

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1470 - L2 Version 4  
Chandra X-Ray Center

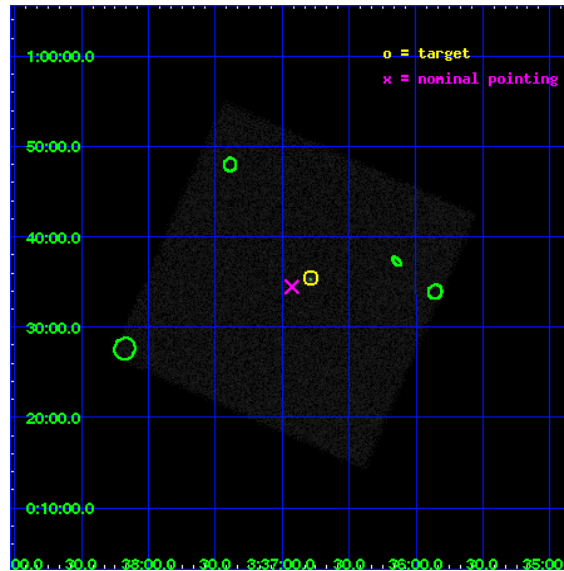
L2 Processing Date : Nov 24 2009

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# 1 Front

|          |                     |                                 |
|----------|---------------------|---------------------------------|
| seq_num  | 290046              | Sequence number                 |
| obs_id   | 1470                | Observation id                  |
| title    | &#160               | Proposal title                  |
| observer | Dr. CXC Calibration | Principal investigator          |
| object   | HR1099              | Source name                     |
| ra_targ  | 54.197083           | Observer's specified target RA  |
| dec_targ | 0.589972            | Observer's specified target Dec |
| ra_nom   | 54.231991538893     | Nominal RA                      |
| dec_nom  | 0.5743783680076     | Nominal Dec                     |
| roll_nom | 338.92275856699     | Nominal Roll                    |
| revision | 4                   | Processing version of data      |
| ontime   | 2275.756332241      | [s]                             |
| livetime | 2259.1358745631     | Ontime multiplied by DTCOR      |
| l2events | 102608              | Number of level 2 events        |

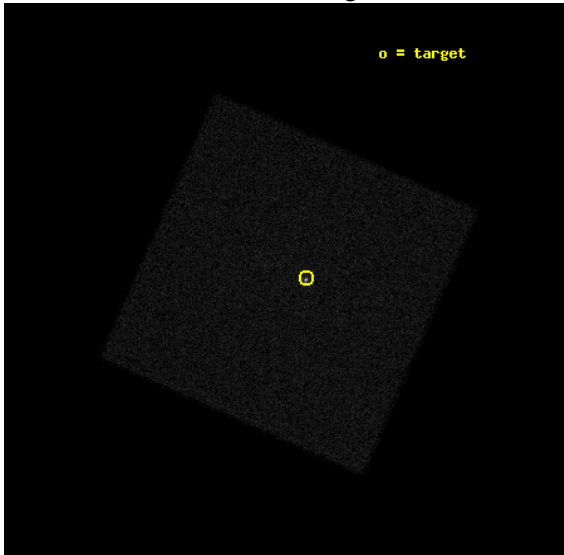


## 2 OBI

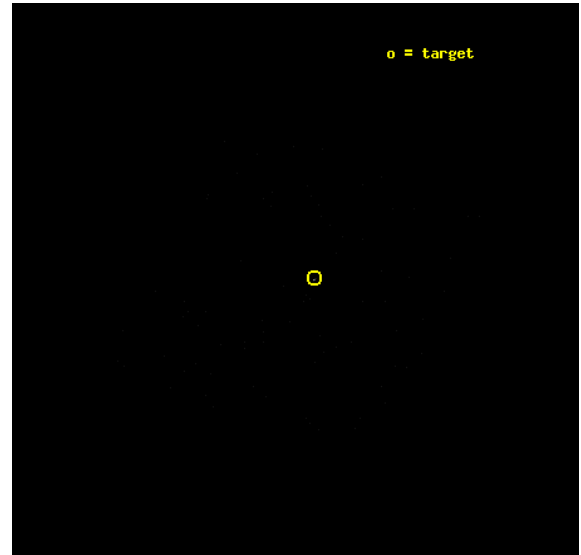
### 2.1 OBI

#### 2.1.1 Images

Level 1 Image



Level 1 Bad Events



## 2.1.2 Parameters

|          |                     |                                |                |                |                                     |
|----------|---------------------|--------------------------------|----------------|----------------|-------------------------------------|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 2000.000000    | Scheduled observation exposure time |
| ascdsver | 8.1.1               | Processing system revision     | ontime         | 2275.756332241 | [s]                                 |
| caldbver | 4.1.4               | &#160                          | l1events       | 145354         | Number of level 1 events            |
| date     | 2009-11-24T15:09:49 | Date and time of file creation |                |                |                                     |
| revision | 4                   | Processing version of data     |                |                |                                     |

## 2.1.3 Events

### Level 1 Events

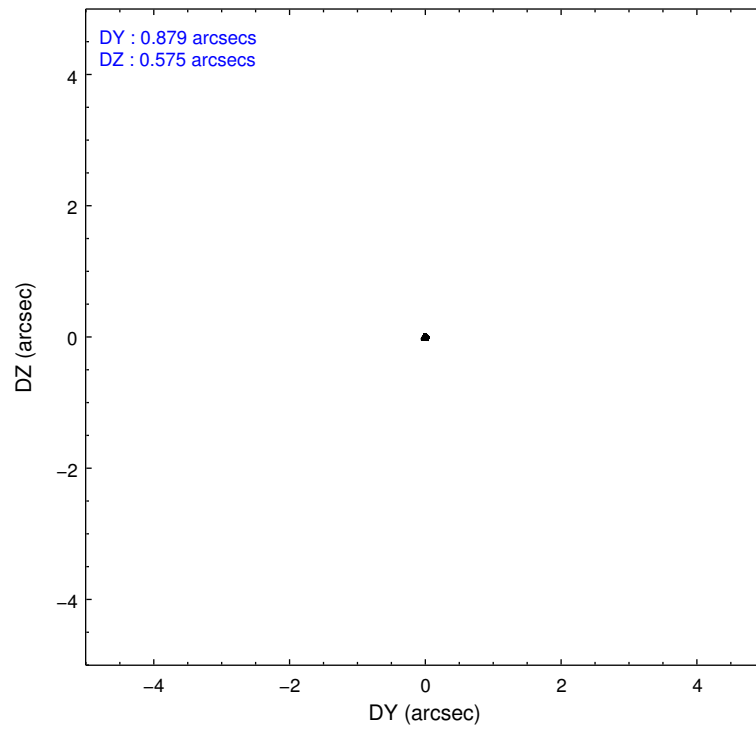
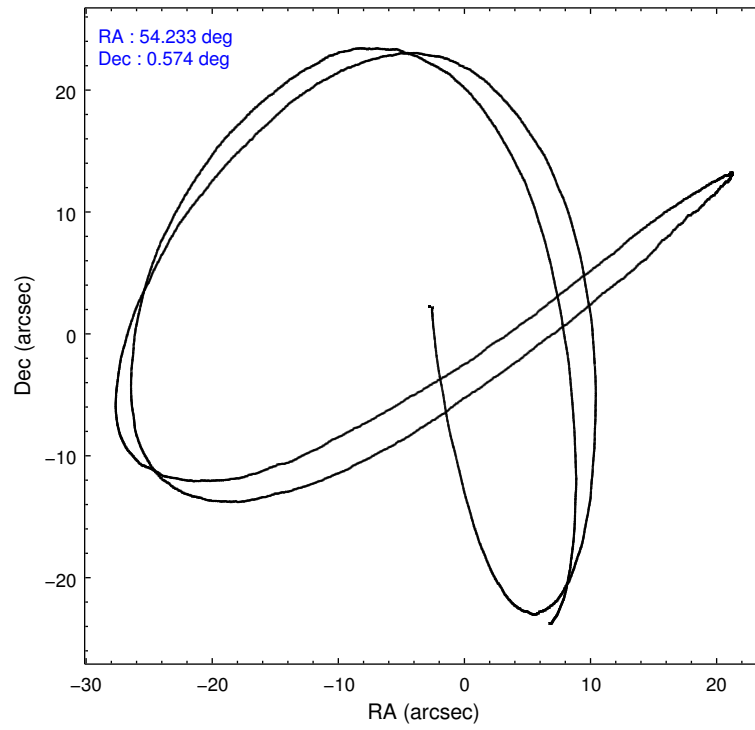
|                 | <b>segment<br/>0</b> |
|-----------------|----------------------|
| level 1 events  | 145354               |
| rejected events | 3160                 |
| rejected %      | 2%                   |

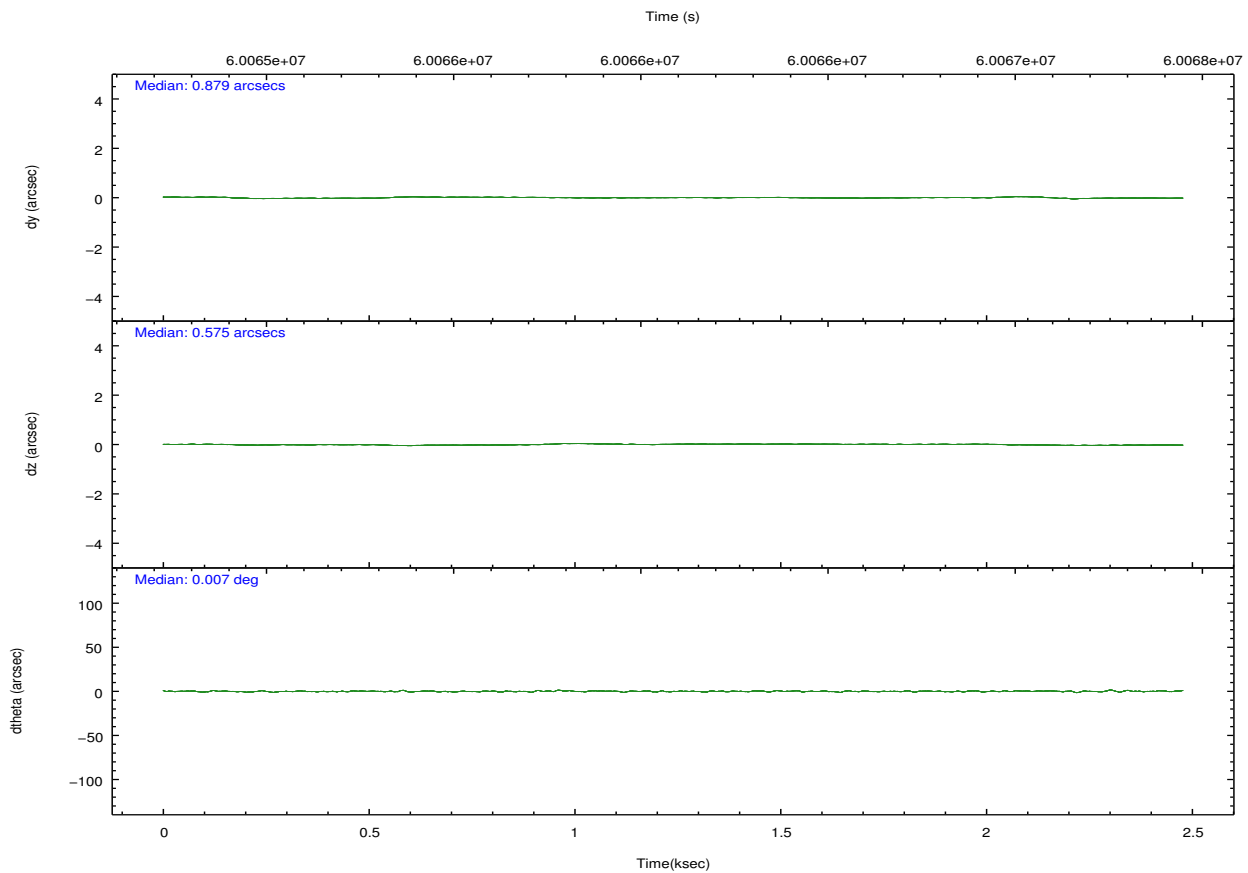
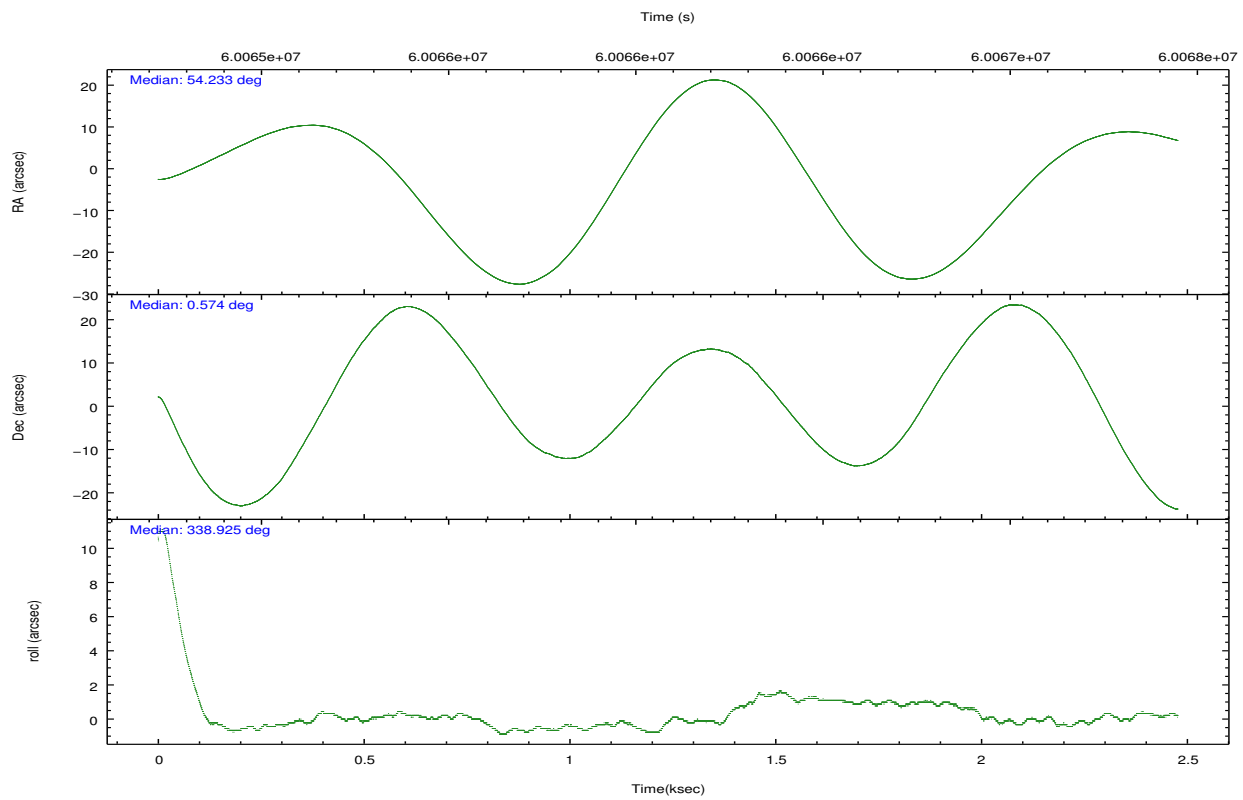
## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual                 |
|-----------------------------------|---------------------|------------------------|
| Instrument                        | HRC                 | HRC                    |
| Detector                          | HRC-I               | HRC-I                  |
| Grating                           | NONE                | NONE                   |
| Data mode                         | OBSERVING           | OBSERVING              |
| Observation mode                  | POINTING            | POINTING               |
| Pointing RA                       | 54.204543           | 54.23199153889259      |
| Pointing Dec                      | 0.570329            | 0.5743783680075957     |
| Pointing Roll                     | 339.018505          | 338.9227585669917      |
| SIM focus pos (mm)                | -1.040293           | -1.038866356238299     |
| SIM defocus (mm)                  | 0                   | 0.001426264420575141   |
| SIM translation stage pos (mm)    | 126.985494          | 126.9854943052878      |
| SIM translation stage offset (mm) | 0                   | -5.413686238853188e-06 |
| Observation start time            | 60065326.184000     | 60064529.414016        |
| Observation start date            | 1999-11-27T04:47:42 | 1999-11-27T04:35:29    |
| Observation end time              | 60067326.184000     | 60067459.889122        |
| Observation end date              | 1999-11-27T05:21:02 | 1999-11-27T05:24:19    |

| Parameter                    | Planned   | Actual  |
|------------------------------|-----------|---------|
| Obspar format version number | 6         | 6       |
| Obspar file type             | PREDICTED | ACTUAL  |
| Obspar update status         | NONE      | UPDATED |

## 2.3 Aspect



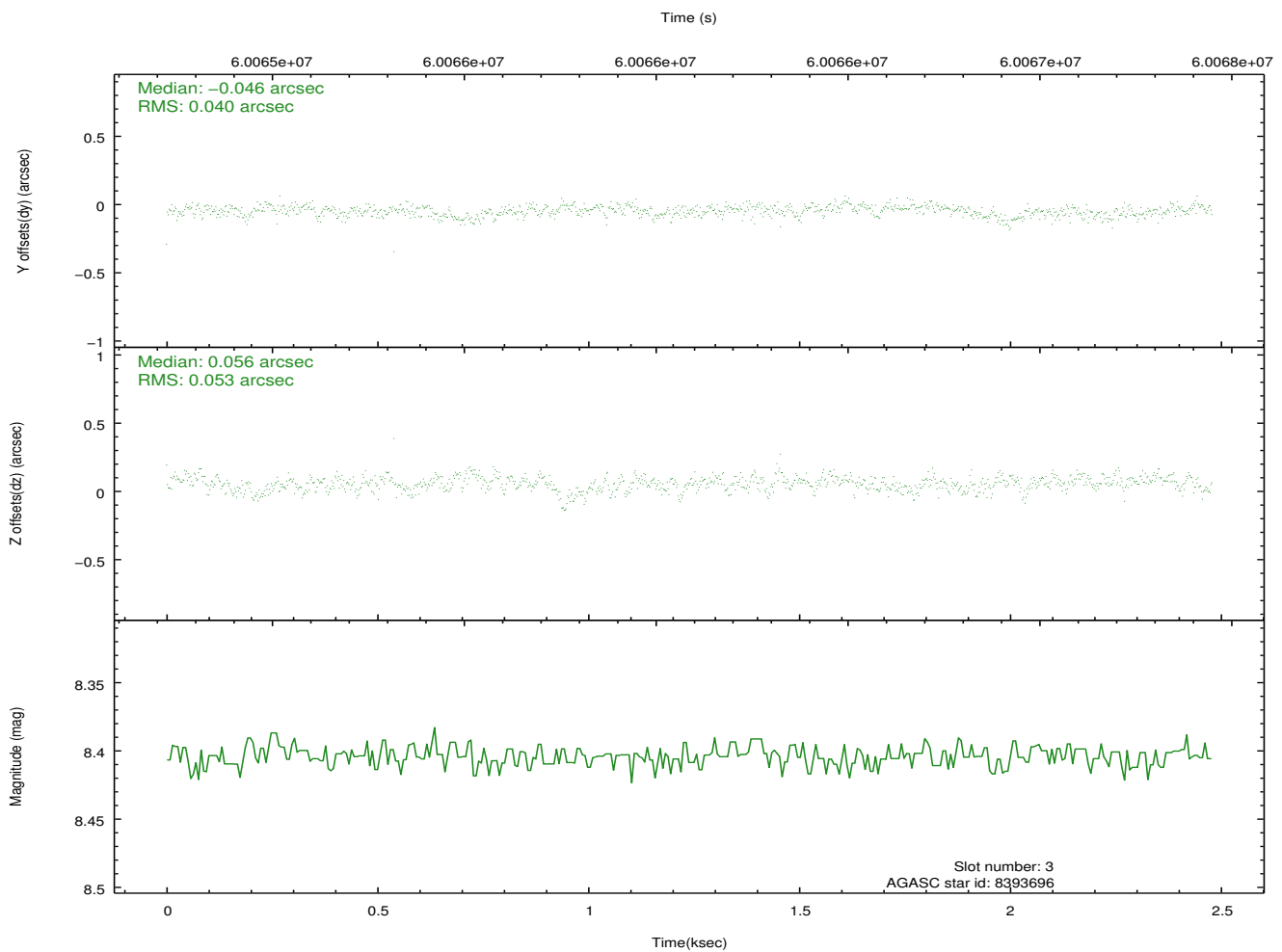
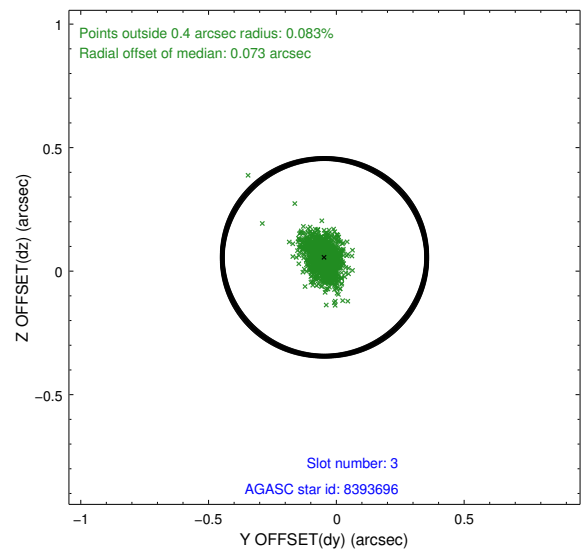
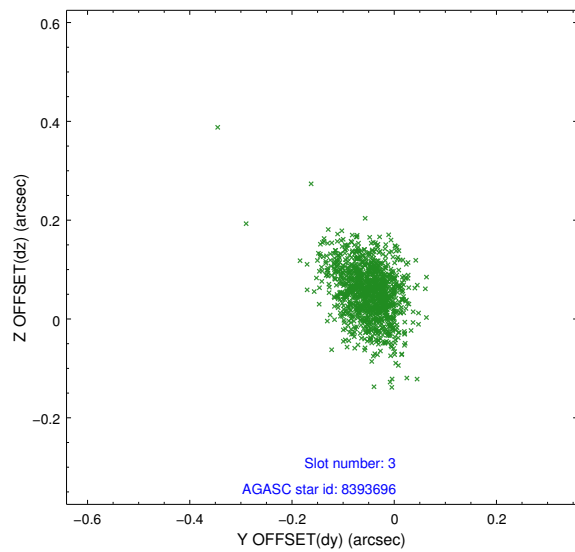


### Slot Statistics

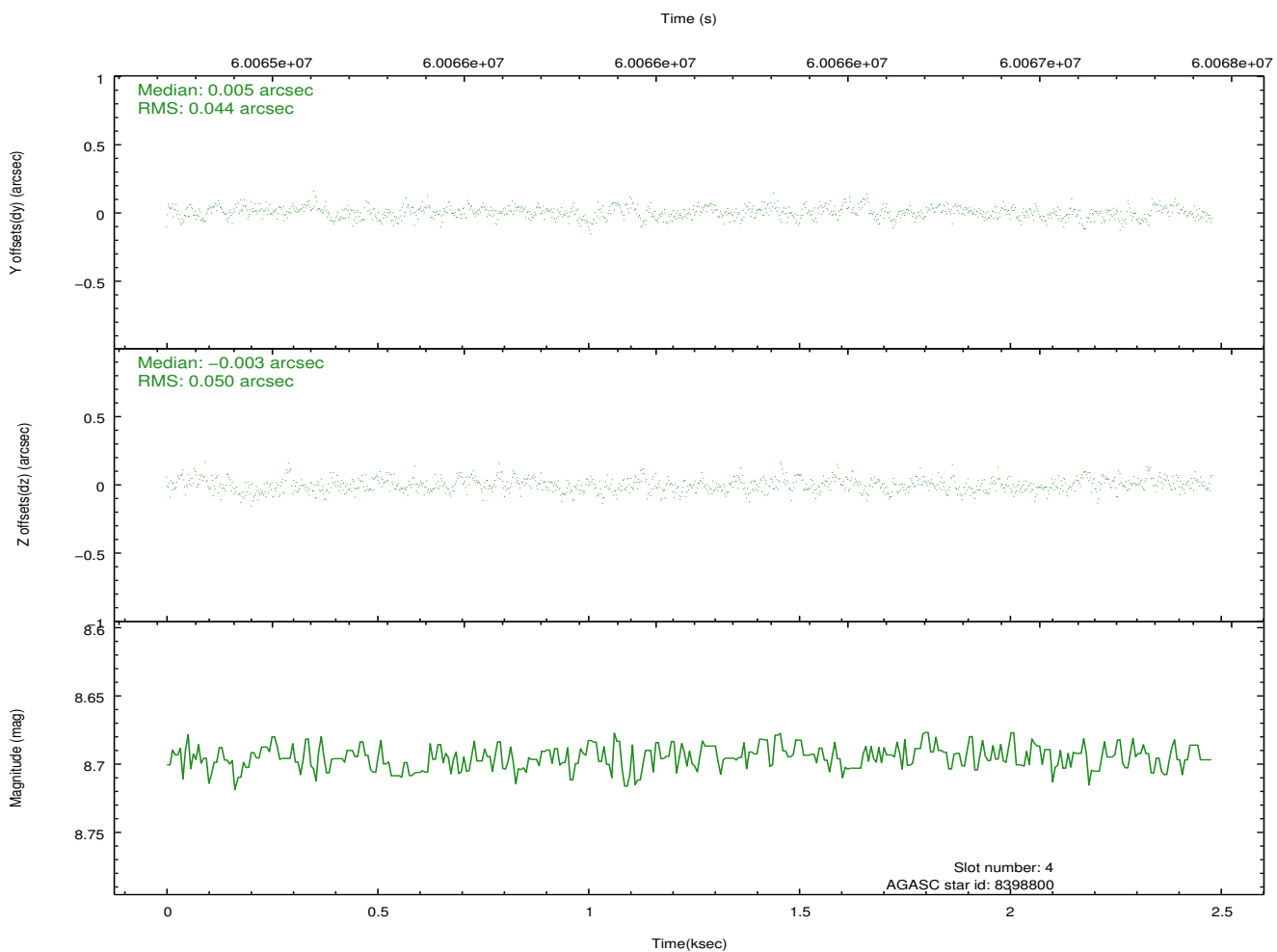
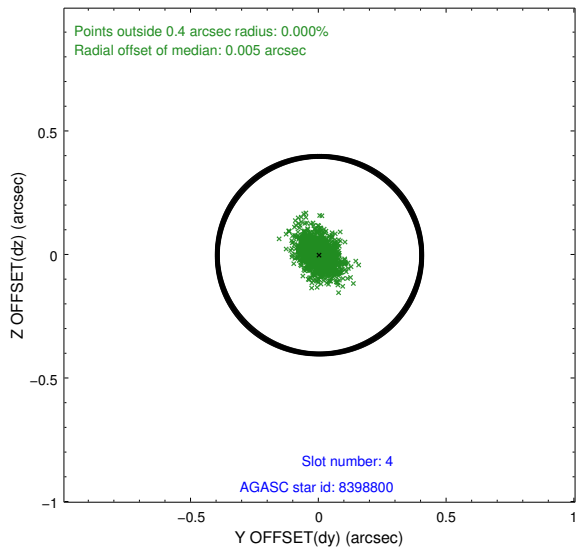
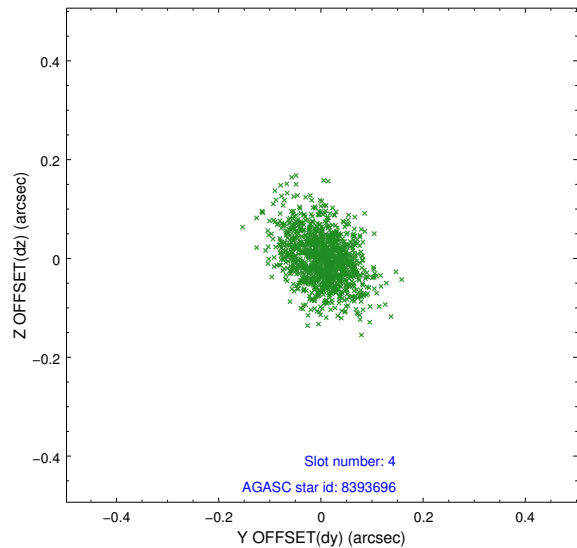
| slot | status | id      | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra        | dec      | mean_y   | mean_z   |
|------|--------|---------|------|-------|--------|--------|-------|-------|-----------|----------|----------|----------|
| 0    | FID    | HRC-I-1 | 6.98 | 1210  | -0.004 | -0.034 | 0.005 | 0.009 | 0.000000  | 0.000000 | -756.26  | -1288.34 |
| 1    | FID    | HRC-I-3 | 7.06 | 1210  | 0.045  | -0.064 | 0.006 | 0.010 | 0.000000  | 0.000000 | -1185.39 | 1015.12  |
| 2    | FID    | HRC-I-4 | 7.01 | 1210  | 0.073  | 0.008  | 0.004 | 0.007 | 0.000000  | 0.000000 | 1285.56  | 1014.77  |
| 3    | GUIDE  | 8393696 | 8.40 | 1210  | -0.046 | 0.056  | 0.066 | 0.114 | 53.645666 | 0.680479 | -2021.32 | -349.42  |
| 4    | GUIDE  | 8398800 | 8.70 | 1209  | 0.005  | -0.003 | 0.069 | 0.116 | 54.242352 | 0.922024 | -328.68  | 1231.06  |
| 5    | GUIDE  | 8390744 | 9.02 | 1209  | 0.020  | -0.080 | 0.079 | 0.133 | 53.677290 | 0.926294 | -2231.97 | 518.55   |
| 6    | GUIDE  | 8395104 | 8.66 | 1210  | 0.041  | -0.014 | 0.079 | 0.128 | 54.744893 | 0.796520 | 1521.98  | 1457.70  |
| 7    | GUIDE  | 8395504 | 9.78 | 1203  | -0.013 | 0.040  | 0.162 | 0.236 | 54.466573 | 0.973564 | 361.41   | 1694.85  |

## 2.4 Star Slots

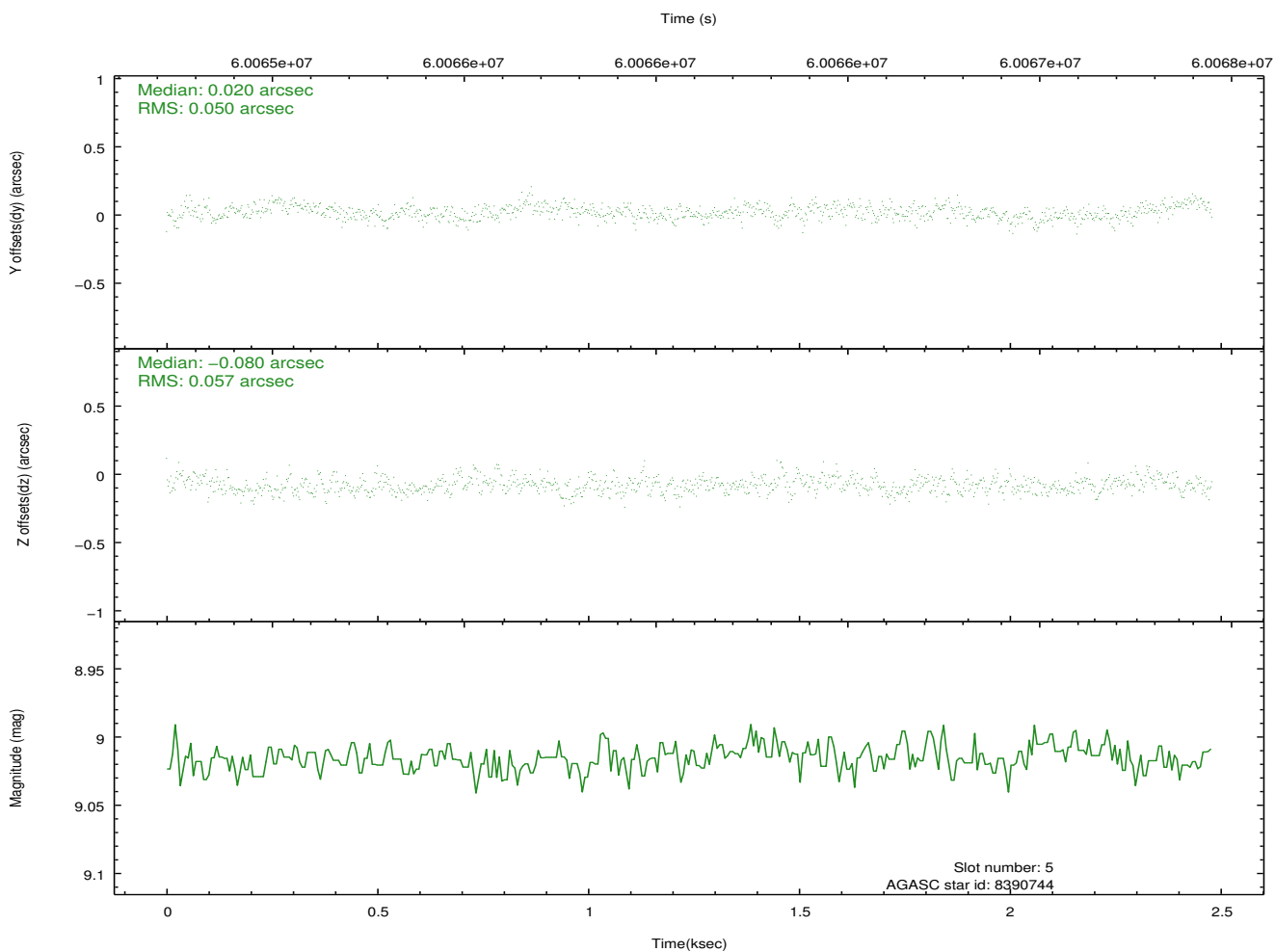
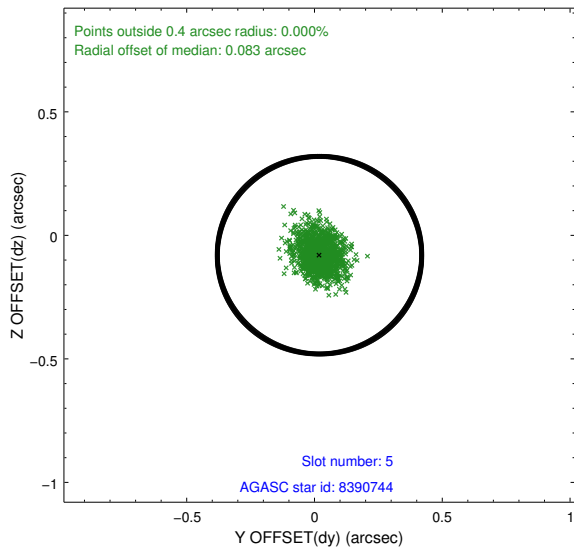
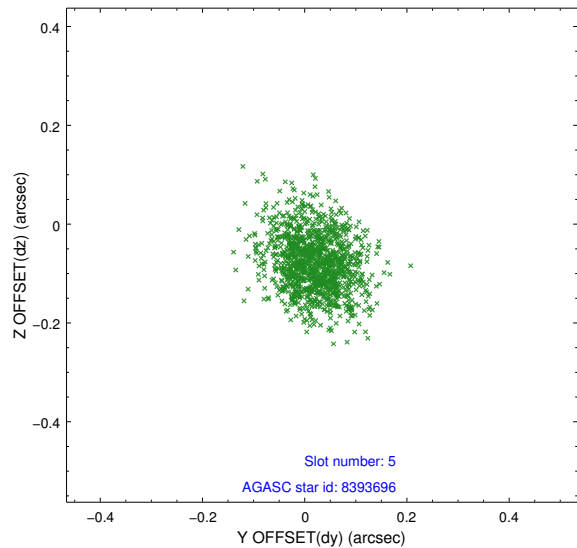
### 2.4.1 Slot 3



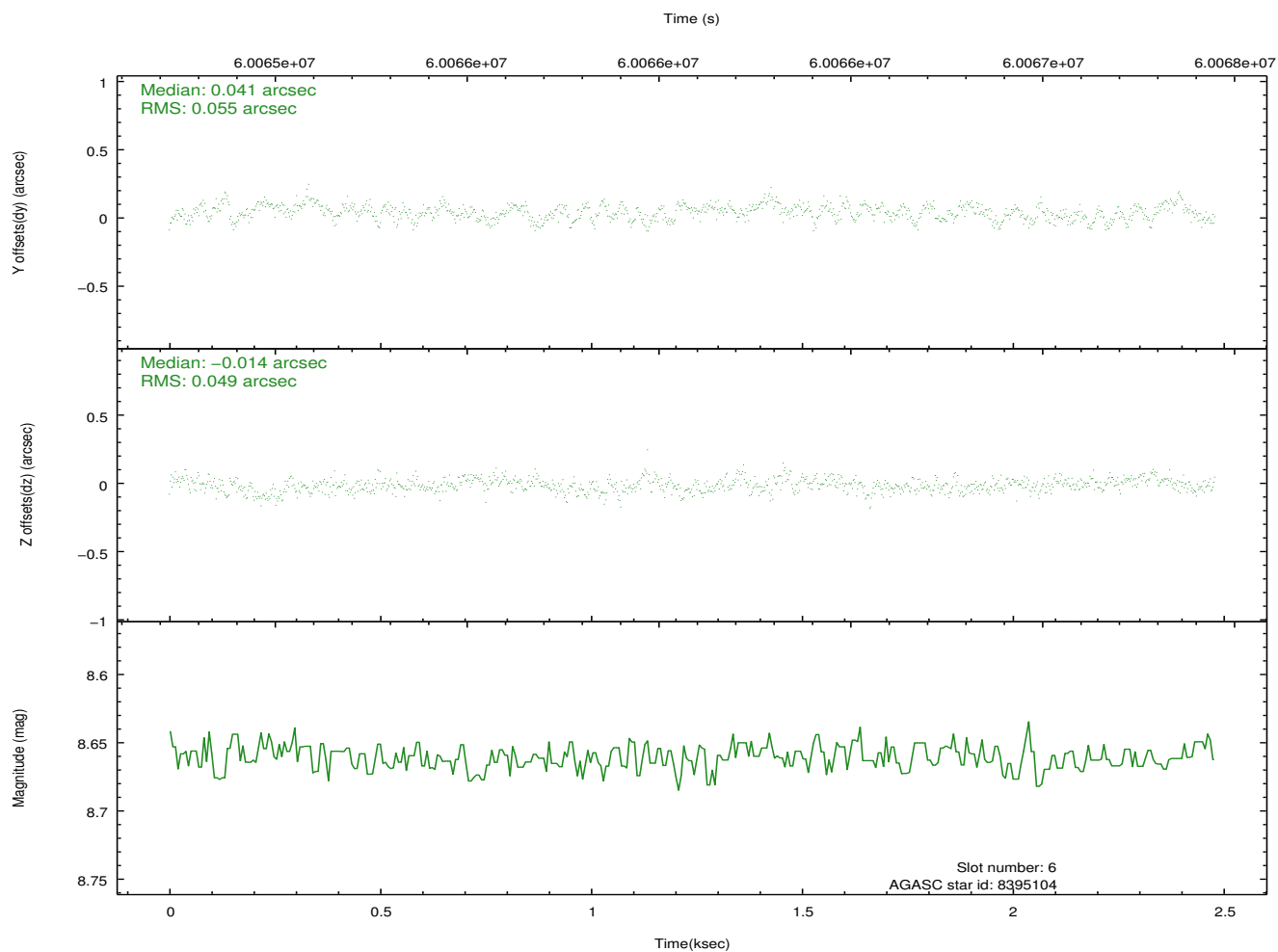
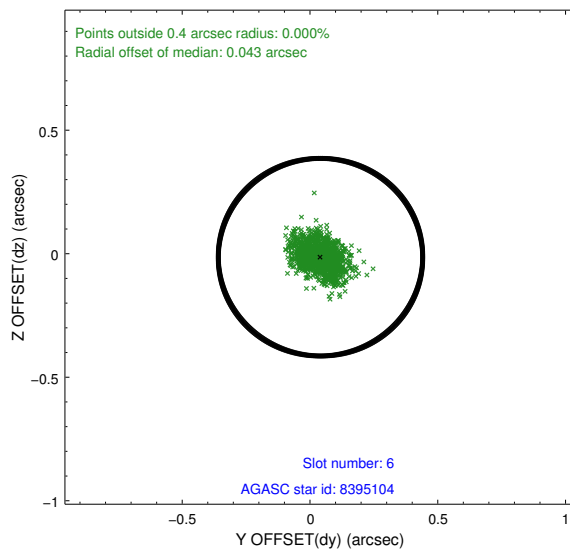
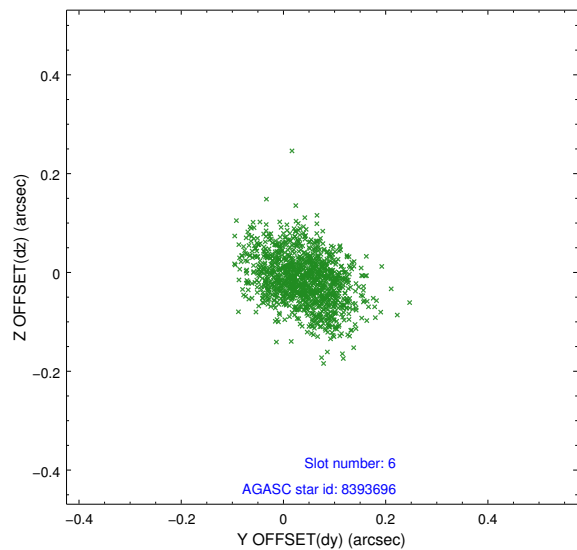
## 2.4.2 Slot 4



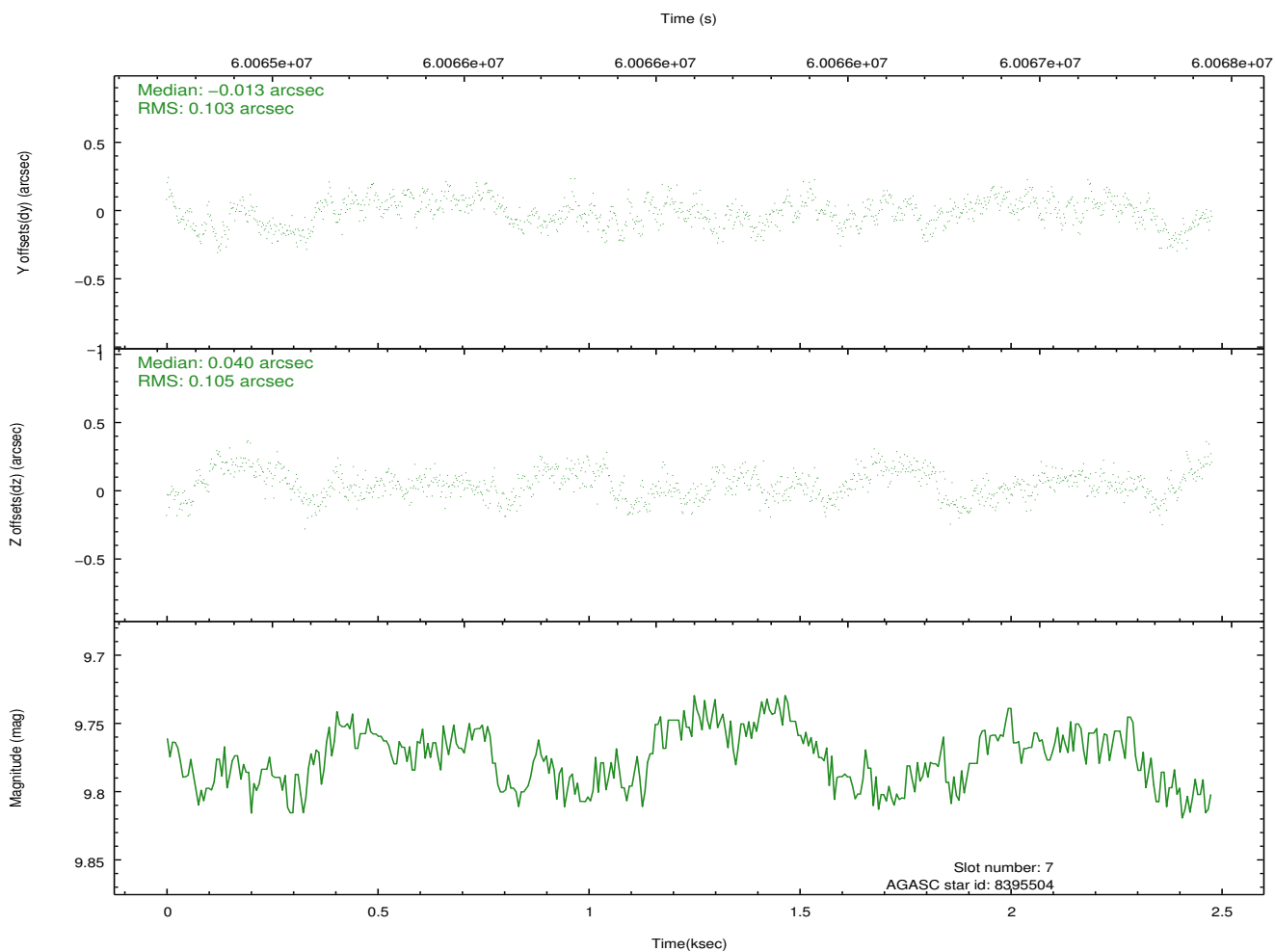
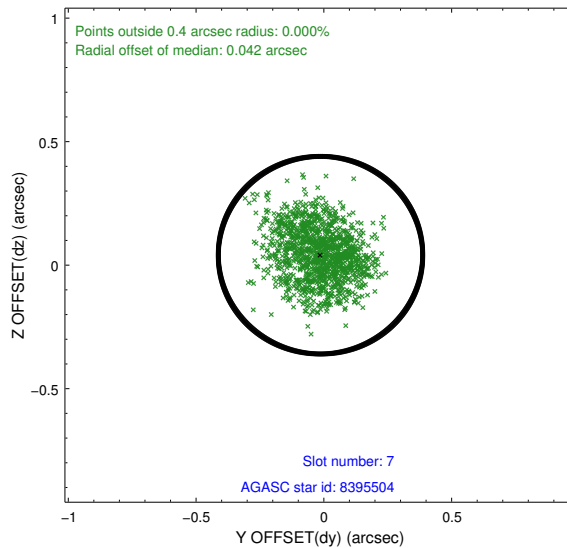
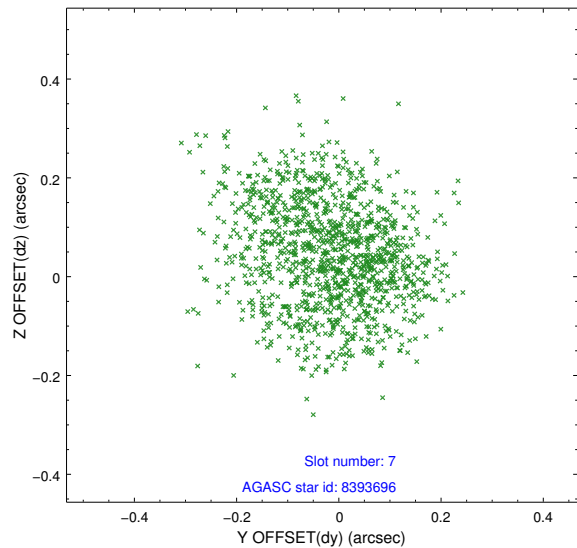
### 2.4.3 Slot 5



## 2.4.4 Slot 6

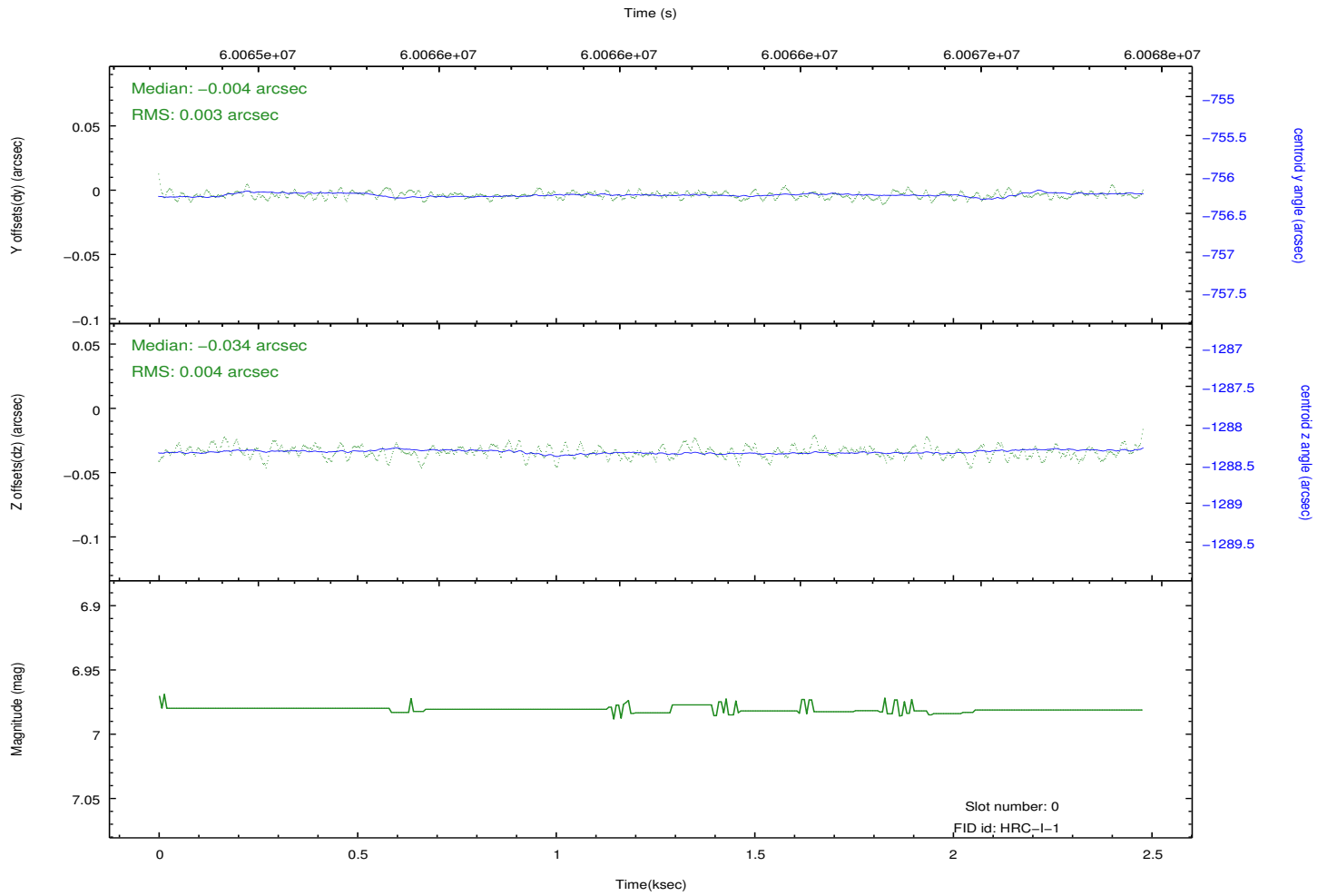
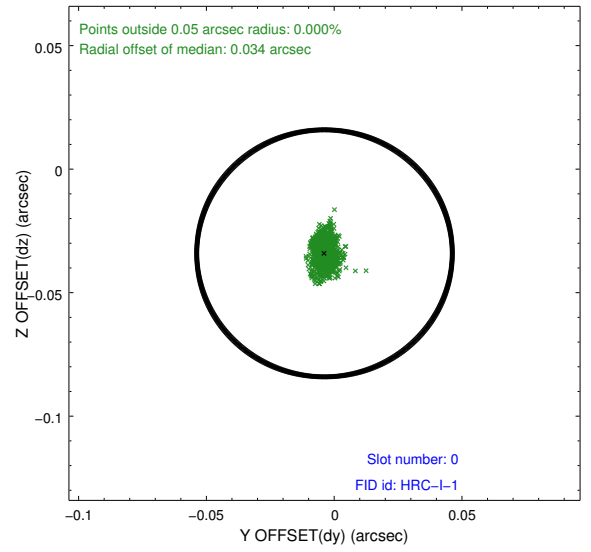
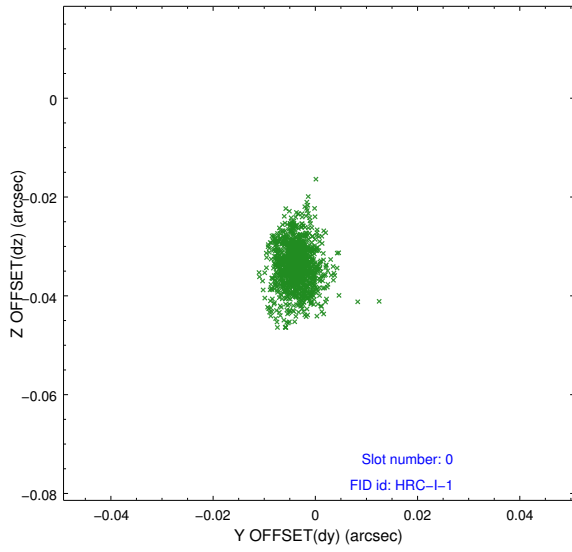


## 2.4.5 Slot 7

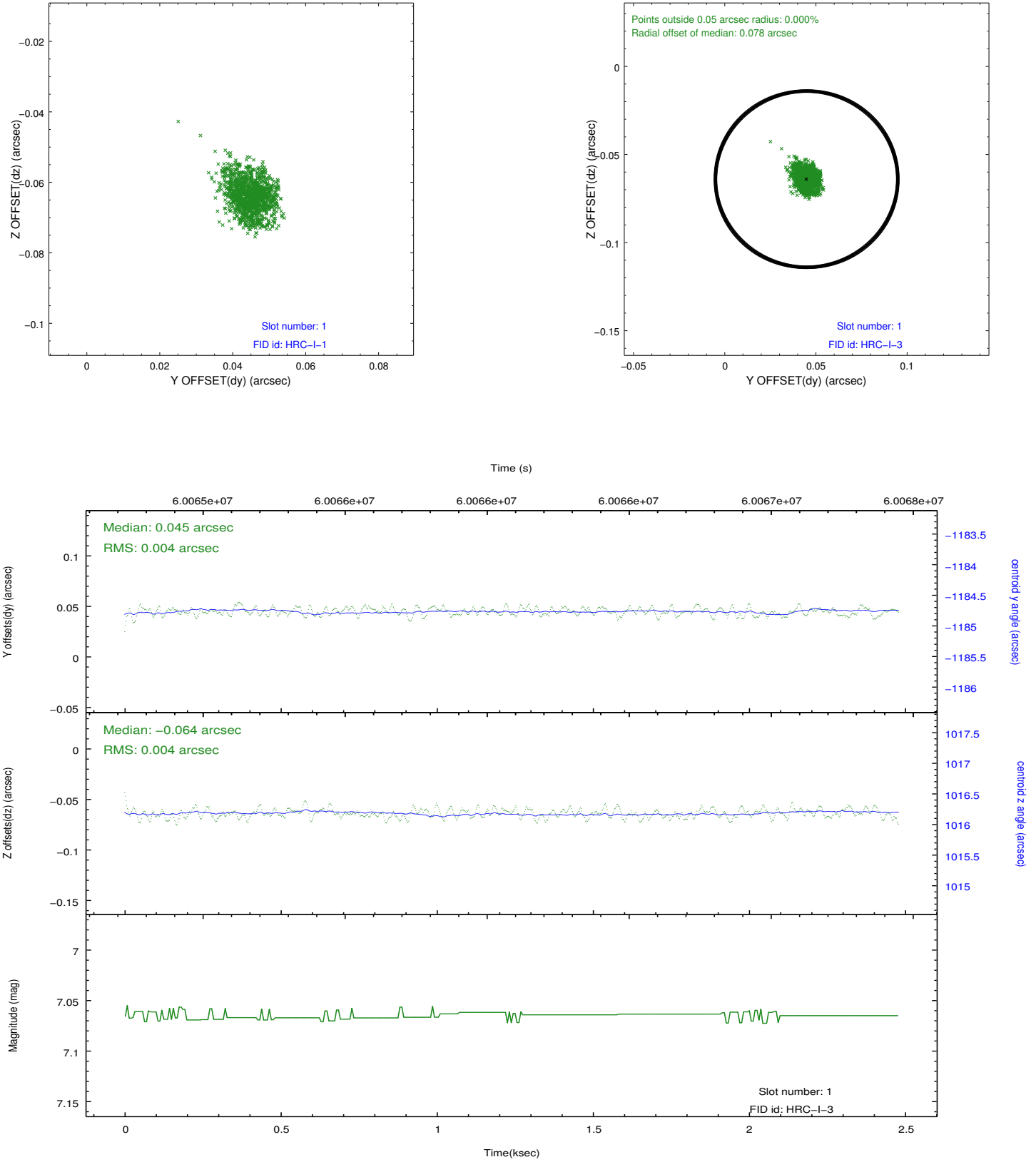


## 2.5 FID Slots

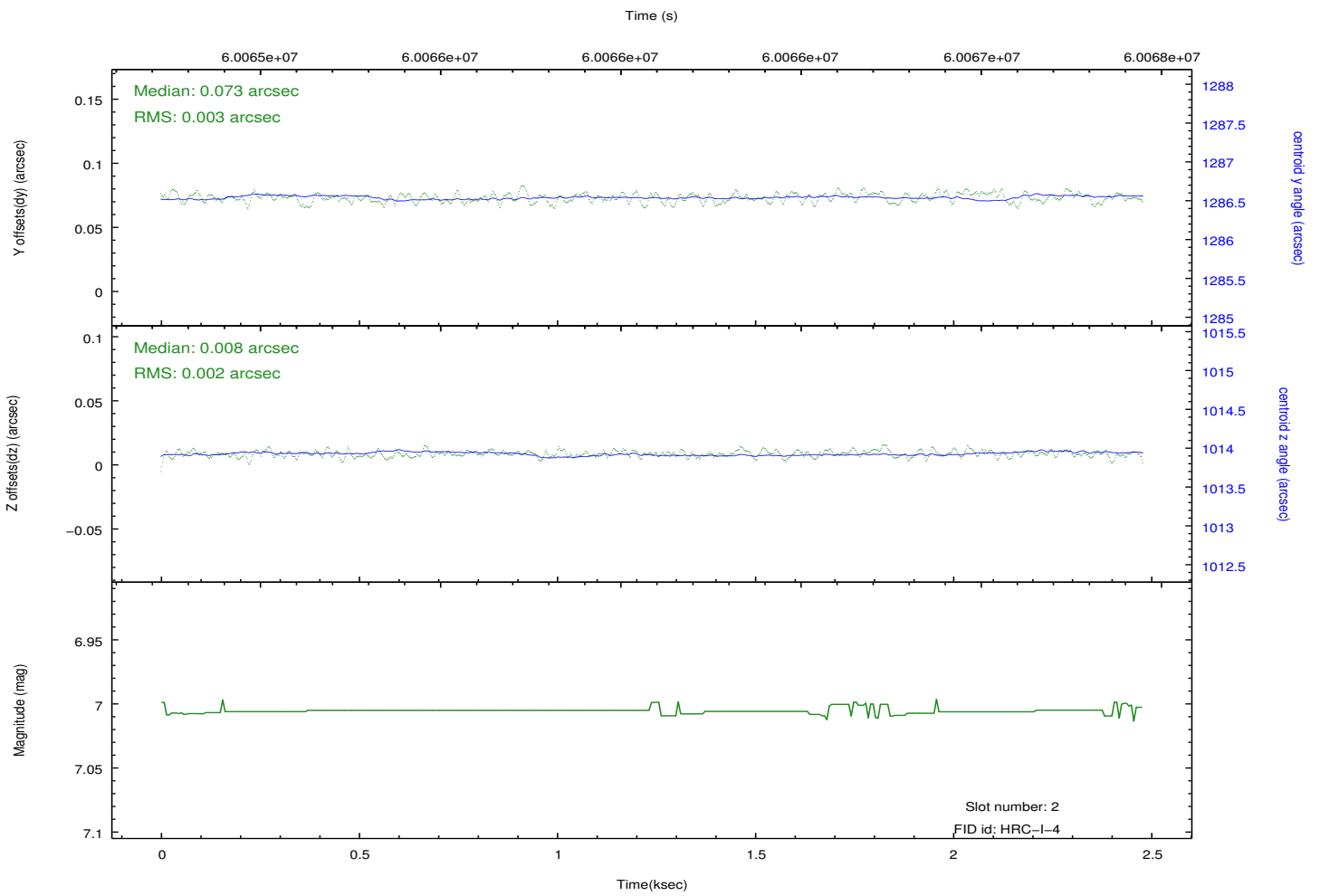
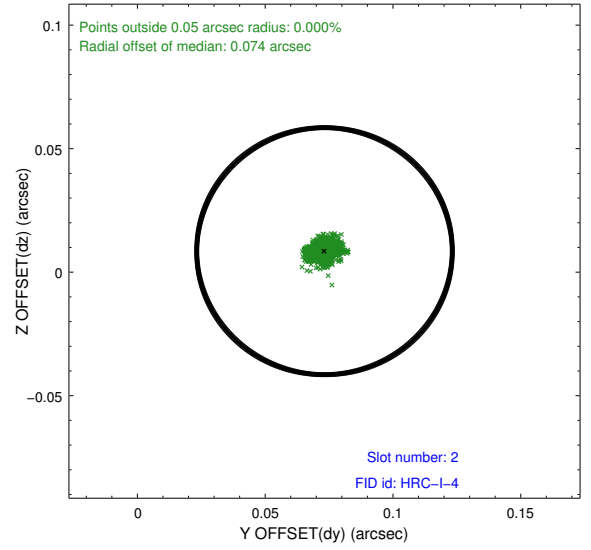
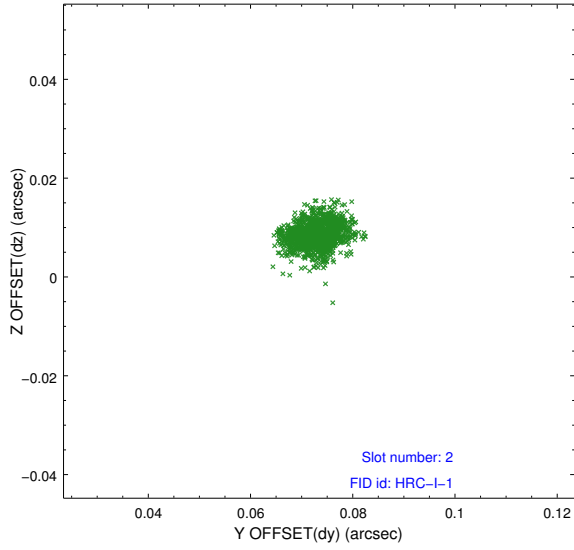
### 2.5.1 Slot 0



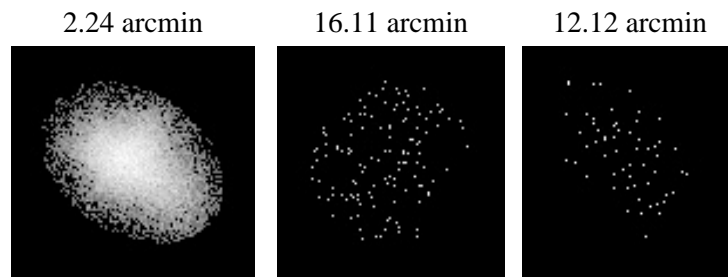
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



# A Summary

## A.1 Status

|                            |             |
|----------------------------|-------------|
| V&V Scientist              | Joy Nichols |
| V&V Date (YYYY-MM-DD)      | 2009.12.02  |
| V&V Edition                | 1           |
| V&V Disposition and Status | OK          |
| V&V Charge Time            | 2.273       |

## A.2 Comments

Charge time for this ObsId remains at original value of 2.273 ksec, although with the current processing the charge time would have been 2.276 ksec.

=====

HRC-I point spread function calibration.