

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10168 - L2 Version 3  
Chandra X-Ray Center

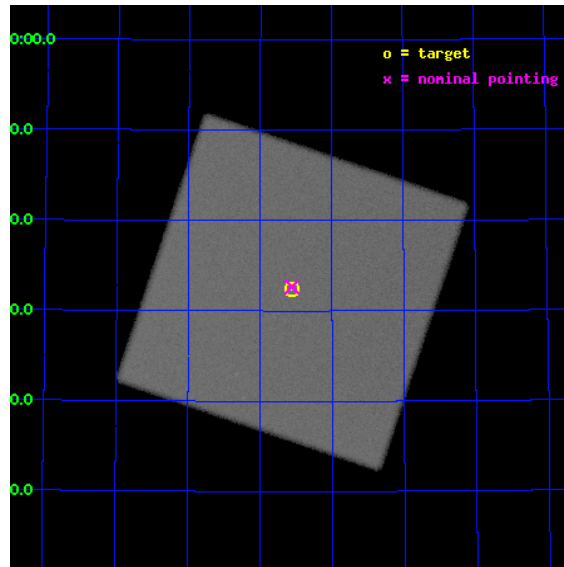
L2 Processing Date : Aug 13 2012

## Contents

|          |                               |           |
|----------|-------------------------------|-----------|
| <b>1</b> | <b>Front</b>                  | <b>2</b>  |
| <b>2</b> | <b>OBI</b>                    | <b>3</b>  |
| 2.1      | OBI . . . . .                 | 3         |
| 2.1.1    | Images . . . . .              | 3         |
| 2.1.2    | Parameters . . . . .          | 4         |
| 2.1.3    | Events . . . . .              | 4         |
| 2.2      | Compared Parameters . . . . . | 5         |
| 2.3      | Aspect . . . . .              | 6         |
| 2.4      | Star Slots . . . . .          | 9         |
| 2.4.1    | Slot 3 . . . . .              | 9         |
| 2.4.2    | Slot 4 . . . . .              | 10        |
| 2.4.3    | Slot 5 . . . . .              | 11        |
| 2.4.4    | Slot 6 . . . . .              | 12        |
| 2.4.5    | Slot 7 . . . . .              | 13        |
| 2.5      | FID Slots . . . . .           | 14        |
| 2.5.1    | Slot 0 . . . . .              | 14        |
| 2.5.2    | Slot 1 . . . . .              | 15        |
| 2.5.3    | Slot 2 . . . . .              | 16        |
| <b>A</b> | <b>Summary</b>                | <b>17</b> |
| A.1      | Status . . . . .              | 17        |
| A.2      | Comments . . . . .            | 17        |

# 1 Front

|          |  |                                       |
|----------|--|---------------------------------------|
| seq_num  | 501095                                   | Sequence number                       |
| obs_id   | 10168                                    | Observation id                        |
| title    | ToO Observations of Soft Gamma Repeaters | Proposal title                        |
| observer | Dr. CHRYSSA KOUVELIOTOU                  | Principal investigator                |
| object   | SGR 0418+5729                            | Source name                           |
| ra_targ  | 64.640417                                | Observer's specified target RA [deg]  |
| dec_targ | 57.539917                                | Observer's specified target Dec [deg] |
| ra_nom   | 64.639358060451                          | Nominal RA [deg]                      |
| dec_nom  | 57.544601266072                          | Nominal Dec [deg]                     |
| roll_nom | 63.673735824629                          | Nominal Roll [deg]                    |
| revision | 3  | Processing version of data            |
| ontime   | 24162.582459331                          | [s]                                   |
| livetime | 23871.420704558                          | Ontime multiplied by DTCOR            |
| l2events | 1802294                                  | Number of level 2 events              |

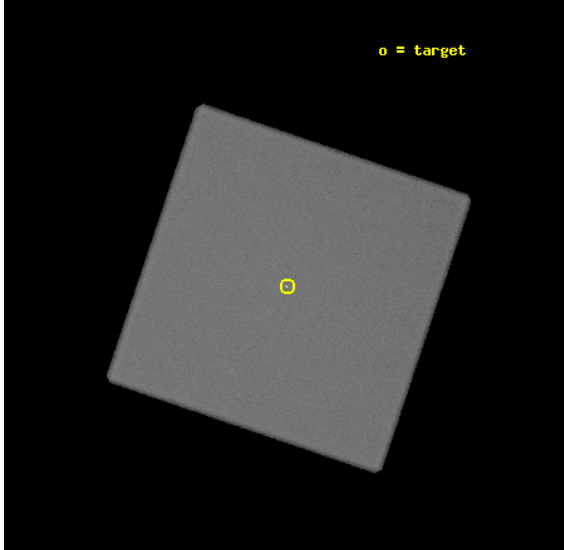


## 2 OBI

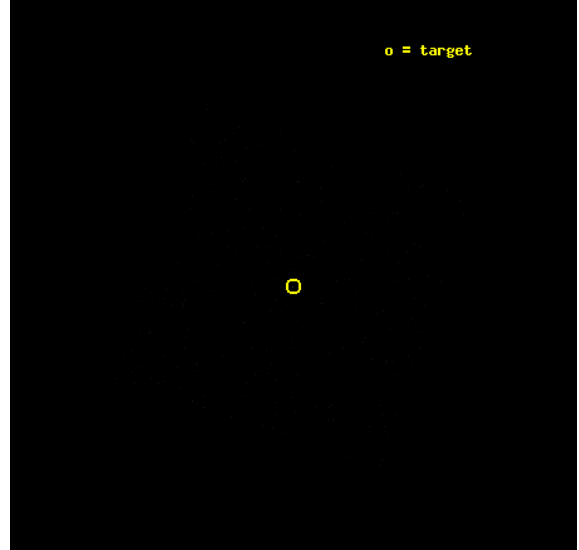
### 2.1 OBI

#### 2.1.1 Images

Level 1 Image



Level 1 Bad Events



### 2.1.2 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 24000.000000    | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 24162.582459331 | [s]                                     |
| caldbver | 4.5.1.1             | &#160                          | l1events       | 2641704         | Number of level 1 events                |
| date     | 2012-08-13T08:43:21 | Date and time of file creation |                |                 |   |
| revision | 3                   | Processing version of data     |                |                 |   |

### 2.1.3 Events

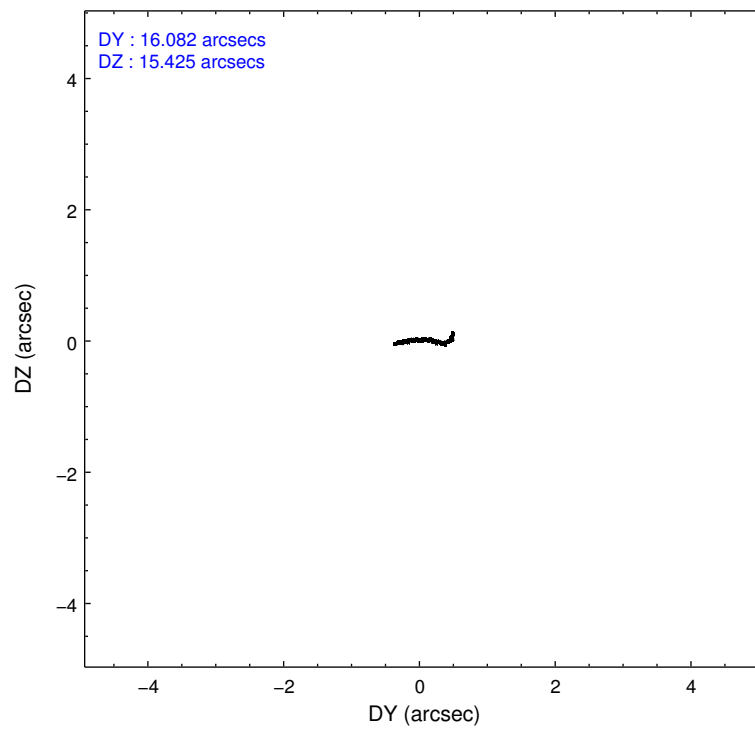
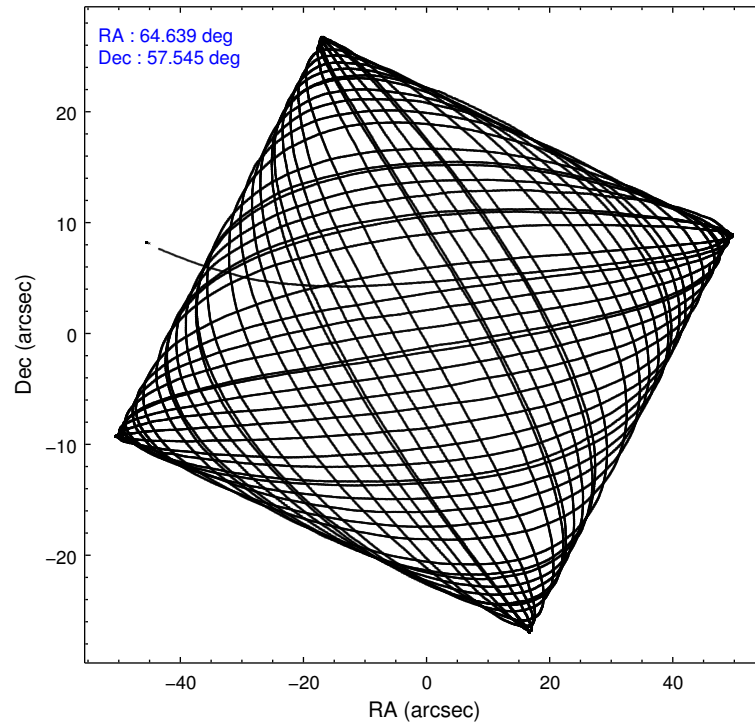
#### Level 1 Events

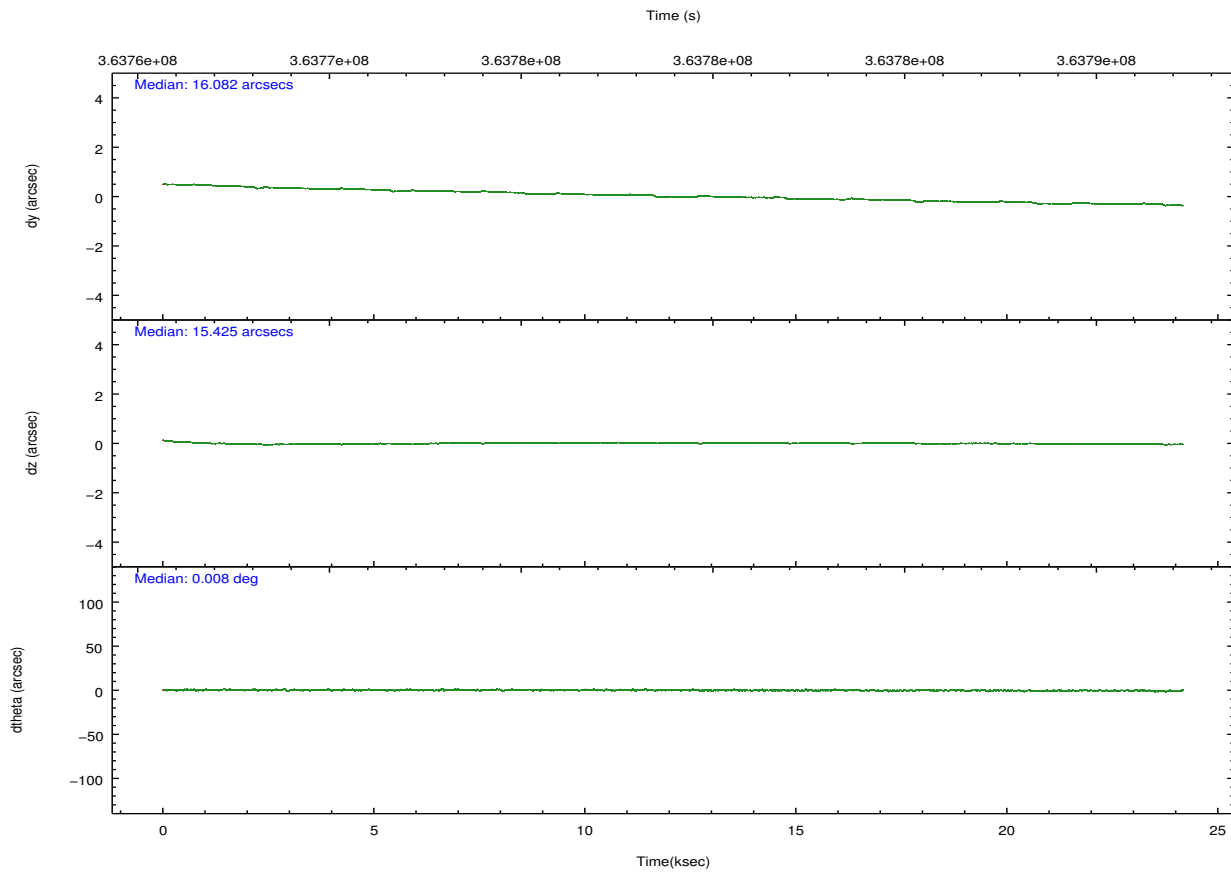
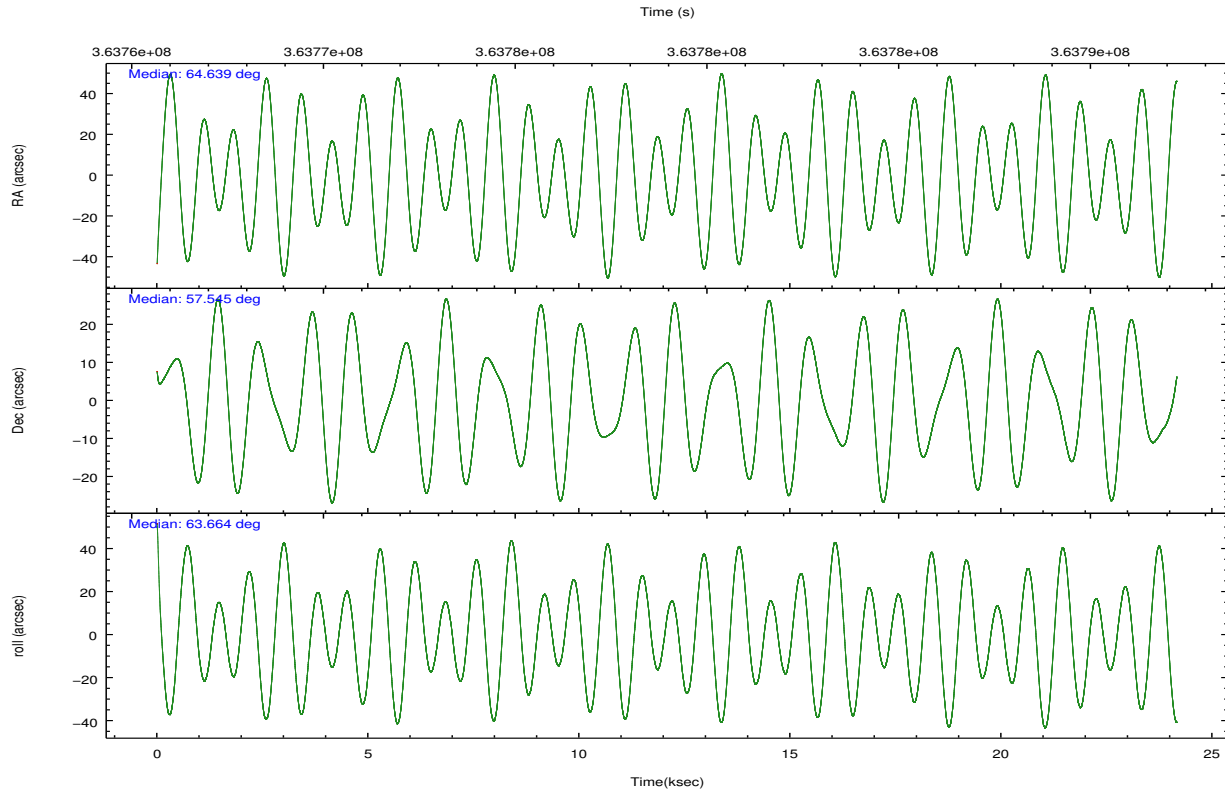
|                 | <b>segment<br/>0</b> |
|-----------------|----------------------|
| level 1 events  | 2641704              |
| rejected events | 21612                |
| rejected %      | 0%                   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual                 | Parameter                    | Planned   | Actual  |
|-----------------------------------|---------------------|------------------------|------------------------------|-----------|---------|
| Instrument                        | HRC                 | HRC                    | Obspar format version number | 7         | 7       |
| Detector                          | HRC-I               | HRC-I                  | Obspar file type             | PREDICTED | ACTUAL  |
| Grating                           | NONE                | NONE                   | Obspar update status         | NONE      | UPDATED |
| Data mode                         | OBSERVING           | OBSERVING              |                              |           |         |
| Observation mode                  | POINTING            | POINTING               |                              |           |         |
| [deg] Pointing RA                 | 64.643714           | 64.63935806045143      |                              |           |         |
| [deg] Pointing Dec                | 57.517492           | 57.54460126607203      |                              |           |         |
| [deg] Pointing Roll               | 63.765548           | 63.67373582462925      |                              |           |         |
| [mm] SIM focus pos                | -1.040293           | -1.038866356238299     |                              |           |         |
| [mm] SIM defocus                  | 0                   | 0.001426264420575141   |                              |           |         |
| [mm] SIM translation stage pos    | 126.985494          | 126.9854943052878      |                              |           |         |
| [mm] SIM translation stage offset | 0                   | -5.413686238853188e-06 |                              |           |         |
| [s] Observation start time (MET)  | 363767052.184000    | 363766069.41132        |                              |           |         |
| Observation start date            | 2009-07-12T06:23:06 | 2009-07-12T06:07:49    |                              |           |         |
| [s] Observation end time (MET)    | 363791052.184000    | 363791575.0001         |                              |           |         |
| Observation end date              | 2009-07-12T13:03:06 | 2009-07-12T13:12:55    |                              |           |         |

## 2.3 Aspect



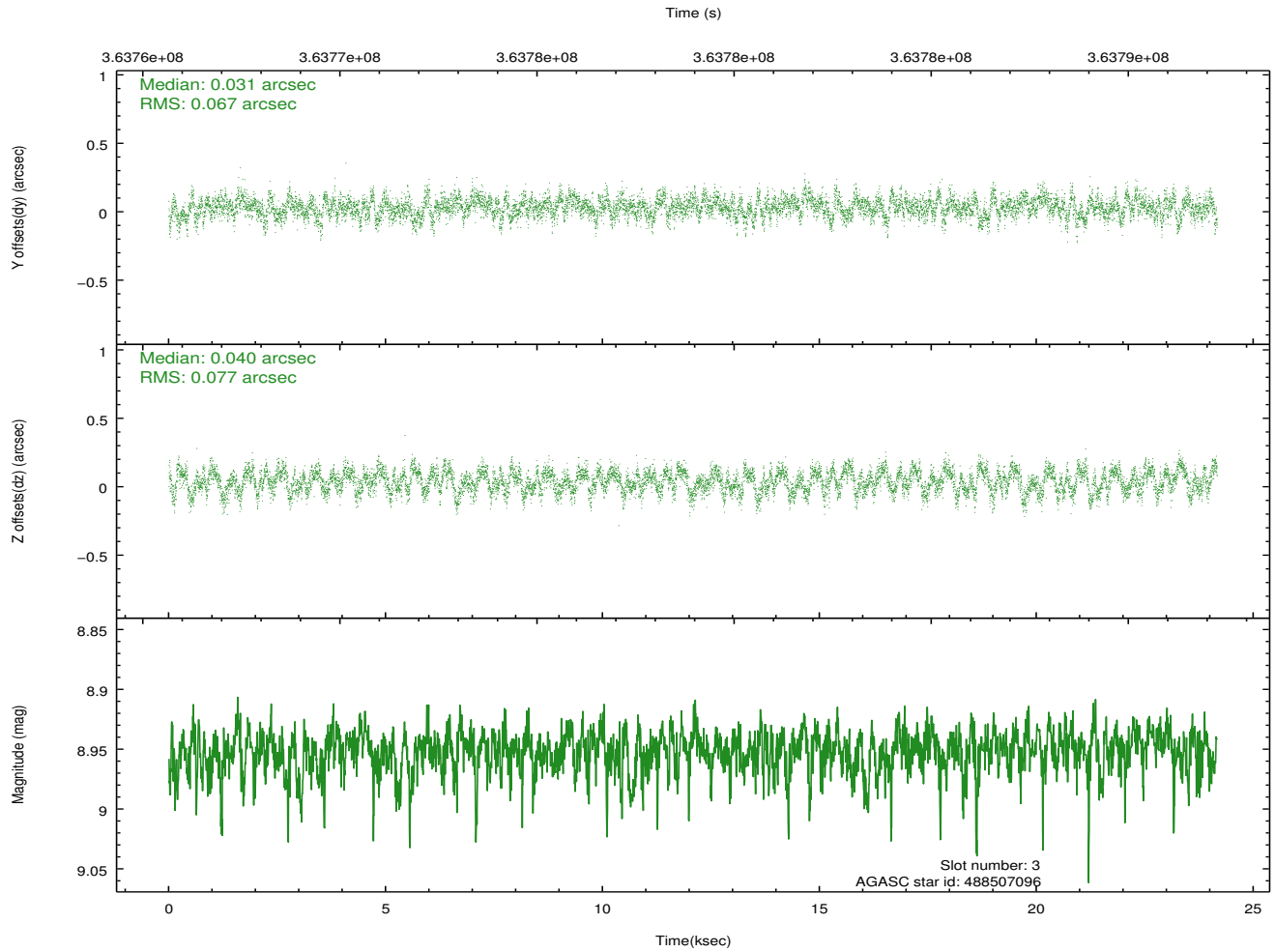
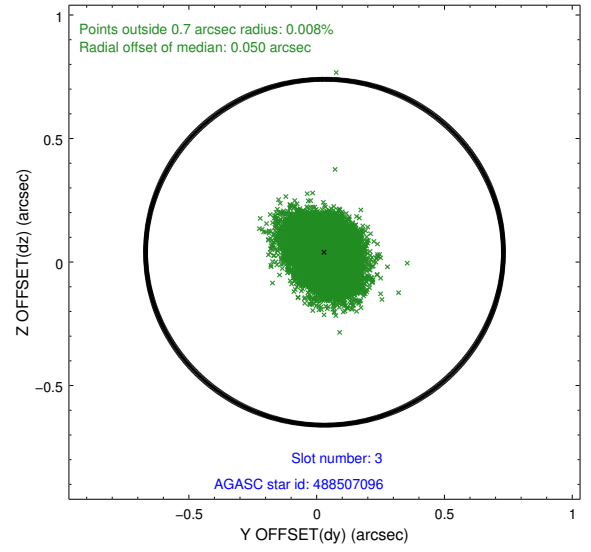
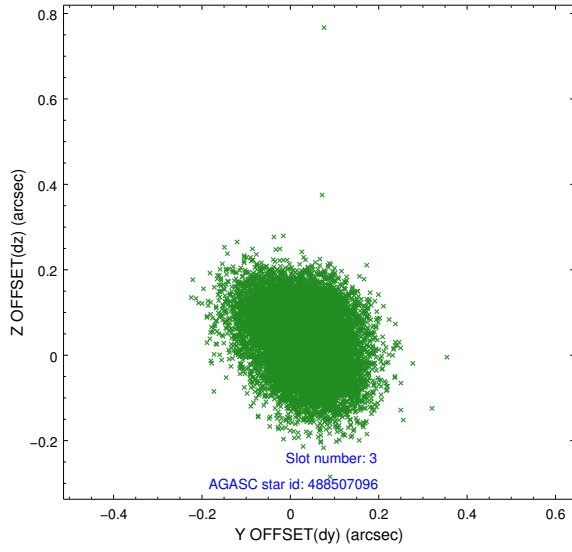


### Slot Statistics

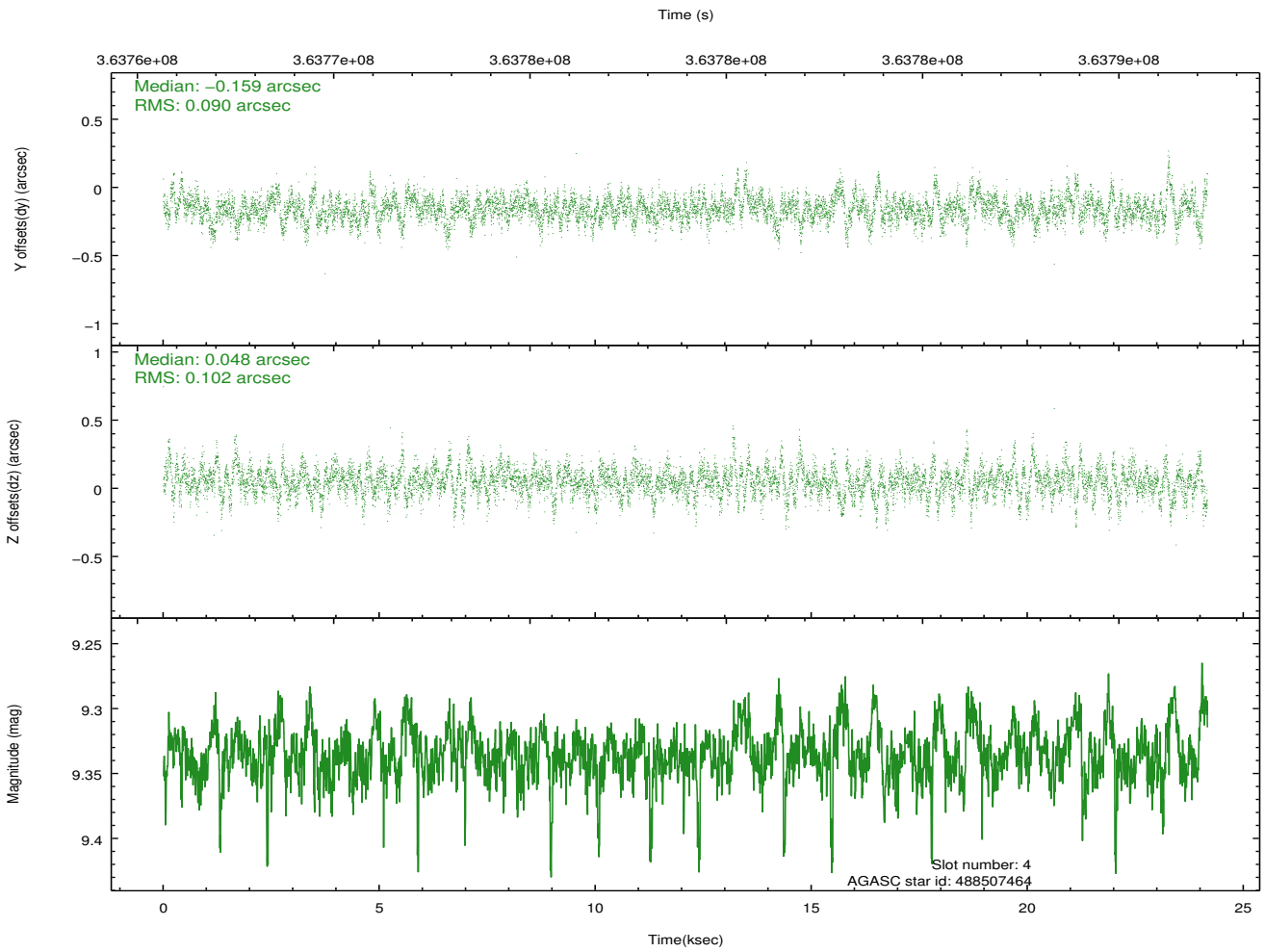
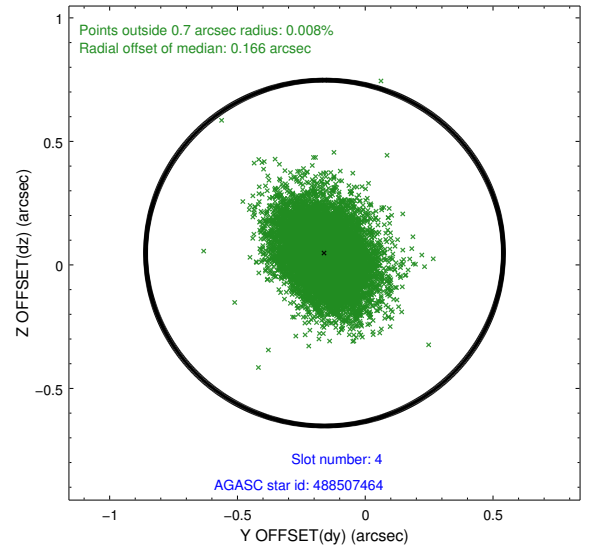
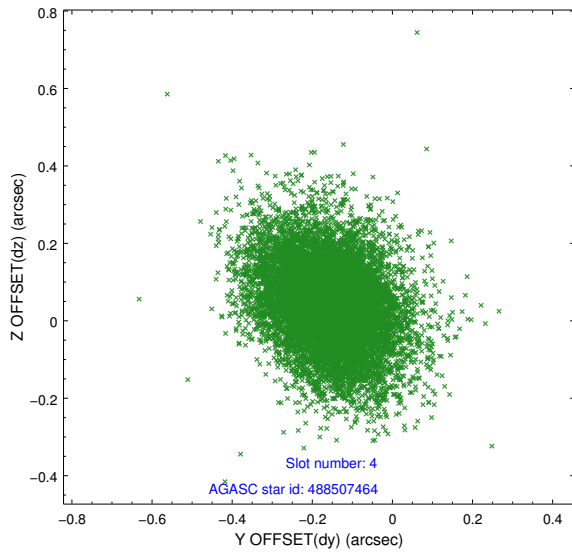
| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra        | dec       | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0    | FID    | HRC-I-1   | 6.97 | 5894  | -0.088 | -0.014 | 0.008 | 0.013 | 0.000000  | 0.000000  | -772.02  | -1303.59 |
| 1    | FID    | HRC-I-2   | 7.02 | 5894  | 0.206  | -0.078 | 0.007 | 0.012 | 0.000000  | 0.000000  | 840.78   | -1305.42 |
| 2    | FID    | HRC-I-3   | 7.07 | 5894  | 0.001  | 0.003  | 0.008 | 0.016 | 0.000000  | 0.000000  | -1200.30 | 1000.76  |
| 3    | GUIDE  | 488507096 | 8.95 | 11783 | 0.031  | 0.040  | 0.109 | 0.176 | 65.387964 | 57.745120 | 1374.66  | -916.37  |
| 4    | GUIDE  | 488507464 | 9.34 | 11772 | -0.159 | 0.048  | 0.140 | 0.246 | 66.055606 | 57.548629 | 1332.22  | -2383.74 |
| 5    | GUIDE  | 488513104 | 9.25 | 11771 | -0.004 | 0.042  | 0.100 | 0.171 | 65.198474 | 57.441238 | 233.41   | -1083.33 |
| 6    | GUIDE  | 488513832 | 9.21 | 11774 | 0.148  | 0.117  | 0.100 | 0.160 | 64.776874 | 57.090020 | -1264.77 | -914.11  |
| 7    | GUIDE  | 488521400 | 6.08 | 11786 | -0.015 | -0.244 | 0.085 | 0.139 | 63.757480 | 57.460363 | -933.07  | 1453.11  |

## 2.4 Star Slots

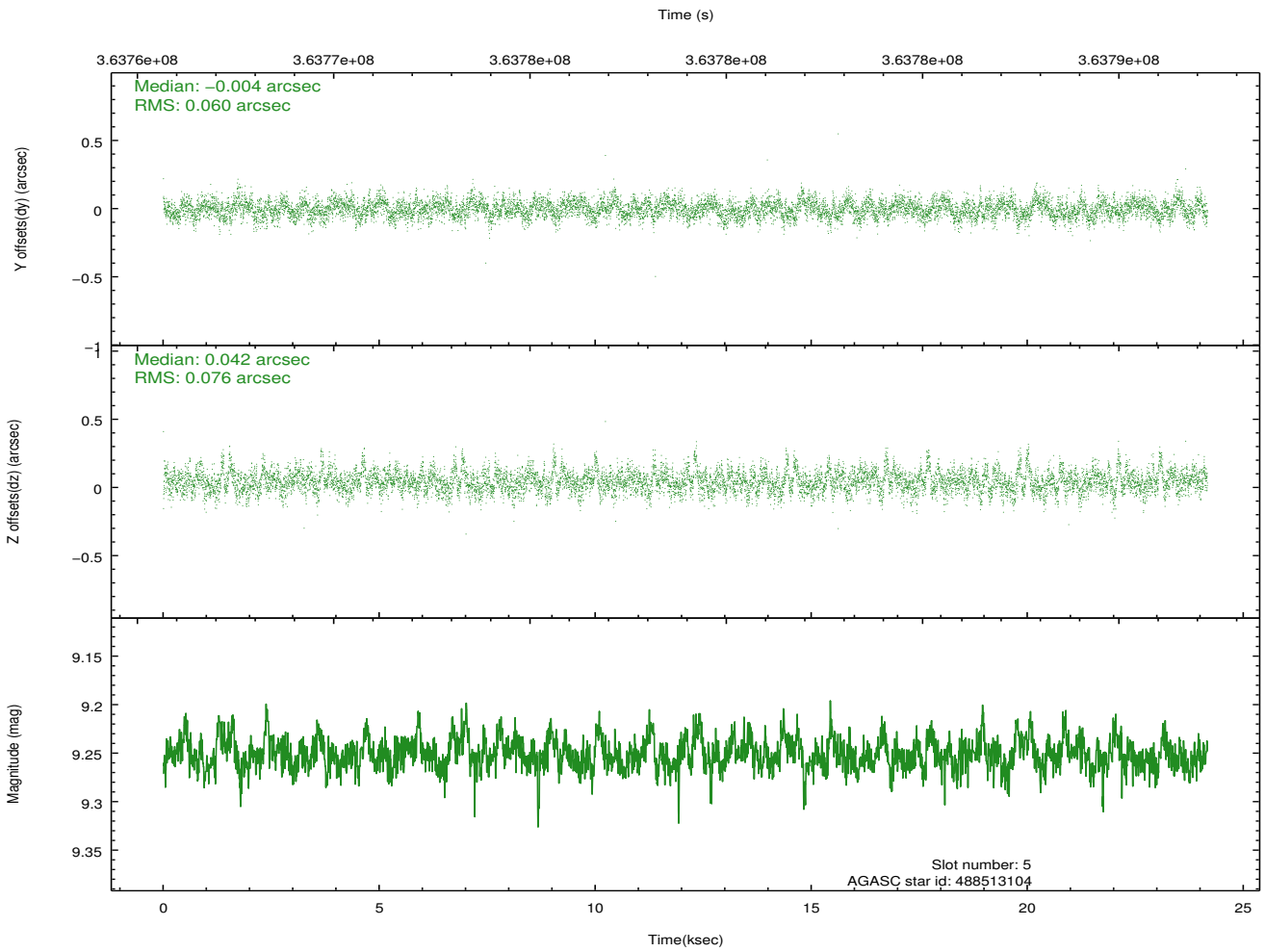
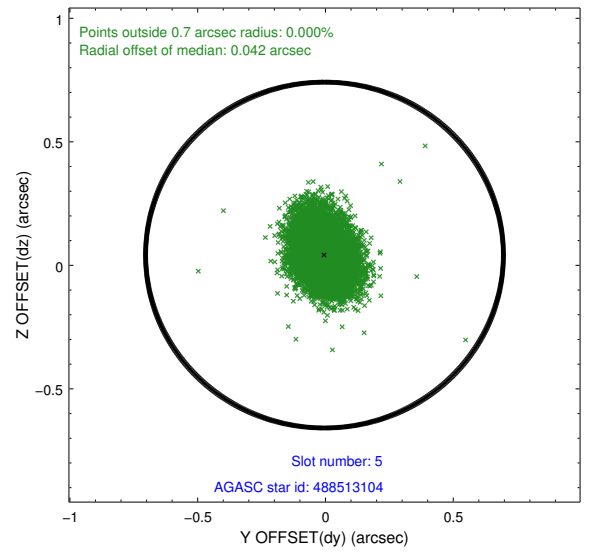
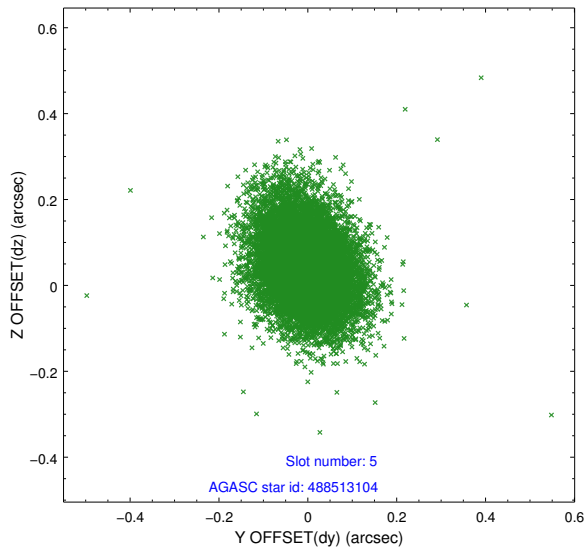
### 2.4.1 Slot 3



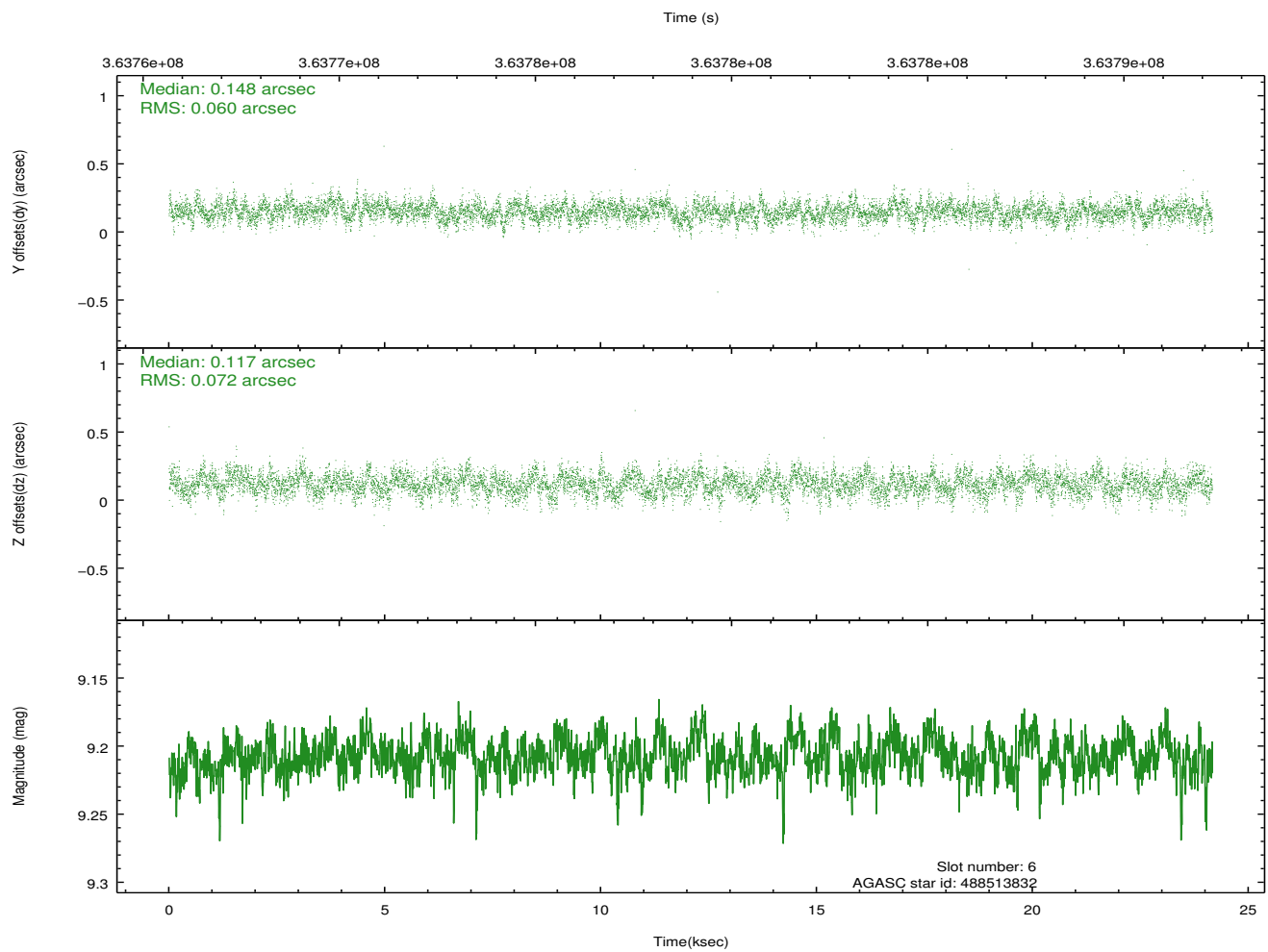
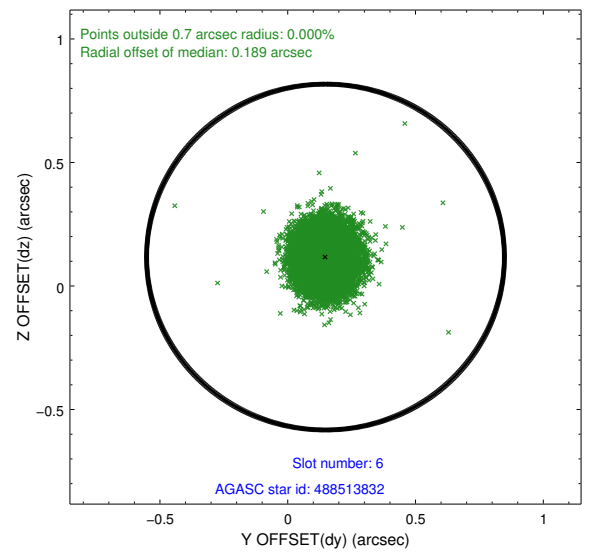
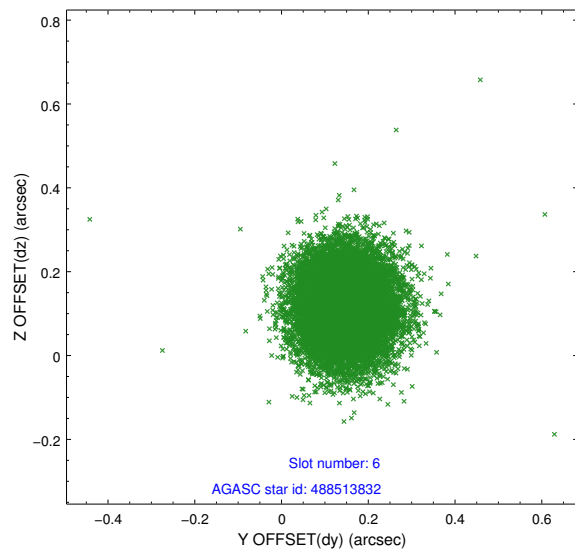
## 2.4.2 Slot 4



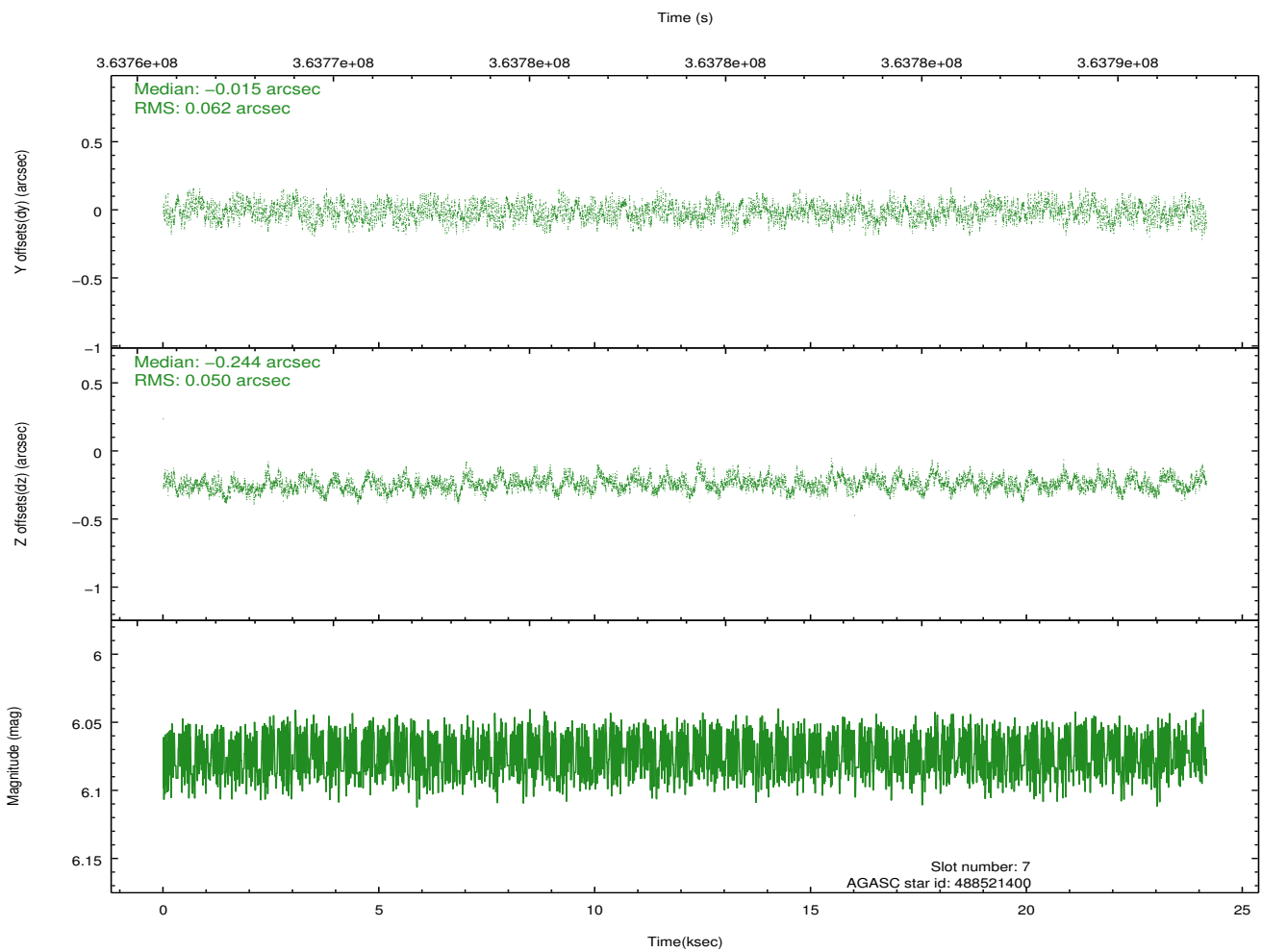
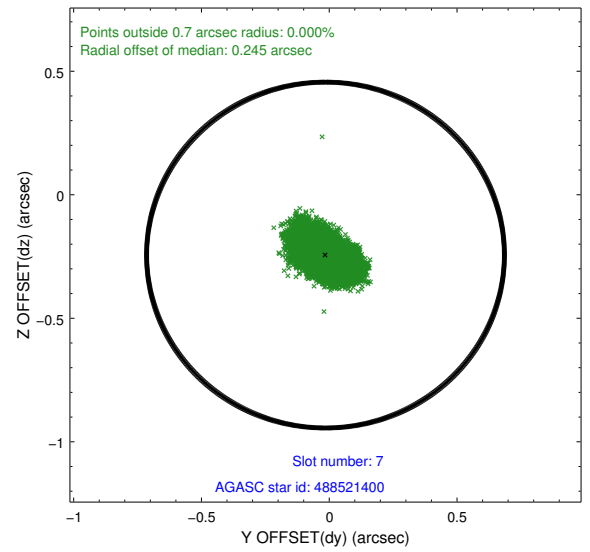
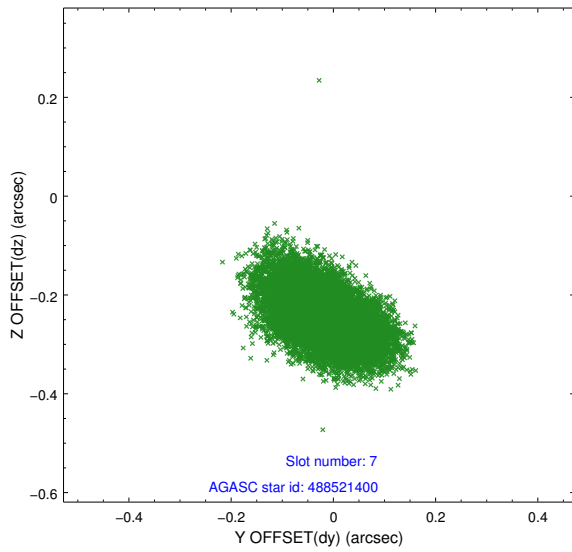
### 2.4.3 Slot 5



## 2.4.4 Slot 6

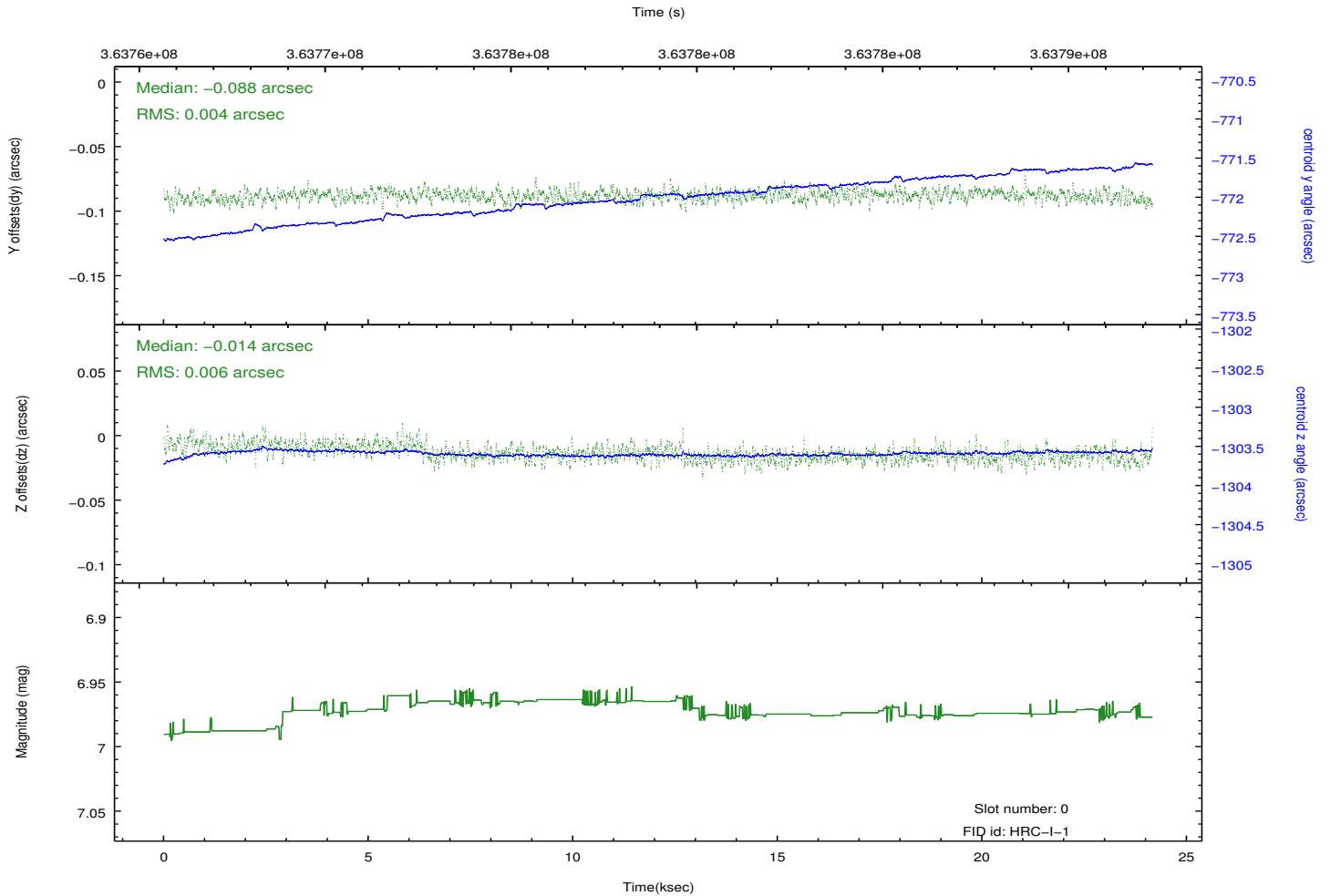
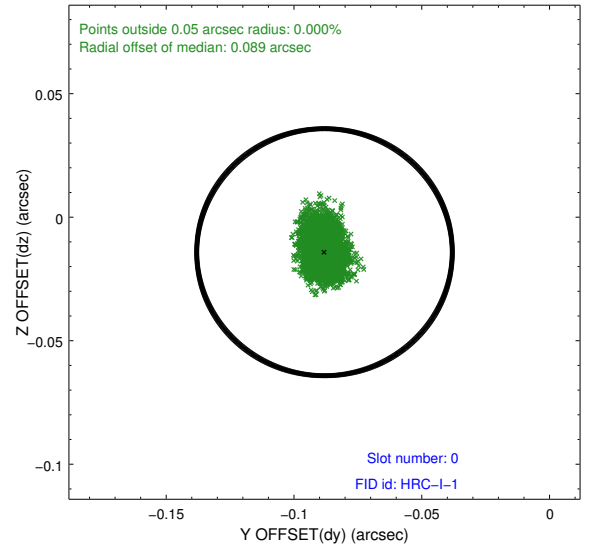
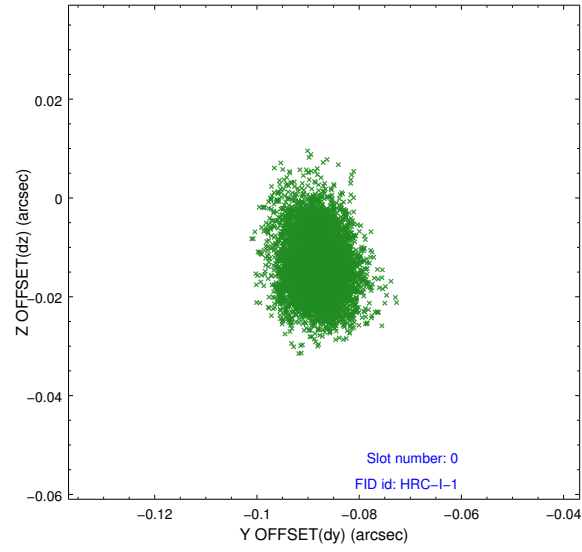


## 2.4.5 Slot 7

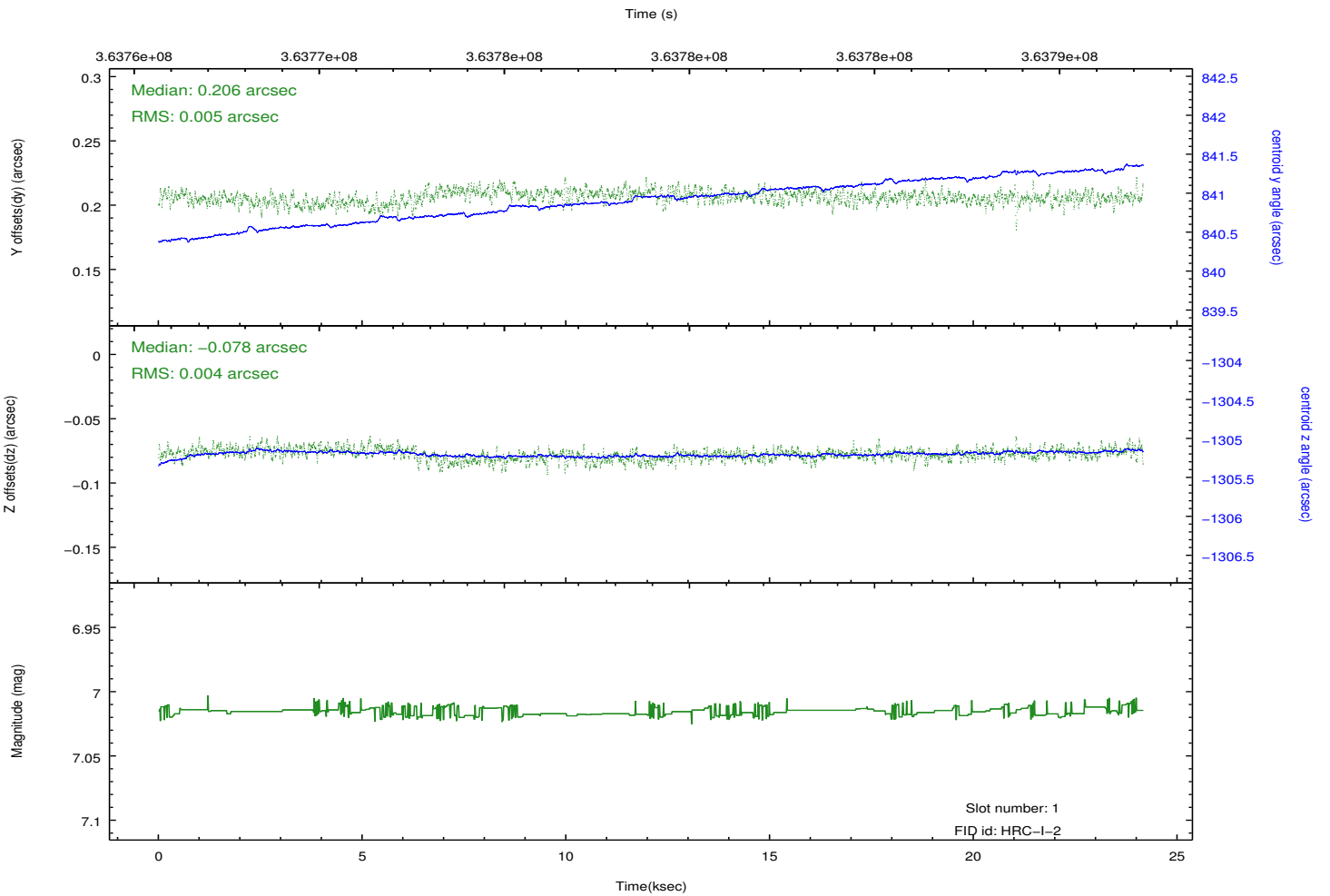
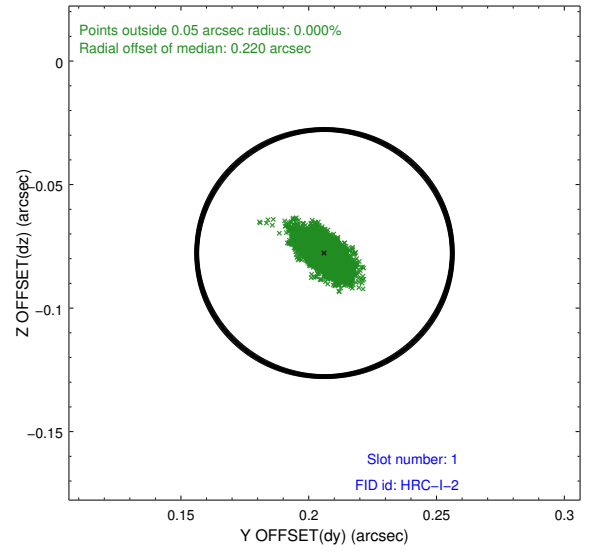
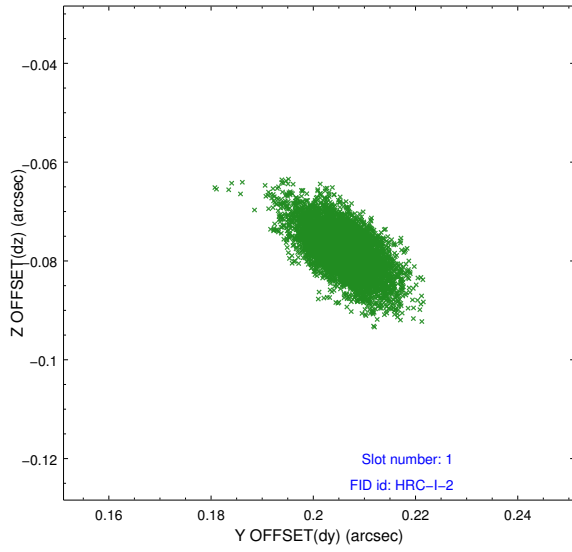


## 2.5 FID Slots

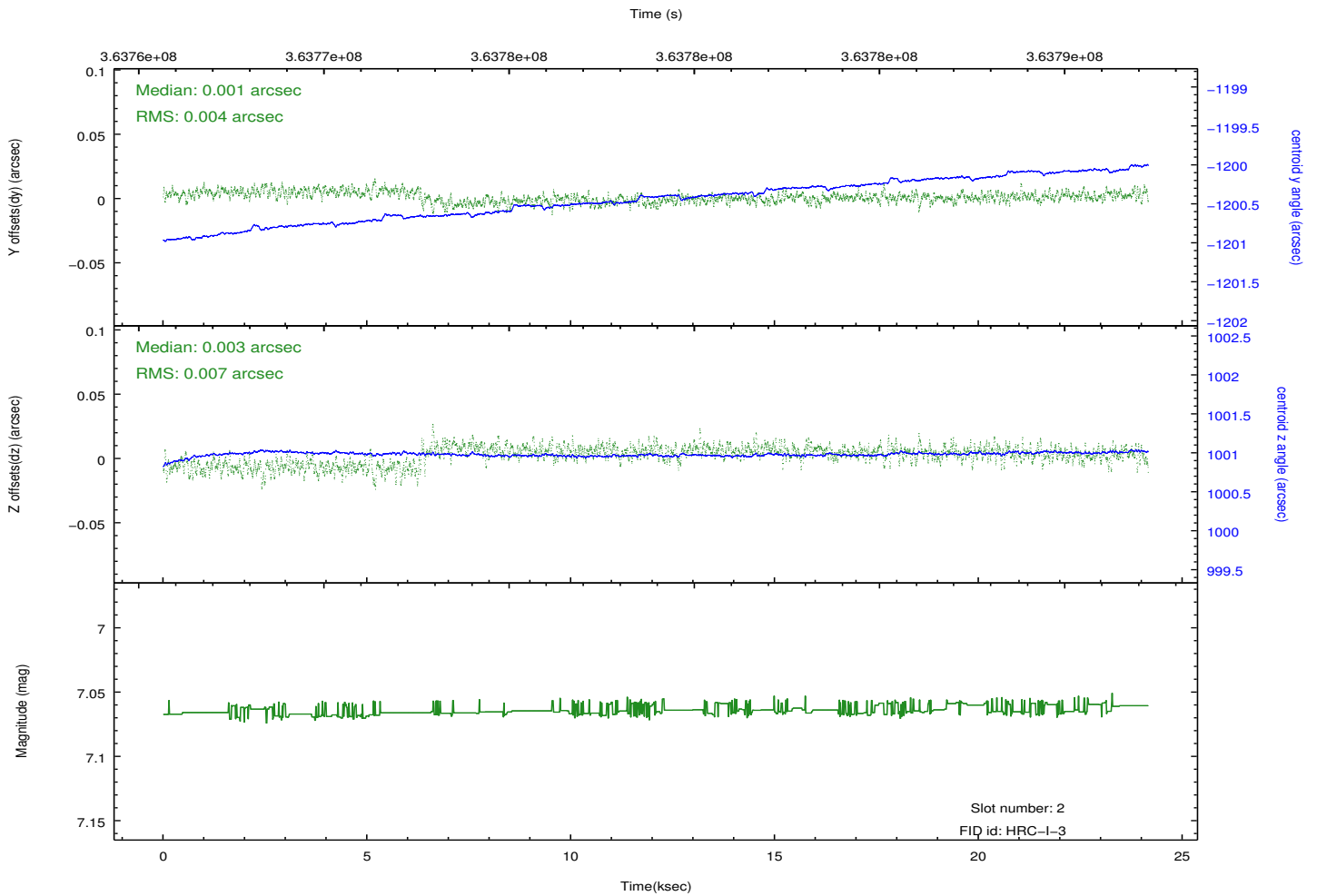
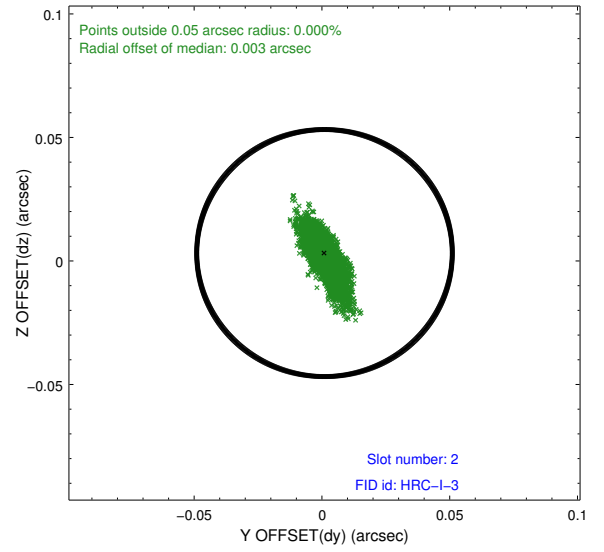
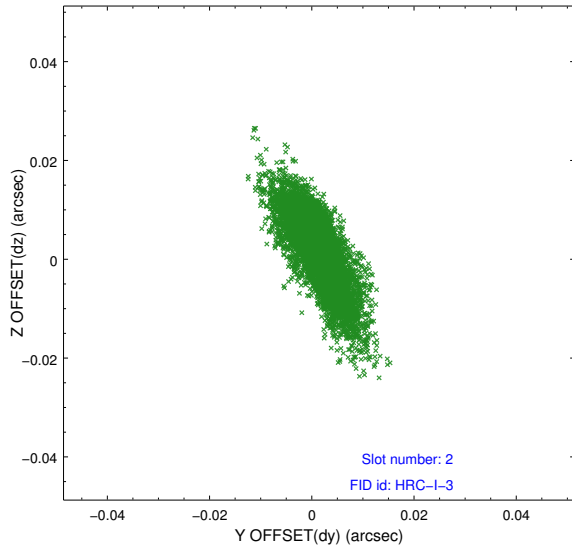
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

|                            |               |
|----------------------------|---------------|
| V&V Scientist              | Beth Sundheim |
| V&V Date (YYYY-MM-DD)      | 2012.08.22    |
| V&V Edition                | 1             |
| V&V Disposition and Status | OK            |
| V&V Charge Time            | 24.1625824    |

### A.2 Comments