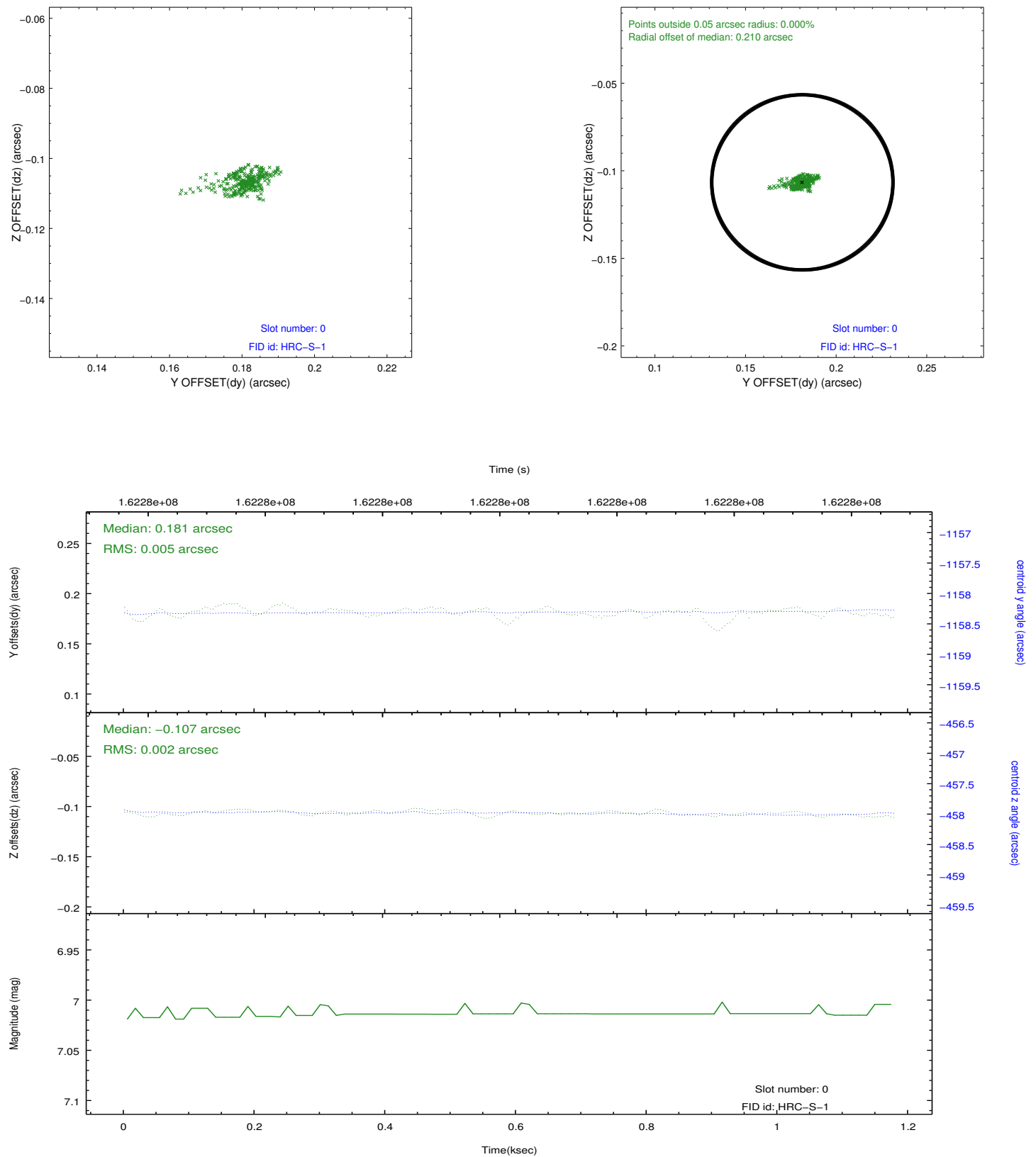


## 2.4.5 Slot 7

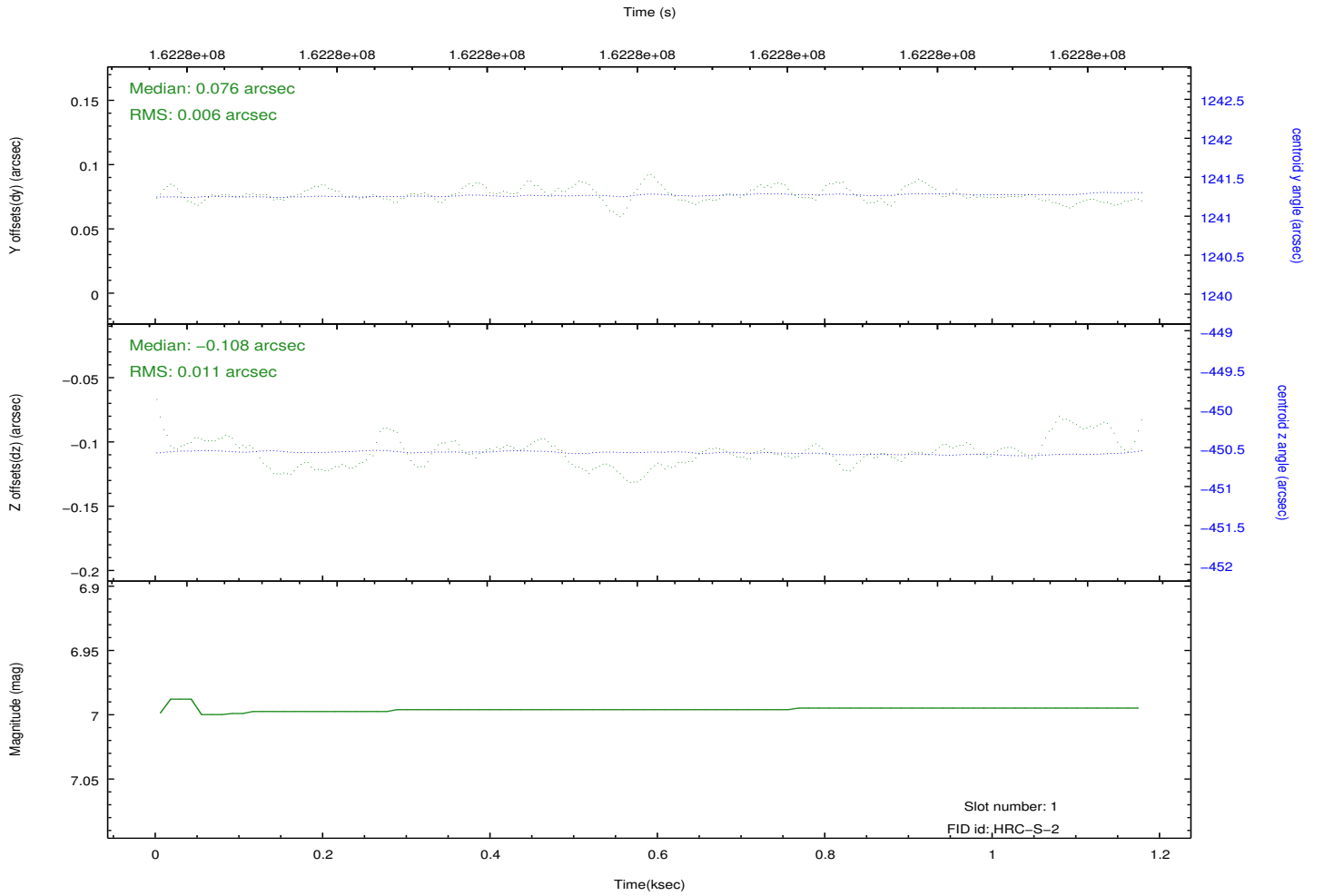
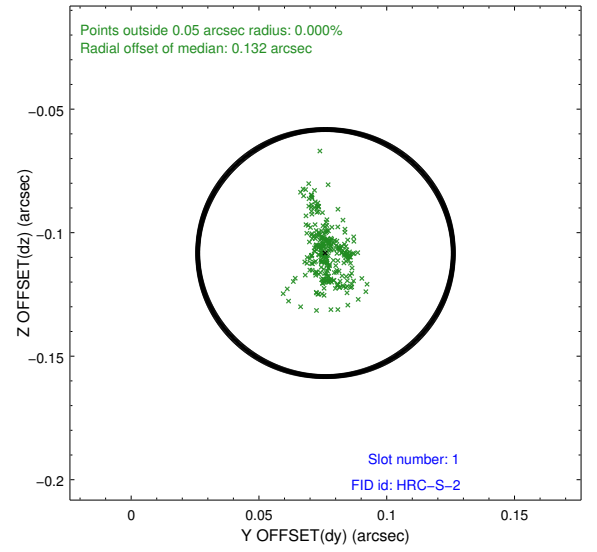
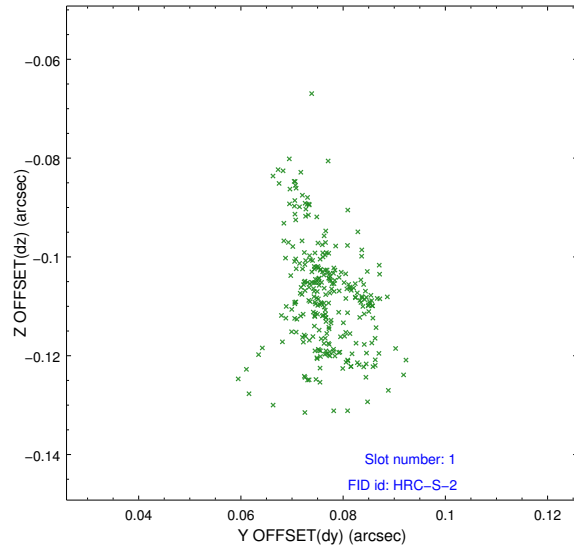


## 2.5 FID Slots

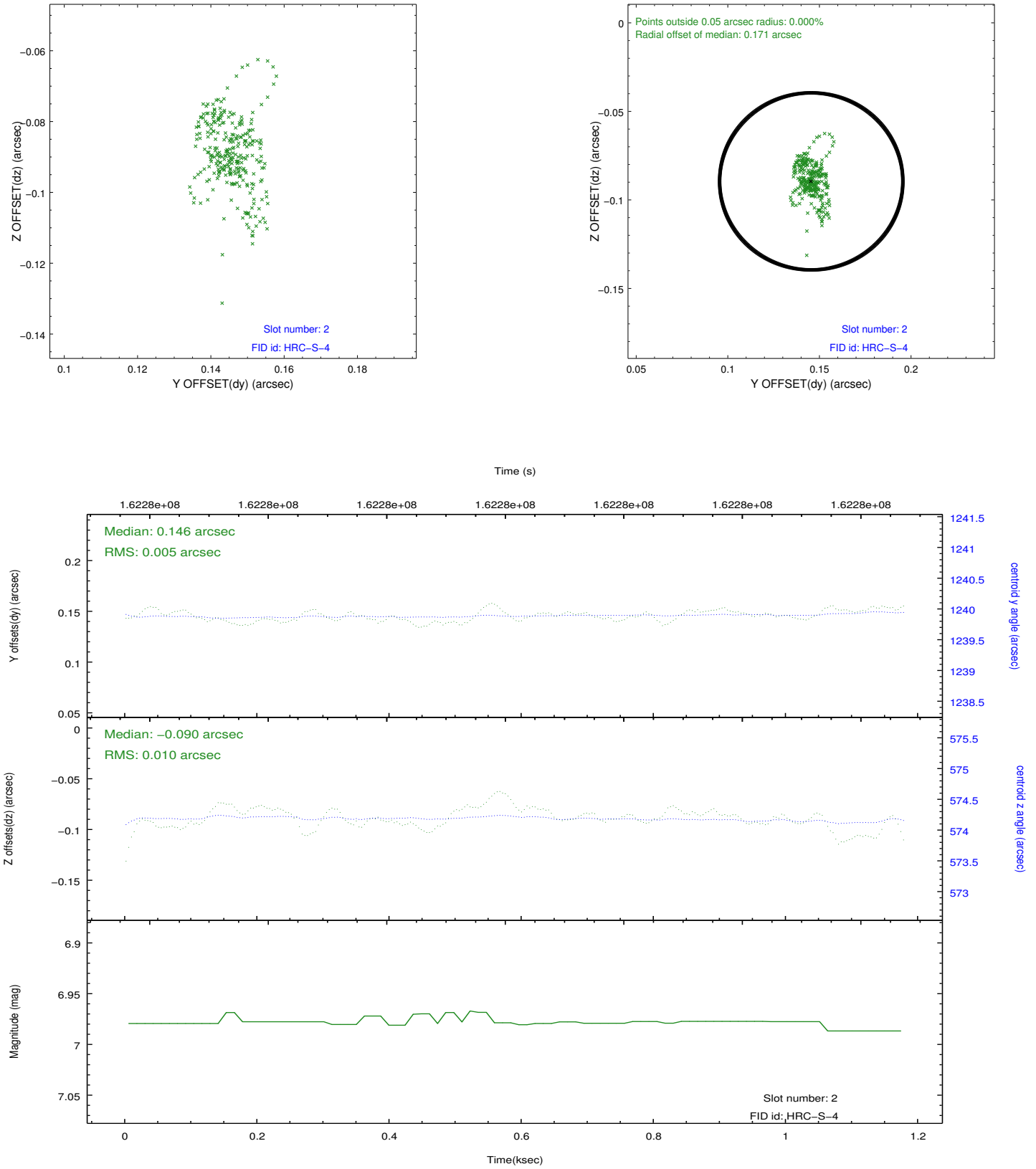
### 2.5.1 Slot 0



## 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)      | 2012.11.06 |
| V&V Edition                | 1          |
| V&V Disposition and Status | OK         |
| V&V Charge Time            | 1.142      |

### **A.2 Comments**