

# V&V Reference Report

## L2 ASCDS Version : 10.5

Observation 17896 - L2 Version 1  
Chandra X-Ray Center

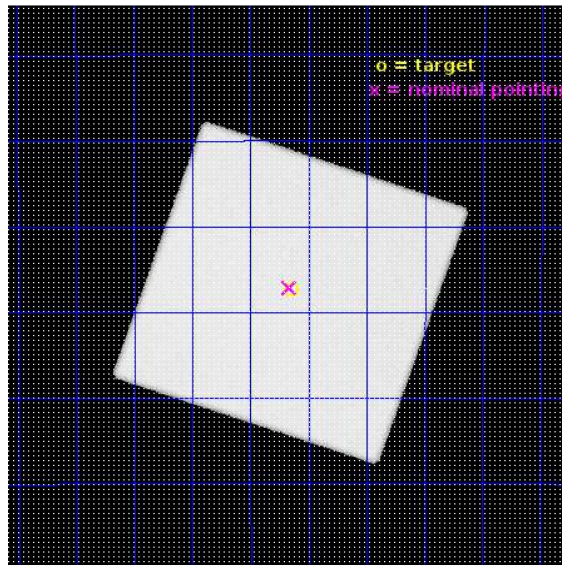
L2 Processing Date : Aug 10 2016

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# 1 Front

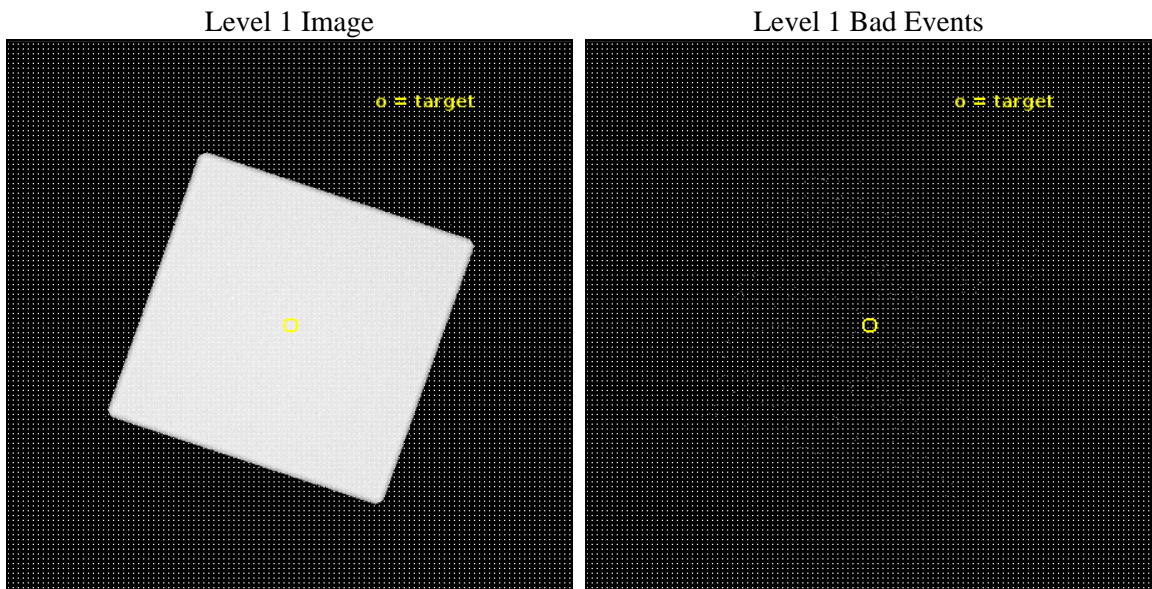
|          |  |                                       |
|----------|--|---------------------------------------|
| seq_num  | 502515   | Sequence number                       |
| obs_id   | 17896  | Observation id                        |
| title    | Is Fomalhaut b an exoplanet or a neutron star? | Proposal title                        |
| observer | Katja Poppenhaeager                            | Principal investigator                |
| object   | Fomalhaut b                                    | Source name                           |
| ra_targ  | 344.4125                                       | Observer's specified target RA [deg]  |
| dec_targ | -29.622222                                     | Observer's specified target Dec [deg] |
| ra_nom   | 344.4161098571                                 | Nominal RA [deg]                      |
| dec_nom  | -29.619228749556                               | Nominal Dec [deg]                     |
| roll_nom | 64.015504474986                                | Nominal Roll [deg]                    |
| revision | 1  | Processing version of data            |
| ontime   | 33146.451912284                                | [s]                                   |
| livetime | 32691.194397945                                | Ontime multiplied by DTCOR            |
| l2events | 3078199  | 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 | 33000.000000    | [s] Scheduled observation exposure time |
| ascdsver | 10.5                | Processing system revision     | ontime         | 33146.451912284 | [s]                                     |
| caldsver | 4.7.2               | &#160                          | l1events       | 4188148         | Number of level 1 events                |
| date     | 2016-08-10T15:15:15 | Date and time of file creation |                |                 |   |
| revision | 1                   | Processing version of data     |                |                 |   |

### 2.1.3 Events

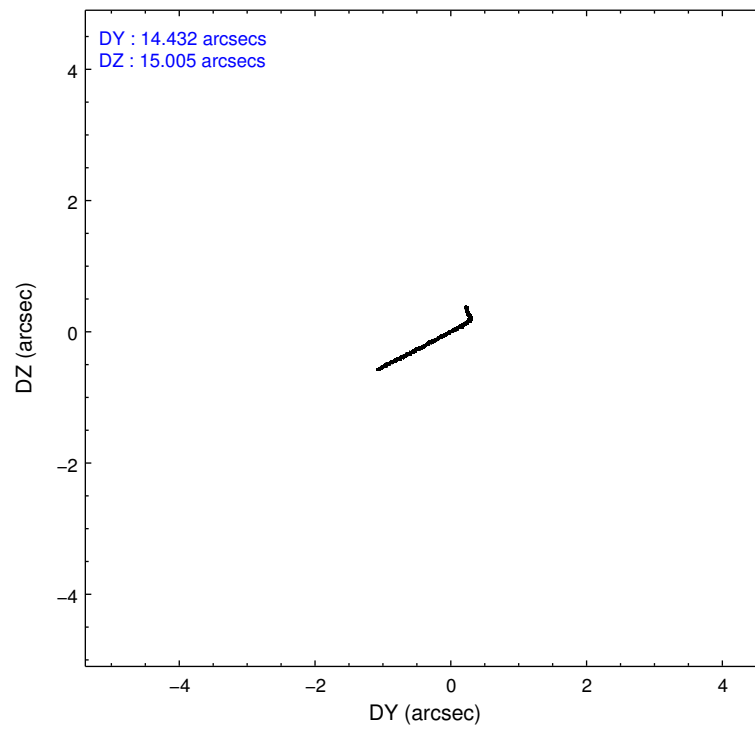
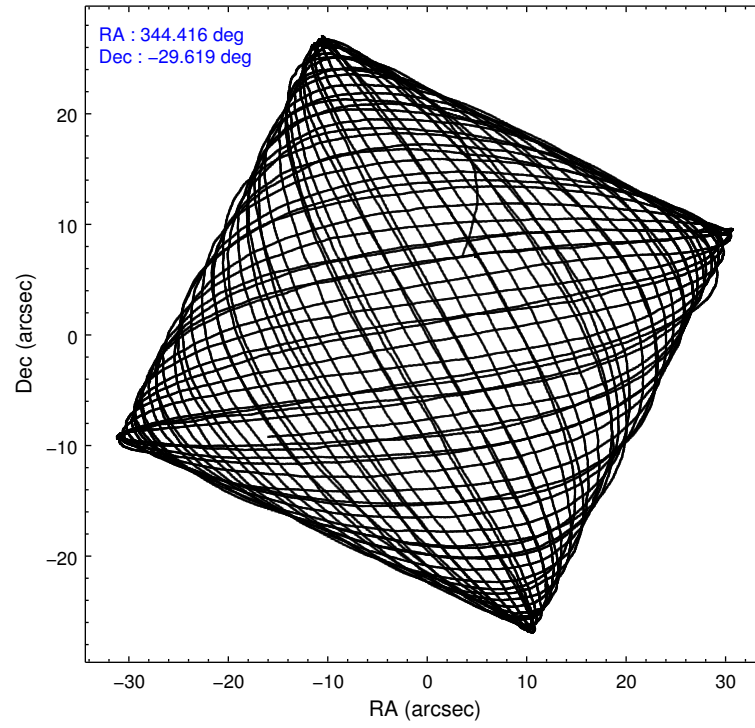
#### Level 1 Events

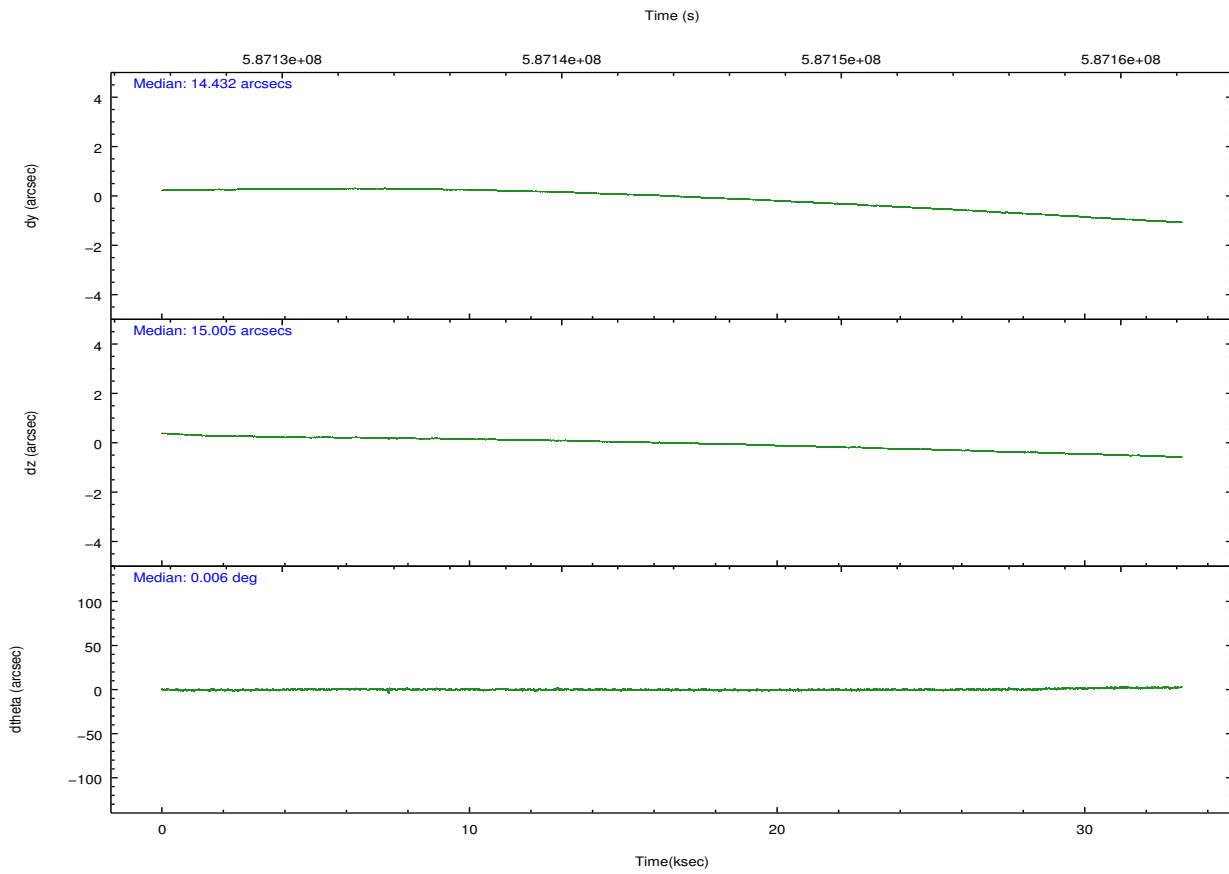
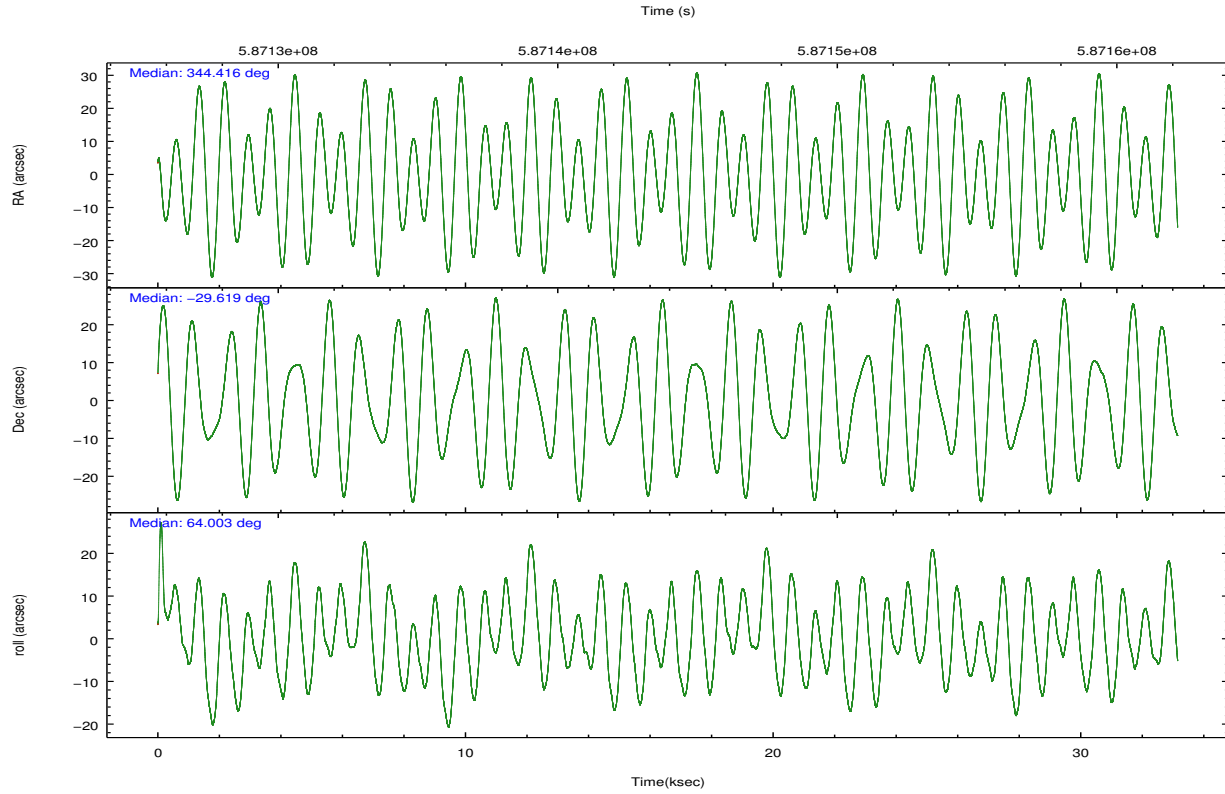
|                 | <b>segment<br/>0</b> |
|-----------------|----------------------|
| level 1 events  | 4188148              |
| rejected events | 123178               |
| rejected %      | 2%                   |

## 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                 | 344.419003          | 344.4161098570957    |                              |           |         |
| [deg] Pointing Dec                | -29.646459          | -29.61922874955647   |                              |           |         |
| [deg] Pointing Roll               | 64.112436           | 64.0155044749857     |                              |           |         |
| [mm] SIM focus pos                | -1.040293           | -1.038866356238299   |                              |           |         |
| [mm] SIM defocus                  | 0                   | 0.001426264420575141 |                              |           |         |
| [mm] SIM translation stage pos    | 126.985494          | 126.9829799899862    |                              |           |         |
| [mm] SIM translation stage offset | 0                   | 0.002508901615314585 |                              |           |         |
| [s] Observation start time (MET)  | 587127510.184000    | 587126322.31833      |                              |           |         |
| Observation start date            | 2016-08-09T10:57:22 | 2016-08-09T10:38:42  |                              |           |         |
| [s] Observation end time (MET)    | 587160510.184000    | 587161344.52035      |                              |           |         |
| Observation end date              | 2016-08-09T20:07:22 | 2016-08-09T20:22:24  |                              |           |         |

## 2.3 Aspect



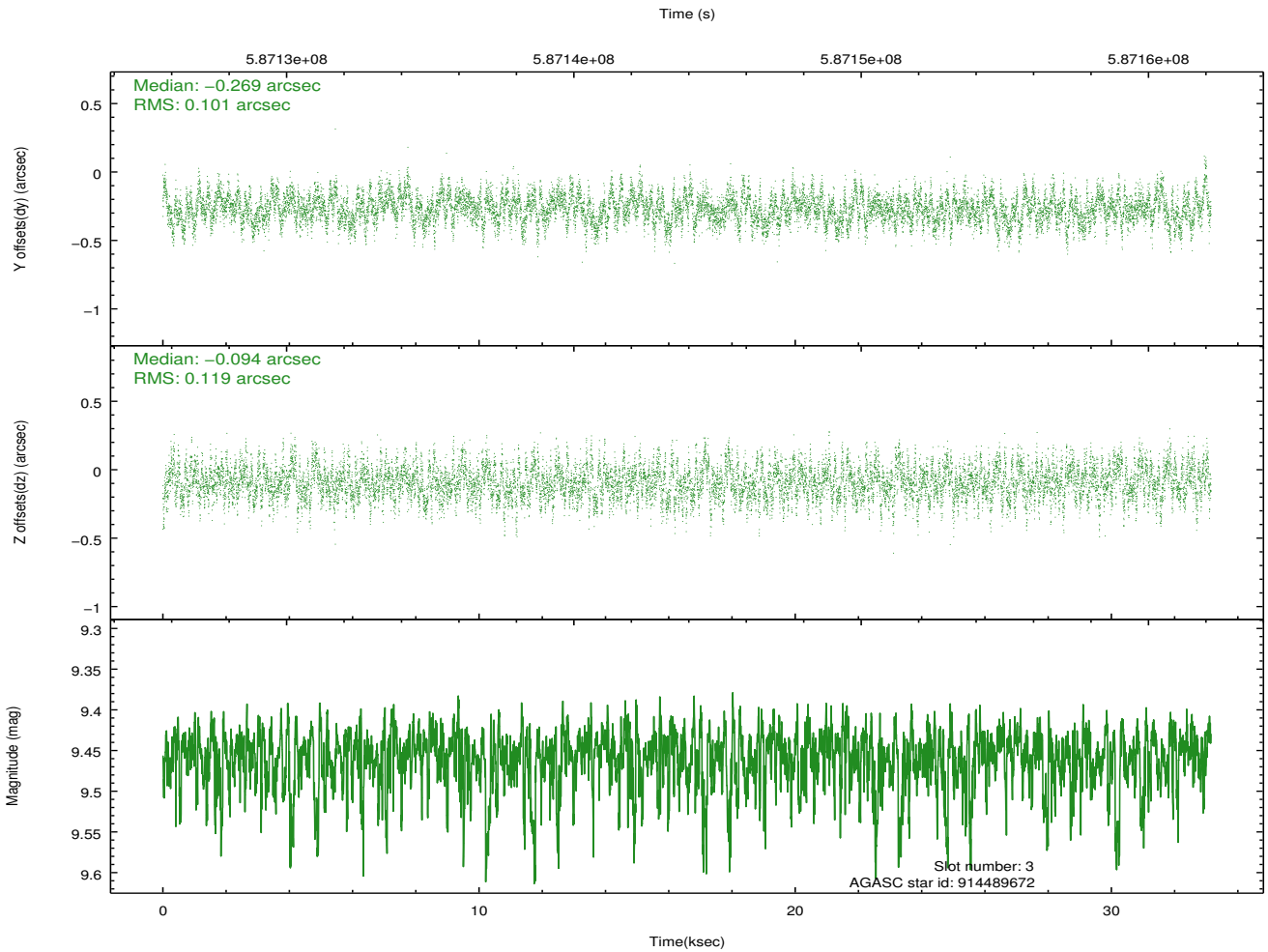
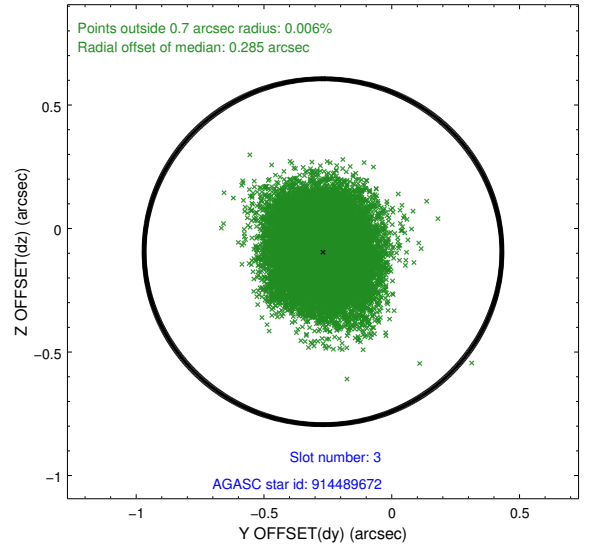
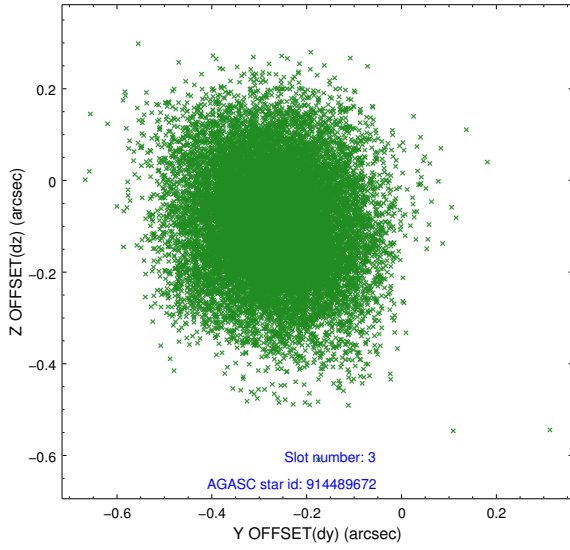


### Slot Statistics

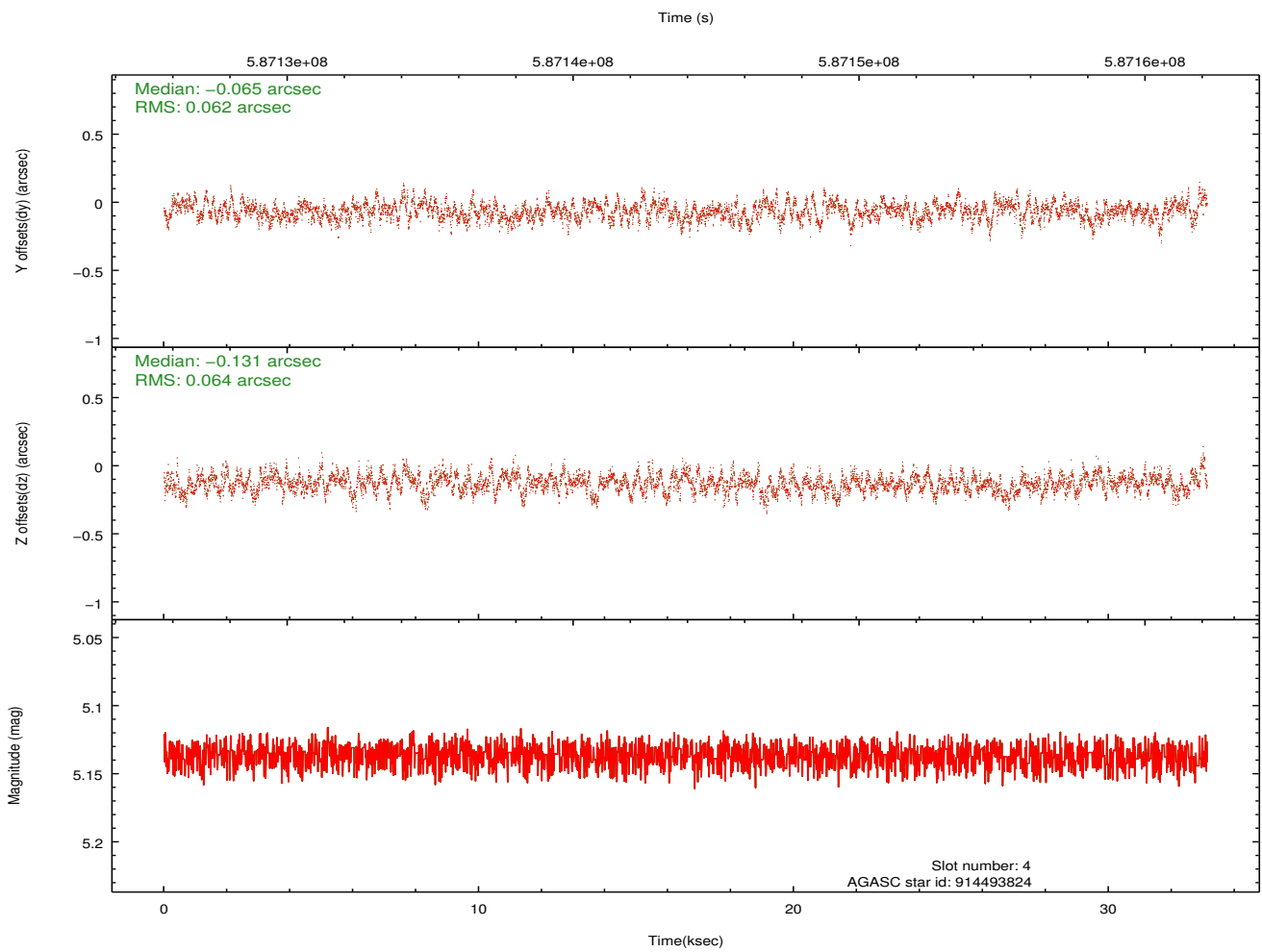
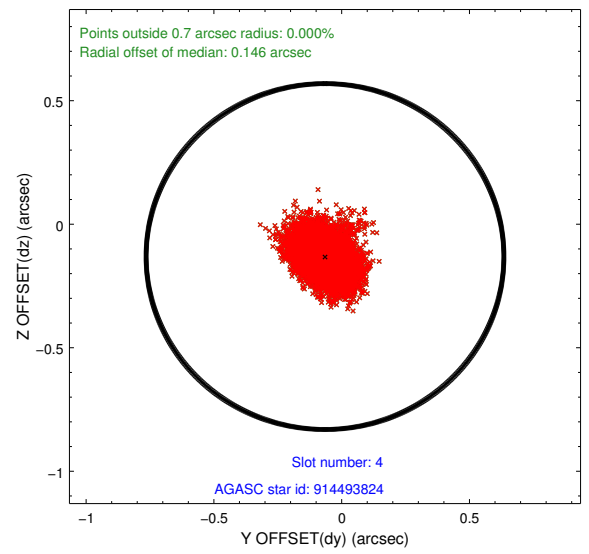
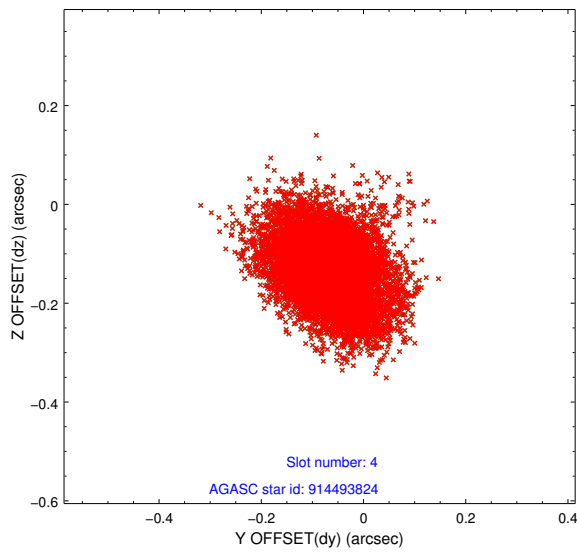
| lot | status | used | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec        | mean_y   | mean_x   |
|-----|--------|------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0   | FID    |      | HRC-I-1   | 7.02 | 8085  | -0.210 | -0.022 | 0.009 | 0.015 | 0.000000   | 0.000000   | -770.20  | -1303.05 |
| 1   | FID    |      | HRC-I-2   | 7.05 | 8086  | 0.352  | -0.102 | 0.009 | 0.018 | 0.000000   | 0.000000   | 842.89   | -1304.87 |
| 2   | FID    |      | HRC-I-3   | 7.12 | 8083  | -0.022 | 0.036  | 0.008 | 0.017 | 0.000000   | 0.000000   | -1198.52 | 1001.35  |
| 3   | GUIDE  | used | 914489672 | 9.46 | 16156 | -0.269 | -0.094 | 0.168 | 0.267 | 344.348154 | -29.257521 | 1162.23  | 811.35   |
| 4   | BAD    | used | 914493824 | 5.14 | 8082  | -0.065 | -0.131 | 0.094 | 0.157 | 343.832007 | -29.612365 | -696.37  | 1703.45  |
| 5   | GUIDE  | used | 914492456 | 9.23 | 16160 | -0.080 | -0.043 | 0.138 | 0.233 | 343.910010 | -29.039502 | 1263.21  | 2392.73  |
| 6   | GUIDE  | used | 914496000 | 8.98 | 16156 | -0.030 | -0.154 | 0.180 | 0.321 | 345.418850 | -29.316730 | 2426.89  | -2310.98 |
| 7   | GUIDE  | used | 983704136 | 9.69 | 15983 | 0.424  | 0.349  | 0.210 | 0.360 | 344.730512 | -30.461736 | -2218.30 | -2152.44 |

## 2.4 Star Slots

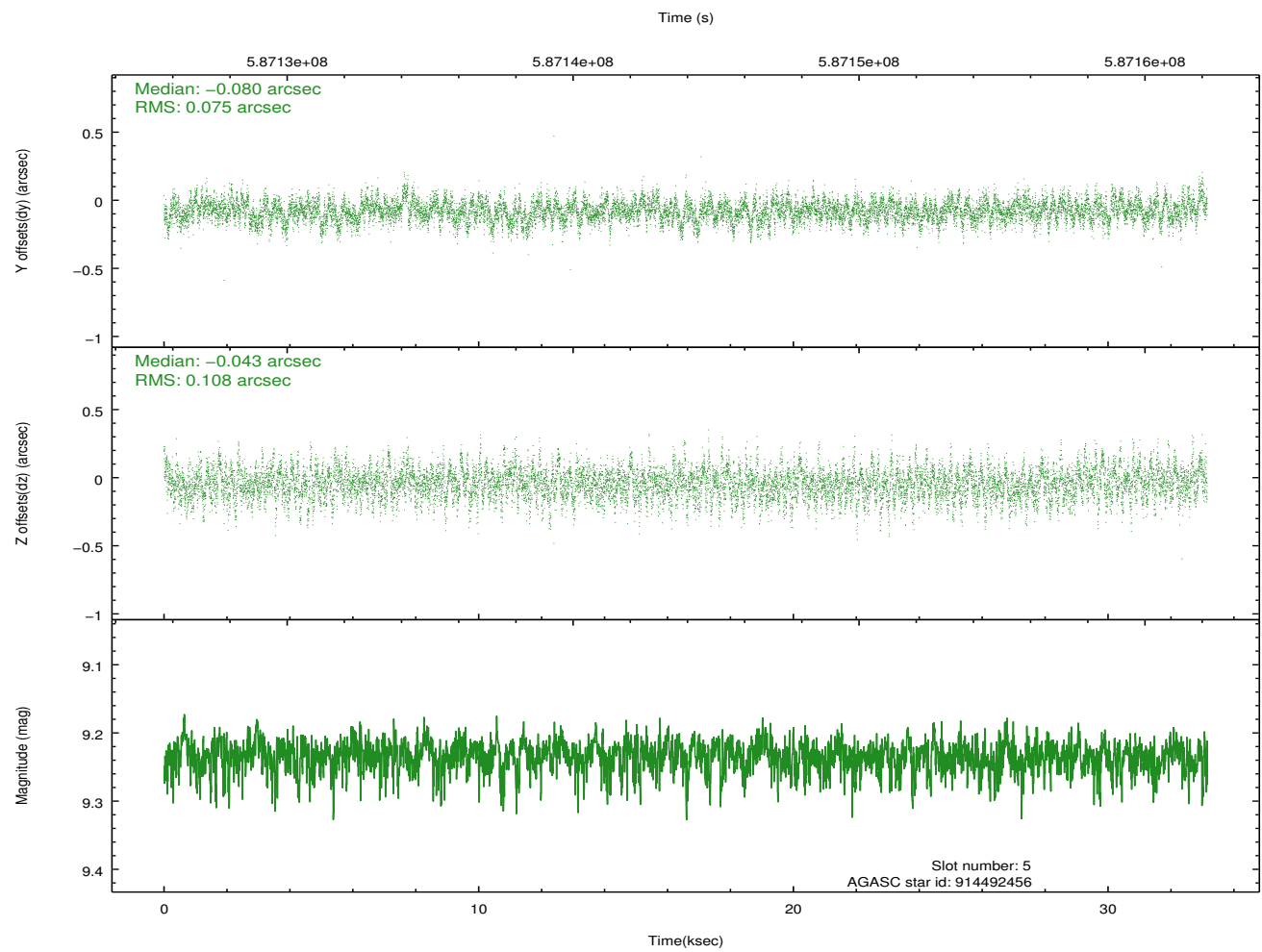
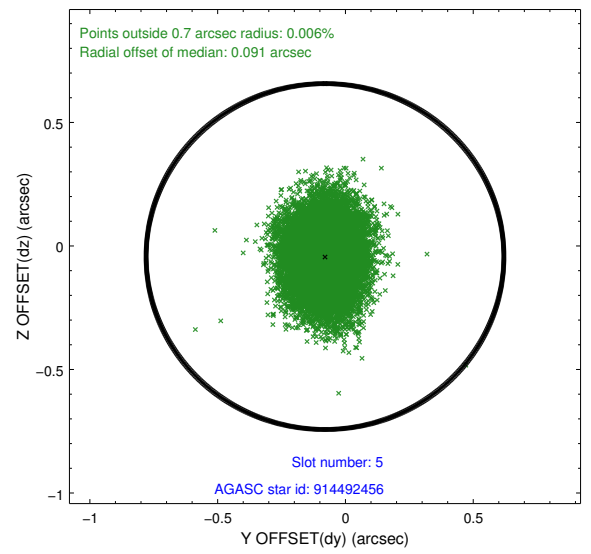
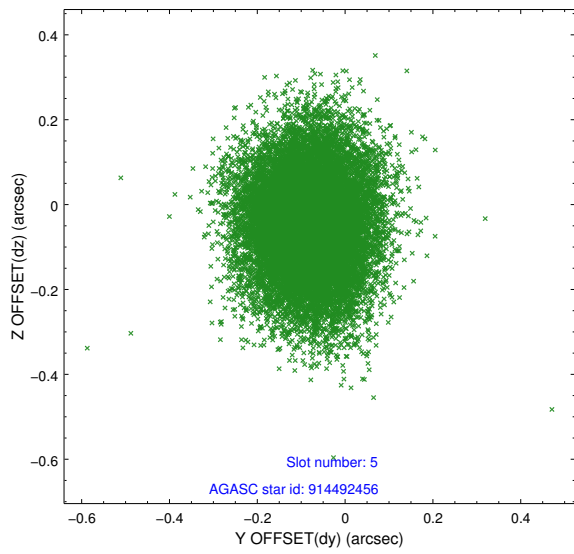
### 2.4.1 Slot 3



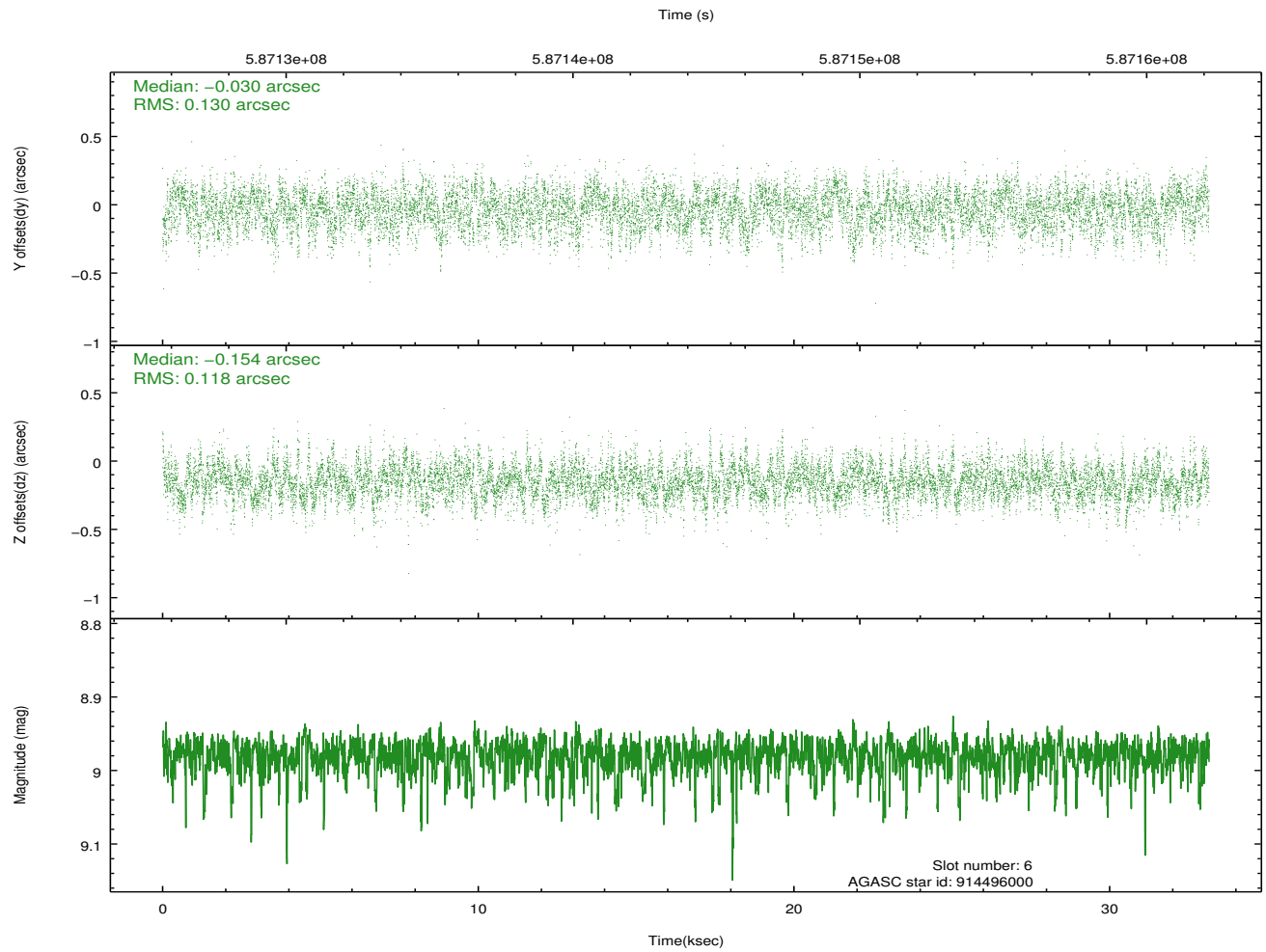
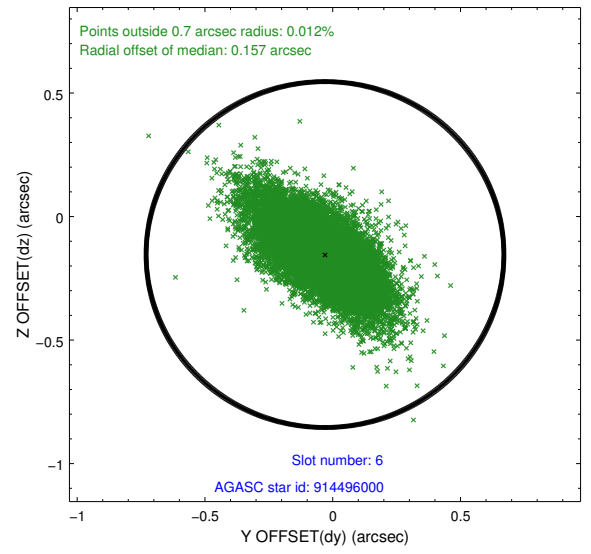
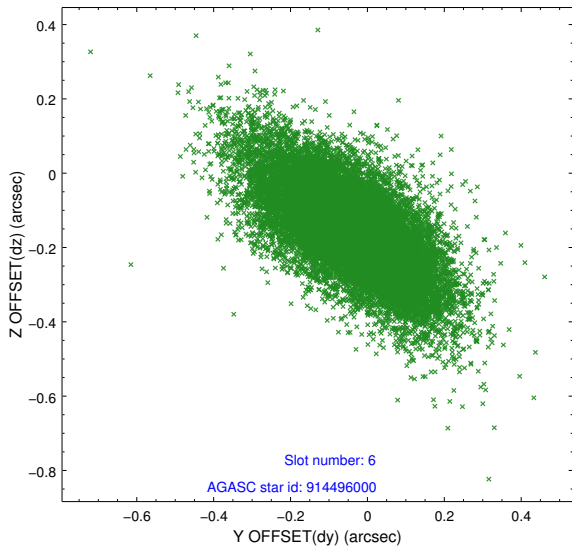
## 2.4.2 Slot 4



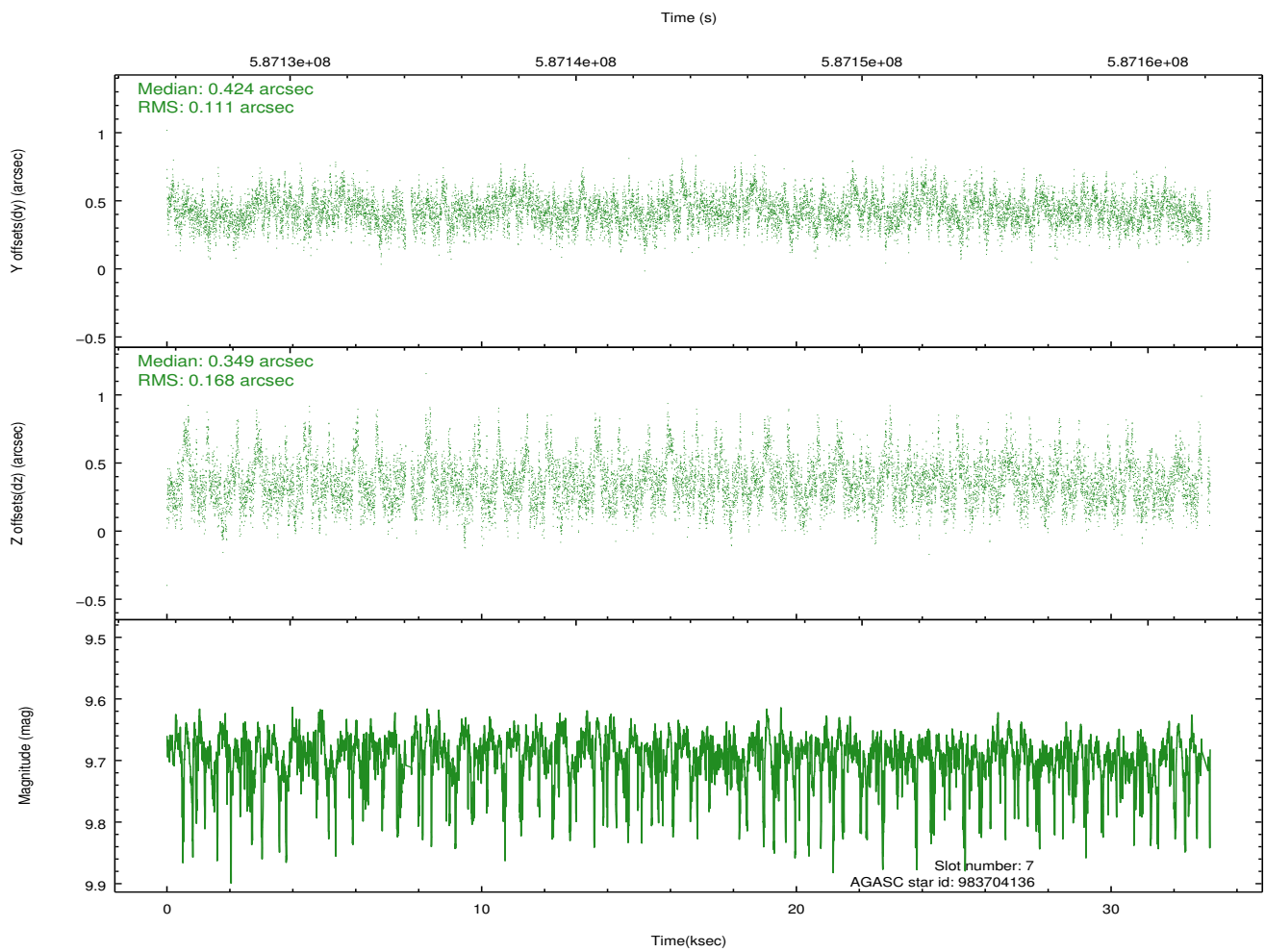
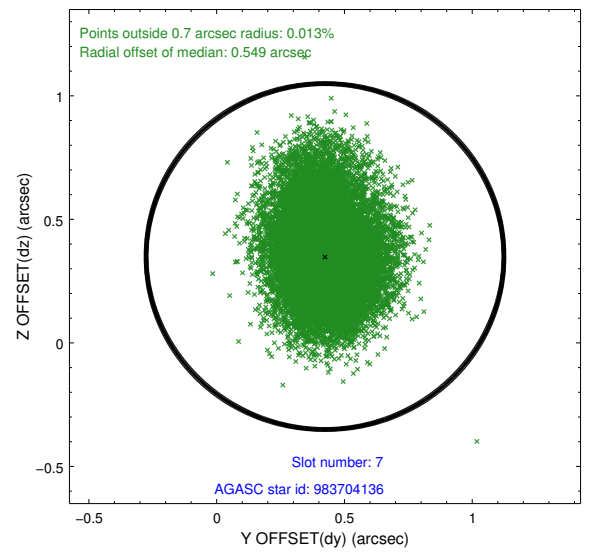
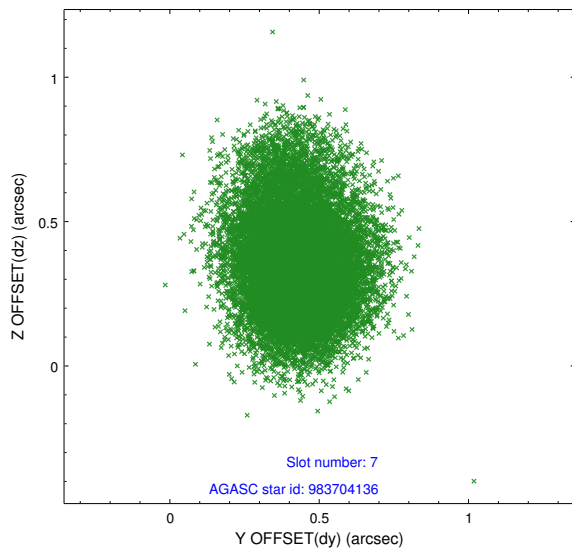
### 2.4.3 Slot 5



### 2.4.4 Slot 6

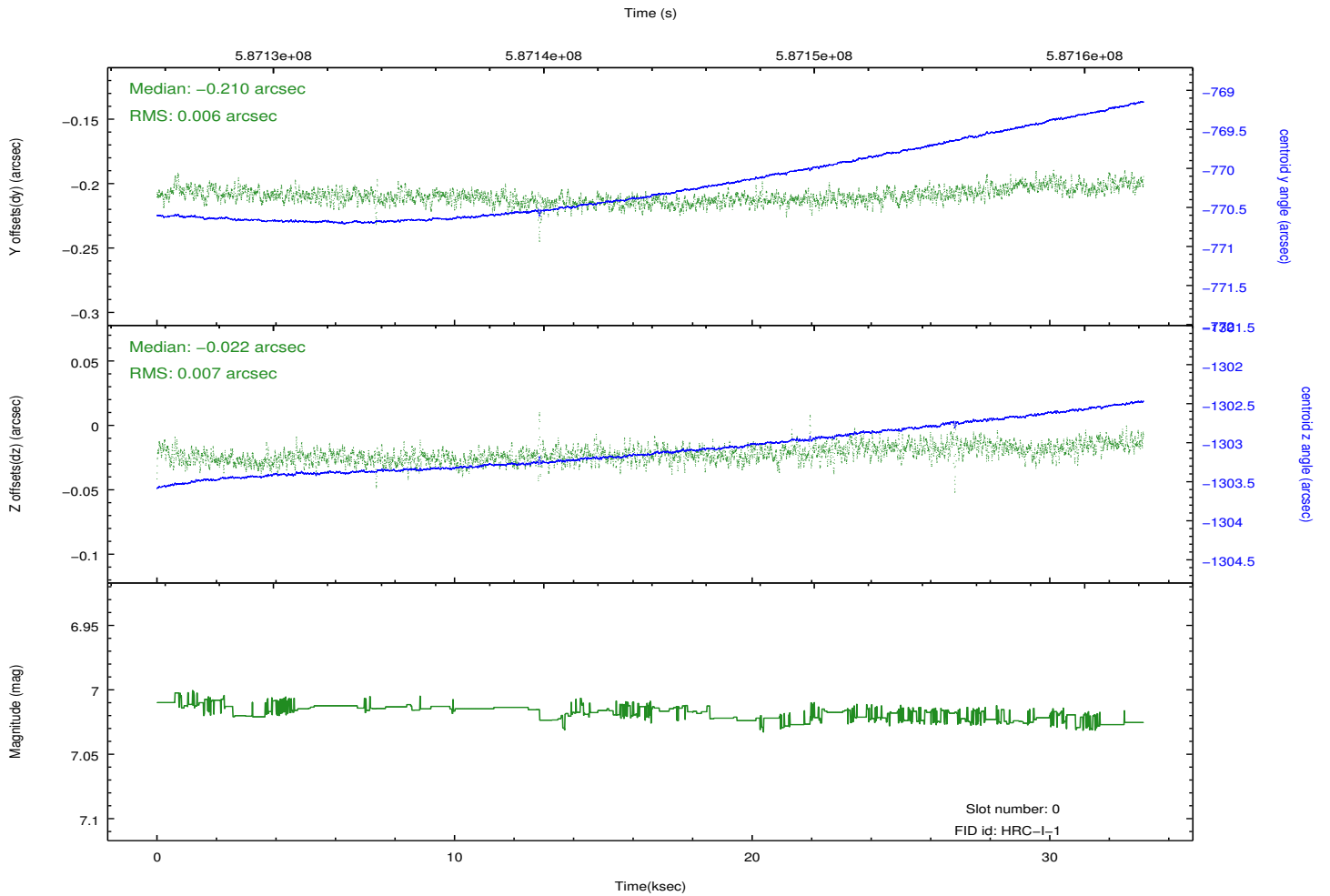
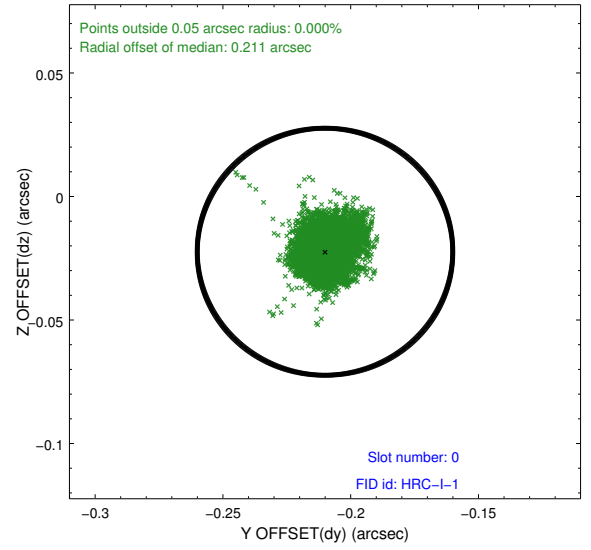
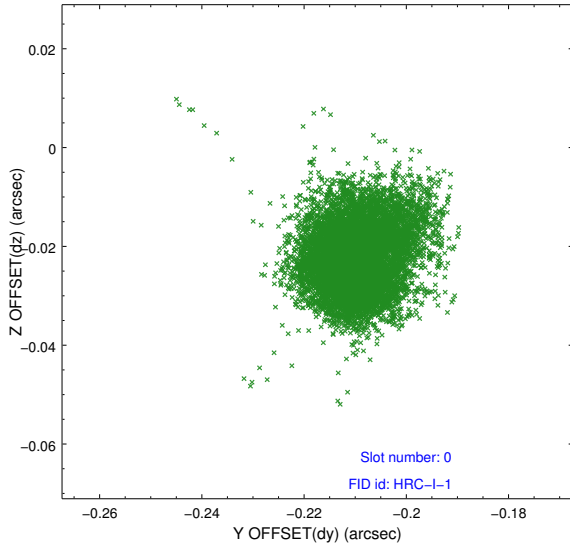


## 2.4.5 Slot 7

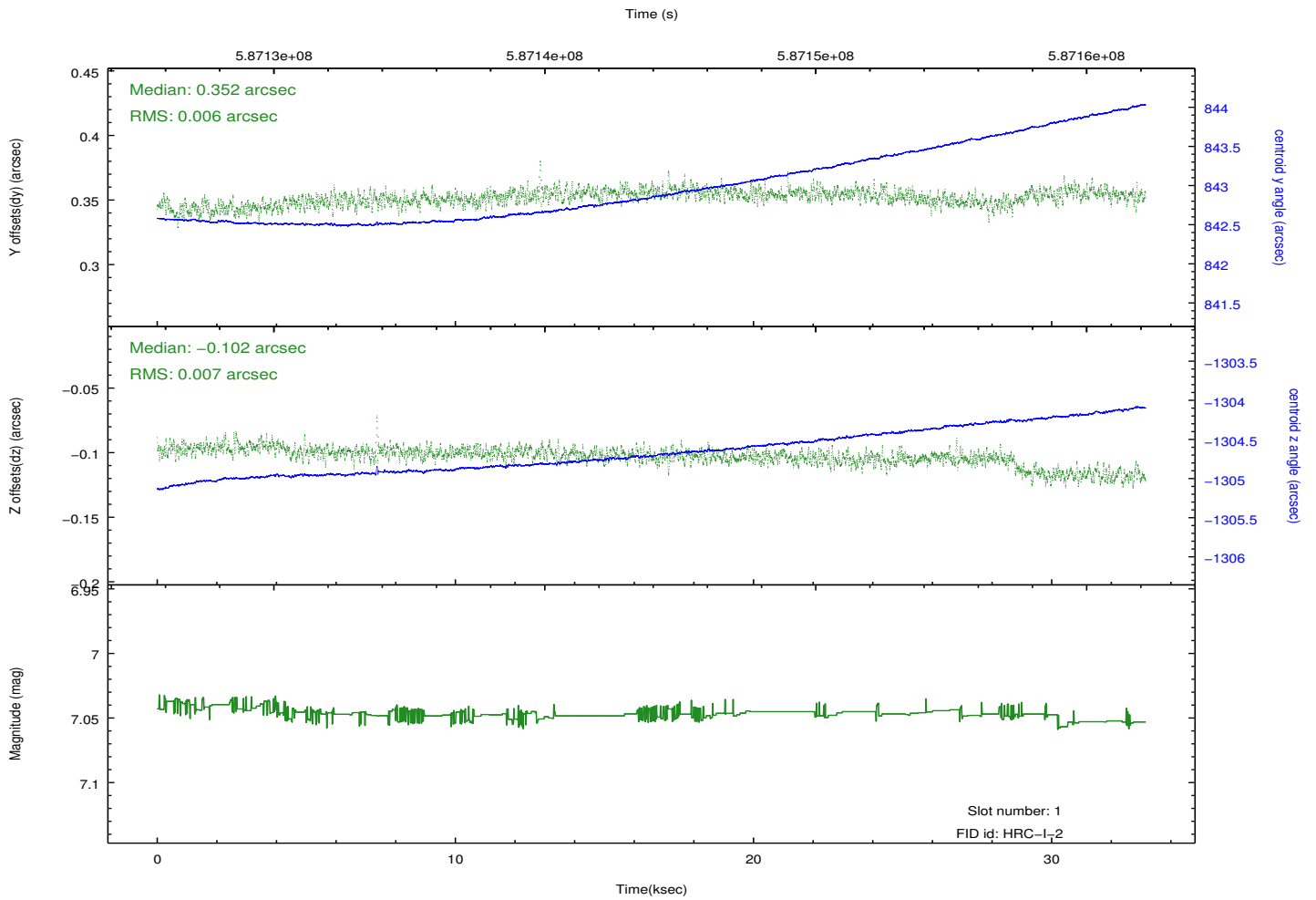
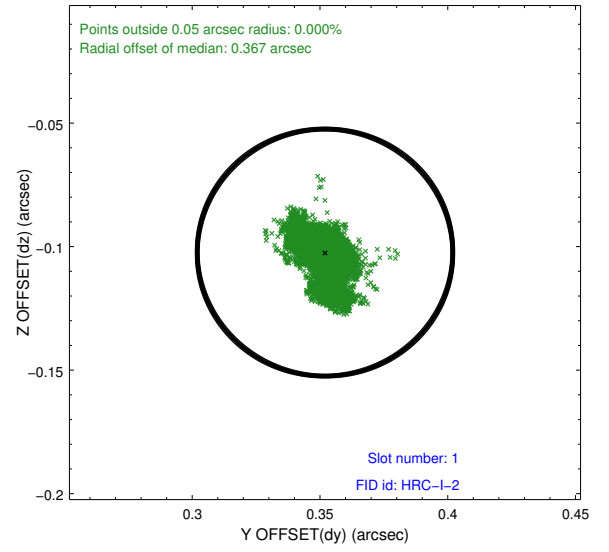
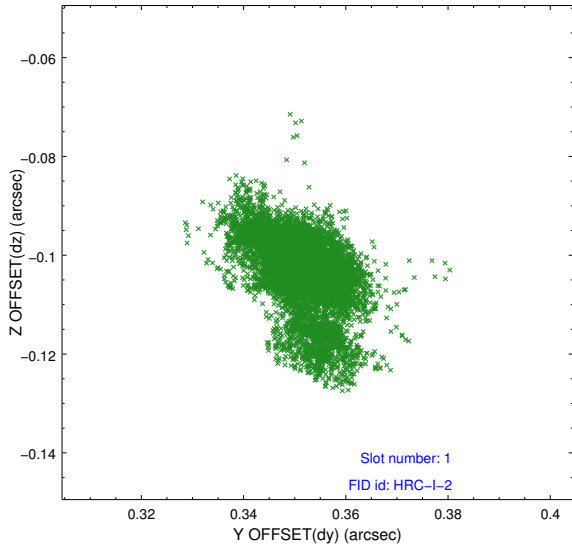


## 2.5 FID Slots

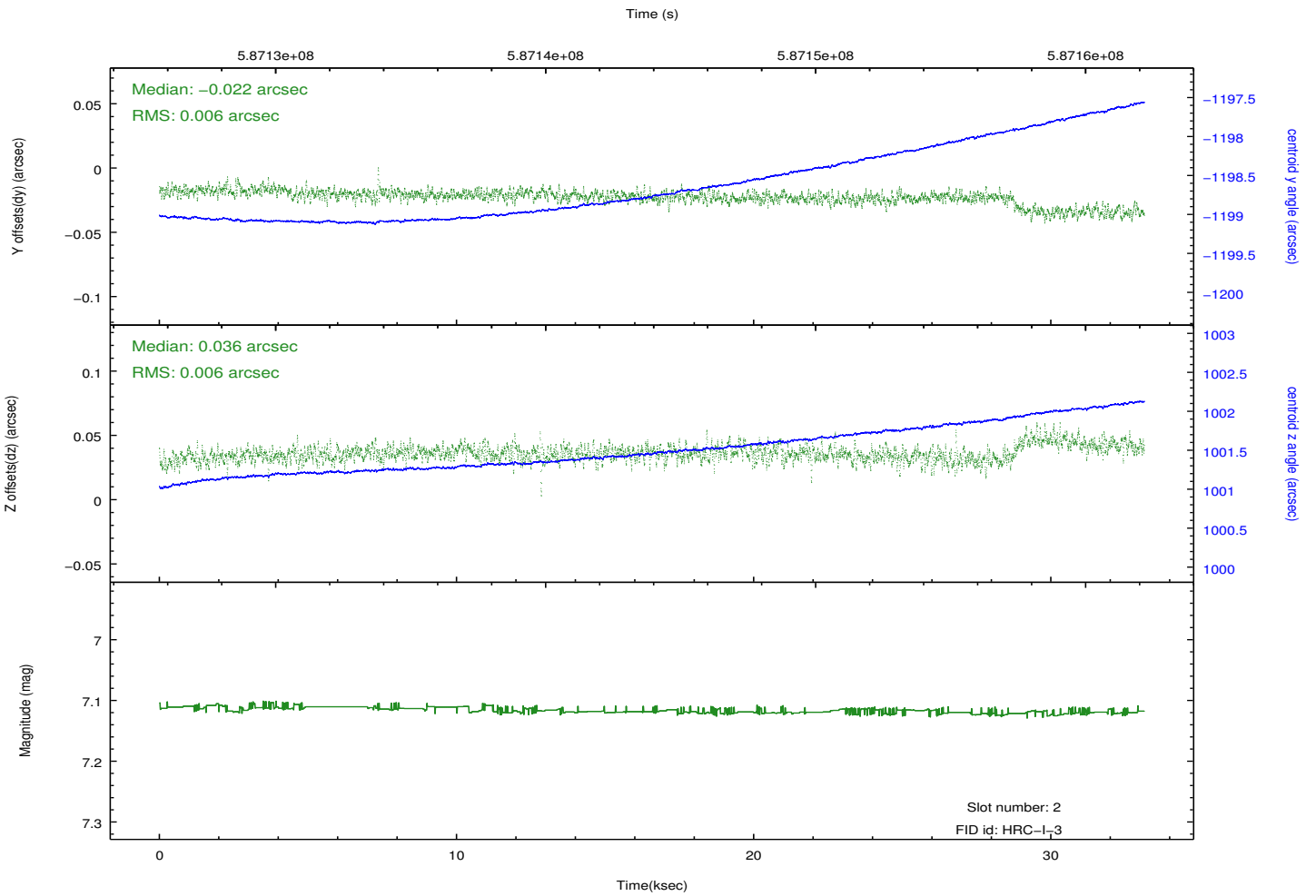
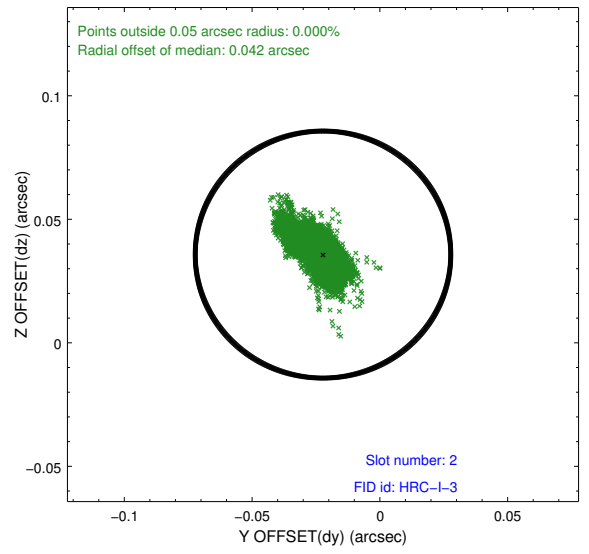
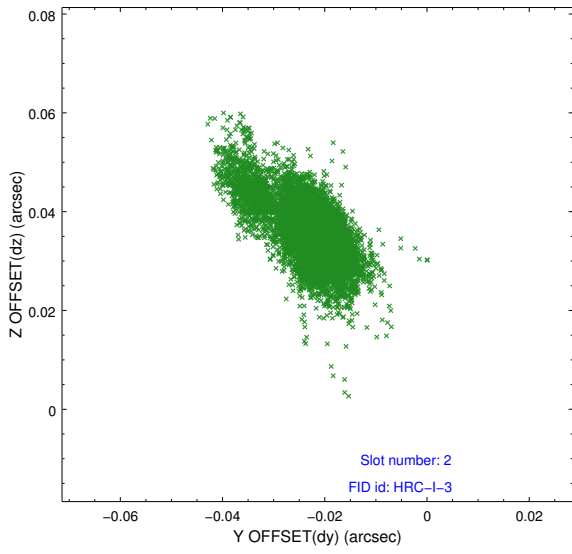
### 2.5.1 Slot 0



## 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)      | 2016.08.10      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 33.146451912284 |

## A.2 Comments