

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11920 - L2 Version 2  
Chandra X-Ray Center

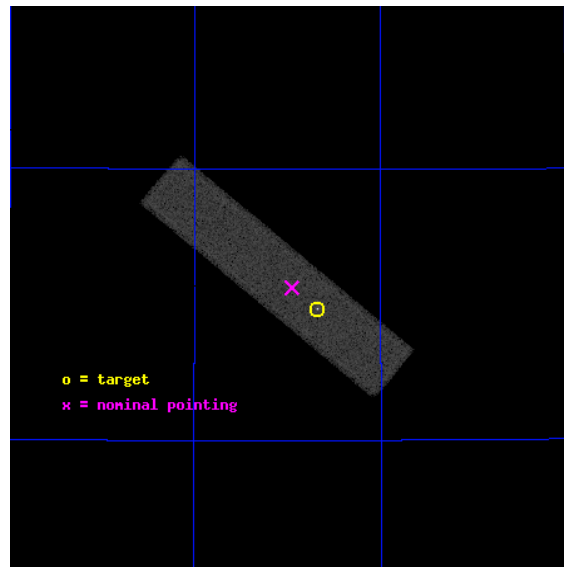
L2 Processing Date : Jul 3 2012

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# 1 Front

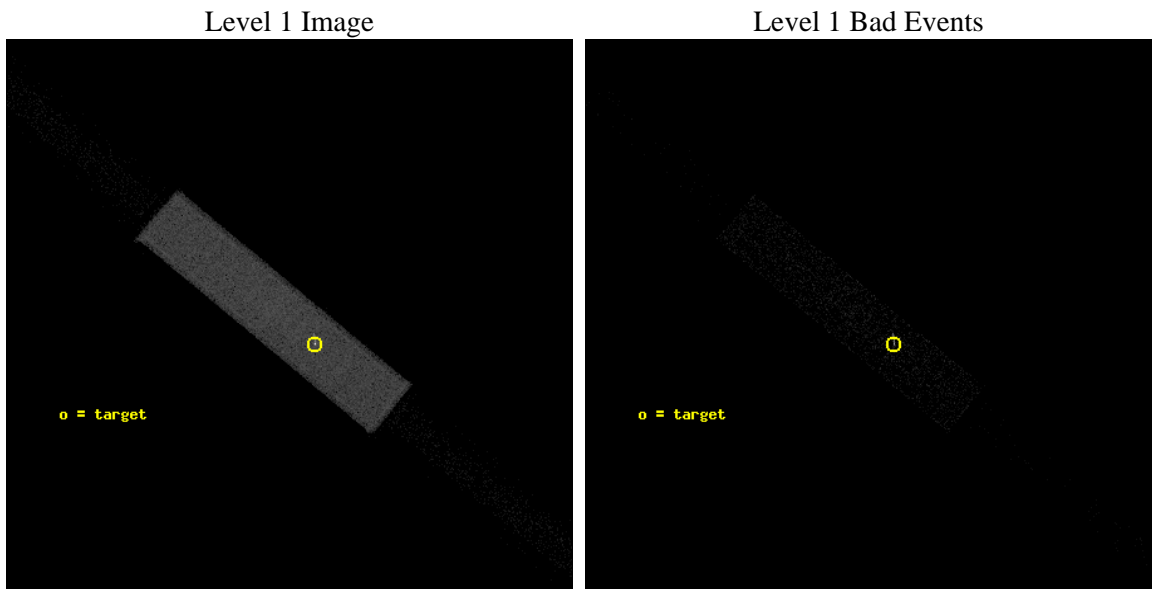
|          |  |                                       |
|----------|--|---------------------------------------|
| seq_num  | 290909   | Sequence number                       |
| obs_id   | 11920  | Observation id                        |
| title    | AO-11 Calibration Observations to Monitor the Spatial 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   | 332.23856653136  | Nominal RA [deg]                      |
| dec_nom  | 45.781658783269  | Nominal Dec [deg]                     |
| roll_nom | 219.44244905884  | Nominal Roll [deg]                    |
| revision | 2  | Processing version of data            |
| ontime   | 1153.3813092113  | [s]                                   |
| livetime | 1143.9444490237  | Ontime multiplied by DTCOR            |
| l2events | 69839  | 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         | 1153.3813092113 | [s]                                     |
| caldbver | 4.5.0               | &#160                          | l1events       | 109130          | Number of level 1 events                |
| date     | 2012-07-03T23:56:46 | Date and time of file creation |                |                 |   |
| revision | 2                   | Processing version of data     |                |                 |   |

### 2.1.3 Events

Level 1 Events

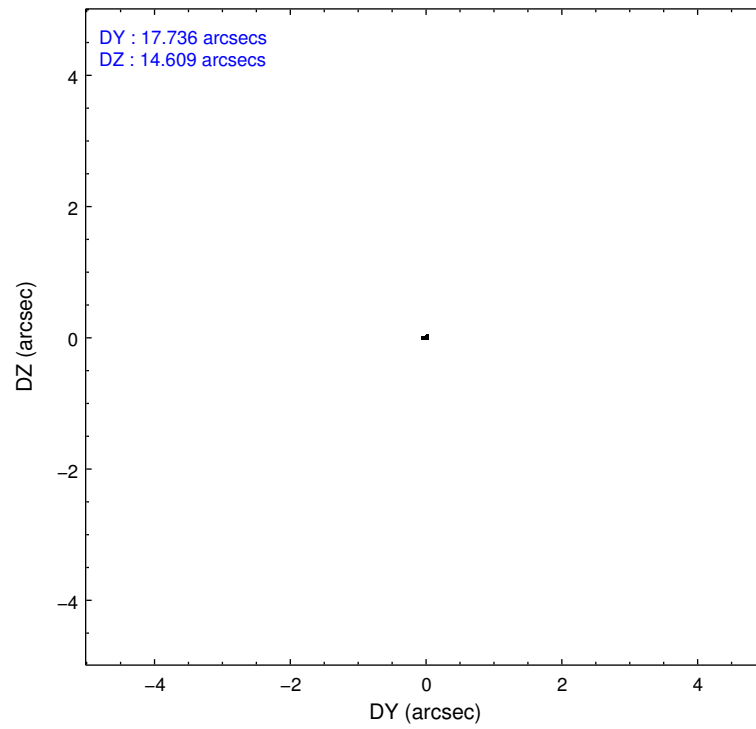
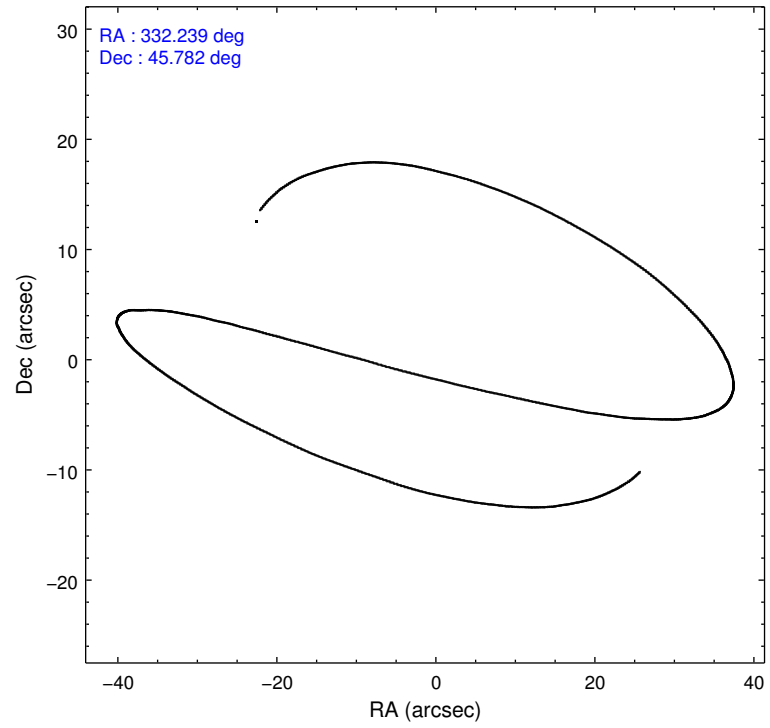
|                 | <b>segment<br/>1</b> | <b>segment<br/>2</b> | <b>segment<br/>3</b> |
|-----------------|----------------------|----------------------|----------------------|
| level 1 events  | 932                  | 107266               | 932                  |
| rejected events | 932                  | 24818                | 932                  |
| rejected %      | 100%                 | 23%                  | 100%                 |

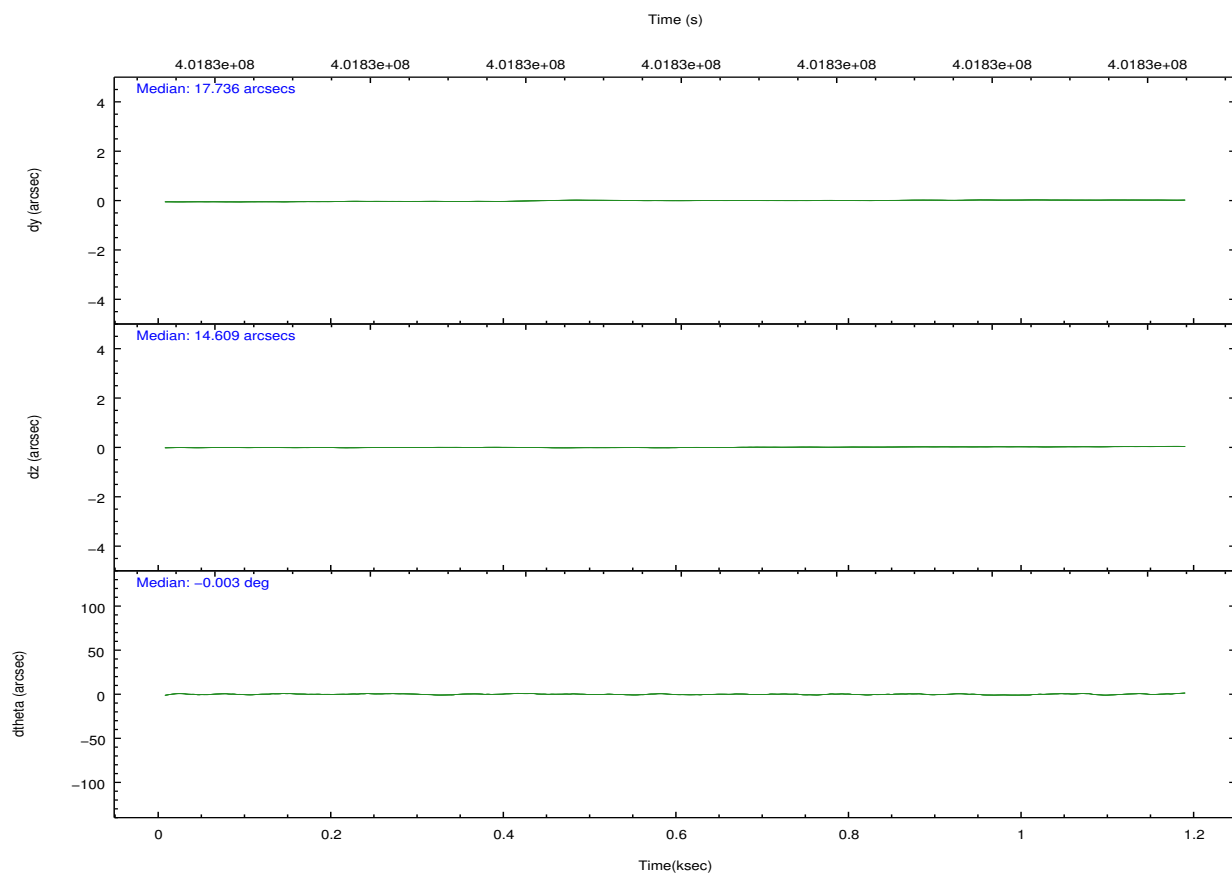
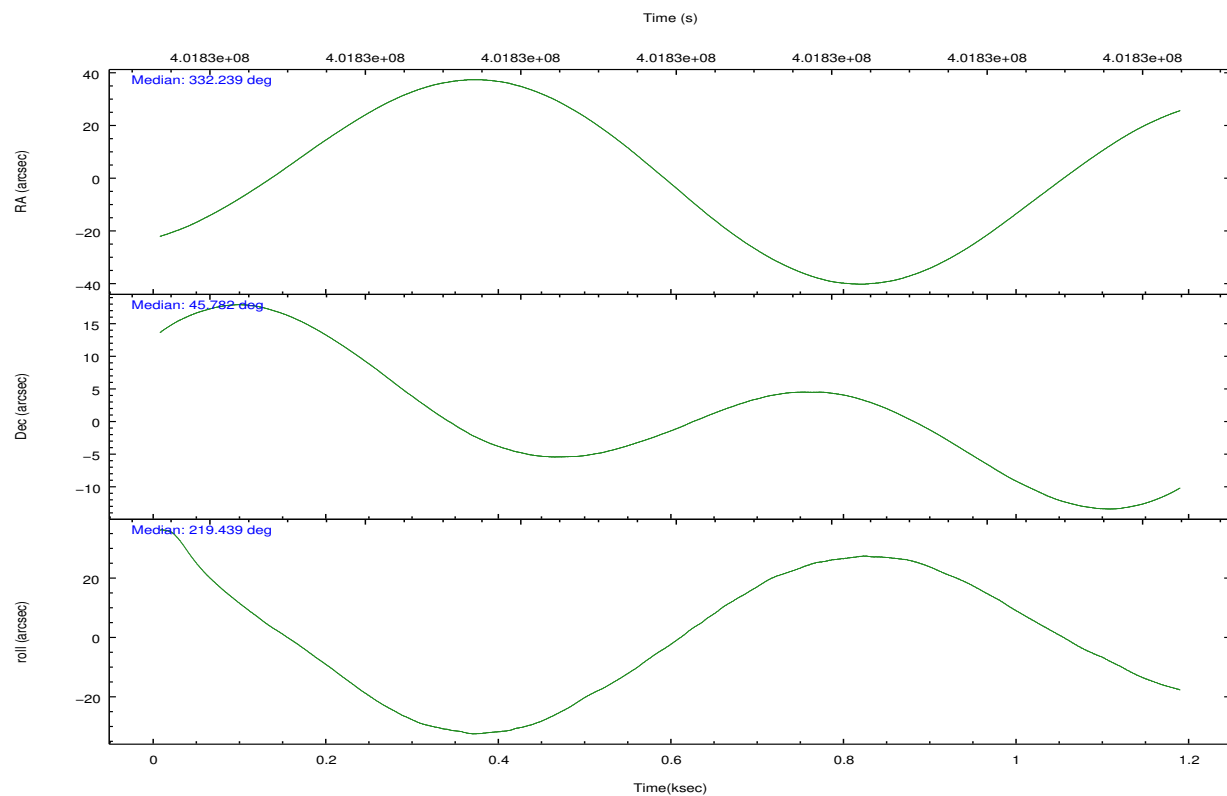
## 2.2 Compared Parameters

| 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                 | 332.251023            | 332.2385665313607    |
| [deg] Pointing Dec                | 45.808993             | 45.7816587832689     |
| [deg] Pointing Roll               | 219.366116            | 219.4424490588444    |
| [mm] SIM focus pos                | -1.533336             | -1.526339935833849   |
| [mm] SIM defocus                  | 7.710433287538843e-07 | 0.006996703570447904 |
| [mm] SIM translation stage pos    | 250.455976            | 250.466033080201     |
| [mm] SIM translation stage offset | 0                     | -0.01005468664627074 |
| [s] Observation start time (MET)  | 401825789.184000      | 401825413.47735      |
| Observation start date            | 2010-09-25T18:15:23   | 2010-09-25T18:10:13  |
| [s] Observation end time (MET)    | 401826789.184000      | 401826923.81492      |
| Observation end date              | 2010-09-25T18:32:03   | 2010-09-25T18:35:23  |

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

## 2.3 Aspect





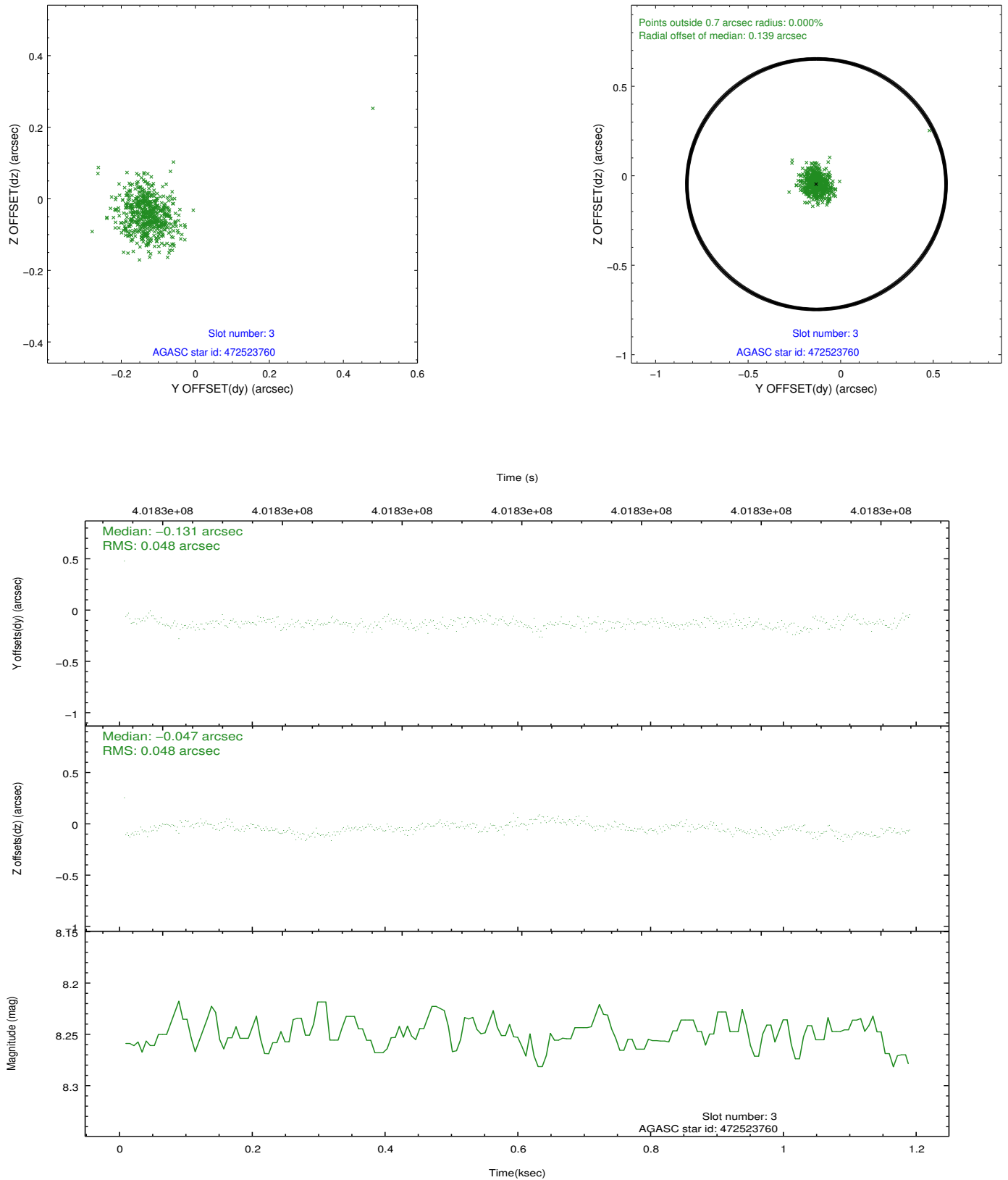
### Slot Statistics

| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0    | FID    | HRC-S-1   | 7.00 | 289   | 0.050  | -0.215 | 0.007 | 0.012 | 0.000000   | 0.000000  | -1172.23 | -463.51  |
| 1    | FID    | HRC-S-2   | 6.98 | 289   | 0.262  | -0.123 | 0.005 | 0.009 | 0.000000   | 0.000000  | 1223.58  | -457.68  |
| 2    | FID    | HRC-S-3   | 7.01 | 289   | 0.077  | 0.036  | 0.007 | 0.012 | 0.000000   | 0.000000  | -1170.69 | 564.67   |
| 3    | GUIDE  | 472523760 | 8.25 | 578   | -0.131 | -0.047 | 0.065 | 0.108 | 331.645363 | 45.403260 | 2106.84  | 154.12   |
| 4    | GUIDE  | 472533912 | 9.15 | 577   | 0.077  | 0.055  | 0.134 | 0.207 | 331.791136 | 46.368695 | -392.48  | -2284.33 |
| 5    | GUIDE  | 472655152 | 9.43 | 572   | -0.053 | -0.200 | 0.140 | 0.236 | 332.504239 | 45.862991 | -614.89  | 247.79   |
| 6    | GUIDE  | 472665256 | 9.02 | 577   | 0.013  | 0.084  | 0.086 | 0.131 | 332.808125 | 46.195041 | -1958.31 | -196.99  |
| 7    | GUIDE  | 472663080 | 9.42 | 577   | 0.117  | 0.081  | 0.119 | 0.200 | 332.652741 | 46.473840 | -2292.40 | -1220.72 |

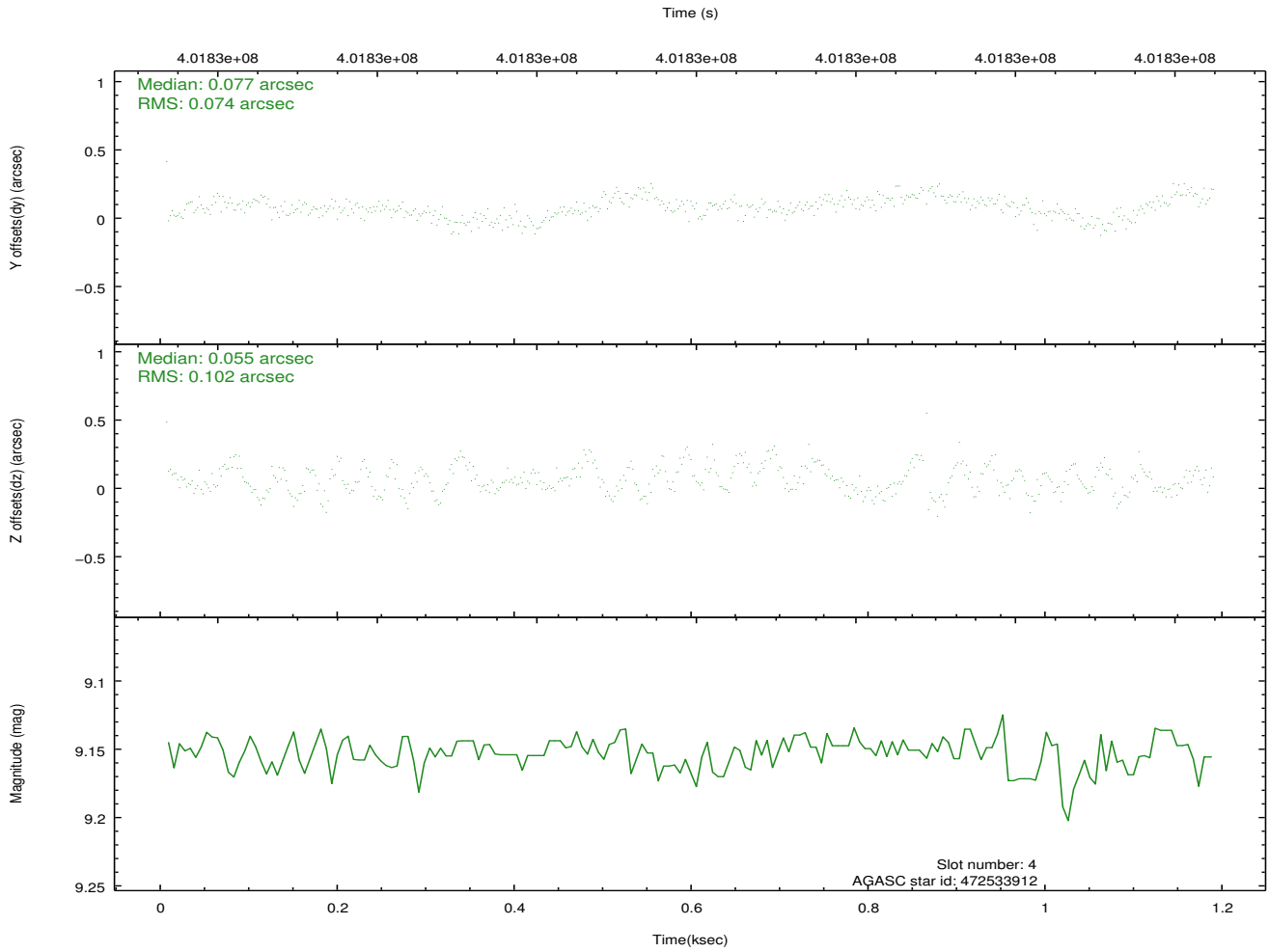
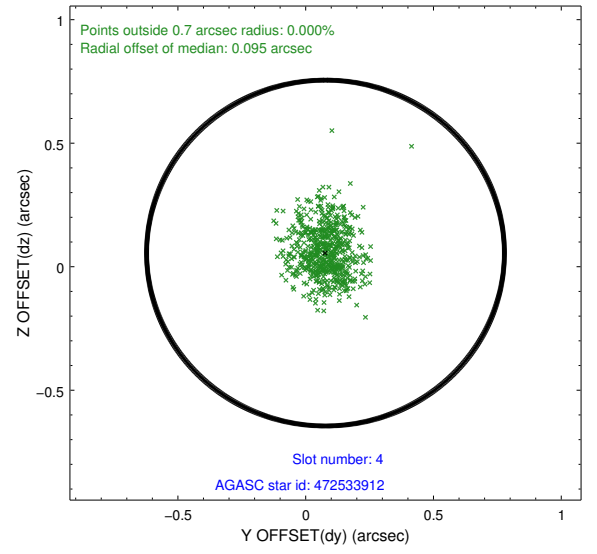
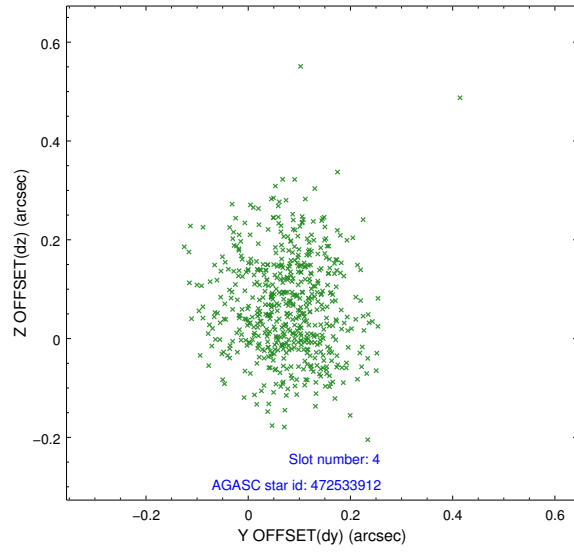


## 2.4 Star Slots

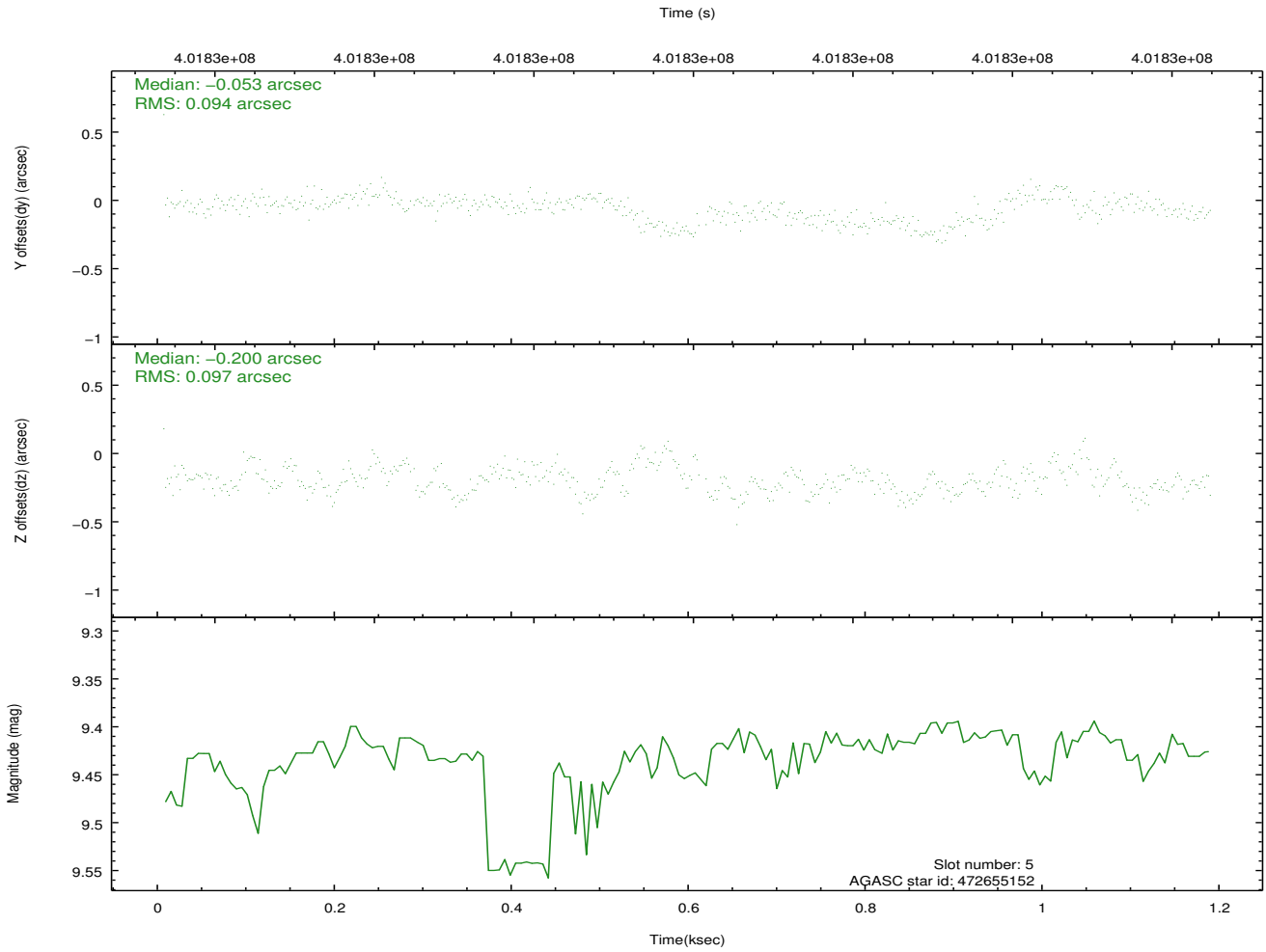
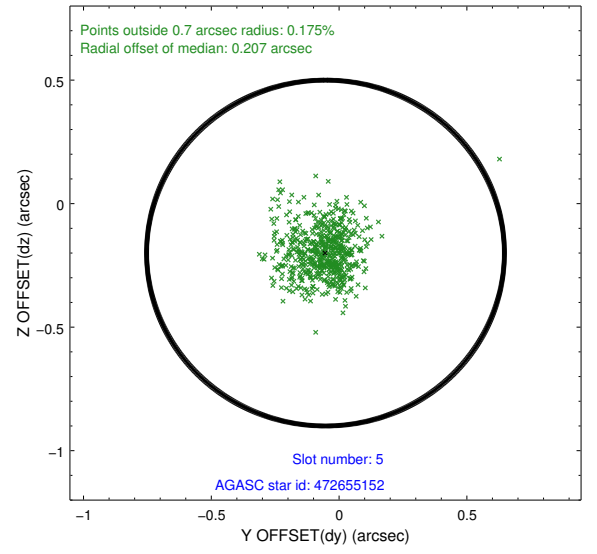
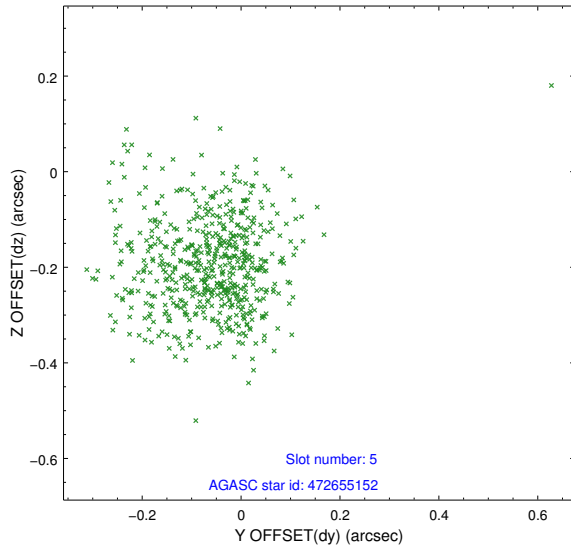
### 2.4.1 Slot 3



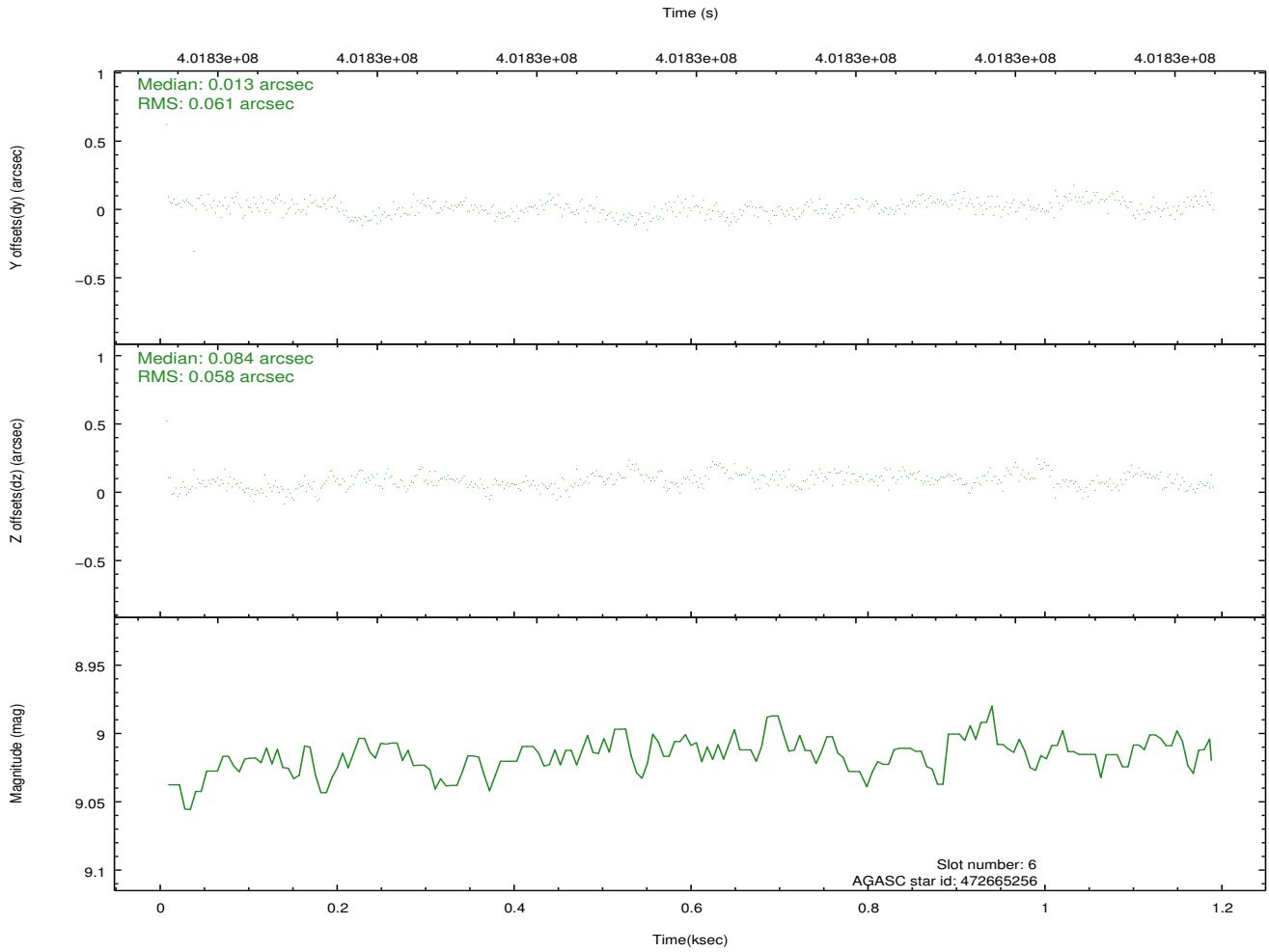
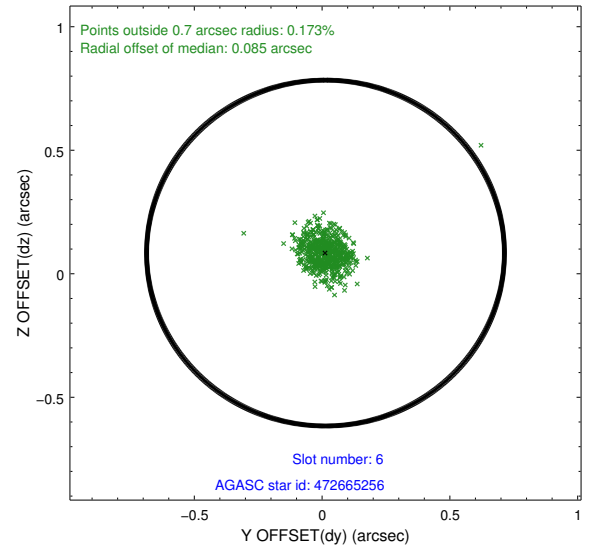
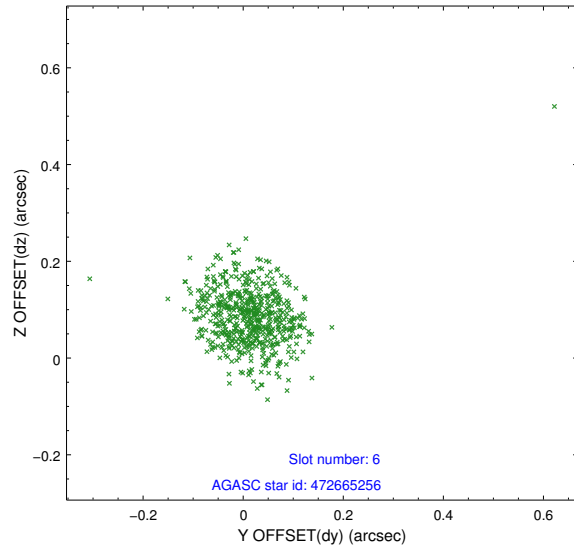
## 2.4.2 Slot 4



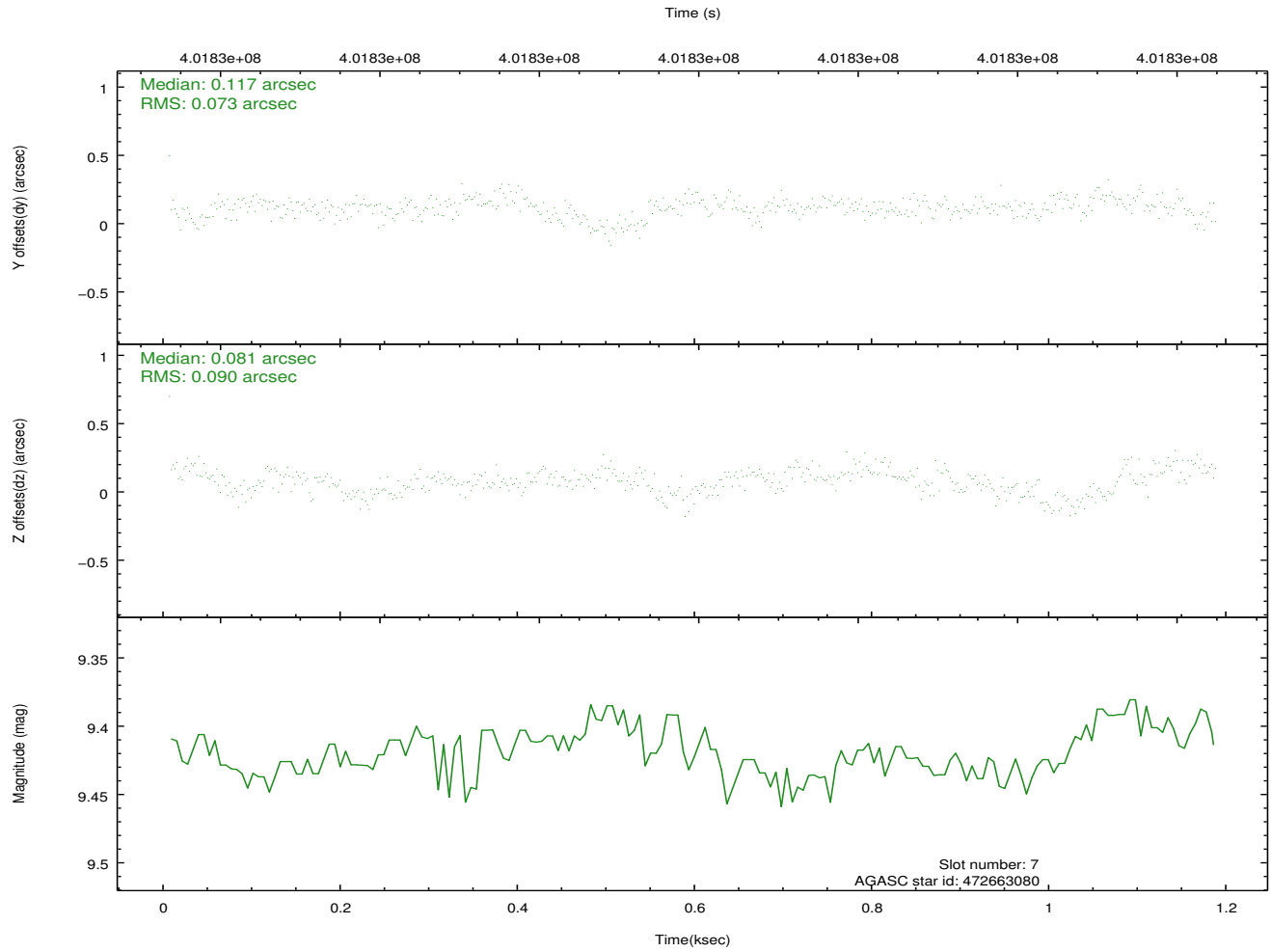
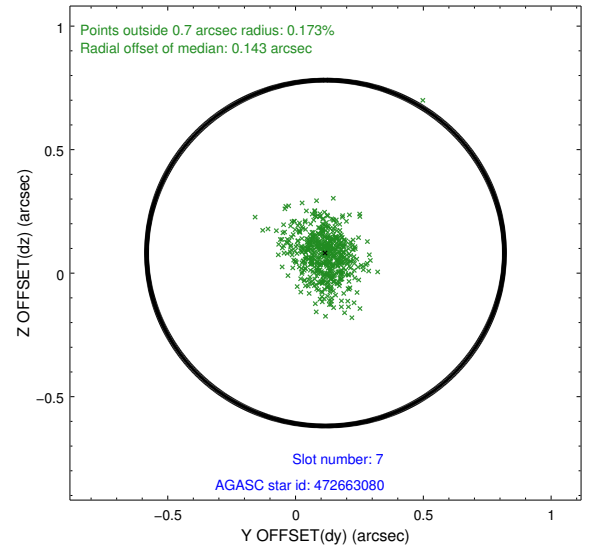
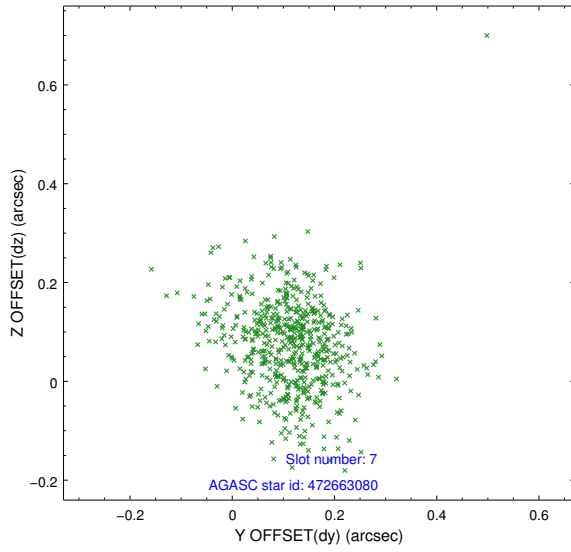
### 2.4.3 Slot 5



## 2.4.4 Slot 6

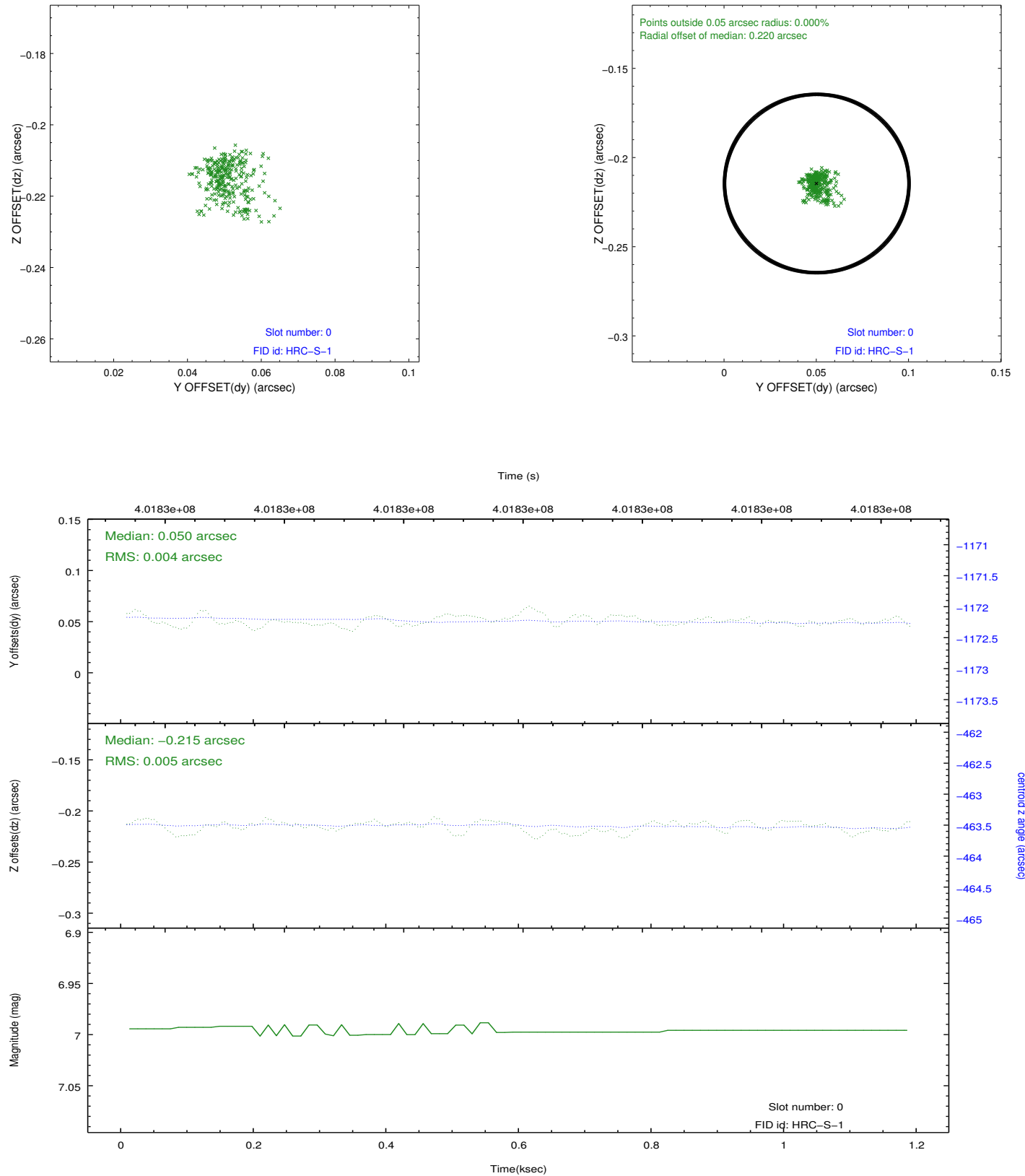


## 2.4.5 Slot 7

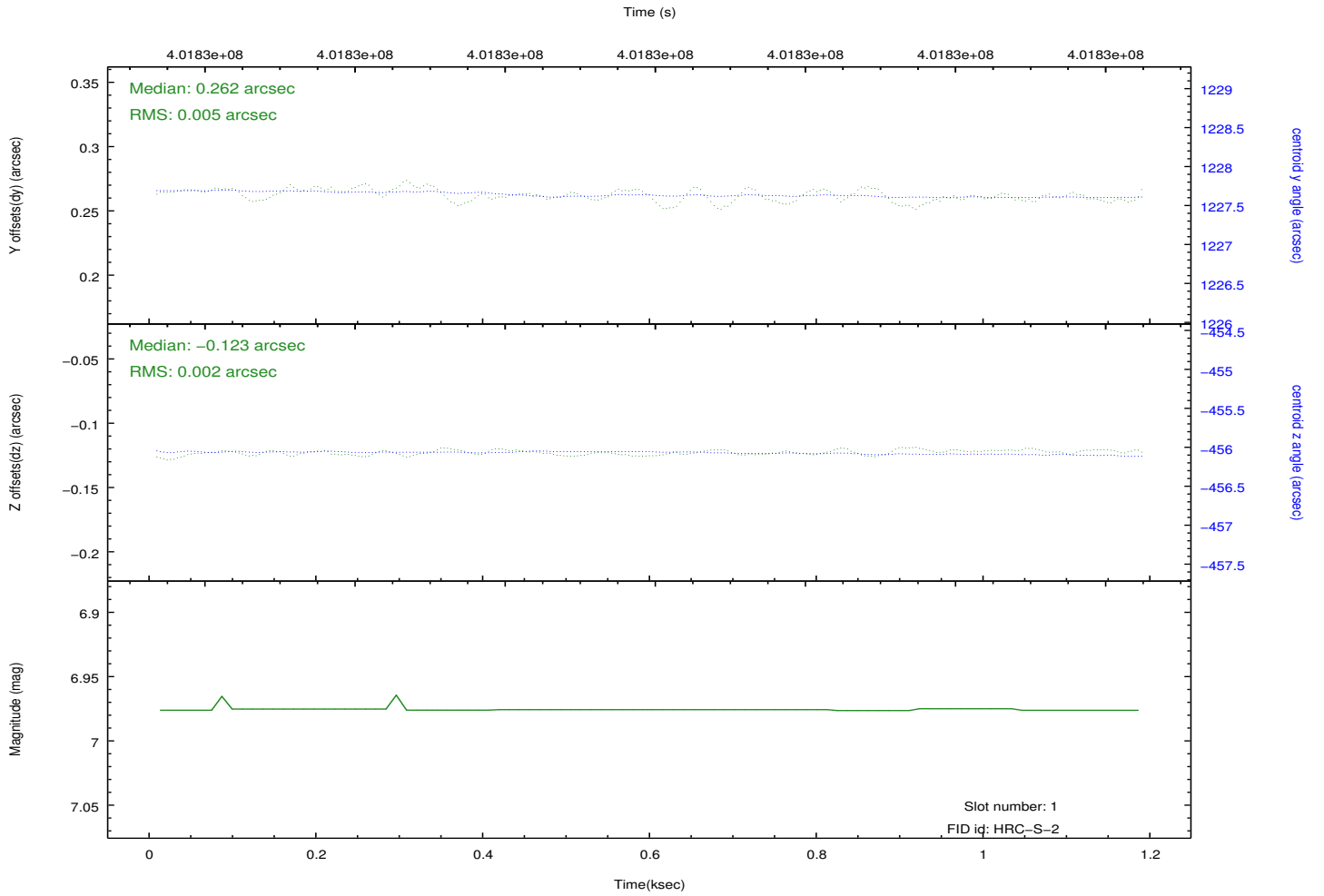
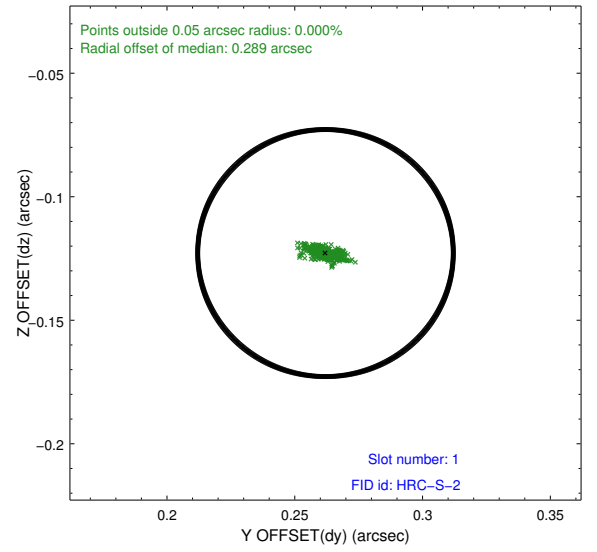
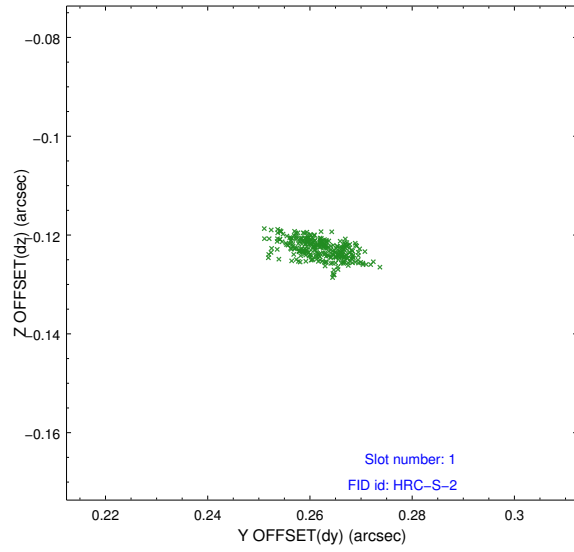


## 2.5 FID Slots

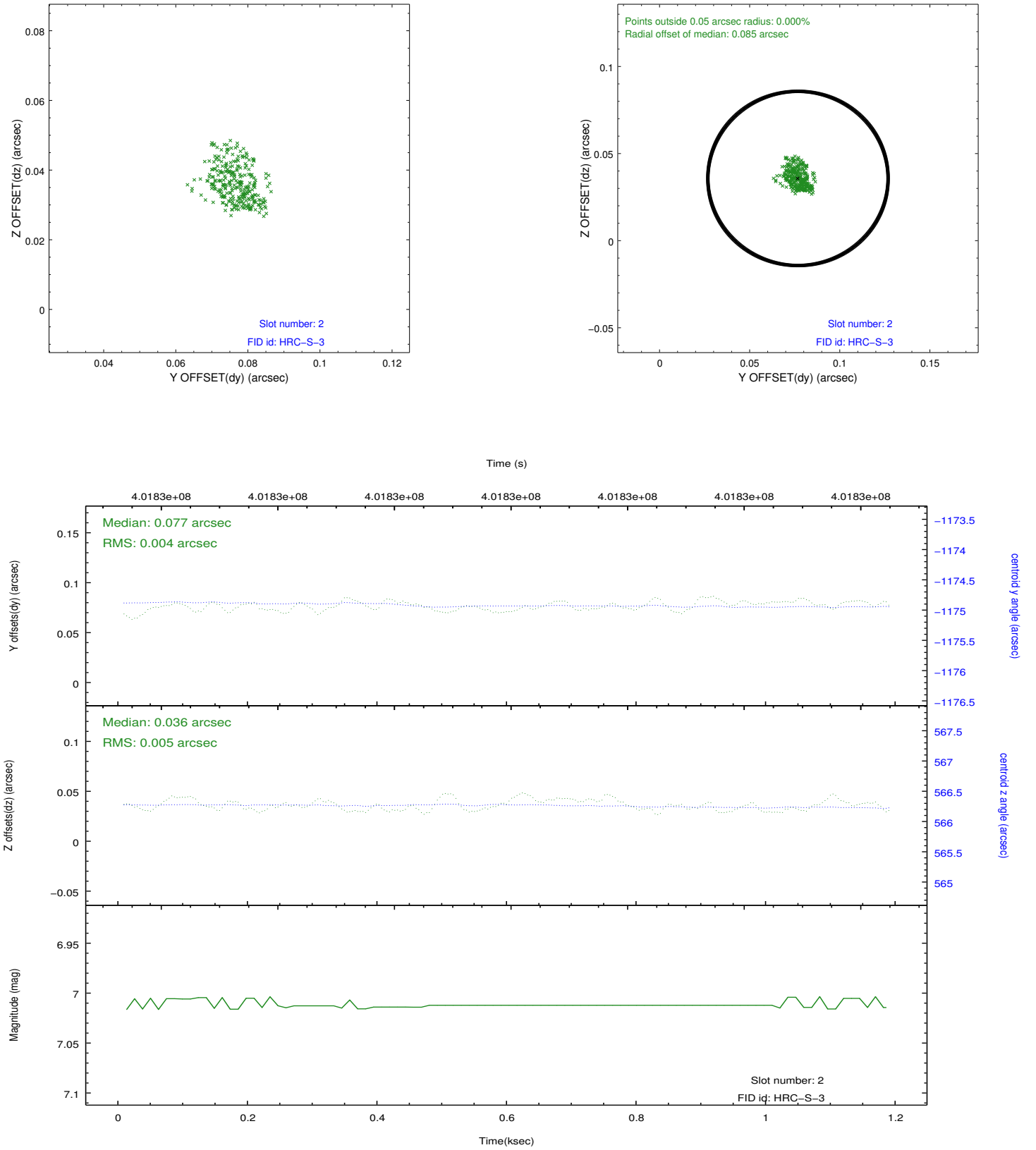
### 2.5.1 Slot 0



## 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)      | 2012.07.12      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 1.1533813092113 |

### A.2 Comments