

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 18677 - L2 Version 1  
Chandra X-Ray Center

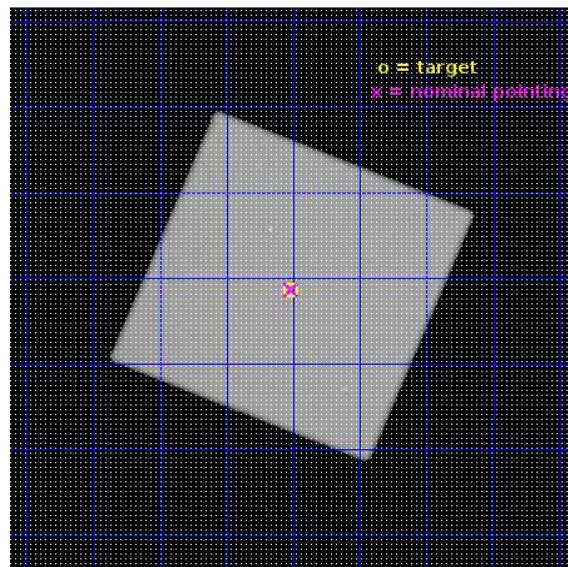
L2 Processing Date : Jul 11 2017

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# 1 Front

|          |                                                        |                                       |
|----------|--------------------------------------------------------|---------------------------------------|
| seq_num  | 100162                                                 | Sequence number                       |
| obs_id   | 18677                                                  | Observation id                        |
| title    | Disecting the Morphology of Jupiter's Auroral Hot Spot | Proposal t                            |
| observer | Dr. Randy Gladstone                                    | Principal investigator                |
| object   | Jupiter                                                | Source name                           |
| ra_targ  | 193.755061                                             | Observer's specified target RA [deg]  |
| dec_targ | -4.522852                                              | Observer's specified target Dec [deg] |
| ra_nom   | 193.75356173297                                        | Nominal RA [deg]                      |
| dec_nom  | -4.5225741481449                                       | Nominal Dec [deg]                     |
| roll_nom | 247.31405629674                                        | Nominal Roll [deg]                    |
| revision | 1                                                      | Processing version of data            |
| ontime   | 40567.452368021                                        | [s]                                   |
| livetime | 39559.457473746                                        | Ontime multiplied by DTCOR            |
| l2events | 4613528                                                | Number of level 2 events              |

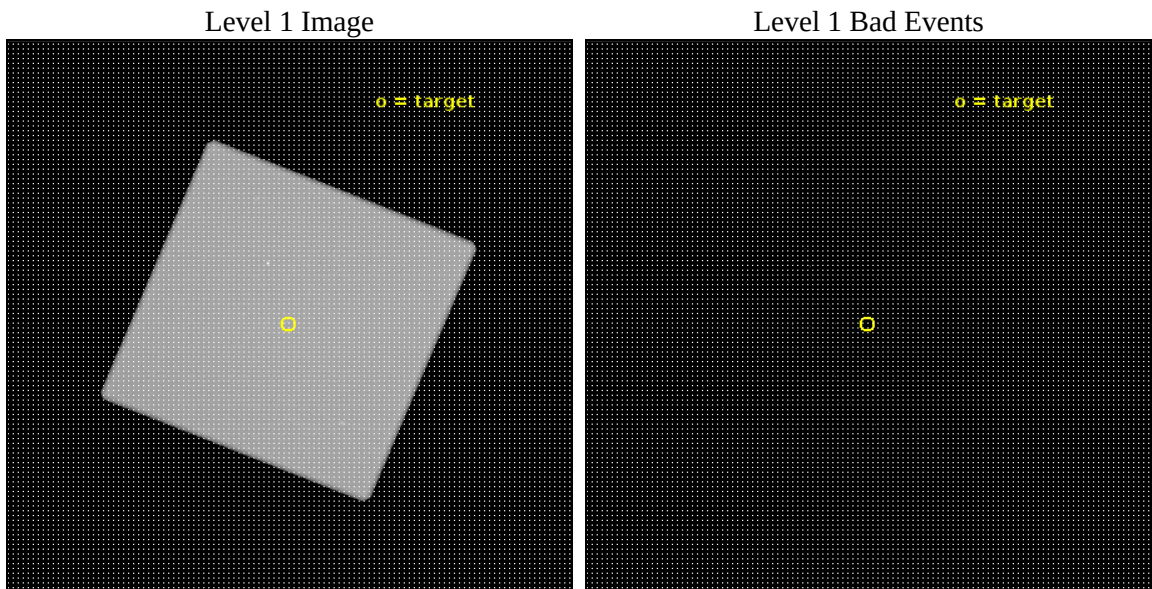




## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

|          |                     |                                |                |                 |                                         |
|----------|---------------------|--------------------------------|----------------|-----------------|-----------------------------------------|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 40400.000000    | [s] Scheduled observation exposure time |
| ascdsver | 10.6                | Processing system revision     | ontime         | 40567.452368021 | [s]                                     |
| caldbver | 4.7.5               | &#160                          | l1events       | 6227623         | Number of level 1 events                |
| date     | 2017-07-11T18:03:28 | Date and time of file creation |                |                 |                                         |
| revision | 1                   | Processing version of data     |                |                 |                                         |

### 2.1.3 Events

#### Level 1 Events

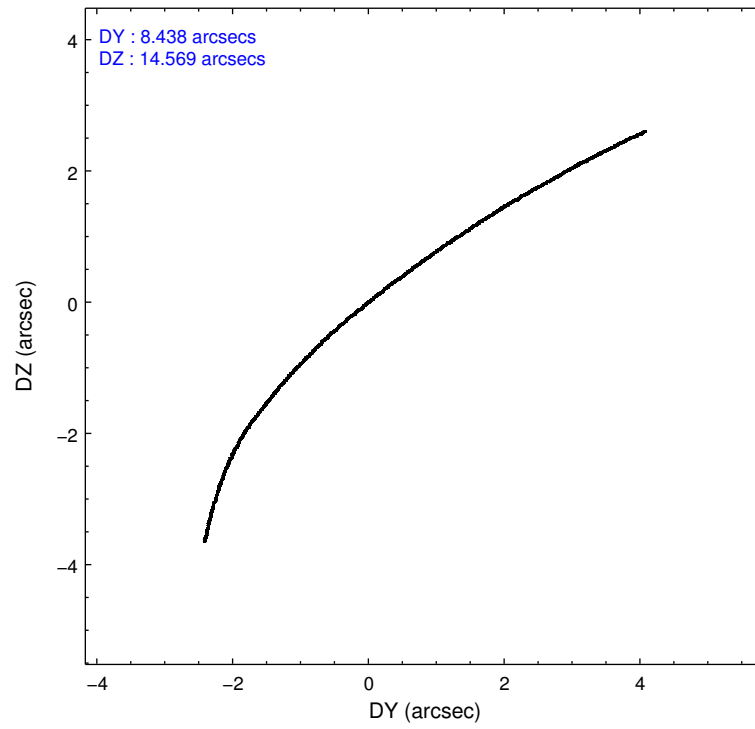
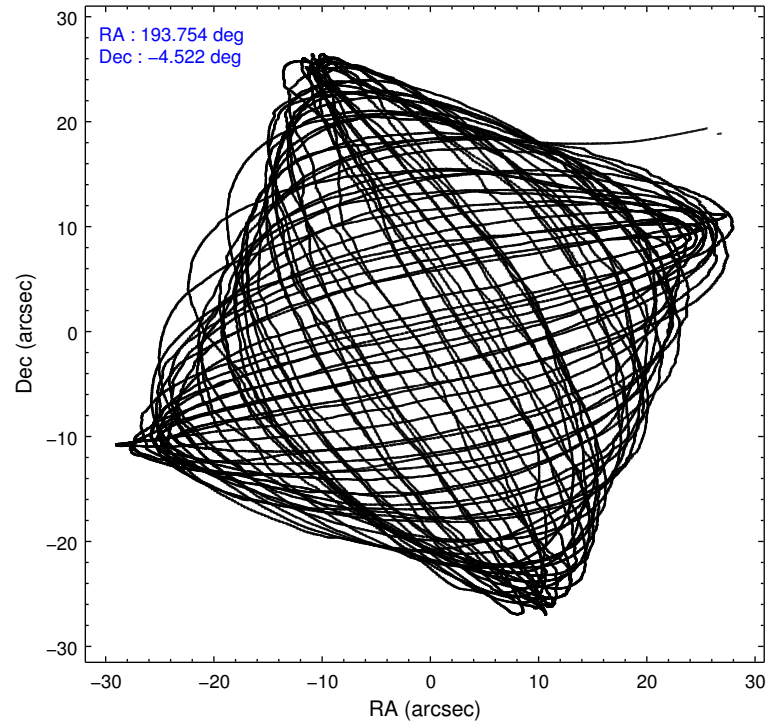
|                 |                      |
|-----------------|----------------------|
|                 | <b>segment<br/>0</b> |
| level 1 events  | 6227623              |
| rejected events | 163917               |
| rejected %      | 2%                   |

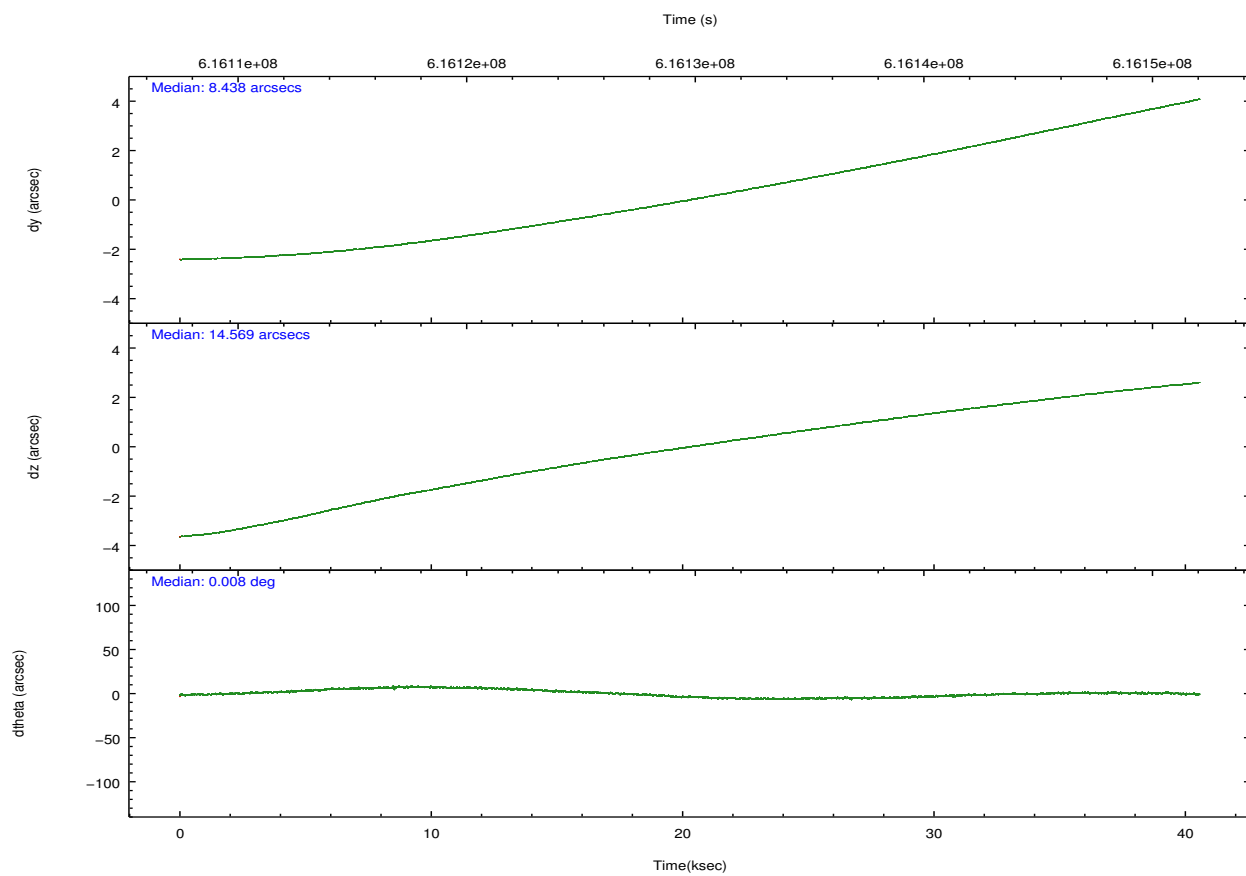
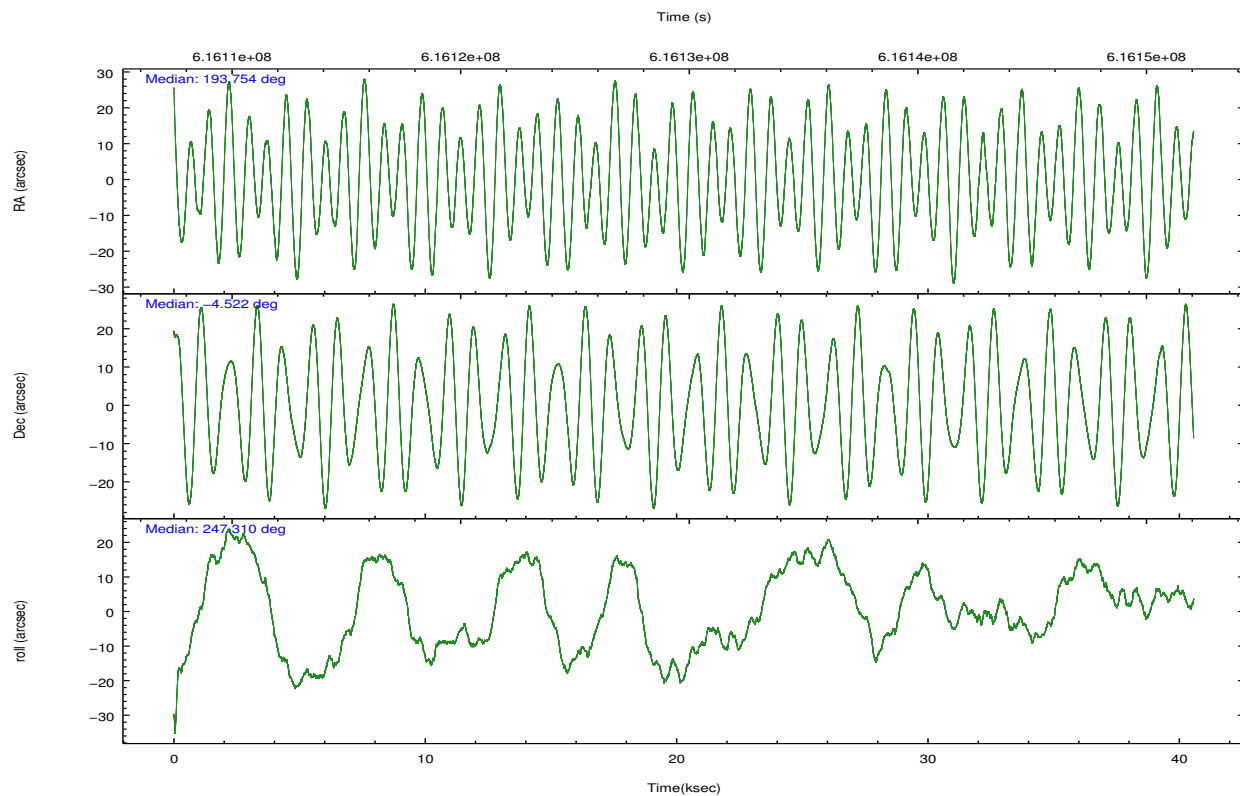
## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               |
|-----------------------------------|---------------------|----------------------|
| Instrument                        | HRC                 | HRC                  |
| Detector                          | HRC-I               | HRC-I                |
| Grating                           | NONE                | NONE                 |
| Data mode                         | OBSERVING           | OBSERVING            |
| Observation mode                  | POINTING            | POINTING             |
| [deg] Pointing RA                 | 193.749470          | 193.7535617329662    |
| [deg] Pointing Dec                | -4.495604           | -4.522574148144871   |
| [deg] Pointing Roll               | 247.409226          | 247.3140562967379    |
| [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)  | 616109629.184000    | 616108347.62111      |
| Observation start date            | 2017-07-10T21:32:40 | 2017-07-10T21:12:27  |
| [s] Observation end time (MET)    | 616150029.184000    | 616150802.6110899    |
| Observation end date              | 2017-07-11T08:46:00 | 2017-07-11T09:00:02  |

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

## 2.3 Aspect



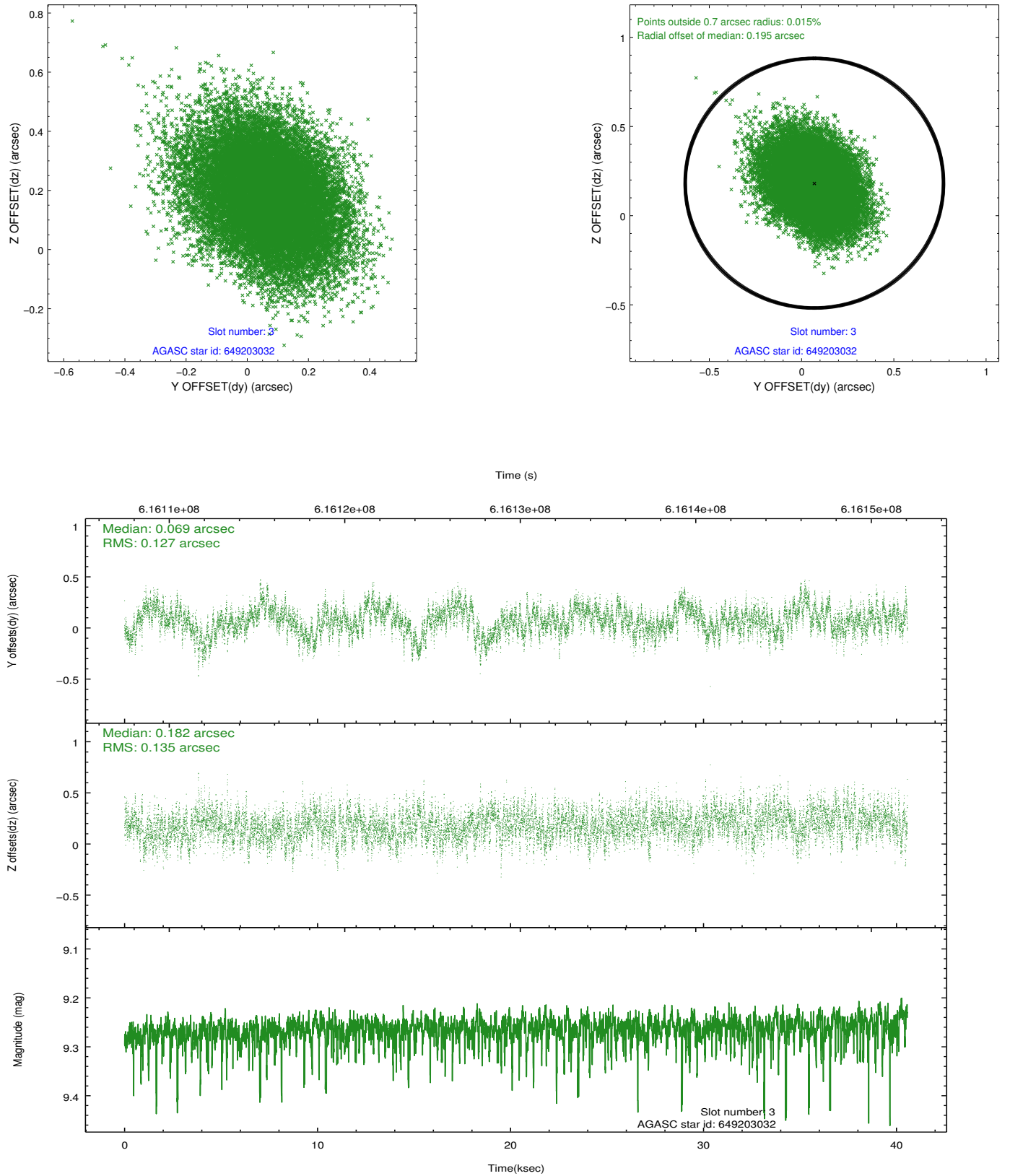


# Slot Statistics

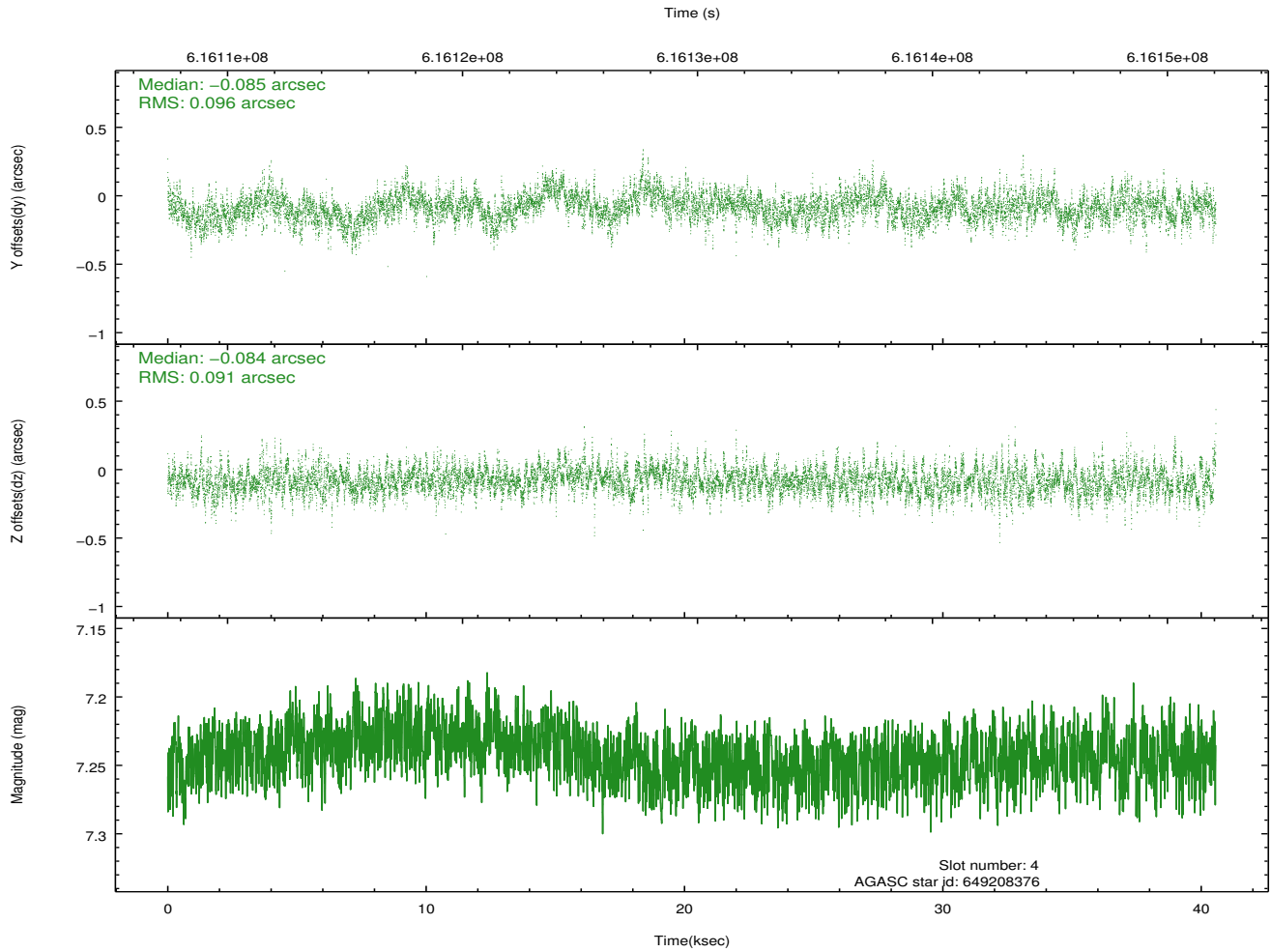
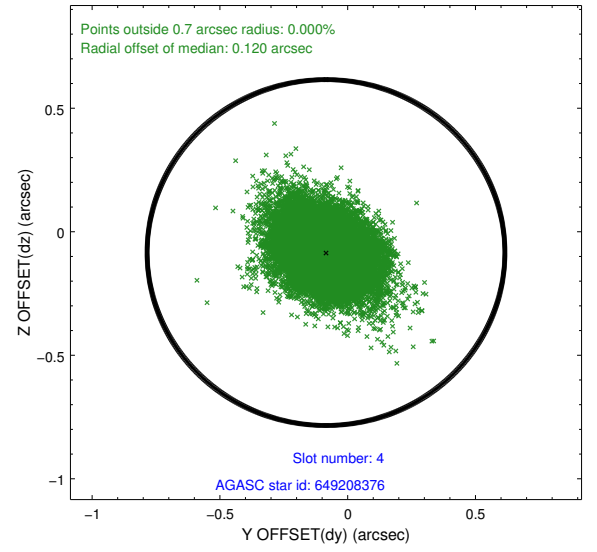
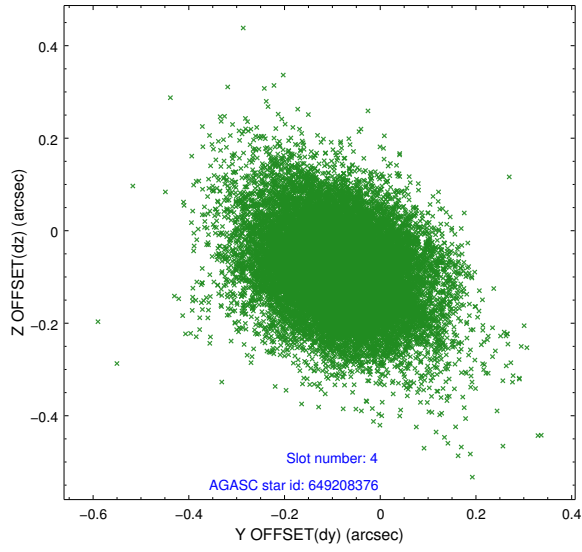
| slot | status | used | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z   |
|------|--------|------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0    | FID    |      | HRC-I-1   | 6.97 | 9896  | -0.112 | 0.018  | 0.042 | 0.056 | 0.000000   | 0.000000  | -764.40  | -1302.41 |
| 1    | FID    |      | HRC-I-2   | 7.00 | 9896  | 0.256  | -0.125 | 0.035 | 0.071 | 0.000000   | 0.000000  | 848.52   | -1304.24 |
| 2    | FID    |      | HRC-I-3   | 7.06 | 9896  | -0.035 | 0.018  | 0.016 | 0.030 | 0.000000   | 0.000000  | -1192.76 | 1002.02  |
| 3    | GUIDE  | used | 649203032 | 9.26 | 19770 | 0.069  | 0.182  | 0.195 | 0.321 | 193.246344 | -4.130932 | -515.59  | -2170.48 |
| 4    | GUIDE  | used | 649208376 | 7.24 | 19789 | -0.085 | -0.084 | 0.137 | 0.232 | 193.840802 | -4.504141 | -96.91   | 310.84   |
| 5    | GUIDE  | used | 649208440 | 9.71 | 19753 | 0.061  | -0.111 | 0.260 | 0.426 | 194.124200 | -4.484025 | -554.33  | 1225.91  |
| 6    | GUIDE  | used | 649209408 | 6.28 | 19791 | -0.104 | 0.002  | 0.133 | 0.235 | 193.408852 | -4.224656 | -429.14  | -1502.88 |
| 7    | GUIDE  | used | 649596528 | 9.42 | 19761 | 0.060  | 0.018  | 0.235 | 0.382 | 193.360084 | -5.003701 | 2226.55  | -585.78  |

## 2.4 Star Slots

### 2.4.1 Slot 3

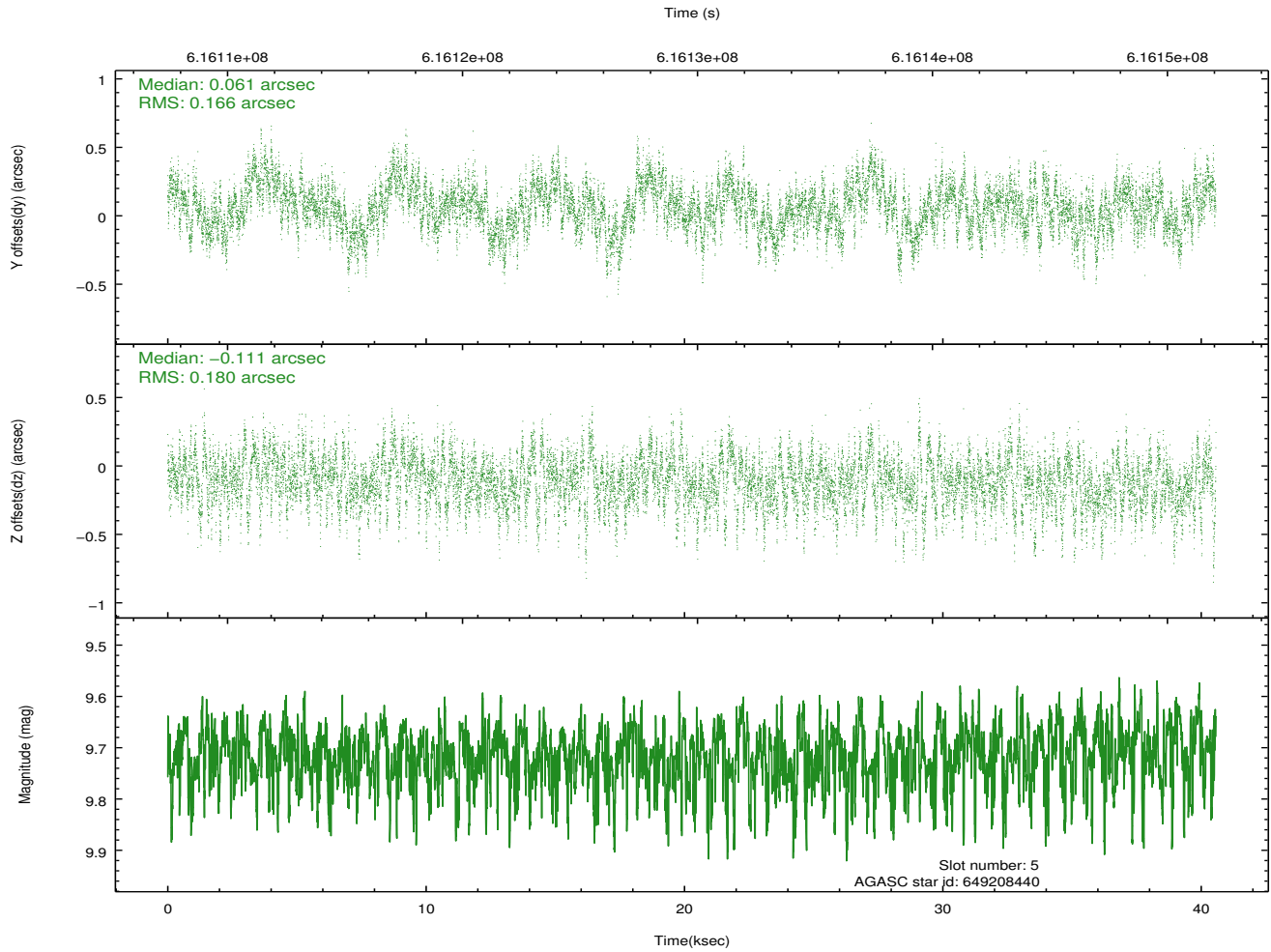
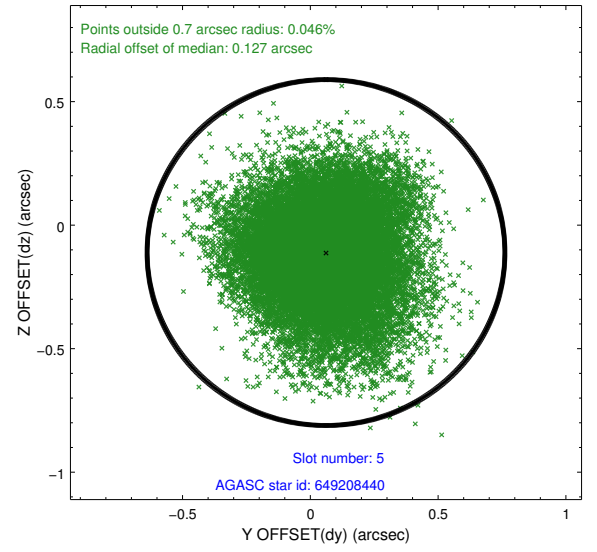
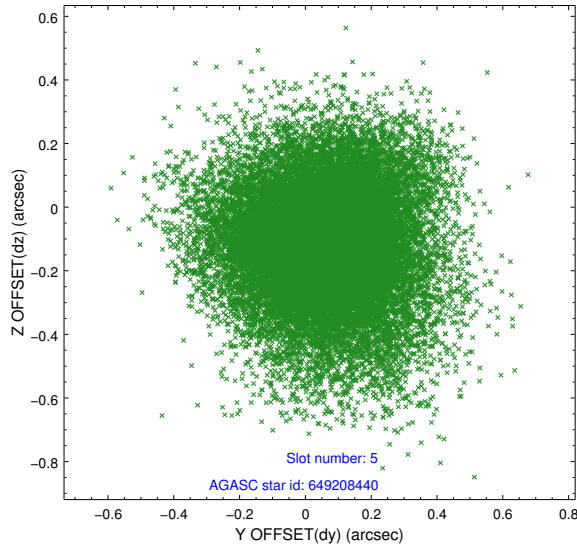


## 2.4.2 Slot 4

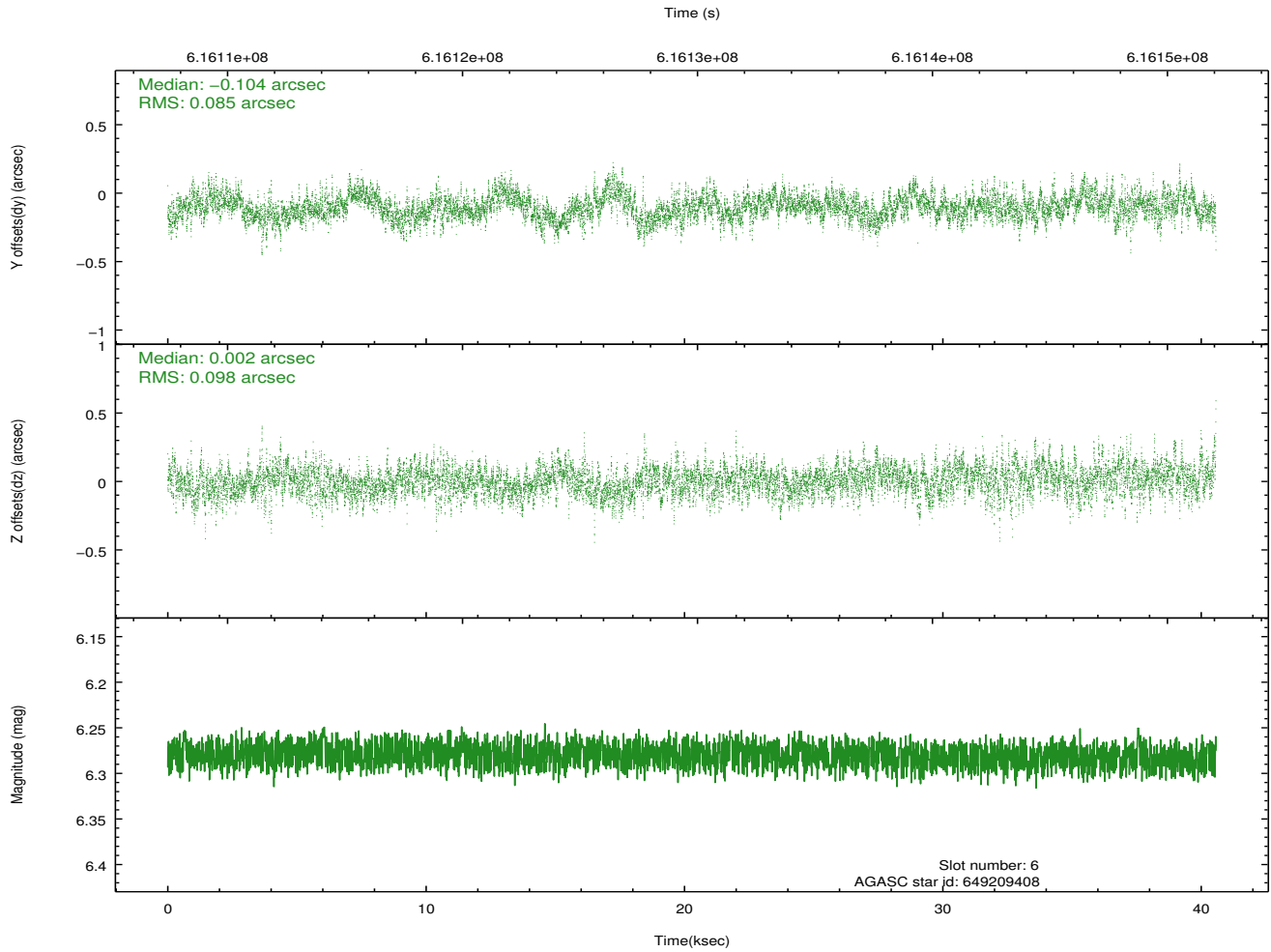
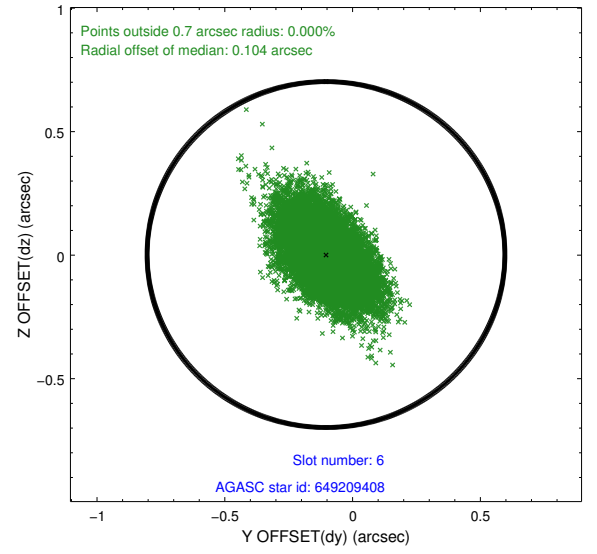
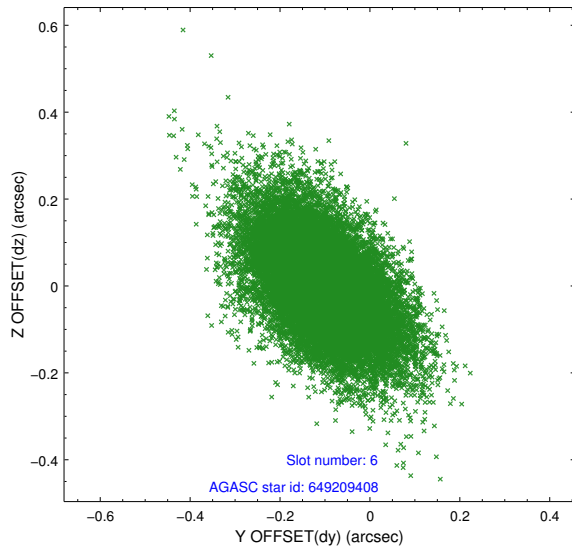




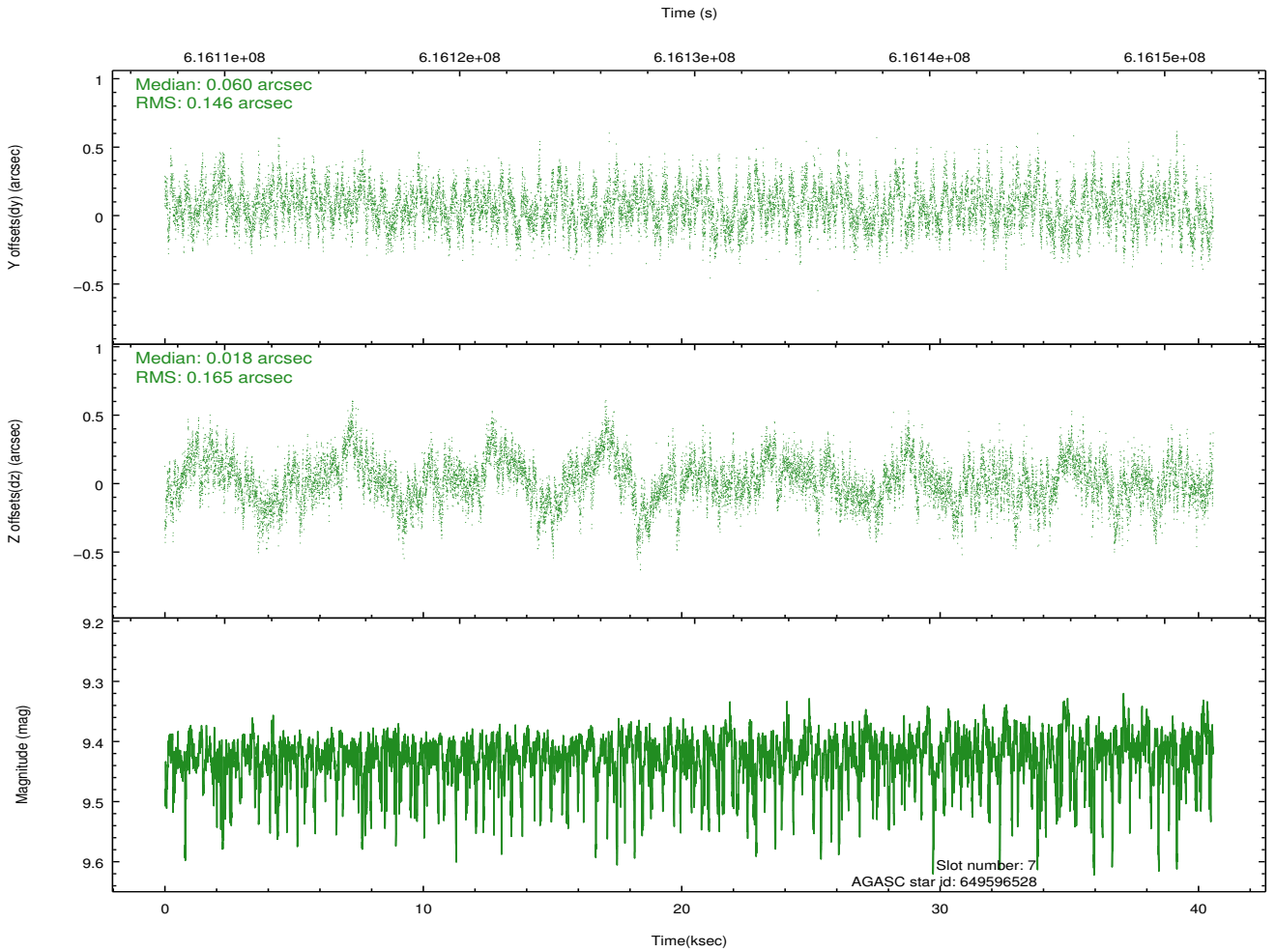
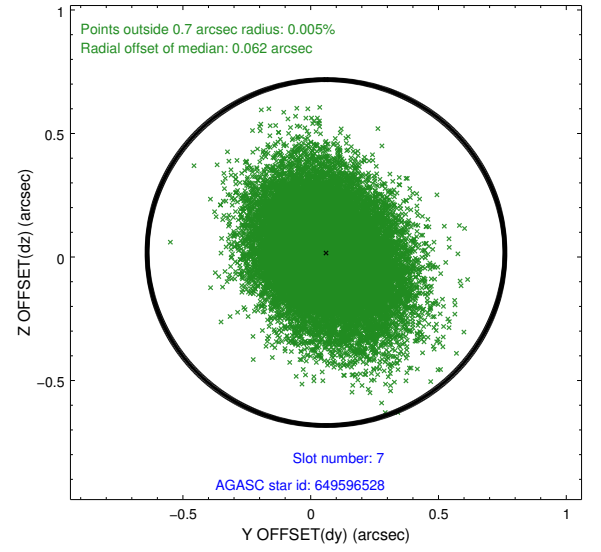
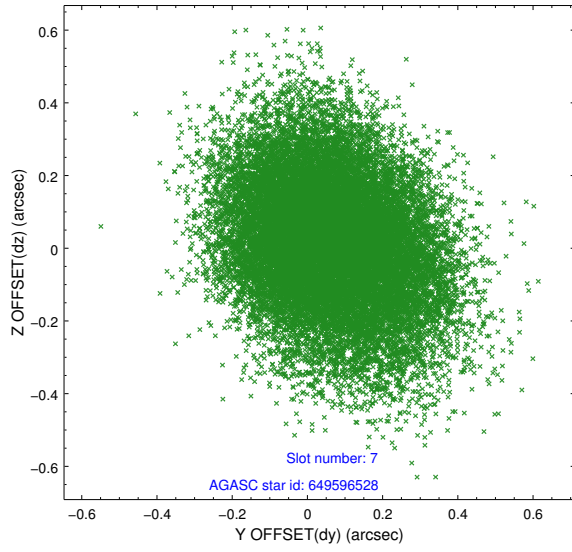
### 2.4.3 Slot 5



## 2.4.4 Slot 6

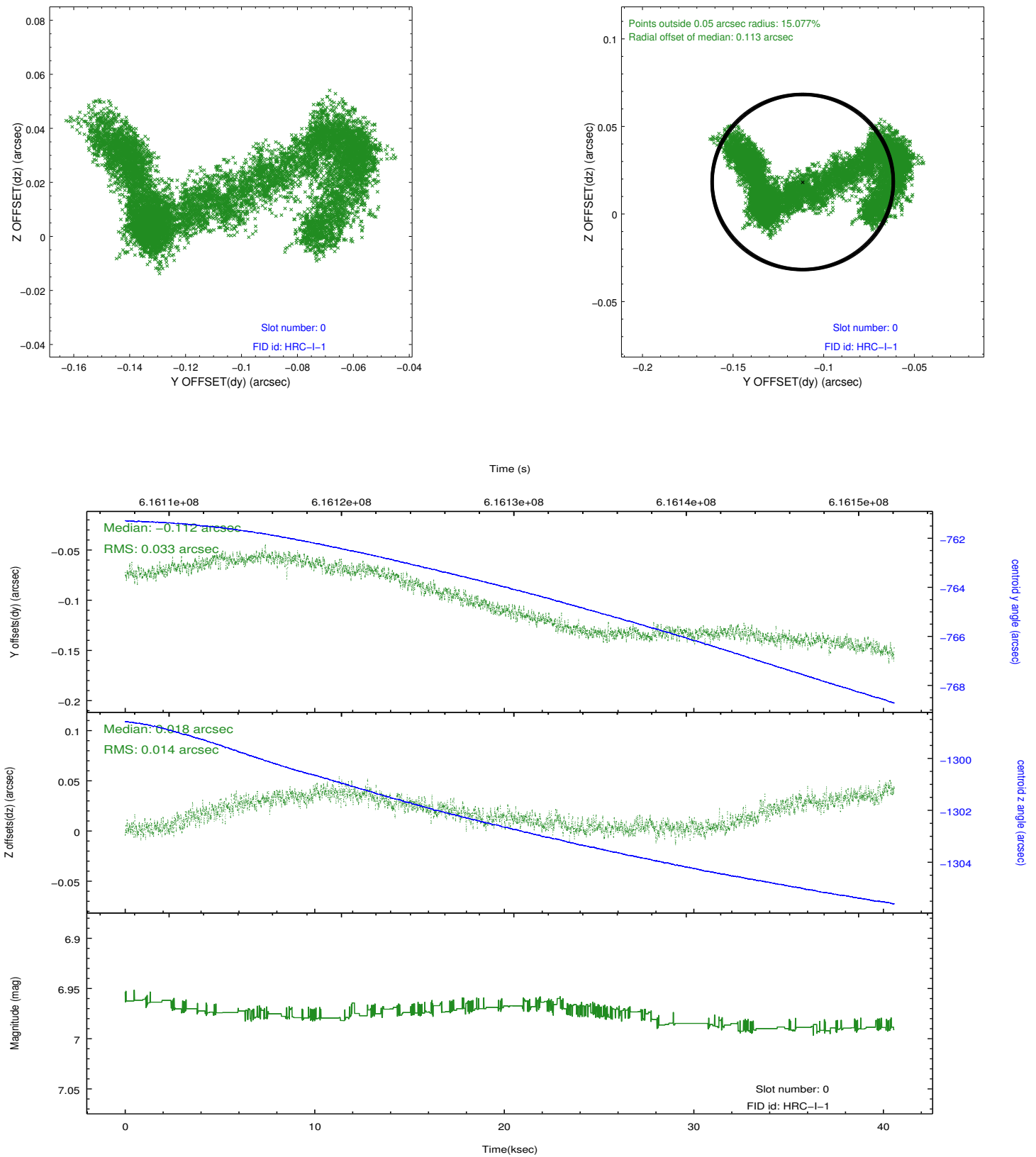


## 2.4.5 Slot 7

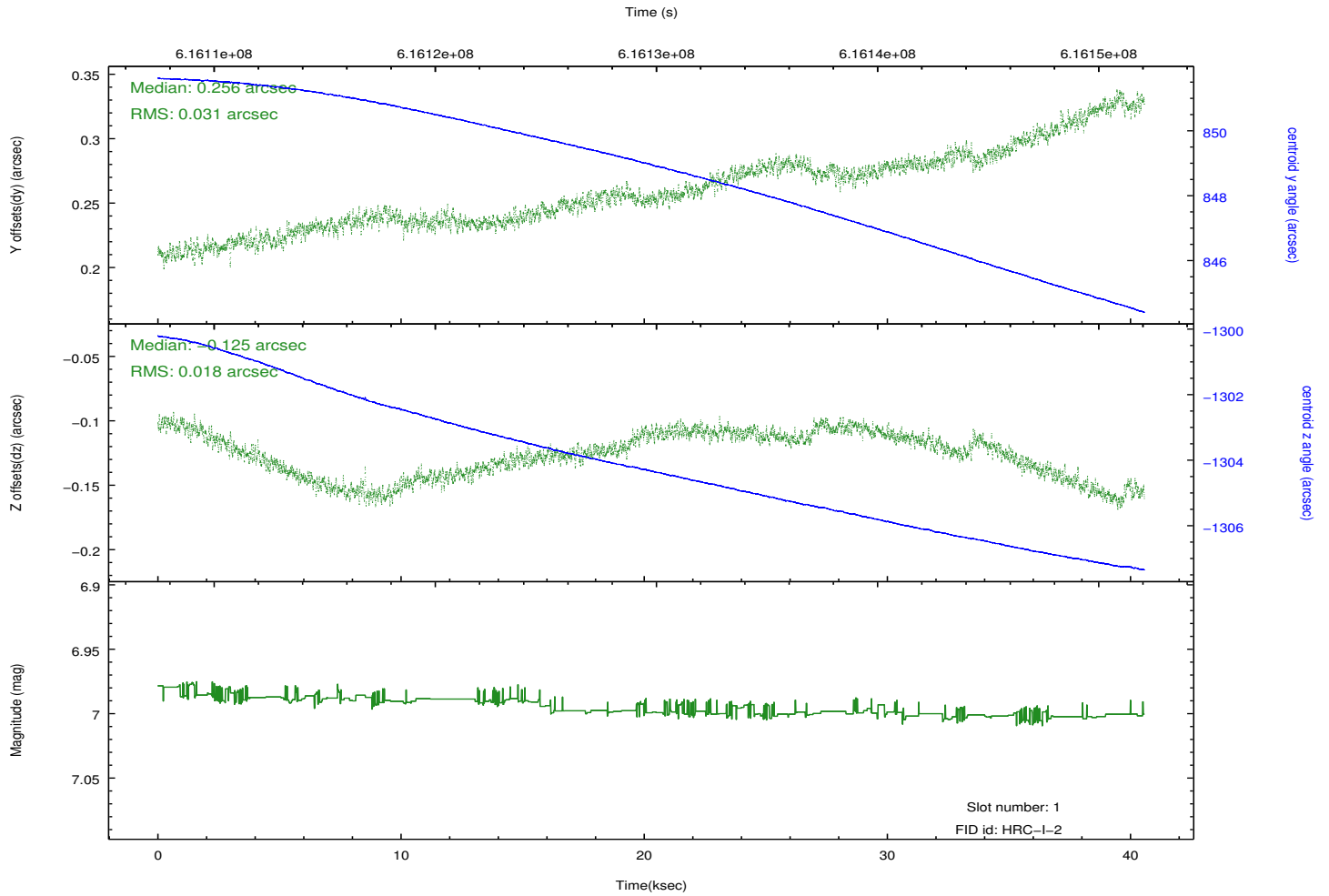
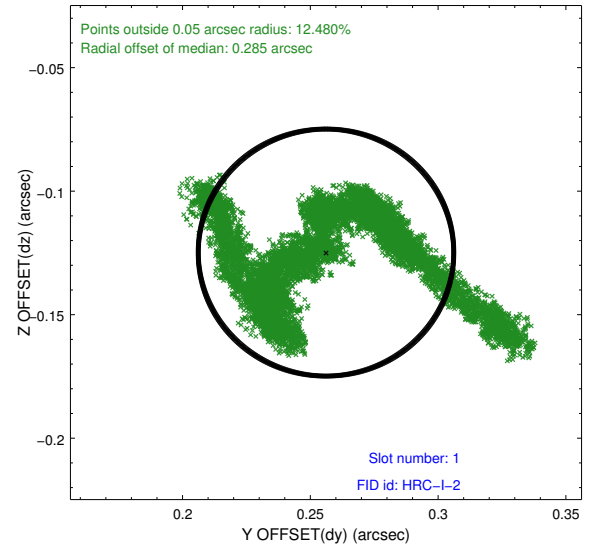
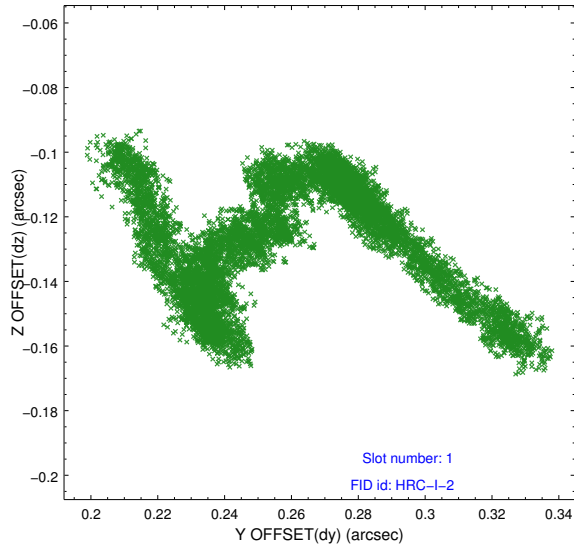


## 2.5 FID Slots

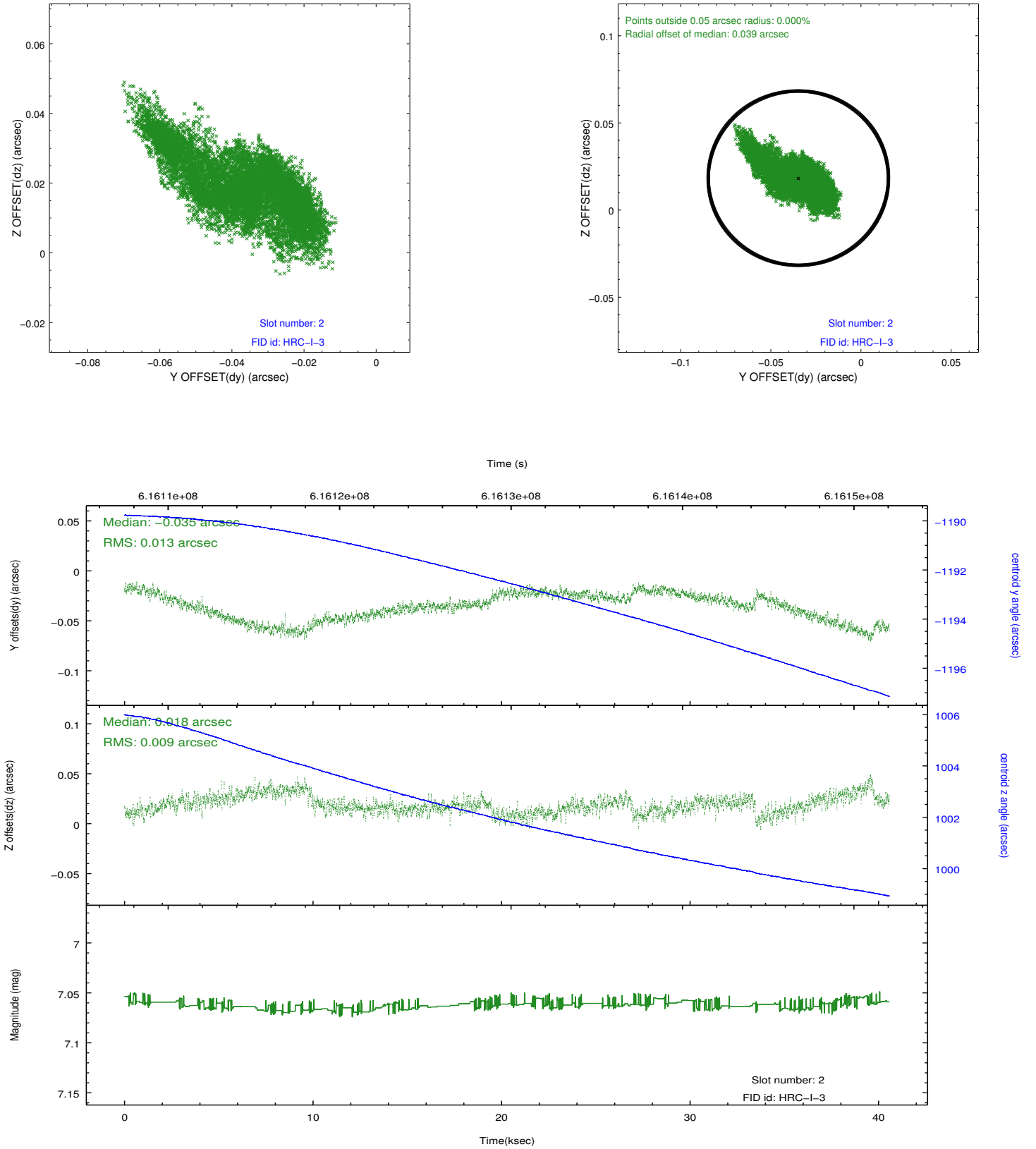
### 2.5.1 Slot 0



## 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)      | 2017.07.11      |
| V&V Edition                | 1               |
| V&V Disposition and Status | OK              |
| V&V Charge Time            | 40.567452368021 |

## A.2 Comments

This is an observation of a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.