

# V&V Reference Report

## L2 ASCDS Version : 8.5.1

Observation 5969 - L2 Version 5  
Chandra X-Ray Center

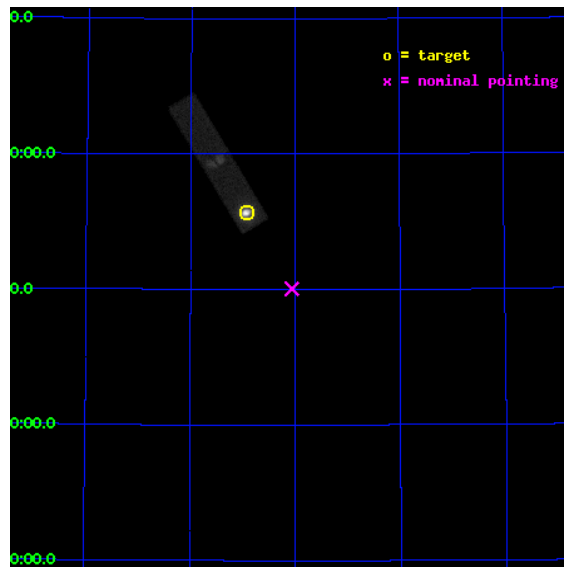
L2 Processing Date : Dec 17 2012

## 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

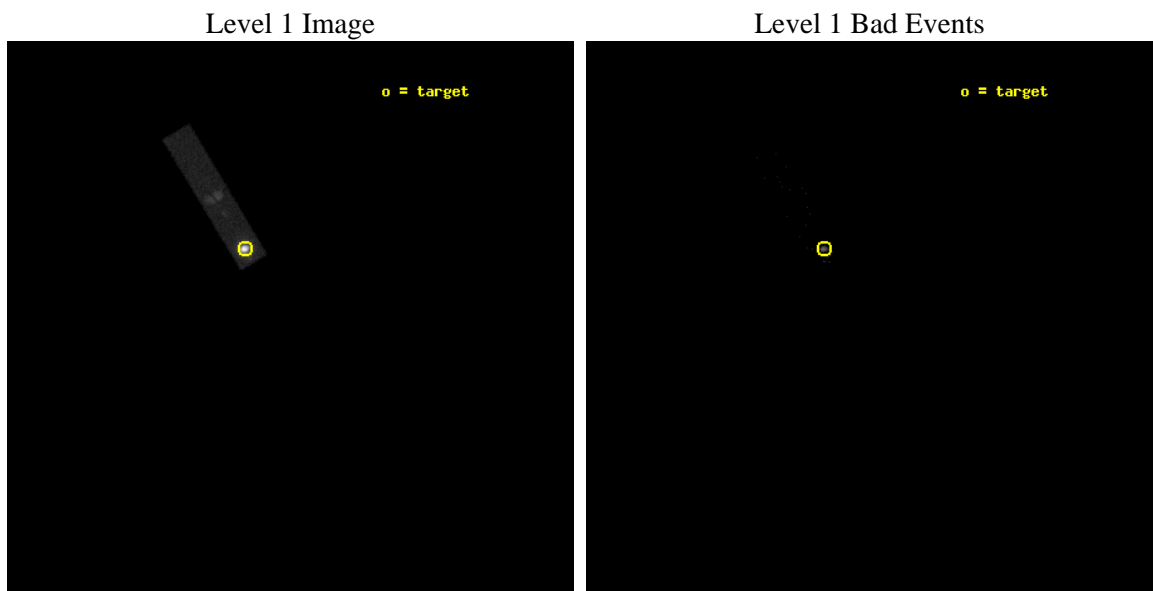
|          |  |                                       |
|----------|--|---------------------------------------|
| seq_num  | 290461   | Sequence number                       |
| obs_id   | 5969   | Observation id                        |
| title    | AO6 Measurements of the optical/UV Transmission of the HRC and ACIS Filters. | Proposal title                        |
| observer | Dr. CXC Calibration  | Principal investigator                |
| object   | Vega   | Source name                           |
| ra_targ  | 279.235  | Observer's specified target RA [deg]  |
| dec_targ | 38.783778  | Observer's specified target Dec [deg] |
| ra_nom   | 279.01617647406  | Nominal RA [deg]                      |
| dec_nom  | 38.503093834654  | Nominal Dec [deg]                     |
| roll_nom | 58.828936953547  | Nominal Roll [deg]                    |
| revision | 5  | Processing version of data            |
| ontime   | 2189.4000990987  | [s]                                   |
| livetime | 776.92039894664  | Ontime multiplied by DTCOR            |
| l2events | 392515   | 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 | 2000.000000     | [s] Scheduled observation exposure time |
| ascdsver | 8.5.1               | Processing system revision     | ontime         | 2189.4000990987 | [s]                                     |
| caldsver | 4.5.5               | &#160                          | l1events       | 432116          | Number of level 1 events                |
| date     | 2012-12-17T16:49:39 | Date and time of file creation |                |                 |   |
| revision | 5                   | Processing version of data     |                |                 |   |

### 2.1.3 Events

Level 1 Events

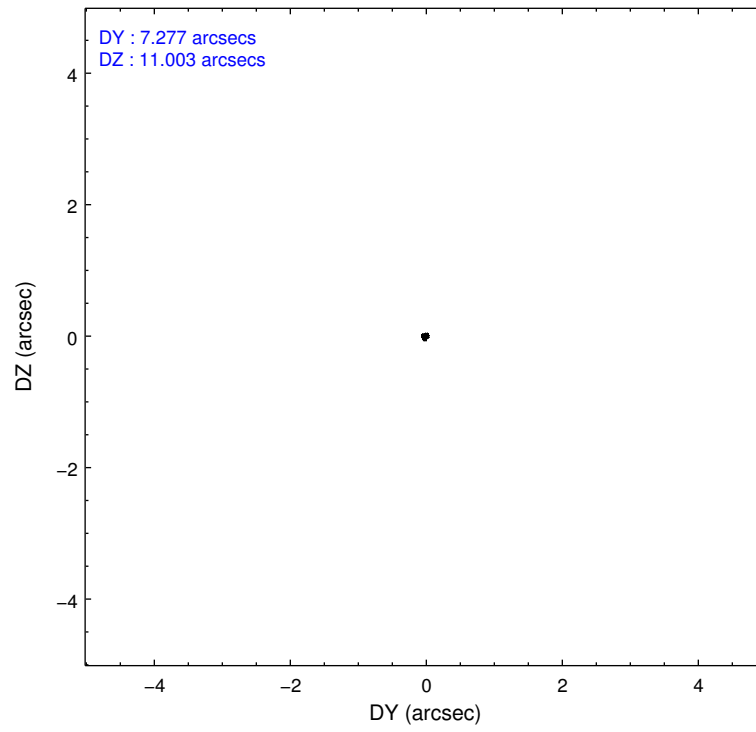
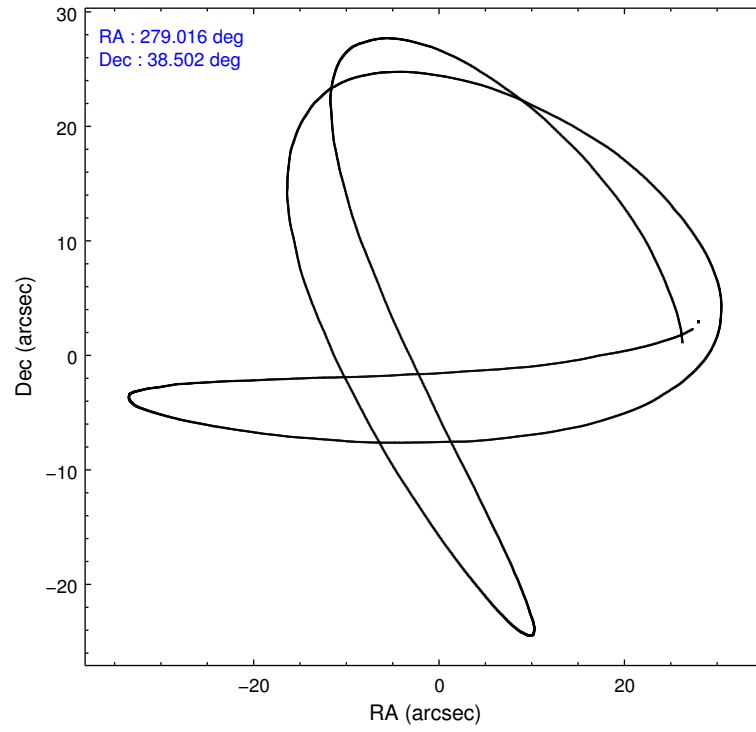
|                 | segment<br>1 | segment<br>2 | segment<br>3 |
|-----------------|--------------|--------------|--------------|
| level 1 events  | 1            | 37           | 432078       |
| rejected events | 1            | 21           | 28390        |
| rejected %      | 100%         | 56%          | 6%           |

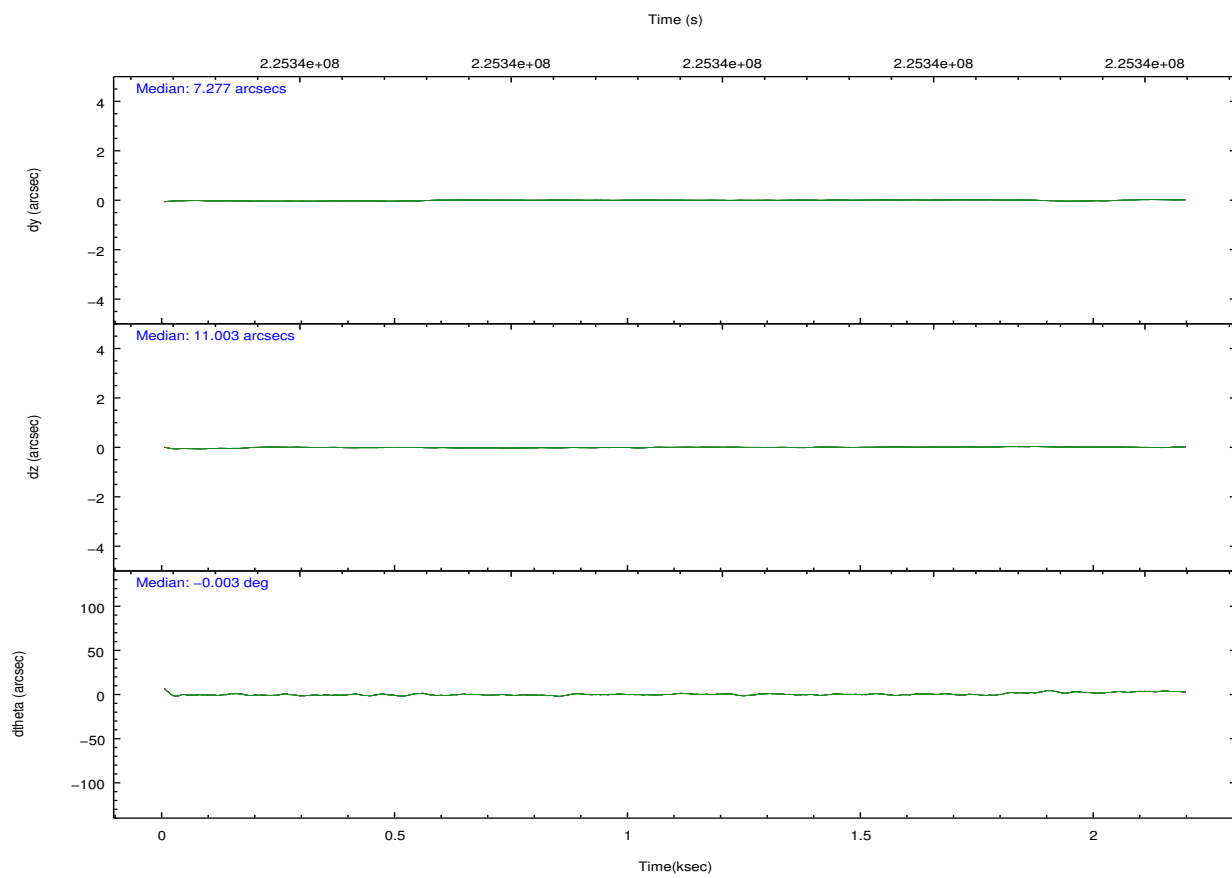
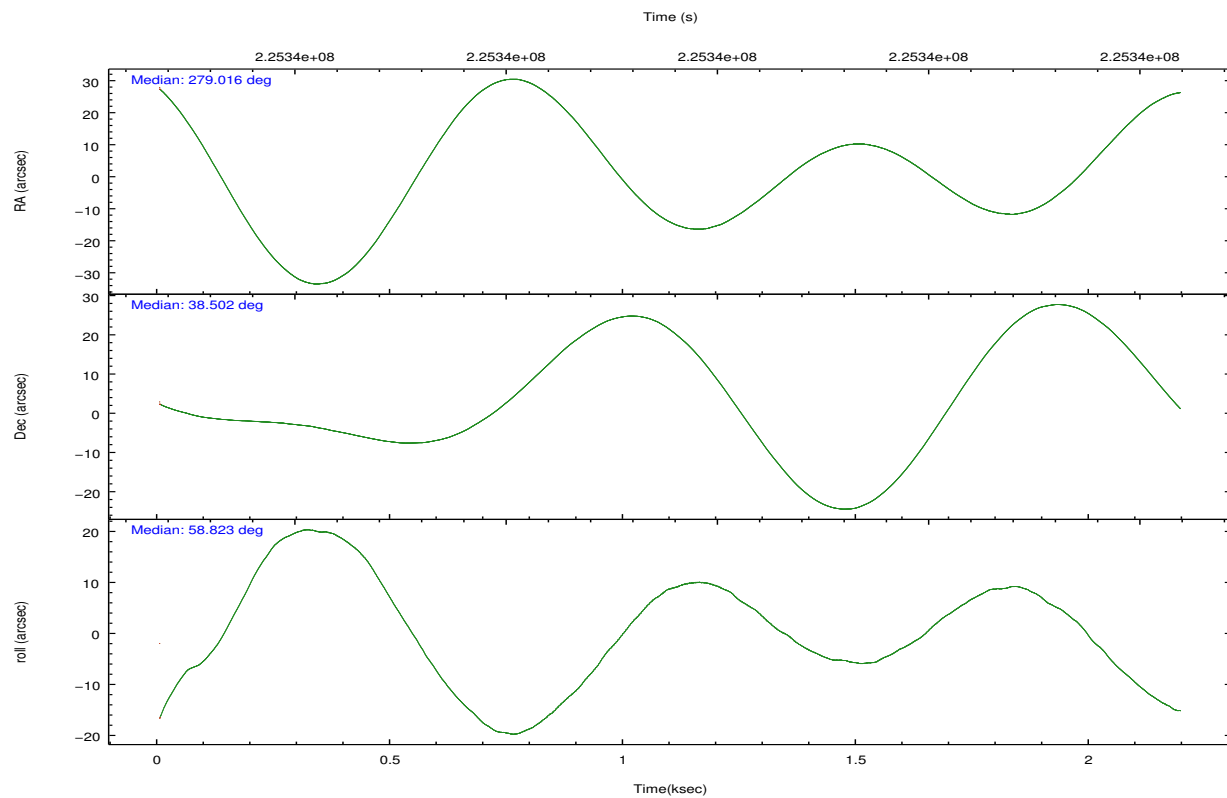
## 2.2 Compared Parameters

| 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                 | 279.017555          | 279.0161764740586    |
| [deg] Pointing Dec                | 38.474320           | 38.50309383465416    |
| [deg] Pointing Roll               | 58.760766           | 58.82893695354716    |
| [s] Window start time (MET)       | 223603264.184000    | 223603264.184000     |
| [s] Window stop time (MET)        | 228614464.184000    | 228614464.184000     |
| [mm] SIM focus pos                | -1.429586           | -1.428180813131781   |
| [mm] SIM defocus                  | 0.1037507710433287  | 0.1051558262725154   |
| [mm] SIM translation stage pos    | 250.455976          | 250.466033080201     |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |
| [s] Observation start time (MET)  | 225339989.184000    | 225339613.6739       |
| Observation start date            | 2005-02-21T02:25:25 | 2005-02-21T02:20:13  |
| [s] Observation end time (MET)    | 225341989.184000    | 225342396.03652      |
| Observation end date              | 2005-02-21T02:58:45 | 2005-02-21T03:06:36  |

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

## 2.3 Aspect





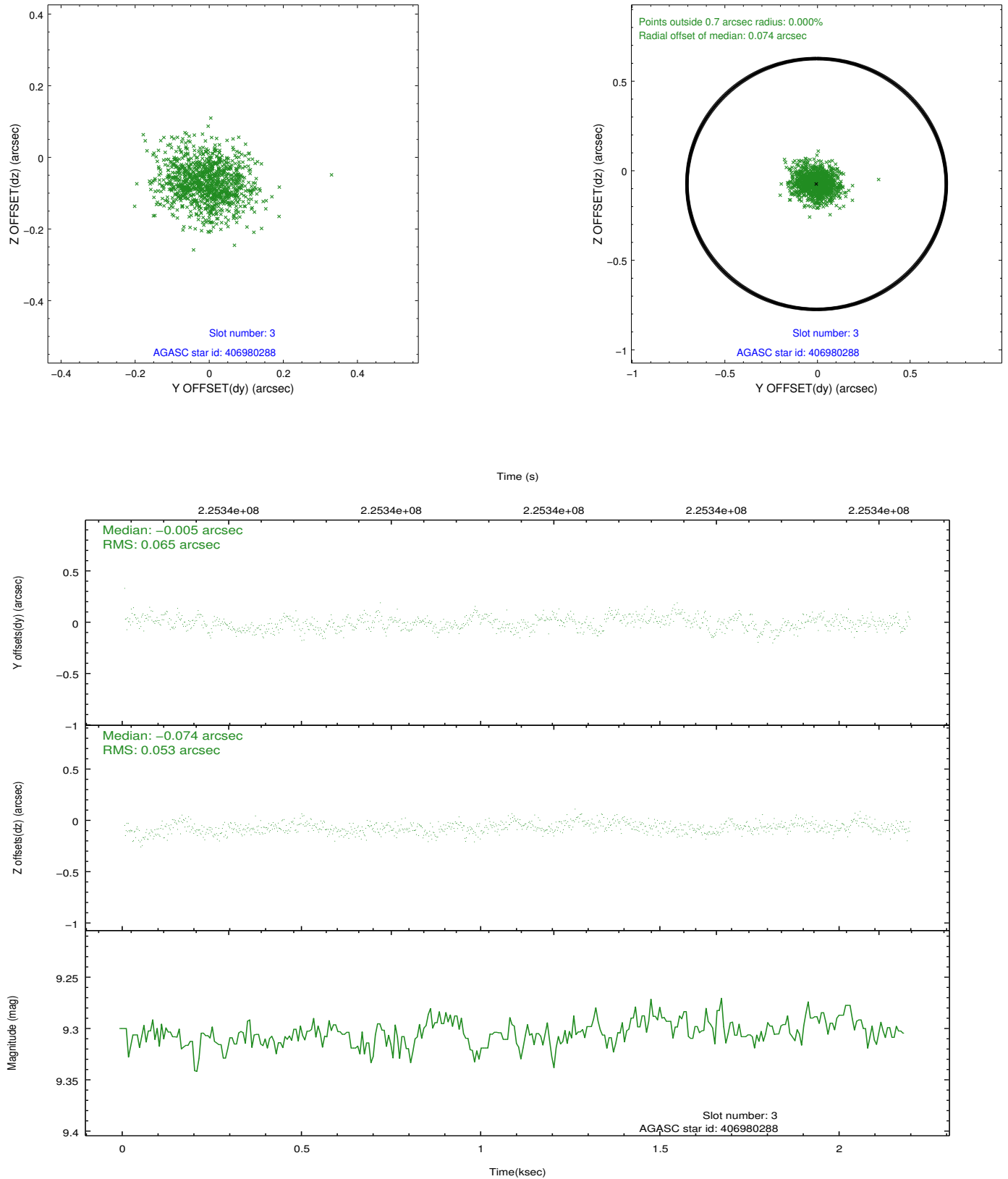
### Slot Statistics

| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z  |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|---------|
| 0    | FID    | HRC-S-2   | 7.01 | 535   | 0.148  | -0.182 | 0.014 | 0.040 | 0.000000   | 0.000000  | 1238.28  | -452.38 |
| 1    | FID    | HRC-S-3   | 7.02 | 535   | 0.073  | -0.093 | 0.006 | 0.013 | 0.000000   | 0.000000  | -1161.88 | 569.05  |
| 2    | FID    | HRC-S-4   | 6.98 | 535   | 0.184  | -0.020 | 0.014 | 0.043 | 0.000000   | 0.000000  | 1234.73  | 573.56  |
| 3    | GUIDE  | 406980288 | 9.30 | 1069  | -0.005 | -0.074 | 0.087 | 0.142 | 278.903147 | 39.061646 | 1643.53  | 1369.24 |
| 4    | GUIDE  | 406985120 | 7.42 | 1070  | -0.068 | -0.045 | 0.073 | 0.115 | 278.839732 | 38.894839 | 1037.77  | 1211.79 |
| 5    | GUIDE  | 406987272 | 6.93 | 1070  | -0.011 | -0.061 | 0.048 | 0.083 | 278.536588 | 38.437504 | -812.65  | 1093.04 |
| 6    | GUIDE  | 406989616 | 8.23 | 1070  | 0.044  | 0.112  | 0.067 | 0.105 | 279.202881 | 38.520843 | 413.69   | -358.92 |
| 7    | GUIDE  | 406993992 | 7.62 | 1069  | 0.037  | 0.067  | 0.065 | 0.100 | 279.053714 | 38.034587 | -1299.76 | -910.23 |

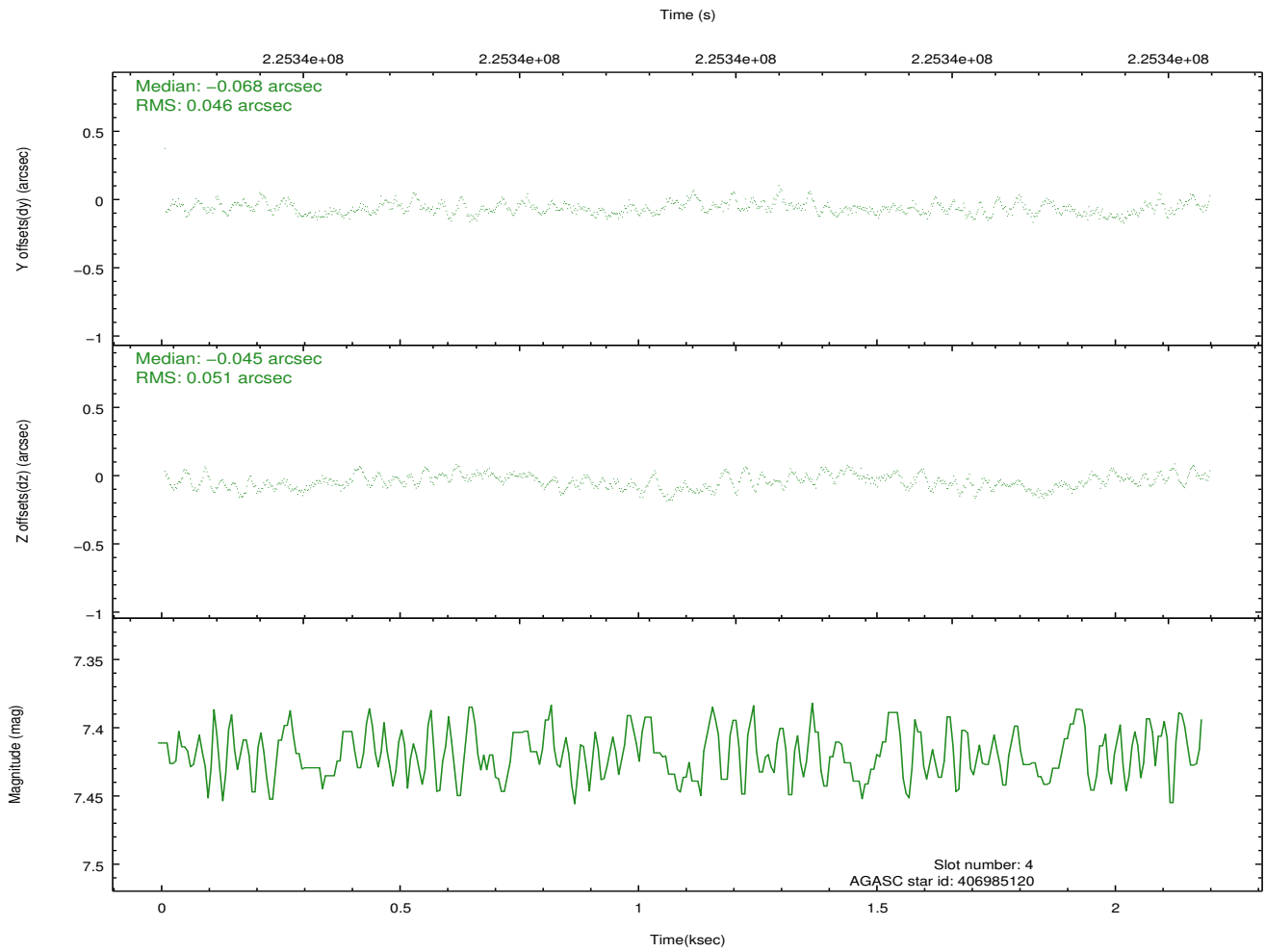
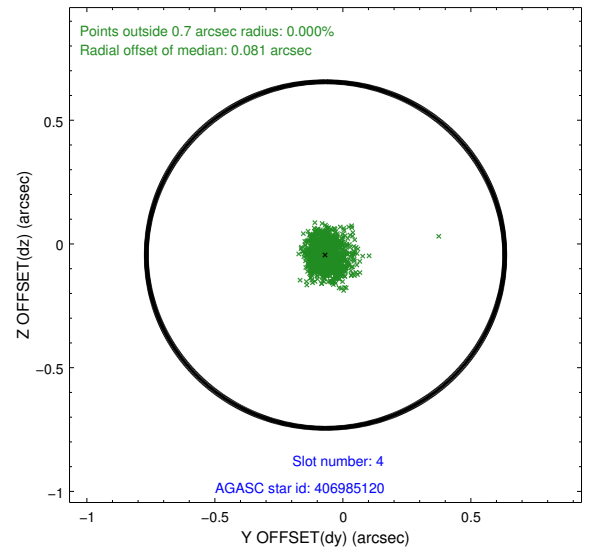
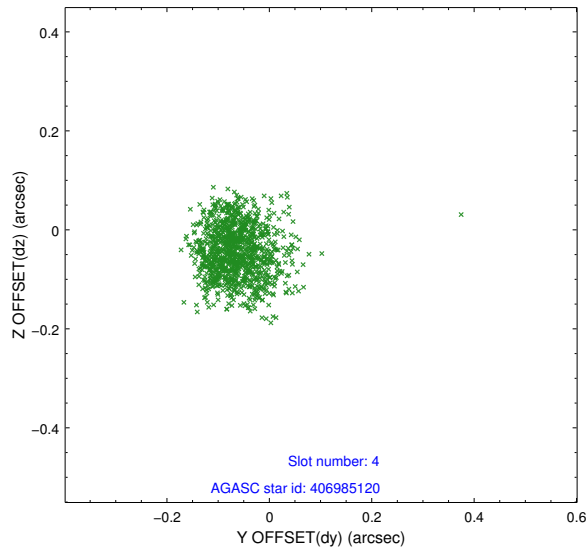


## 2.4 Star Slots

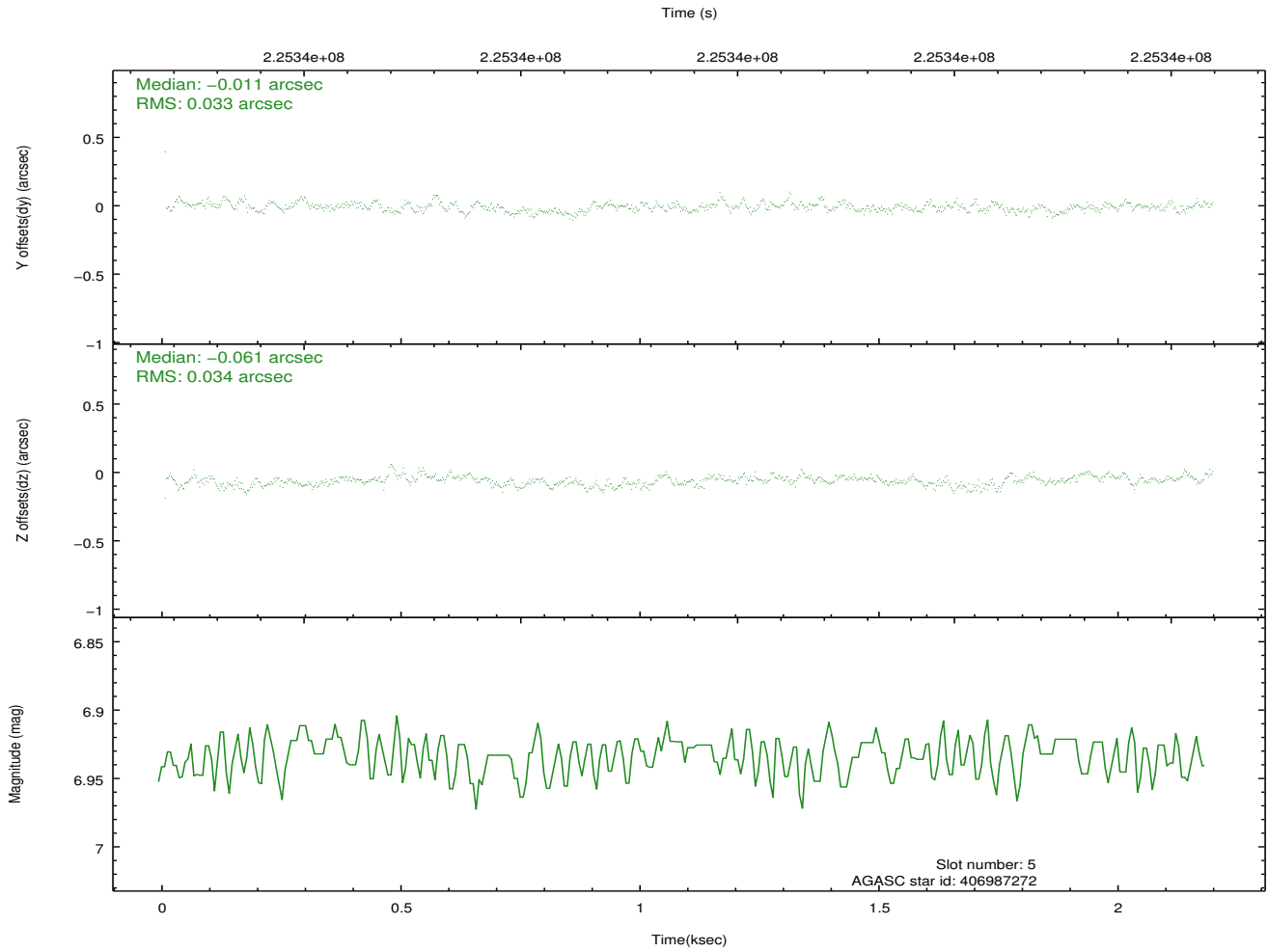
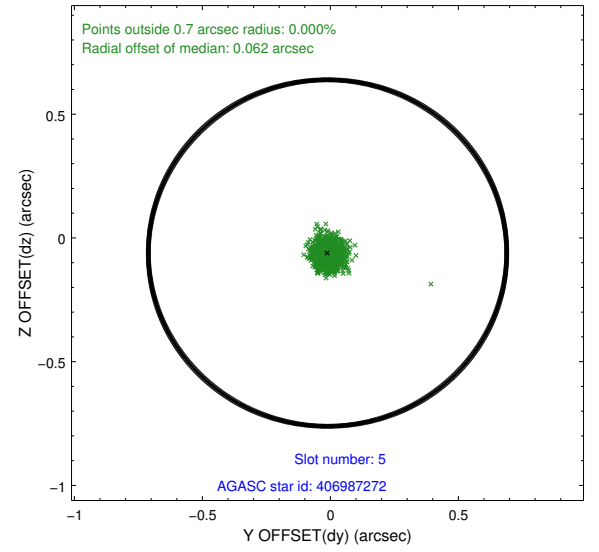
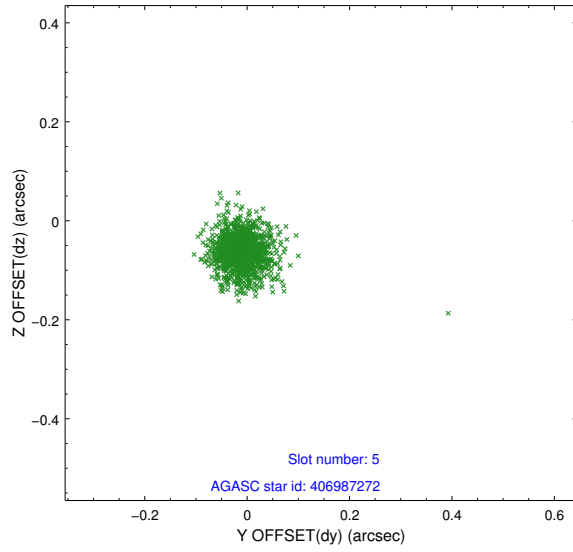
### 2.4.1 Slot 3



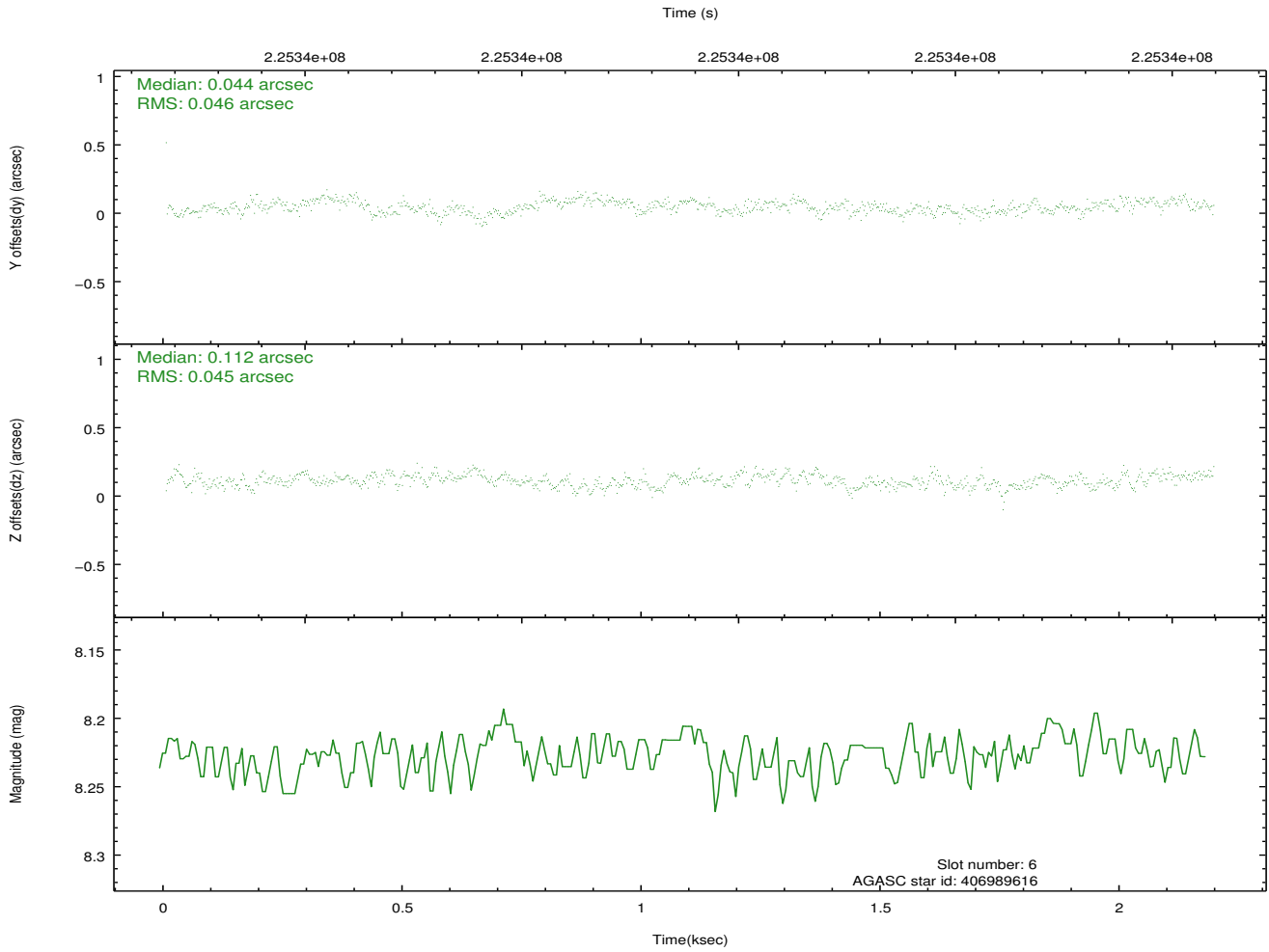
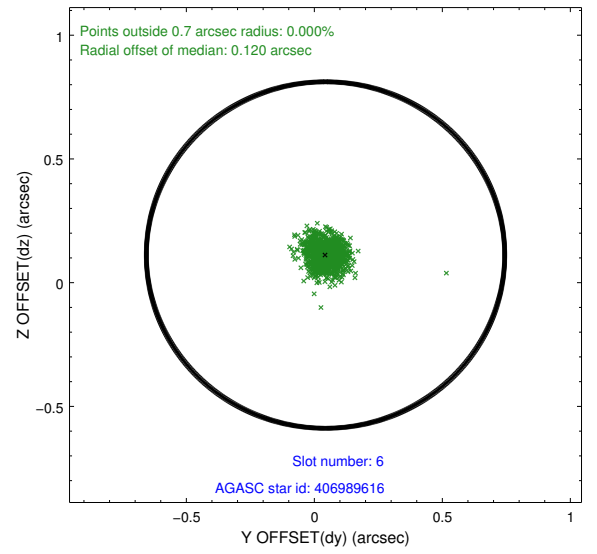
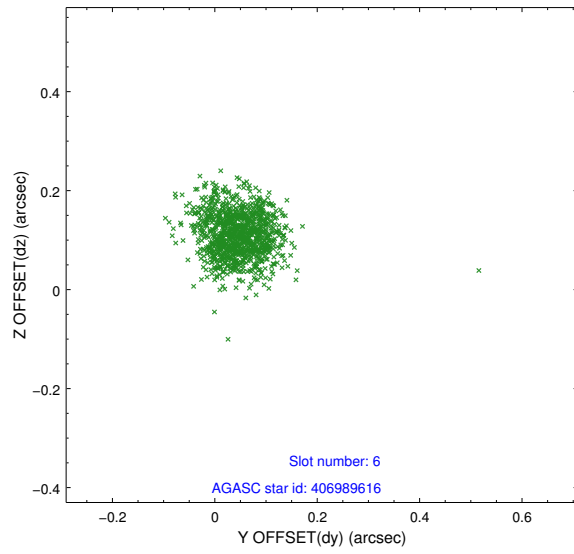
## 2.4.2 Slot 4



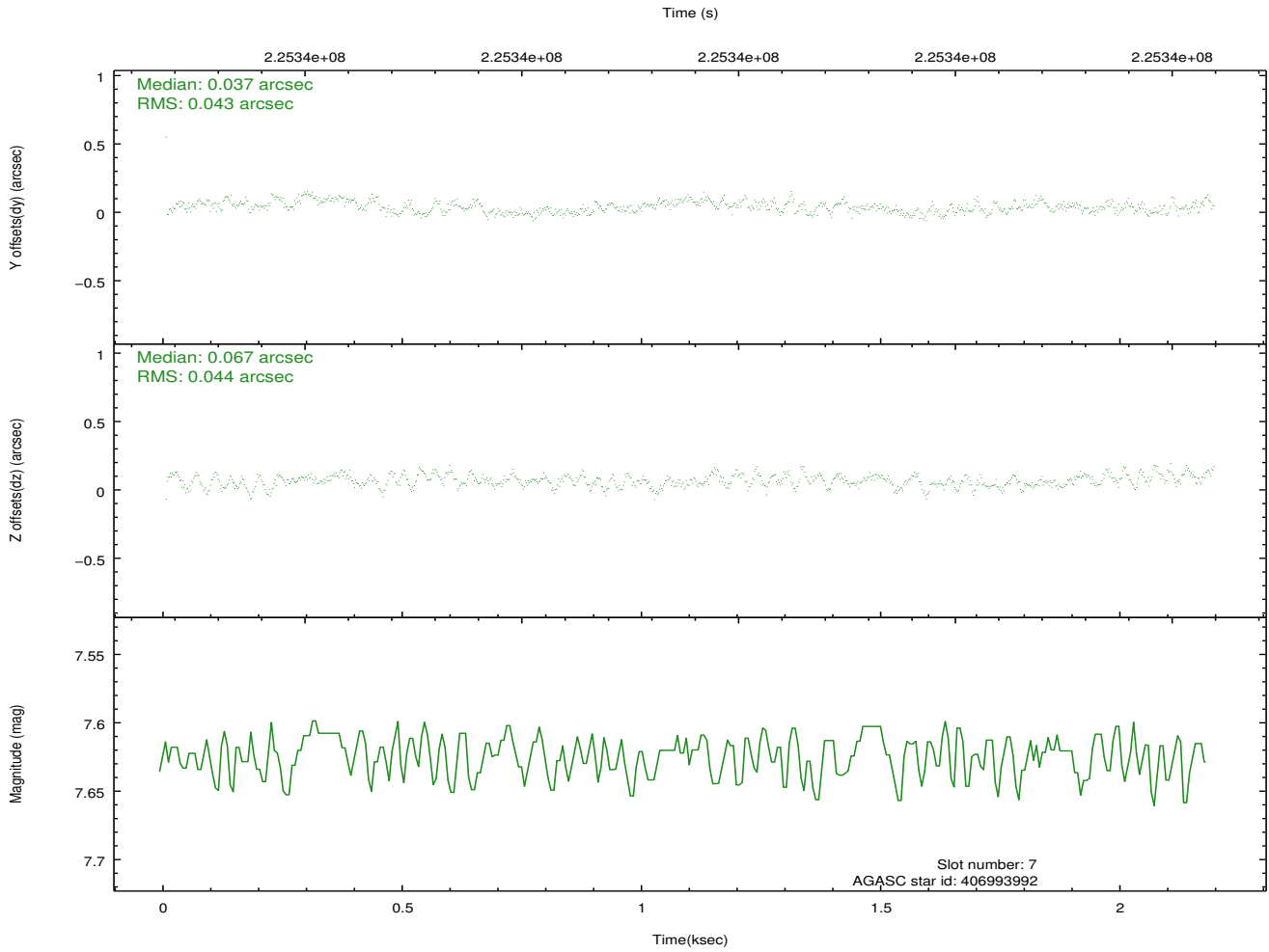
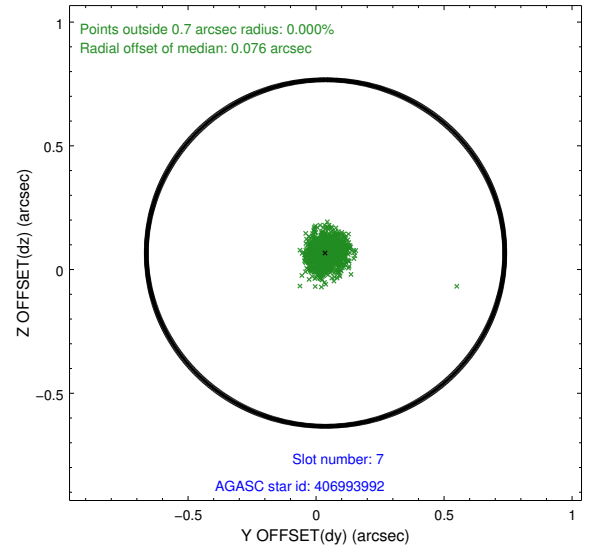
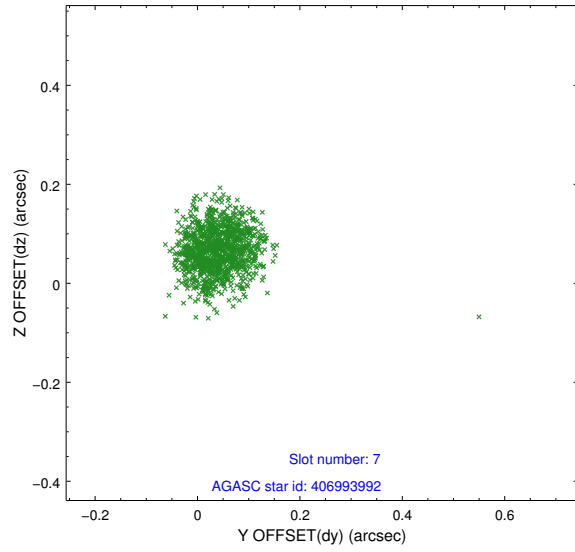
### 2.4.3 Slot 5



## 2.4.4 Slot 6

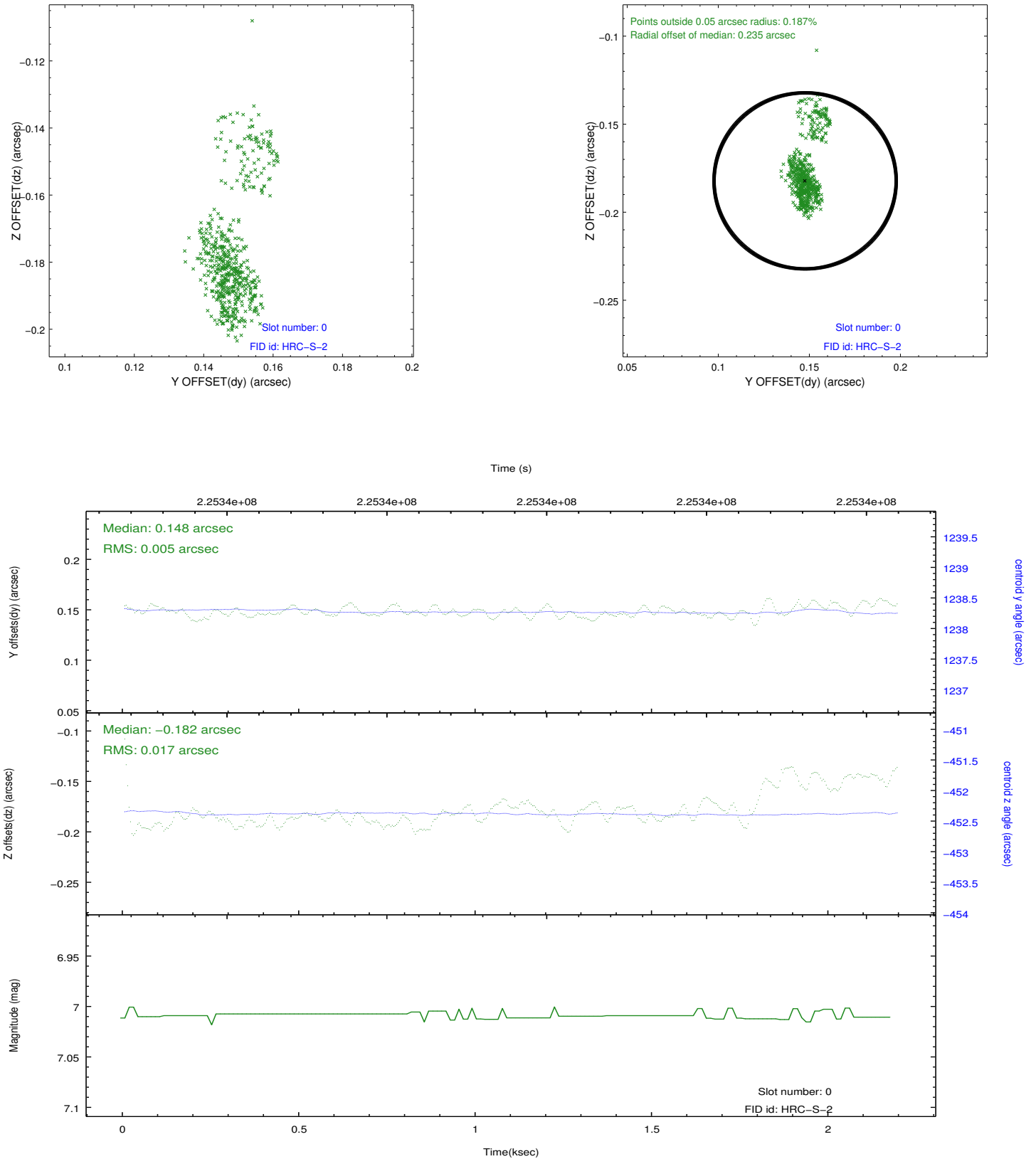


## 2.4.5 Slot 7

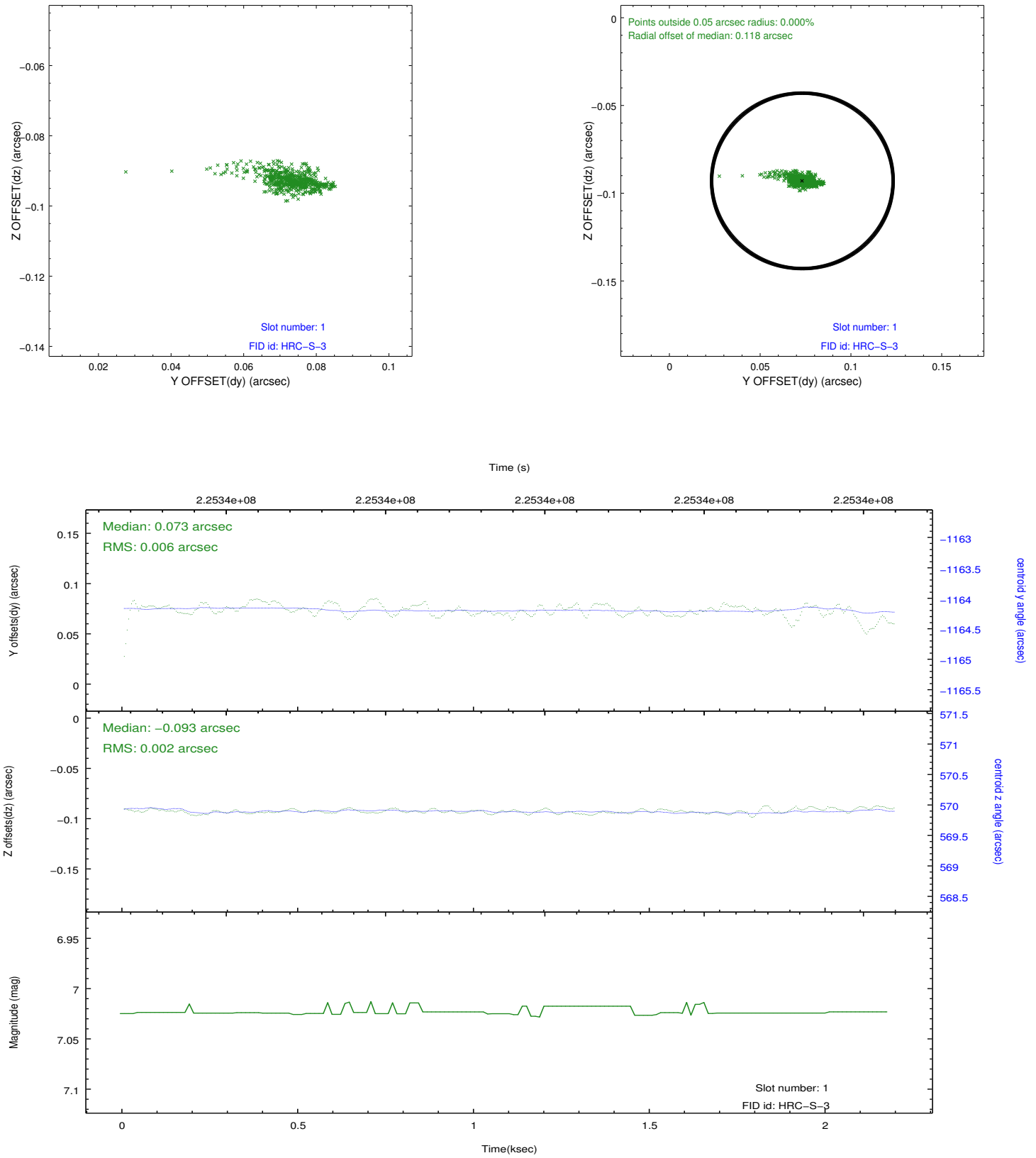


## 2.5 FID Slots

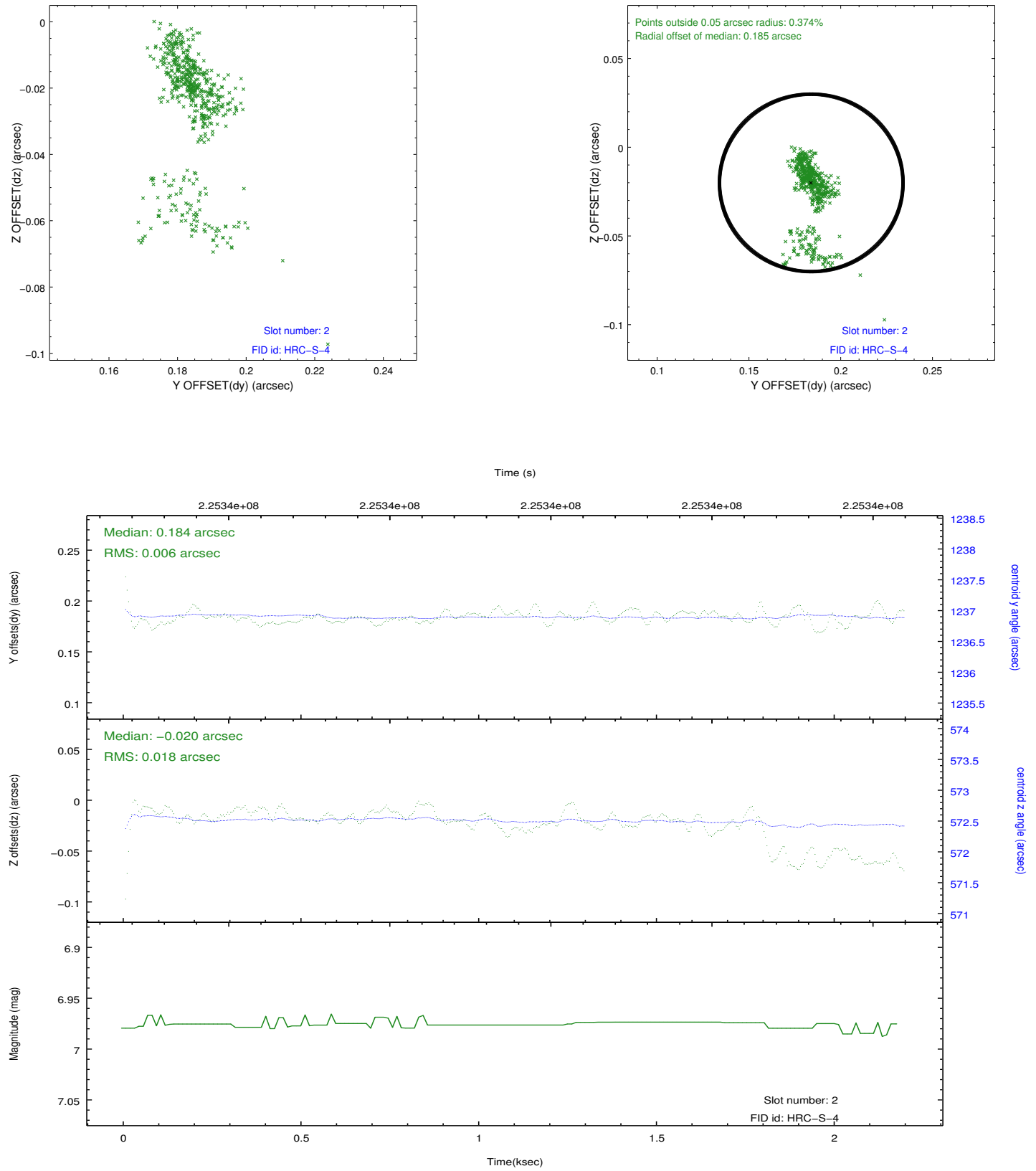
### 2.5.1 Slot 0



## 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)      | 2013.01.10 |
| V&V Edition                | 1          |
| V&V Disposition and Status | OK         |
| V&V Charge Time            | 2.1894     |

### A.2 Comments

Window constraint met.