

# V&V Reference Report

## L2 ASCDS Version : 7.6.10

Observation 2367 - L2 Version 001  
Chandra X-Ray Center

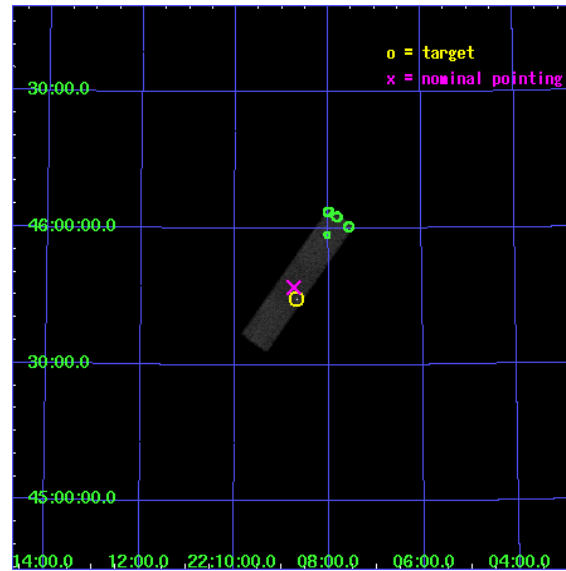
L2 Processing Date : Jun 21 2007

## 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>3</b> | <b>Point Sources</b>          | <b>17</b> |
| <b>A</b> | <b>Summary</b>                | <b>18</b> |
| A.1      | Status . . . . .              | 18        |
| A.2      | Comments . . . . .            | 18        |

# 1 Front

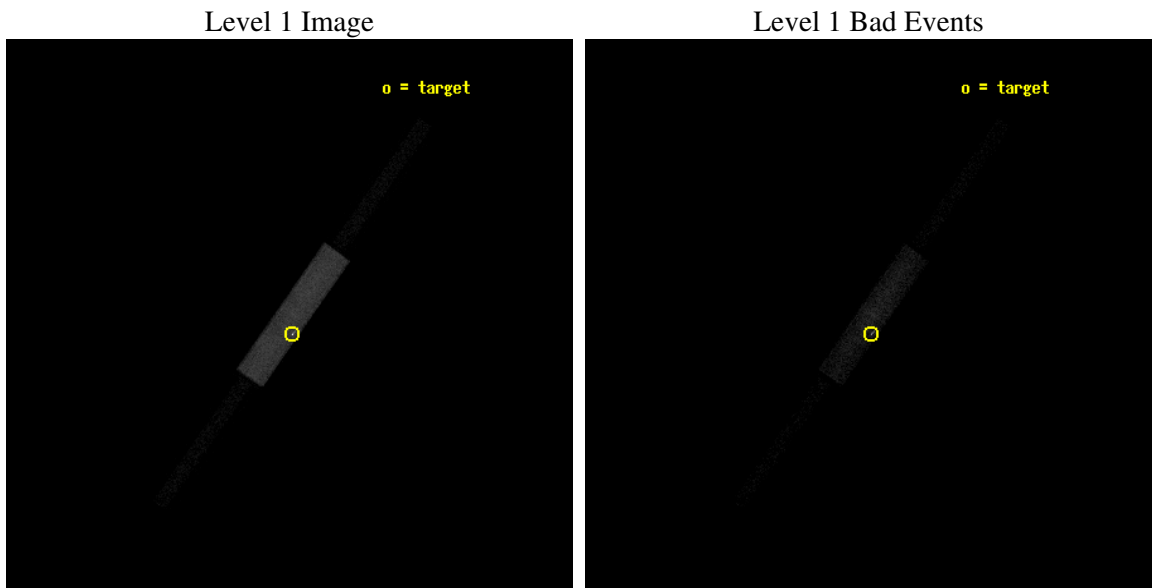
|          |   |
|----------|---|
| seq_num  | 290113                                  |
| obs_id   | 2367                                    |
| title    | HRC-I CALIBRATION OBSERVATIONS OF ARLAC |
| observer | Dr. CXC Calibration                     |
| object   | ARLAC,HRC-S,AO2                         |
| ra_targ  | 332.17                                  |
| dec_targ | 45.742306                               |
| ra_nom   | 332.18535487096                         |
| dec_nom  | 45.784985621358                         |
| roll_nom | 305.11212573245                         |
| revision | 4                                       |
| ontime   | 1142.1062936783                         |
| livetime | 1135.5558208757                         |
| l2events | 44311                                   |



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

|          |                     |
|----------|---------------------|
| obi_num  | 0                   |
| ascdsver | 7.6.10              |
| caldbver | 3.4.0               |
| date     | 2007-06-21T15:04:05 |
| revision | 3                   |

|                |                 |
|----------------|-----------------|
| sched_exp_time | 1000.000000     |
| ontime         | 1142.1062936783 |
| l1events       | 76853           |

### 2.1.3 Events

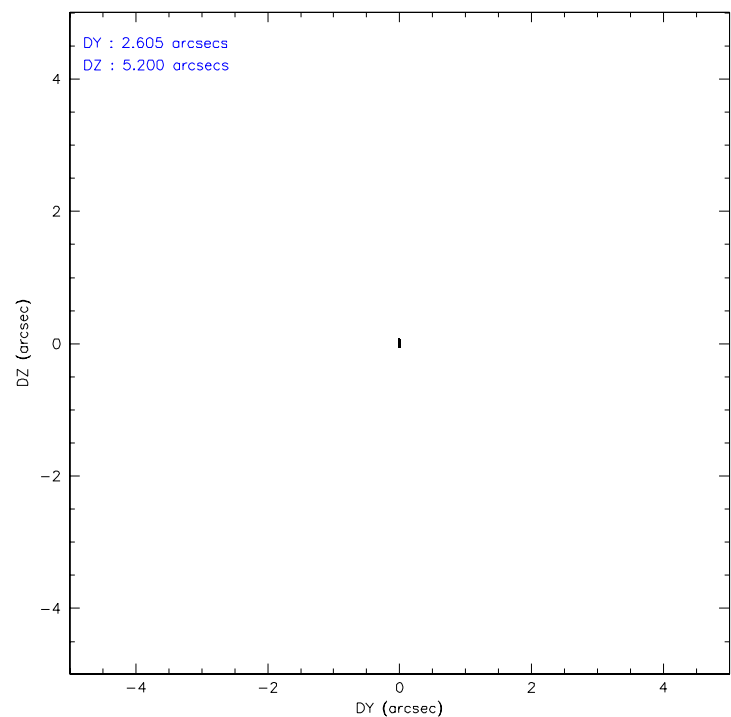
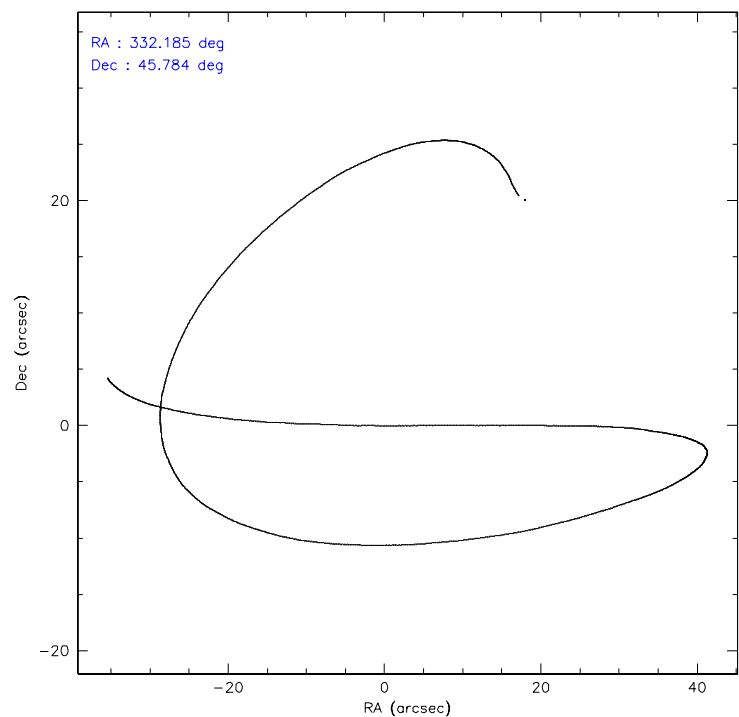
Level 1 Events

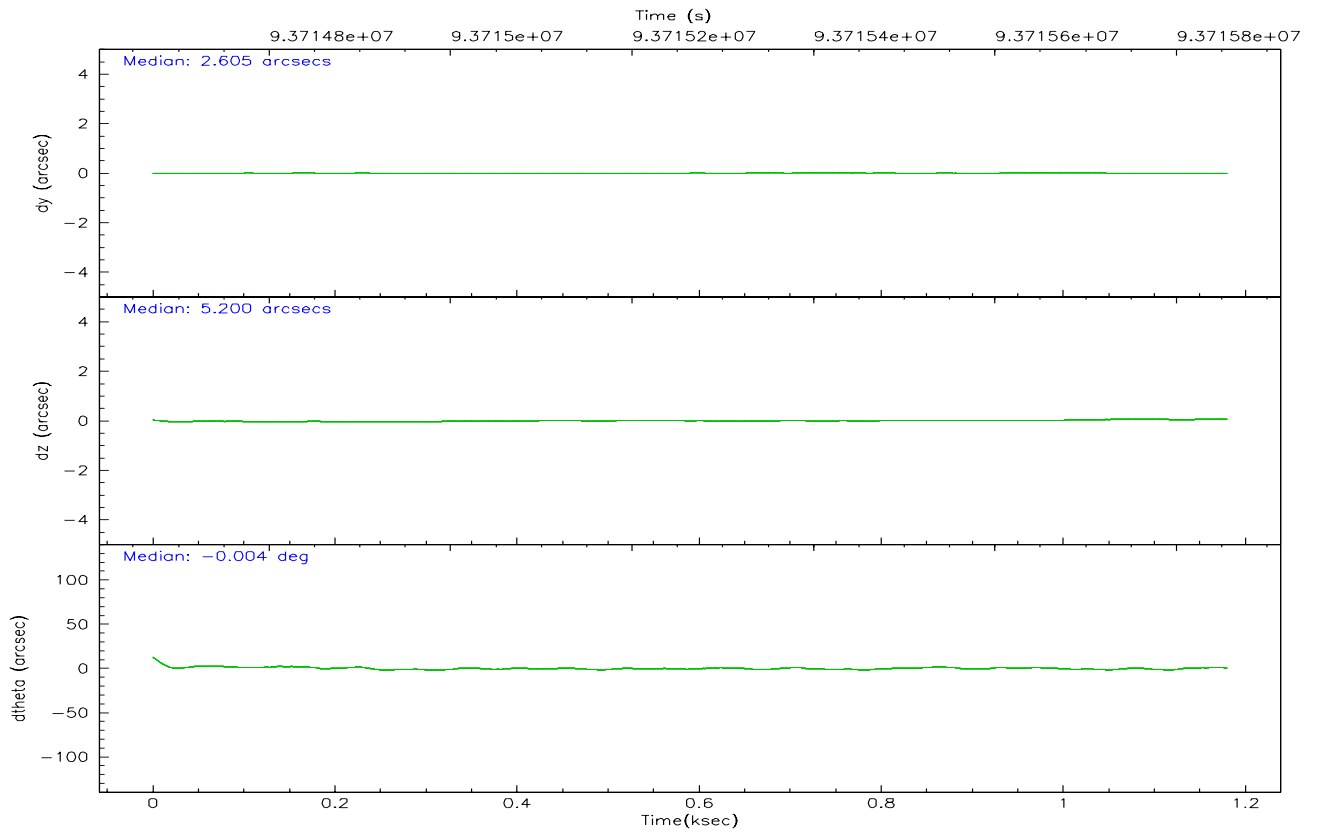
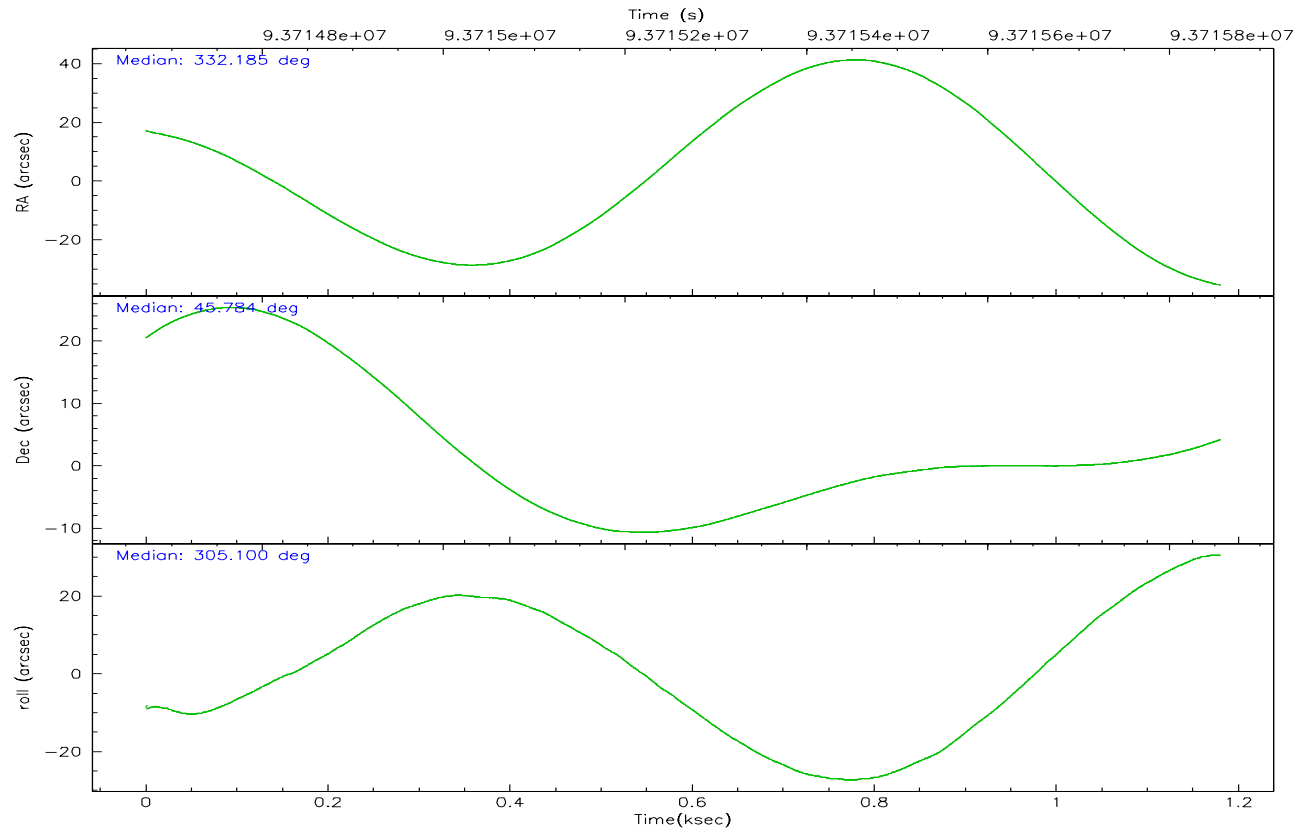
|                    | <b>segment<br/>1</b> | <b>segment<br/>2</b> | <b>segment<br/>3</b> |
|--------------------|----------------------|----------------------|----------------------|
| level 1<br>events  | 2829                 | 71673                | 2351                 |
| rejected<br>events | 2829                 | 24749                | 2351                 |
| rejected<br>%      | 100%                 | 34%                  | 100%                 |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                    | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|------------------------------|-----------|---------|
| Instrument                        | HRC                 | HRC                  | Obspar format version number | 6         | 6       |
| Detector                          | HRC-S               | HRC-S                | Obspar file type             | PREDICTED | ACTUAL  |
| Grating                           | NONE                | NONE                 | Obspar update status         | NONE      | UPDATED |
| Data mode                         | OBSERVING           | OBSERVING            |                              |           |         |
| Observation mode                  | POINTING            | POINTING             |                              |           |         |
| Pointing RA                       | 332.147362          | 332.1853548709613    |                              |           |         |
| Pointing Dec                      | 45.795565           | 45.78498562135843    |                              |           |         |
| Pointing Roll                     | 305.072063          | 305.1121257324472    |                              |           |         |
| SIM focus pos (mm)                | -1.429586           | -1.428180813131781   |                              |           |         |
| SIM defocus (mm)                  | 0.1037507710433287  | 0.1051558262725154   |                              |           |         |
| SIM translation stage pos (mm)    | 250.455976          | 250.466033080201     |                              |           |         |
| SIM translation stage offset (mm) | 0                   | -0.01005468664627074 |                              |           |         |
| Observation start time            | 93714852.184000     | 93714476.08875801    |                              |           |         |
| Observation start date            | 2000-12-20T15:53:08 | 2000-12-20T15:47:56  |                              |           |         |
| Observation end time              | 93715852.184000     | 93715985.913816      |                              |           |         |
| Observation end date              | 2000-12-20T16:09:48 | 2000-12-20T16:13:05  |                              |           |         |

2.3 Aspect





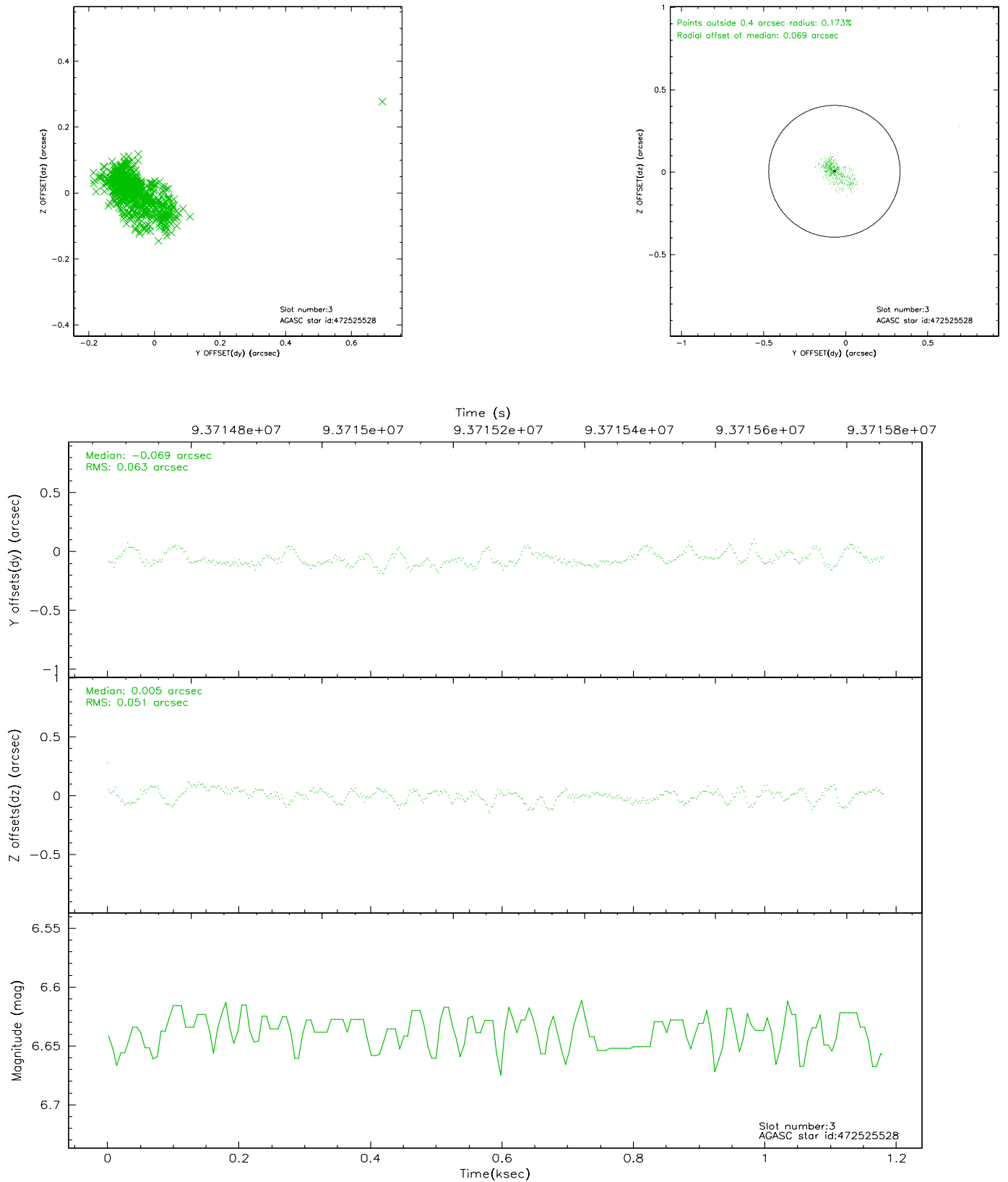
### Slot Statistics

| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0    | FID    | HRC-S-1   | 6.98 | 288   | 0.118  | -0.158 | 0.007 | 0.011 | 0.000000   | 0.000000  | -1156.65 | -453.75  |
| 1    | FID    | HRC-S-3   | 7.00 | 288   | 0.144  | -0.044 | 0.008 | 0.014 | 0.000000   | 0.000000  | -1163.37 | 574.32   |
| 2    | FID    | HRC-S-4   | 6.94 | 288   | 0.126  | -0.095 | 0.005 | 0.009 | 0.000000   | 0.000000  | 1237.57  | 580.43   |
| 3    | GUIDE  | 472525528 | 6.64 | 577   | -0.069 | 0.005  | 0.076 | 0.135 | 331.551102 | 45.248694 | 739.48   | -2366.23 |
| 4    | GUIDE  | 472523760 | 8.23 | 577   | -0.059 | -0.147 | 0.057 | 0.094 | 331.645363 | 45.403260 | 425.85   | -1853.38 |
| 5    | GUIDE  | 472665256 | 9.02 | 577   | -0.115 | -0.105 | 0.074 | 0.120 | 332.808125 | 46.195041 | -235.55  | 2173.01  |
| 6    | GUIDE  | 472655152 | 9.43 | 577   | 0.042  | 0.089  | 0.084 | 0.137 | 332.504239 | 45.862991 | 313.98   | 875.27   |
| 7    | GUIDE  | 472646552 | 9.63 | 576   | 0.197  | 0.179  | 0.106 | 0.177 | 333.120915 | 45.571877 | 2057.72  | 1554.37  |

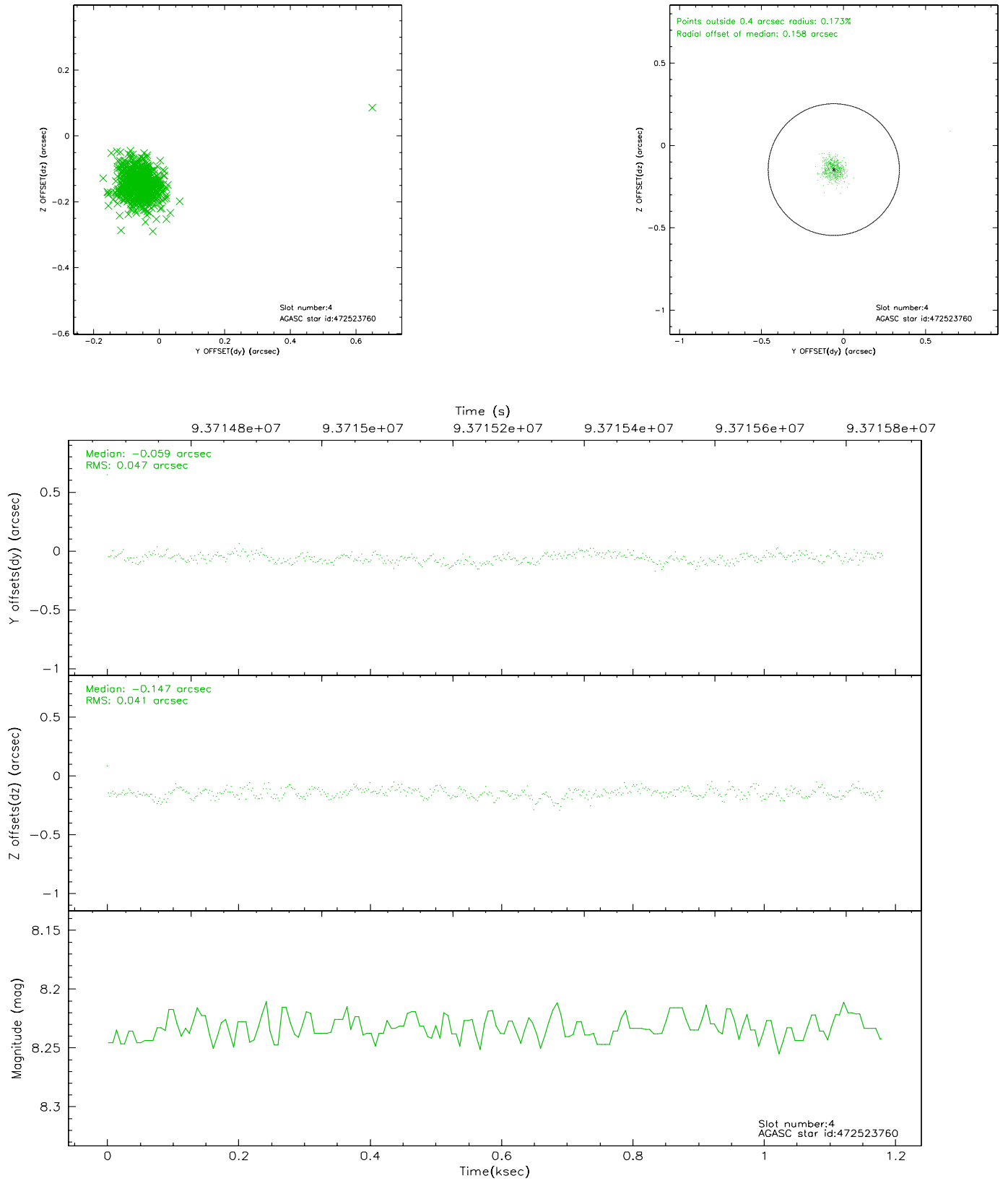


## 2.4 Star Slots

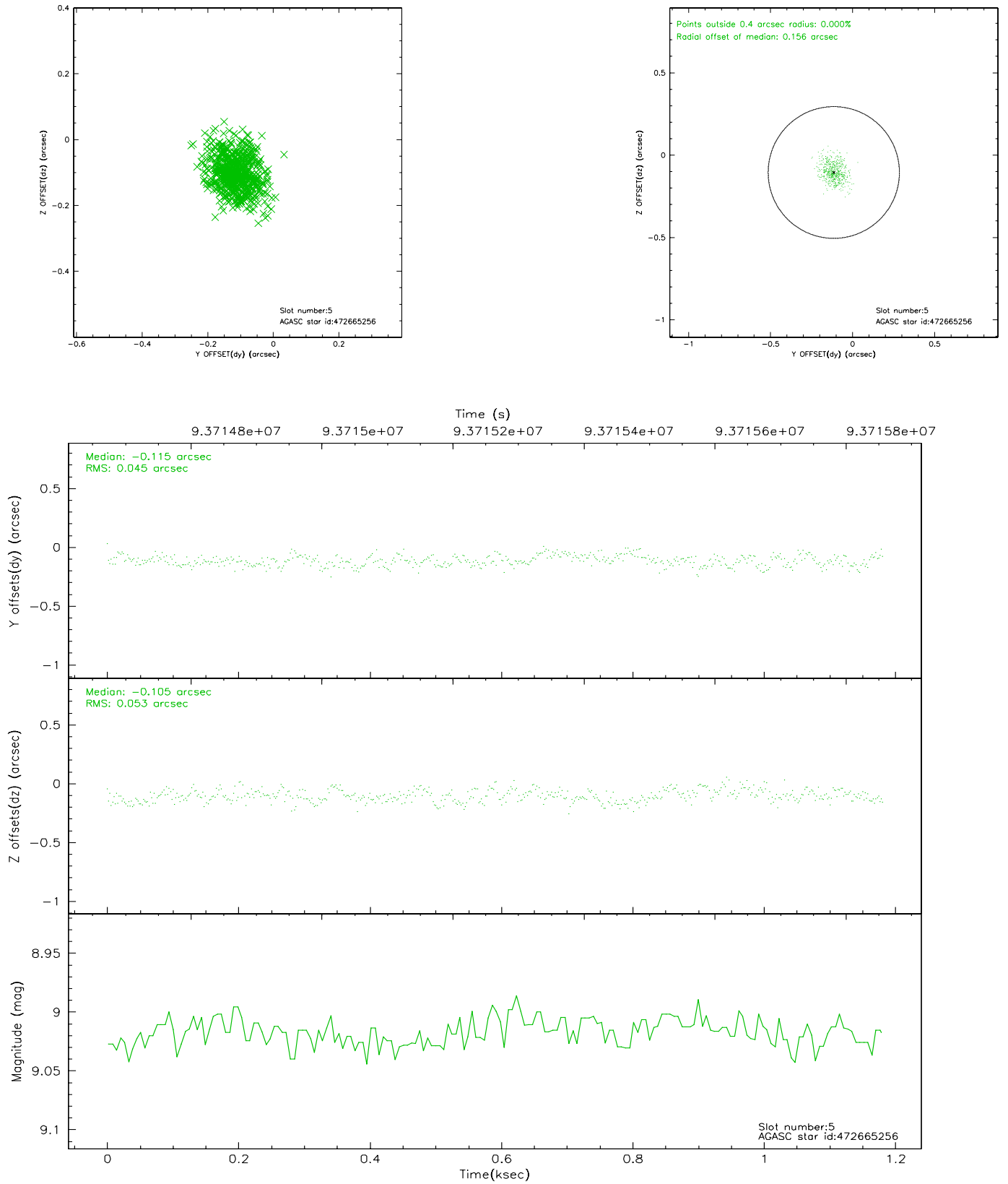
### 2.4.1 Slot 3



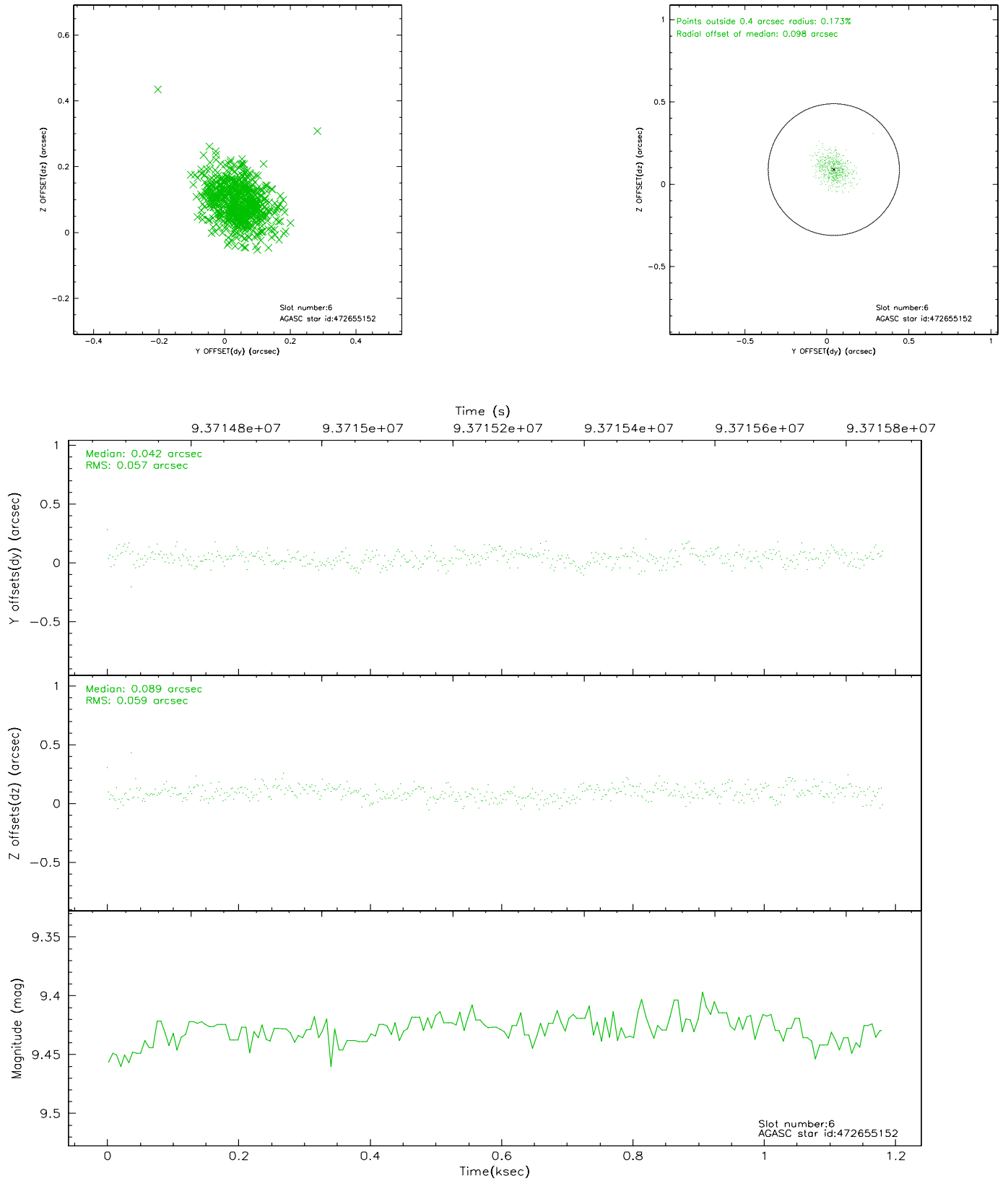
## 2.4.2 Slot 4



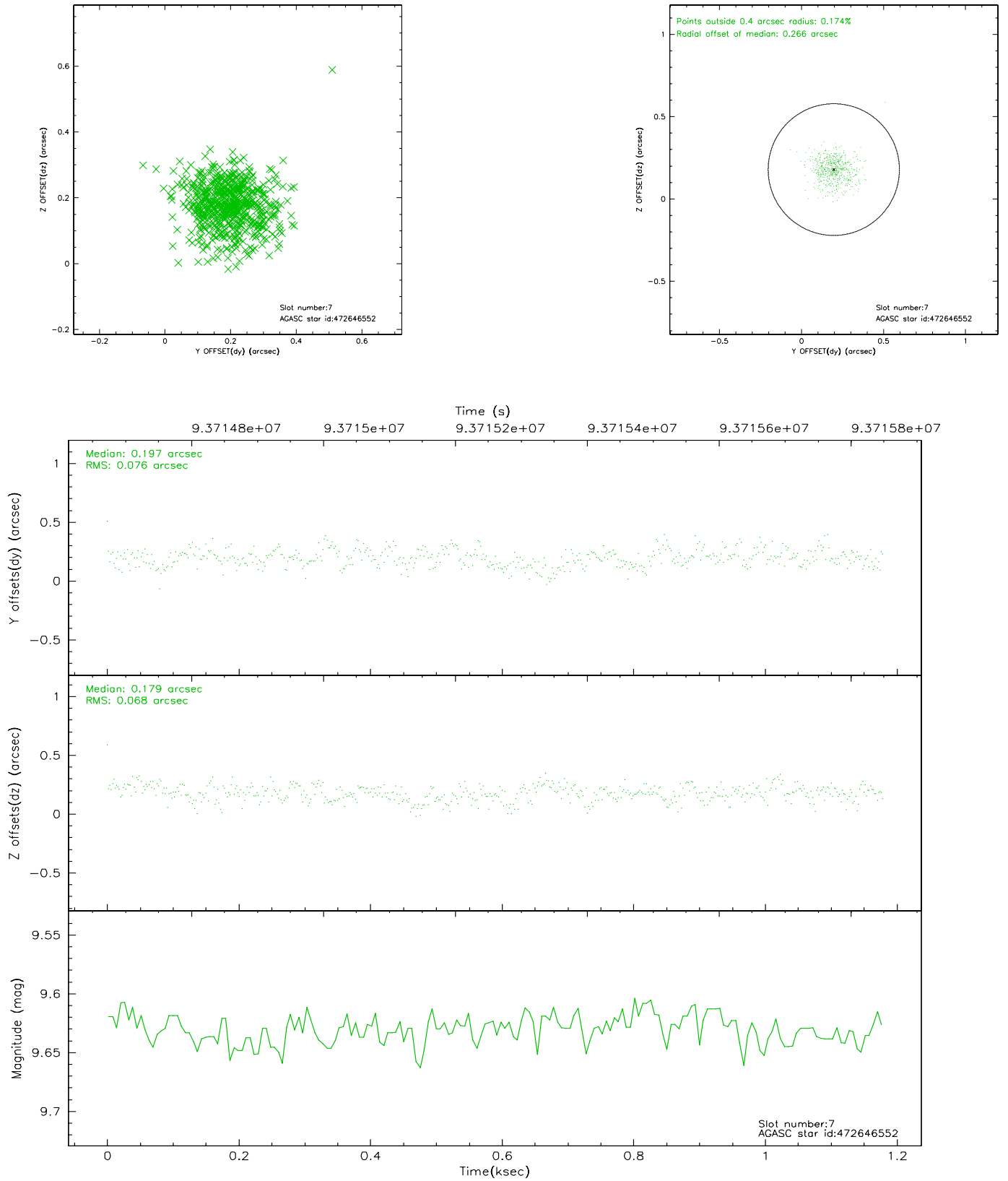
### 2.4.3 Slot 5



## 2.4.4 Slot 6

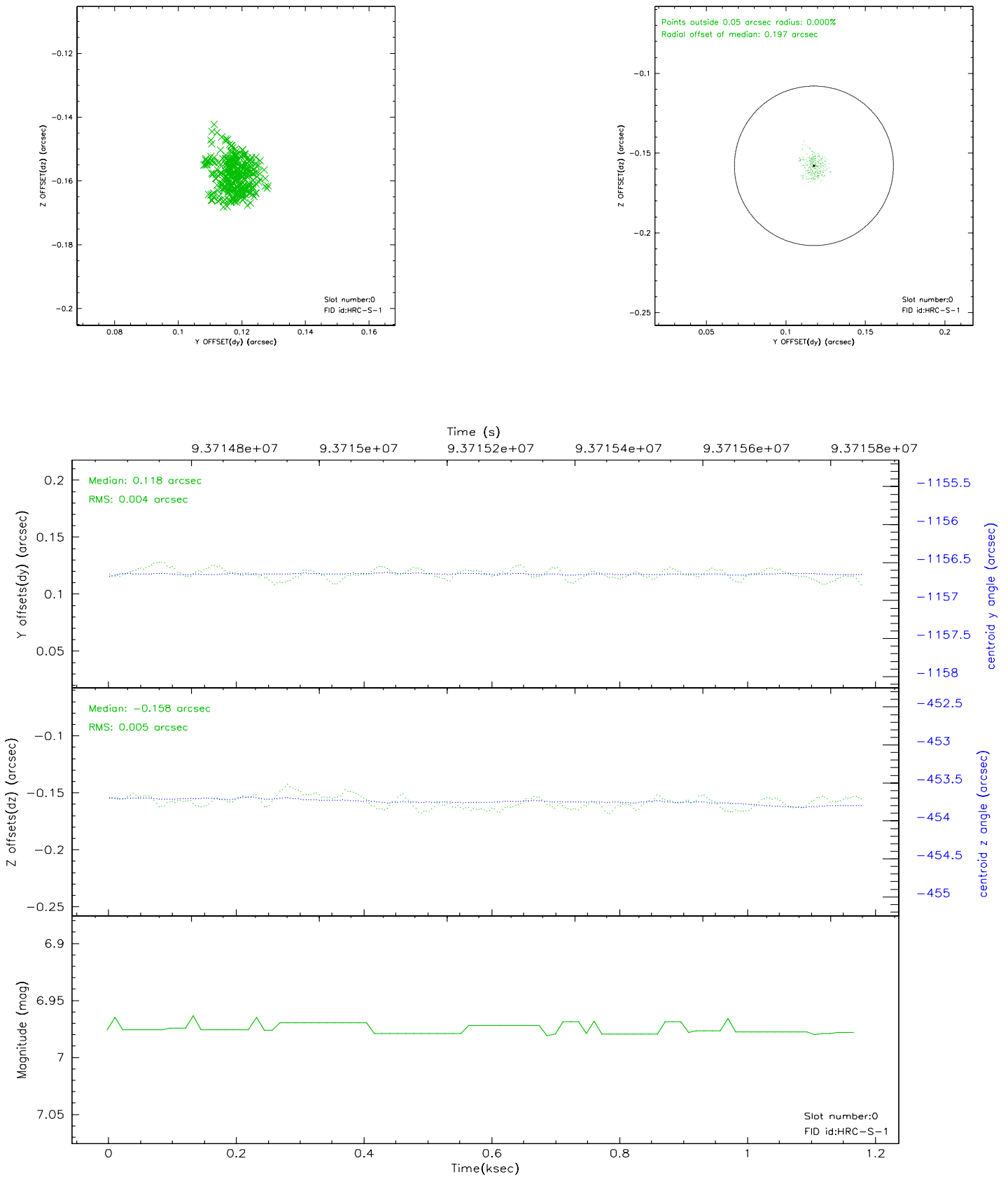


## 2.4.5 Slot 7

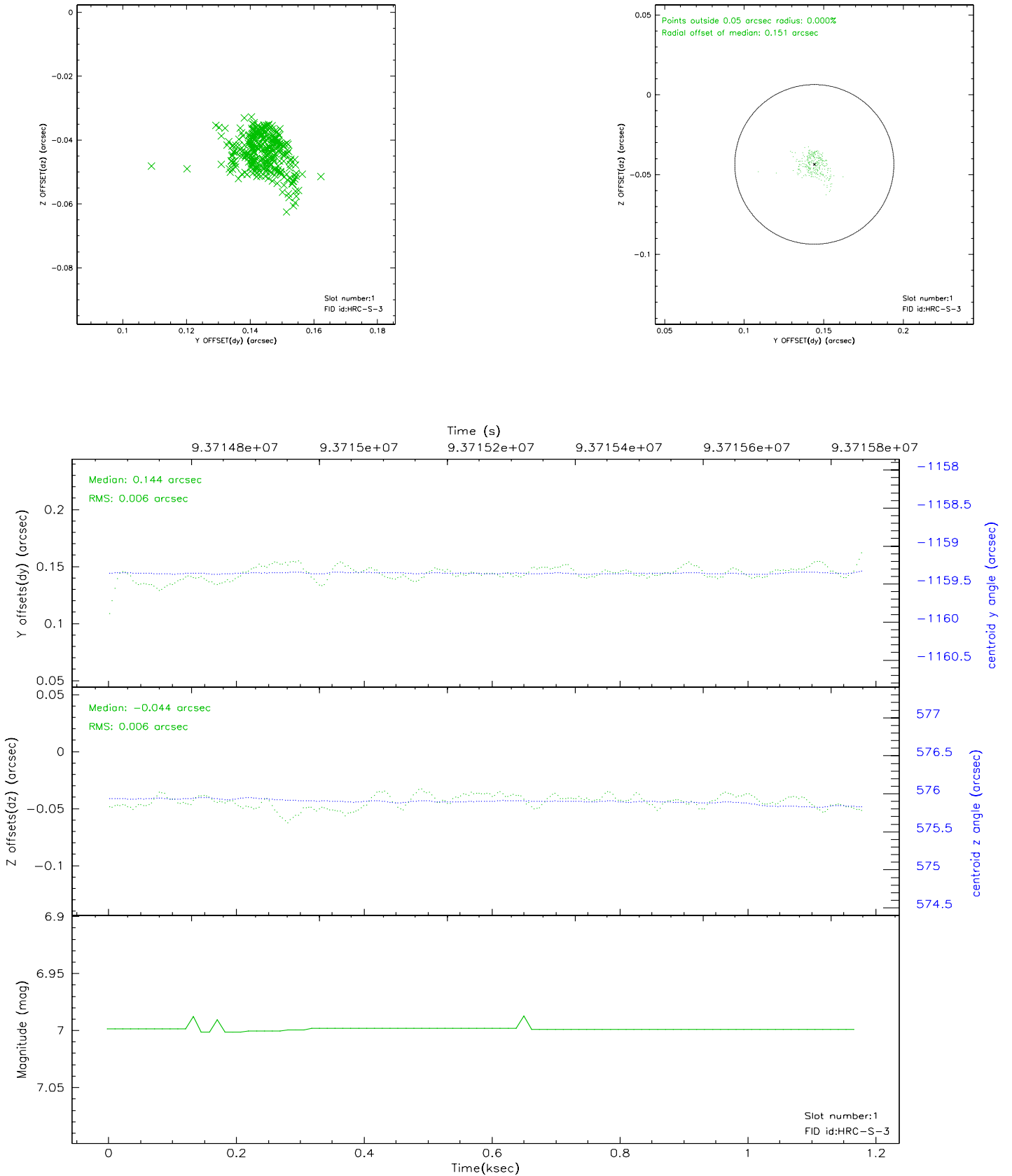


## 2.5 FID Slots

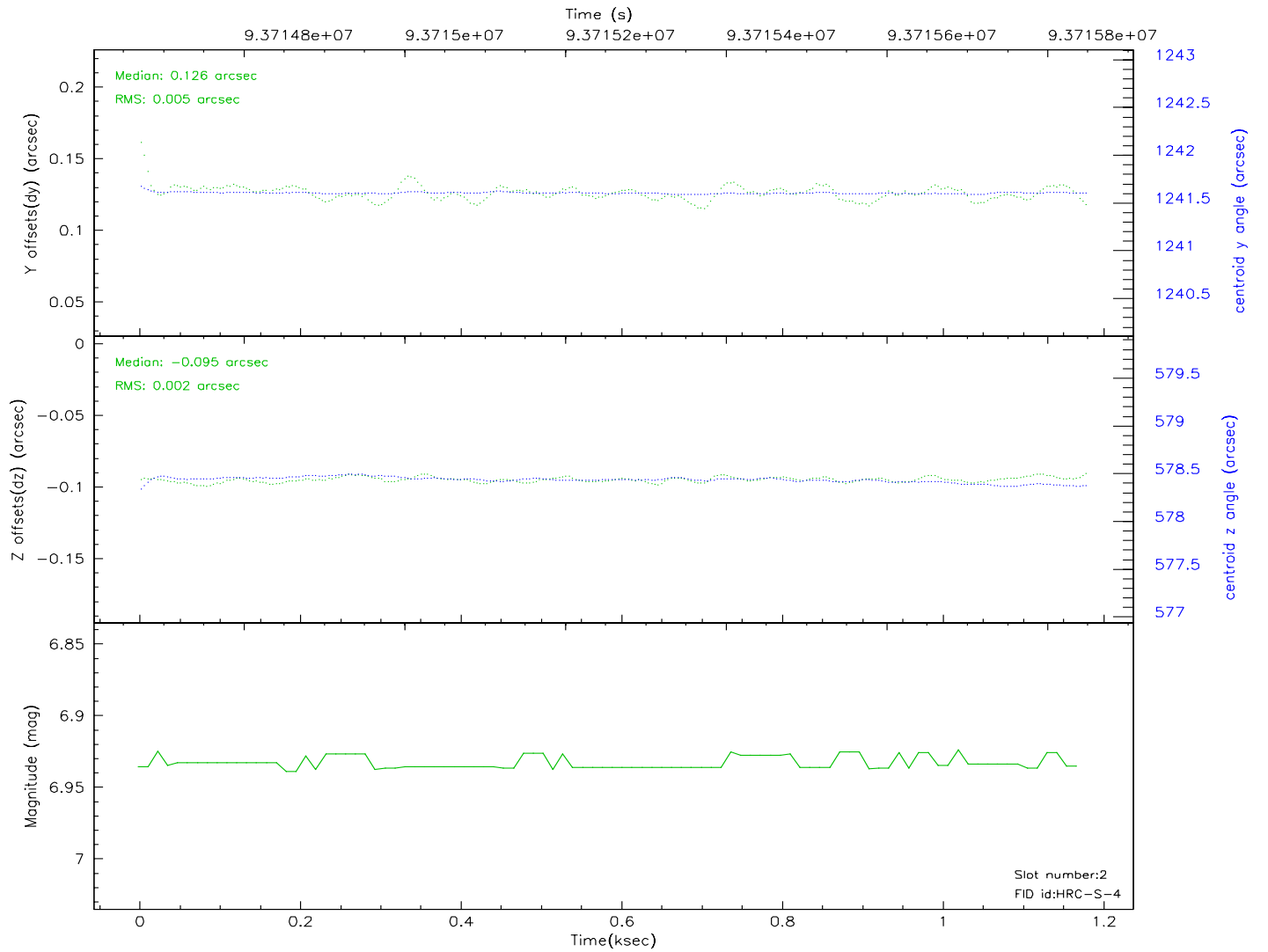
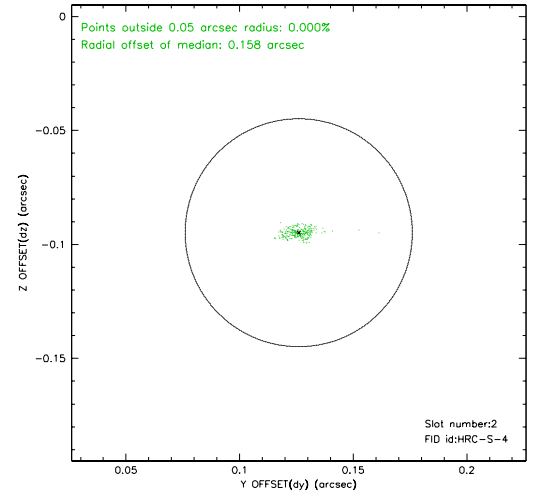
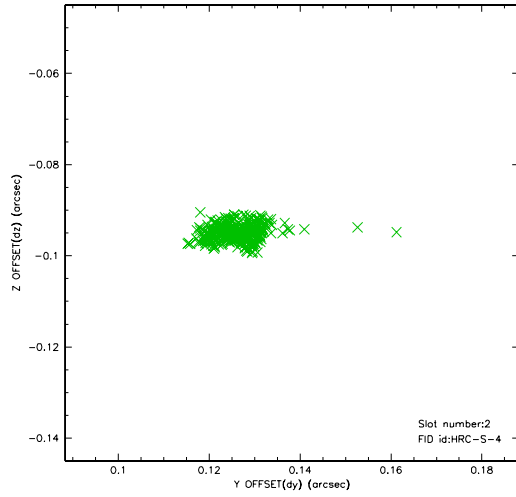
### 2.5.1 Slot 0



## 2.5.2 Slot 1

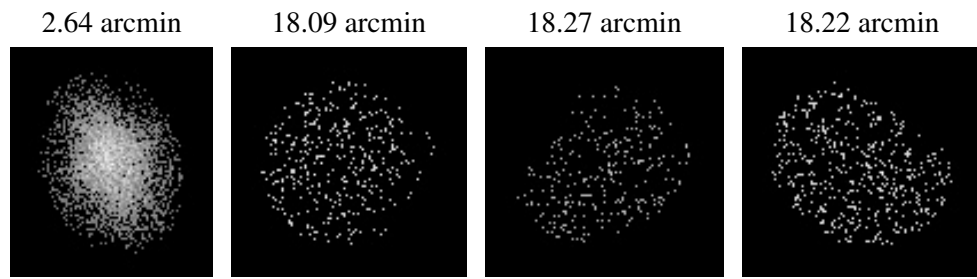


### 2.5.3 Slot 2





### 3 Point Sources



## A Summary

### A.1 Status

|                            |               |
|----------------------------|---------------|
| V&V Scientist              | Beth Sundheim |
| V&V Date (YYYY-MM-DD)      | 2007.06.22    |
| V&V Edition                | 1             |
| V&V Disposition and Status | OK            |
| V&V Charge Time            | 1.18          |

### A.2 Comments