

# V&V Reference Report

## L2 ASCDS Version : 7.6.8

Observation 3511 - L2 Version 001  
Chandra X-Ray Center

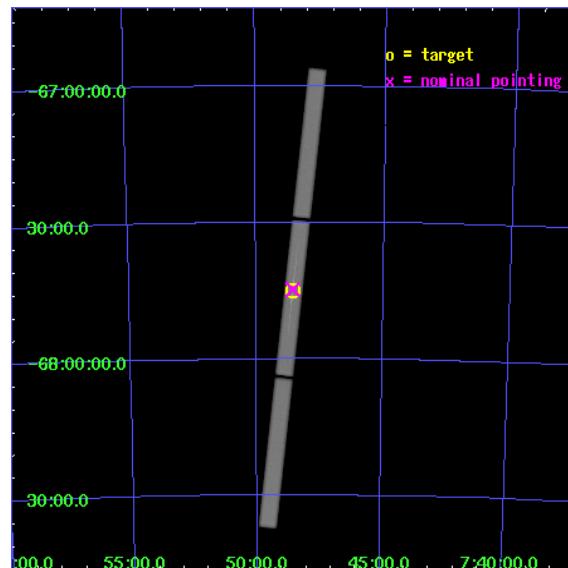
L2 Processing Date : Jul 1 2006

## 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>Gratings</b>               | <b>17</b> |
| 3.1      | LETG Arm . . . . .            | 17        |
| <b>A</b> | <b>Summary</b>                | <b>19</b> |
| A.1      | Status . . . . .              | 19        |
| A.2      | Comments . . . . .            | 19        |

# 1 Front

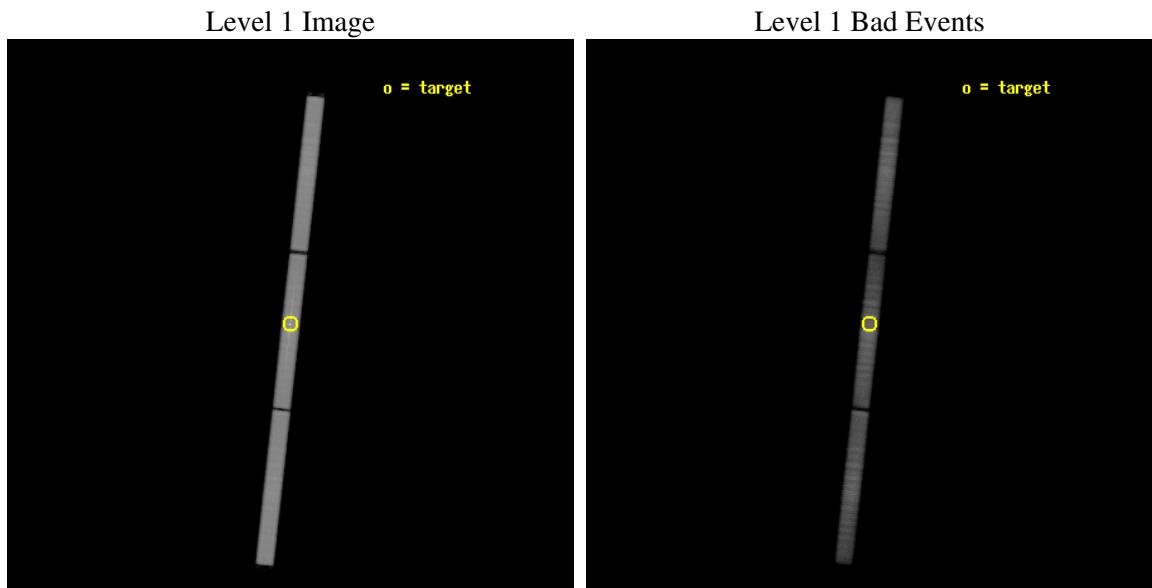
|          |   |
|----------|---|
| seq_num  | 400264                                  |
| obs_id   | 3511                                    |
| title    | SOFT X-RAY EMISSION FROM X-RAY BINARIES |
| observer | Dr Mariano Mendez                       |
| object   | EXO 0748-676                            |
| ra_targ  | 117.13875                               |
| dec_targ | -67.75                                  |
| ra_nom   | 117.13776633926                         |
| dec_nom  | -67.745370051684                        |
| roll_nom | 96.260495352963                         |
| revision | 2                                       |
| ontime   | 39982.432969421                         |
| livetime | 39745.671072754                         |
| l2events | 1759301                                 |



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



## 2.1.2 Parameters

|          |                     |
|----------|---------------------|
| obi_num  | 0                   |
| ascdsver | 7.6.8               |
| caldbver | 3.2.2               |
| date     | 2006-07-01T22:43:33 |
| revision | 2                   |

|                |                 |
|----------------|-----------------|
| sched_exp_time | 40000.000000    |
| ontime         | 40072.376723289 |
| l1events       | 2623813         |

## 2.1.3 Events

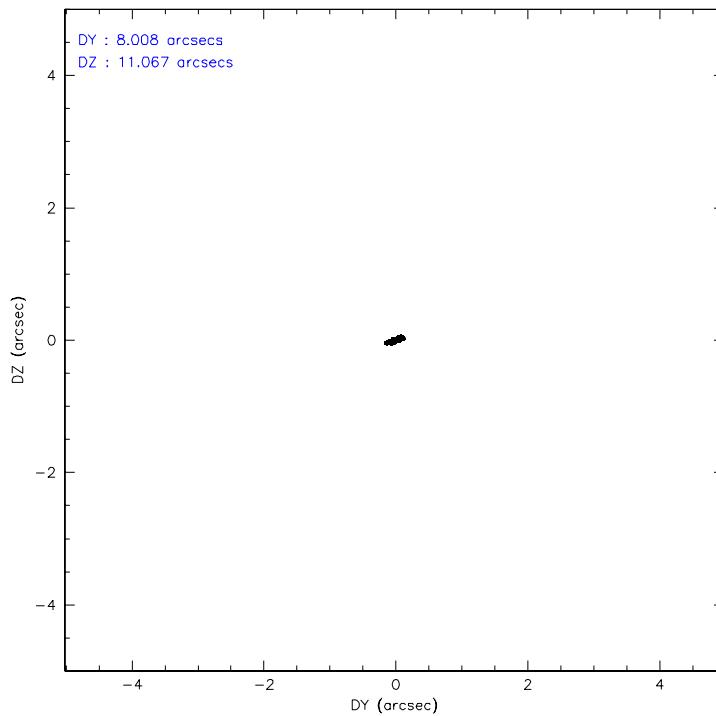
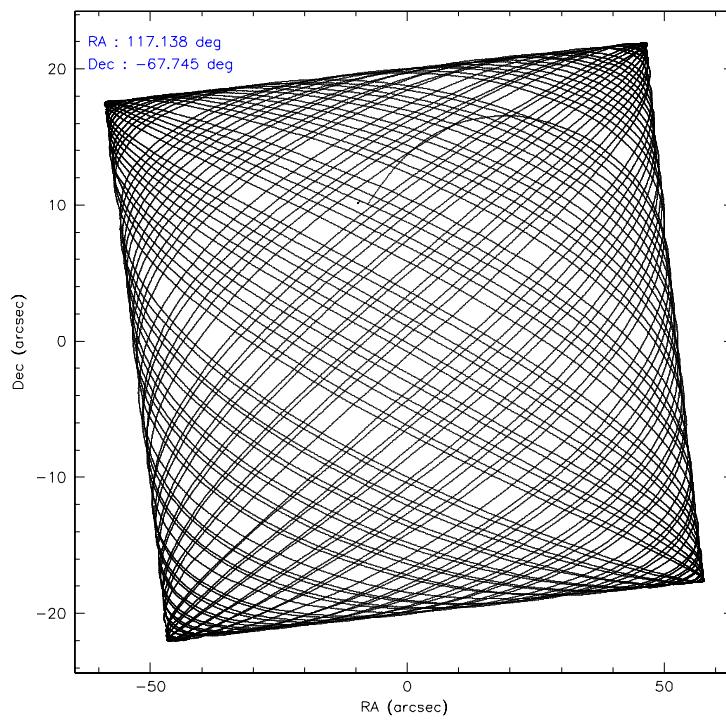
Level 1 Events

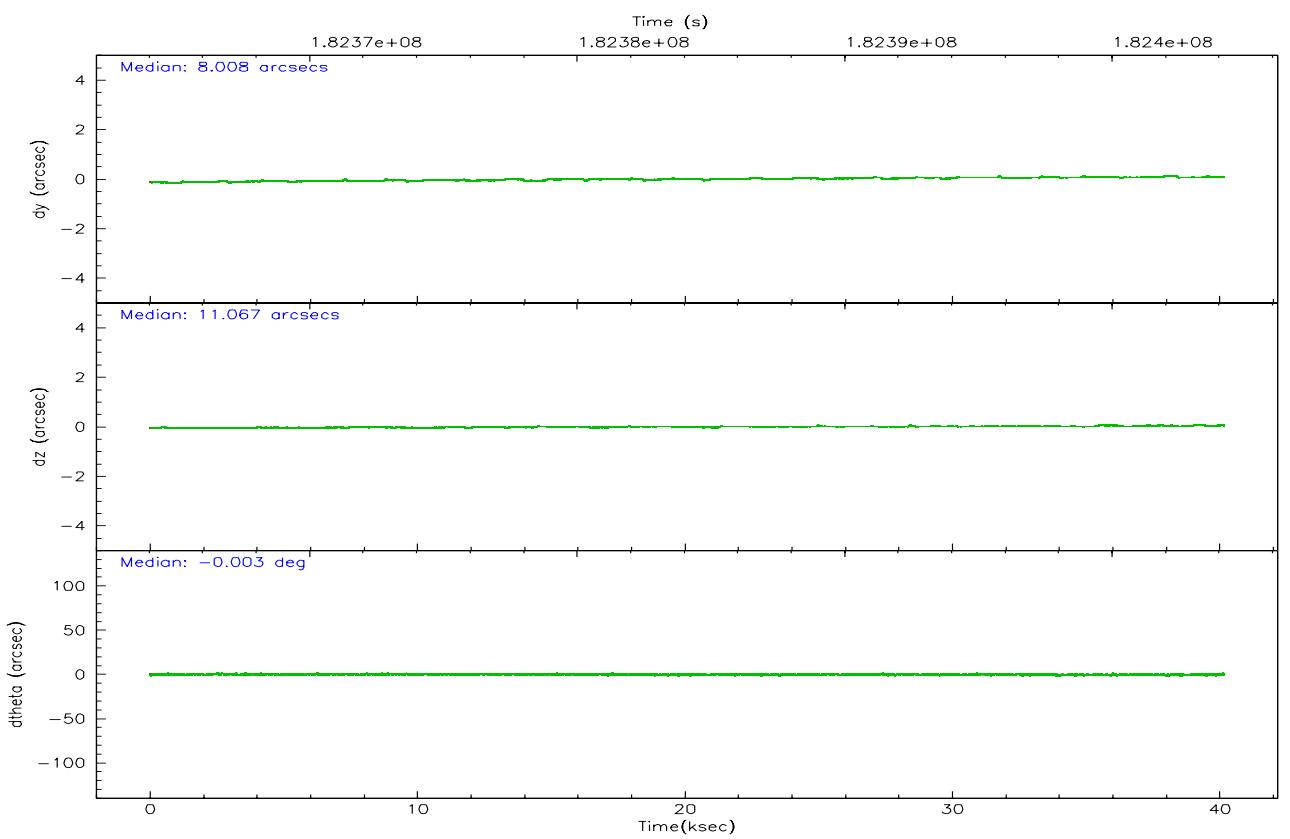
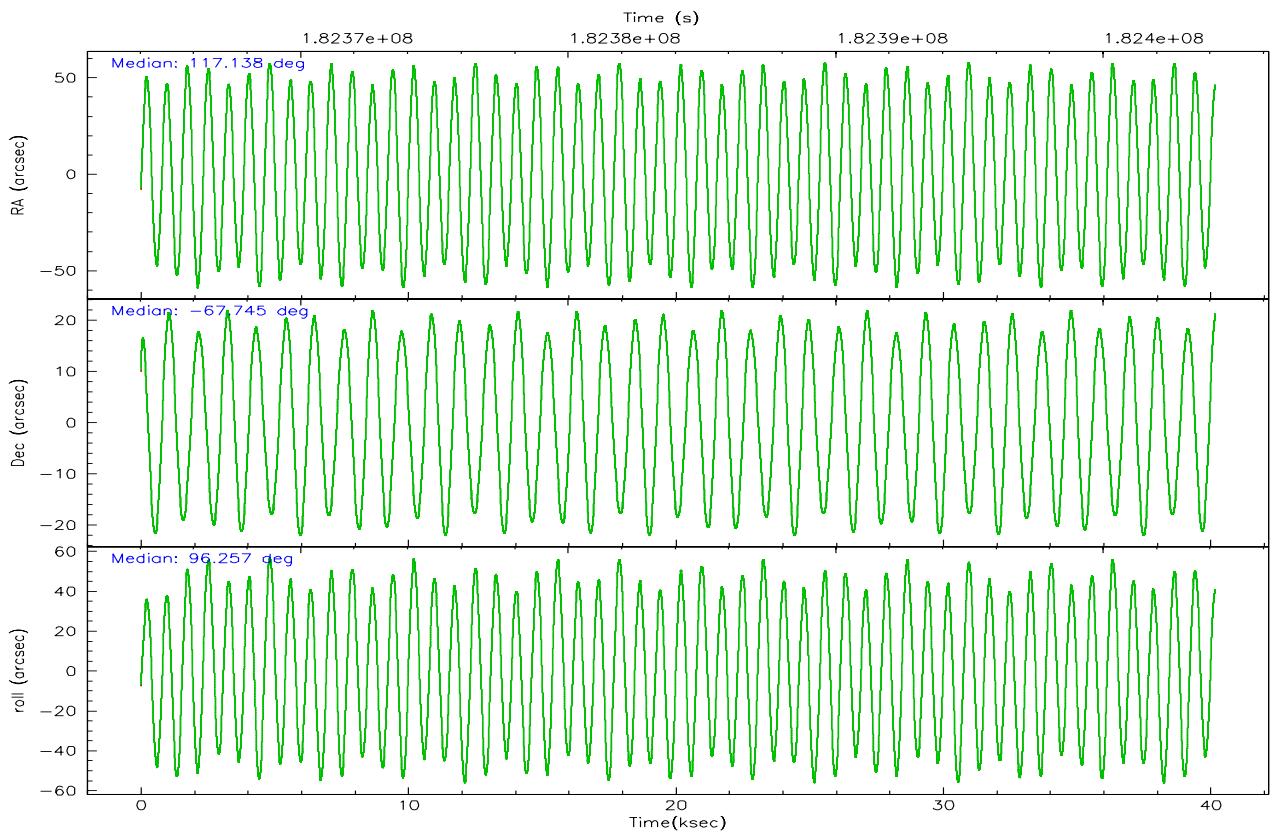
|                 | segment<br>1 | segment<br>2 | segment<br>3 |
|-----------------|--------------|--------------|--------------|
| level 1 events  | 870376       | 881097       | 872340       |
| rejected events | 185080       | 202292       | 226016       |
| rejected %      | 21%          | 22%          | 25%          |

## 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                           | LETG                | LETG                 | Obspar update status         | NONE      | UPDATED |
| Data mode                         | OBSERVING           | OBSERVING            |                              |           |         |
| Observation mode                  | POINTING            | POINTING             |                              |           |         |
| Pointing RA                       | 117.185425          | 117.1377663392587    |                              |           |         |
| Pointing Dec                      | -67.767517          | -67.74537005168405   |                              |           |         |
| Pointing Roll                     | 96.237268           | 96.26049535296343    |                              |           |         |
| 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            | 182364193.184000    | 182363100.68501      |                              |           |         |
| Observation start date            | 2003-10-12T16:42:09 | 2003-10-12T16:25:00  |                              |           |         |
| Observation end time              | 182404193.184000    | 182404715.6868       |                              |           |         |
| Observation end date              | 2003-10-13T03:48:49 | 2003-10-13T03:58:35  |                              |           |         |

## 2.3 Aspect





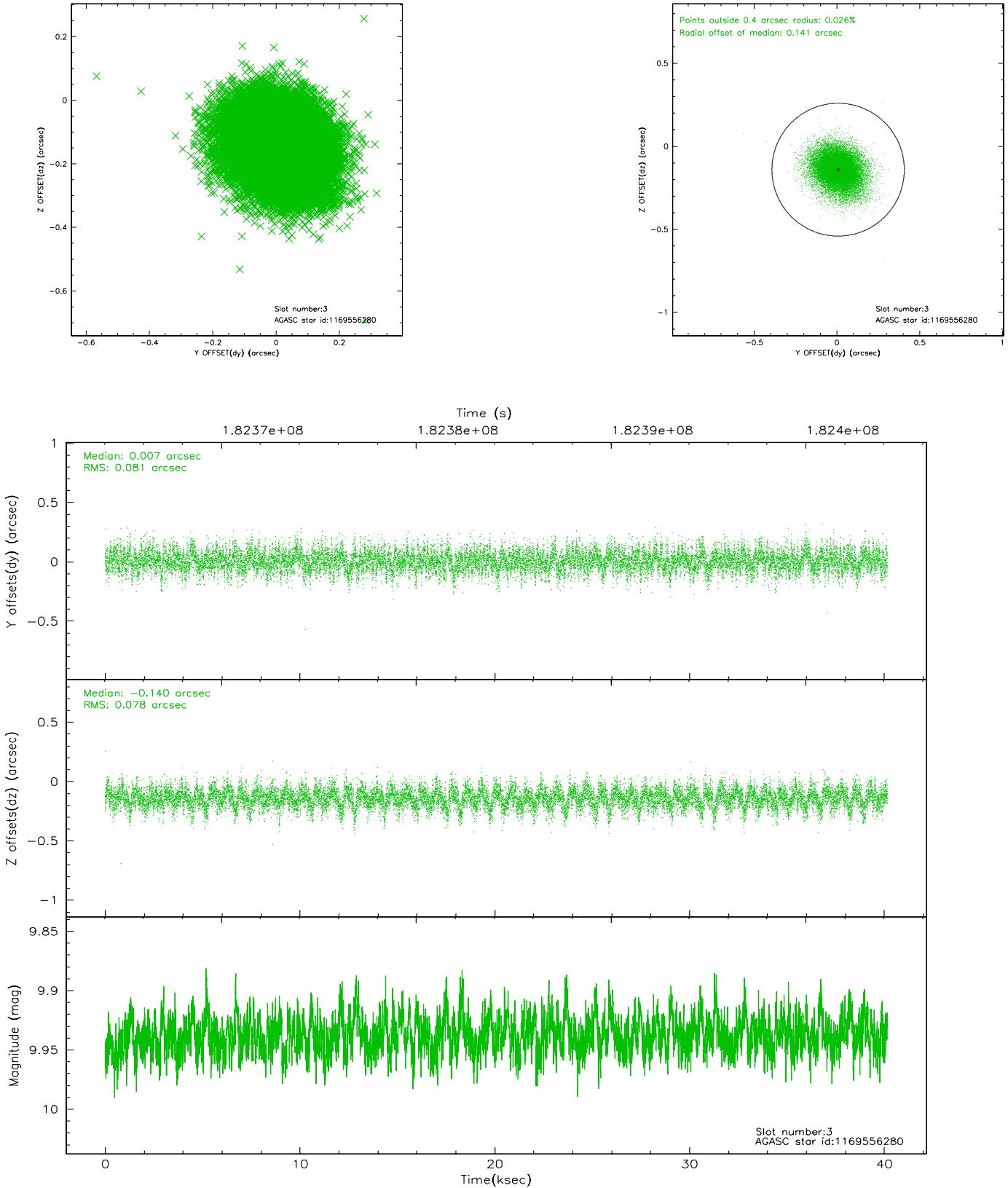
### Slot Statistics

| 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 | 9795  | 0.148  | -0.157 | 0.007 | 0.011 | 0.000000   | 0.000000   | -1162.17 | -459.77  |
| 1    | FID    | HRC-S-2    | 6.98 | 9797  | 0.128  | -0.107 | 0.005 | 0.009 | 0.000000   | 0.000000   | 1237.38  | -452.43  |
| 2    | FID    | HRC-S-3    | 7.00 | 9797  | 0.115  | -0.038 | 0.007 | 0.011 | 0.000000   | 0.000000   | -1164.78 | 569.84   |
| 3    | GUIDE  | 1169556280 | 9.94 | 19572 | 0.007  | -0.140 | 0.119 | 0.197 | 116.863935 | -67.303617 | 1708.11  | 262.97   |
| 4    | GUIDE  | 1169556880 | 8.96 | 19582 | -0.010 | 0.070  | 0.093 | 0.148 | 118.476472 | -67.455164 | 906.47   | -1891.10 |
| 5    | GUIDE  | 1203245384 | 8.54 | 19592 | -0.009 | -0.032 | 0.059 | 0.097 | 117.096059 | -68.354351 | -2086.81 | 347.57   |
| 6    | GUIDE  | 1203258824 | 9.89 | 19576 | -0.041 | 0.158  | 0.126 | 0.213 | 118.613315 | -67.511932 | 679.01   | -2051.32 |
| 7    | GUIDE  | 1203248984 | 9.70 | 19580 | 0.051  | -0.051 | 0.100 | 0.179 | 117.212023 | -68.341440 | -2057.18 | 189.18   |

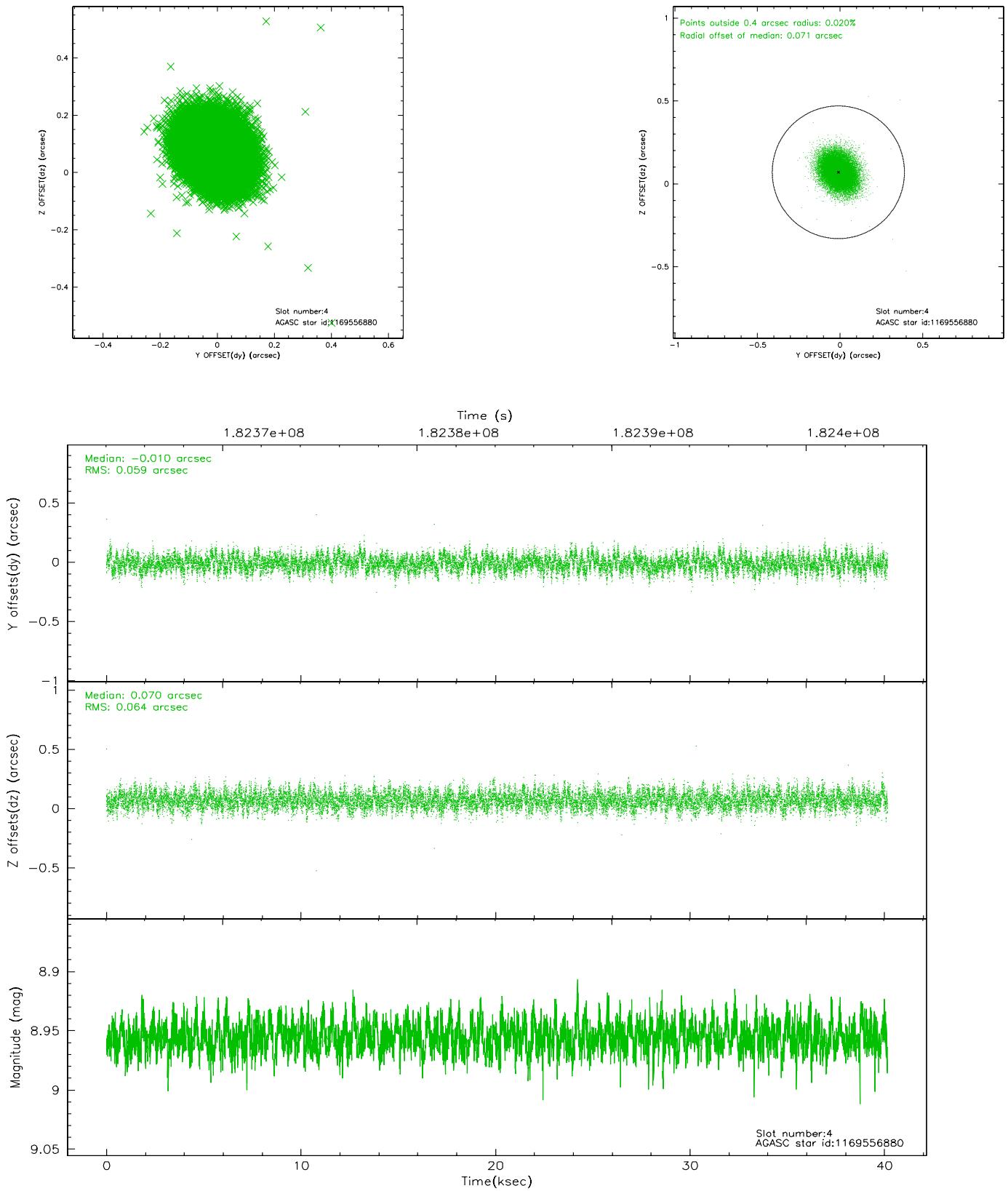
∞

## 2.4 Star Slots

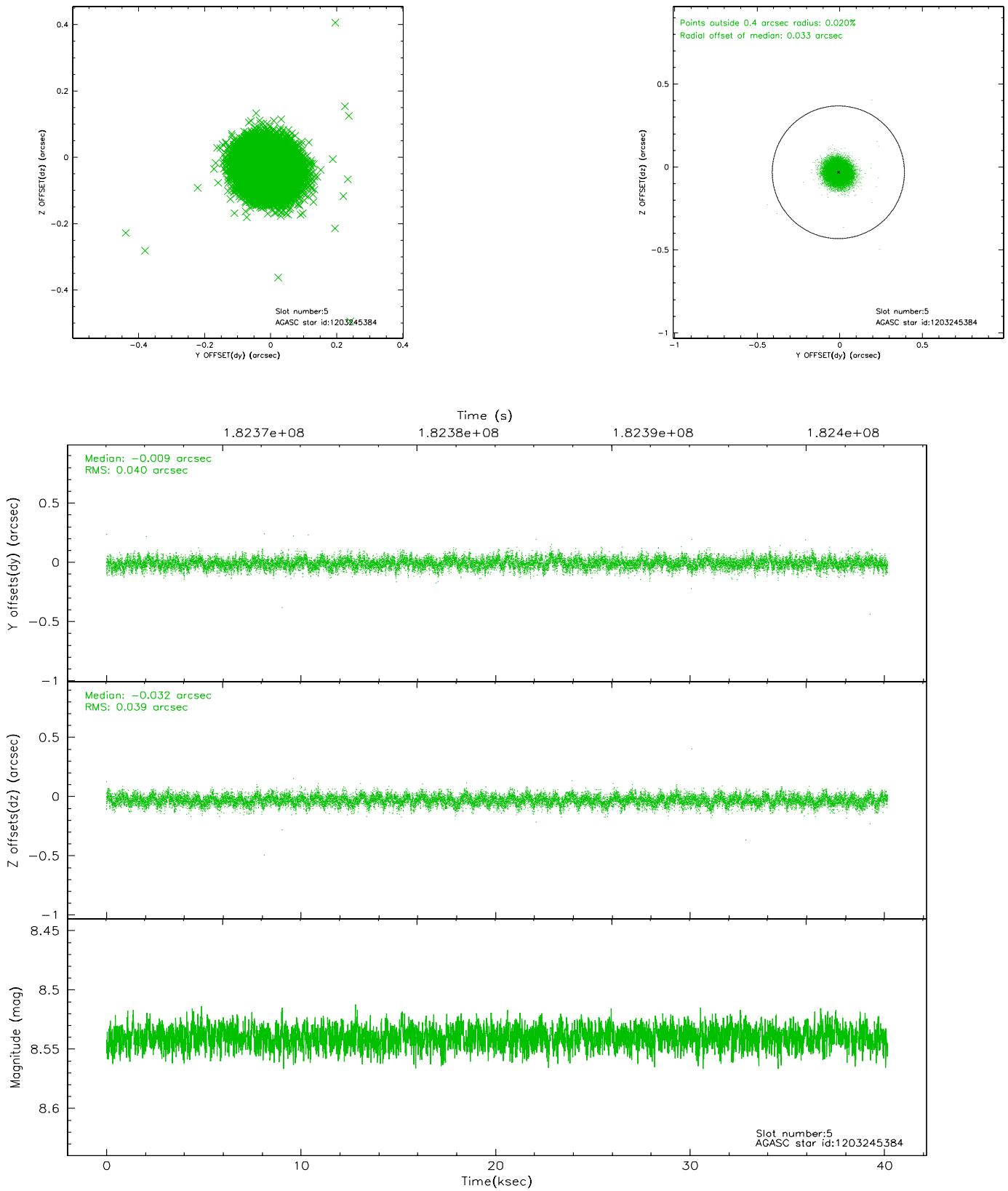
### 2.4.1 Slot 3



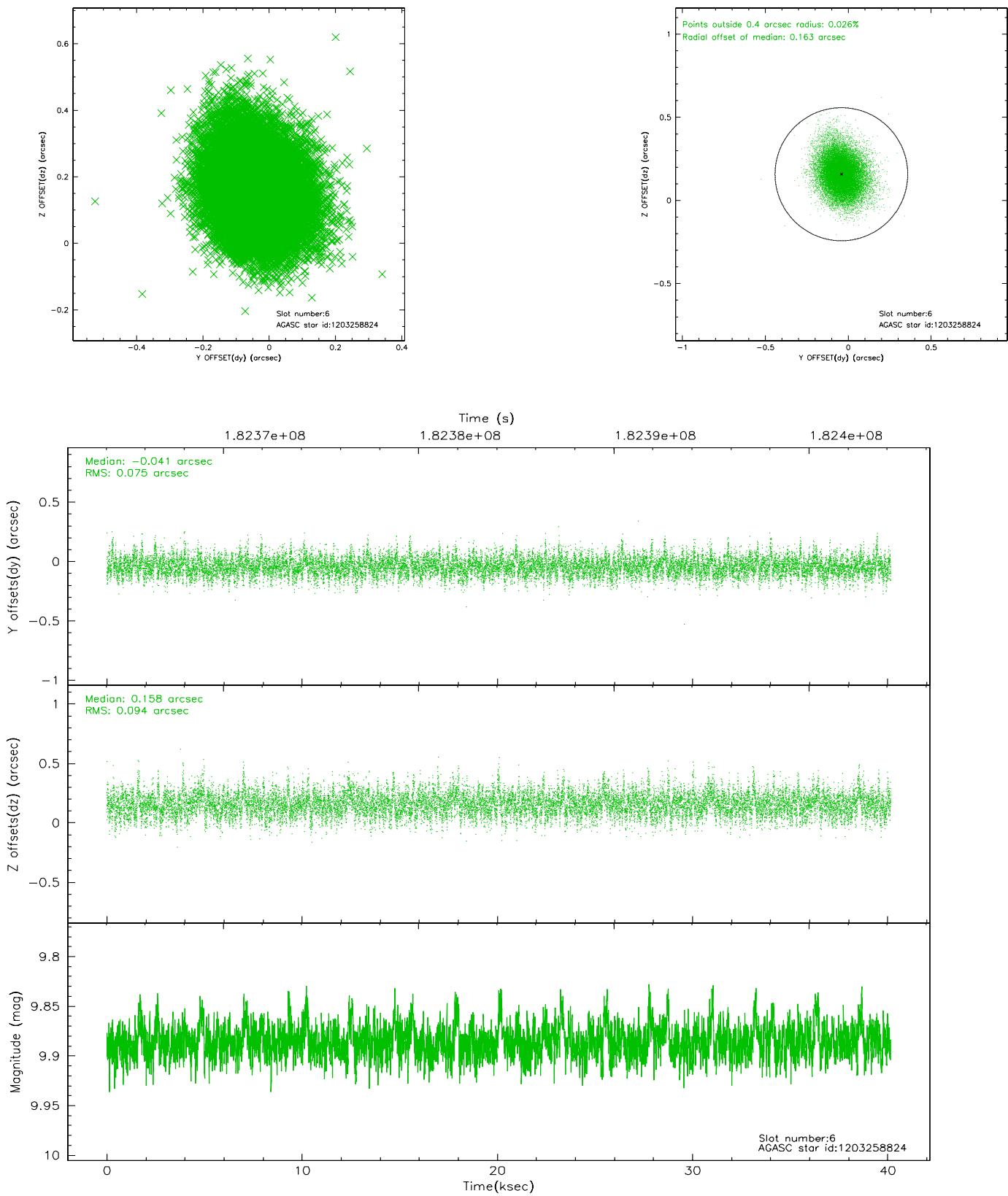
## 2.4.2 Slot 4



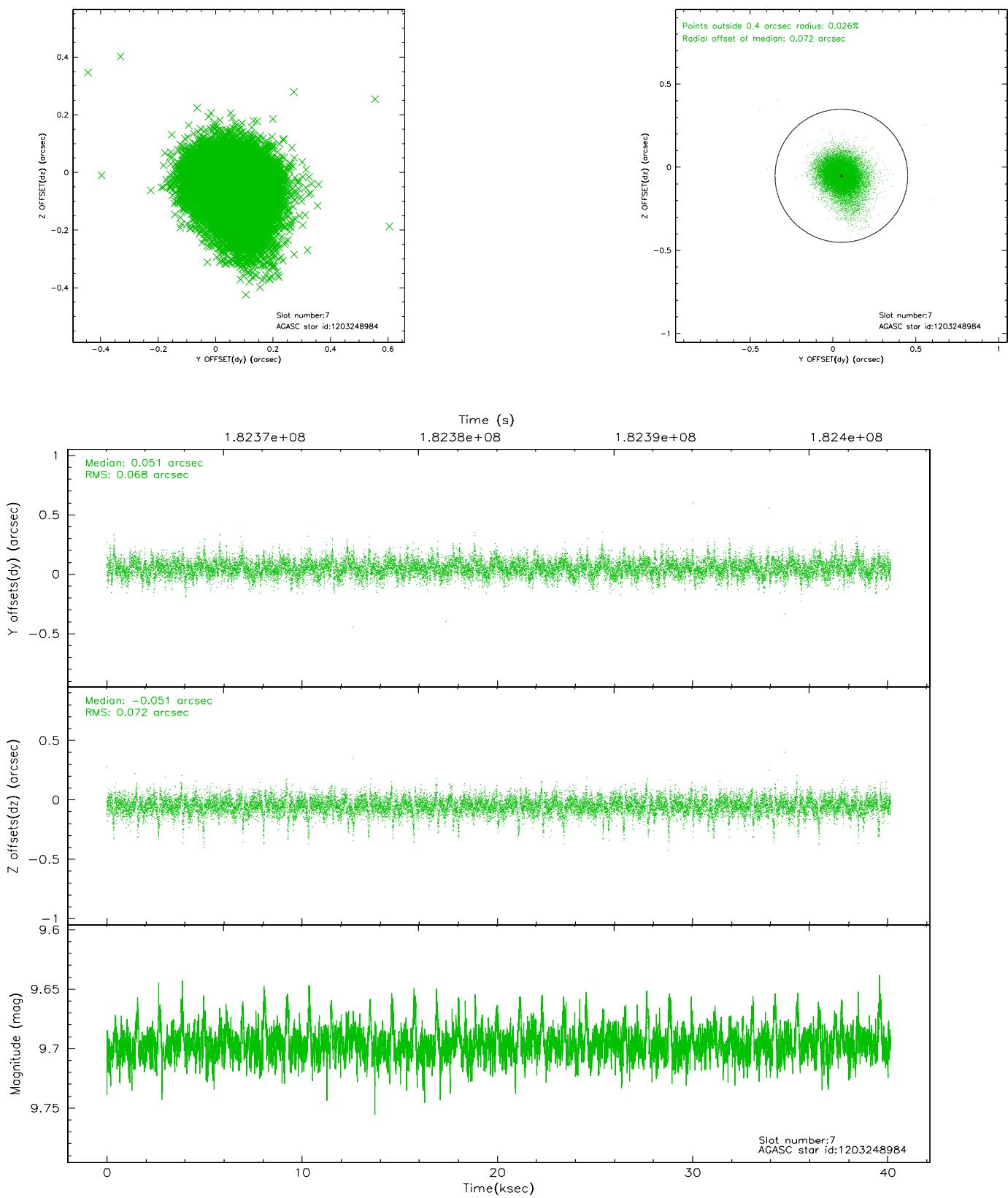
### 2.4.3 Slot 5



## 2.4.4 Slot 6

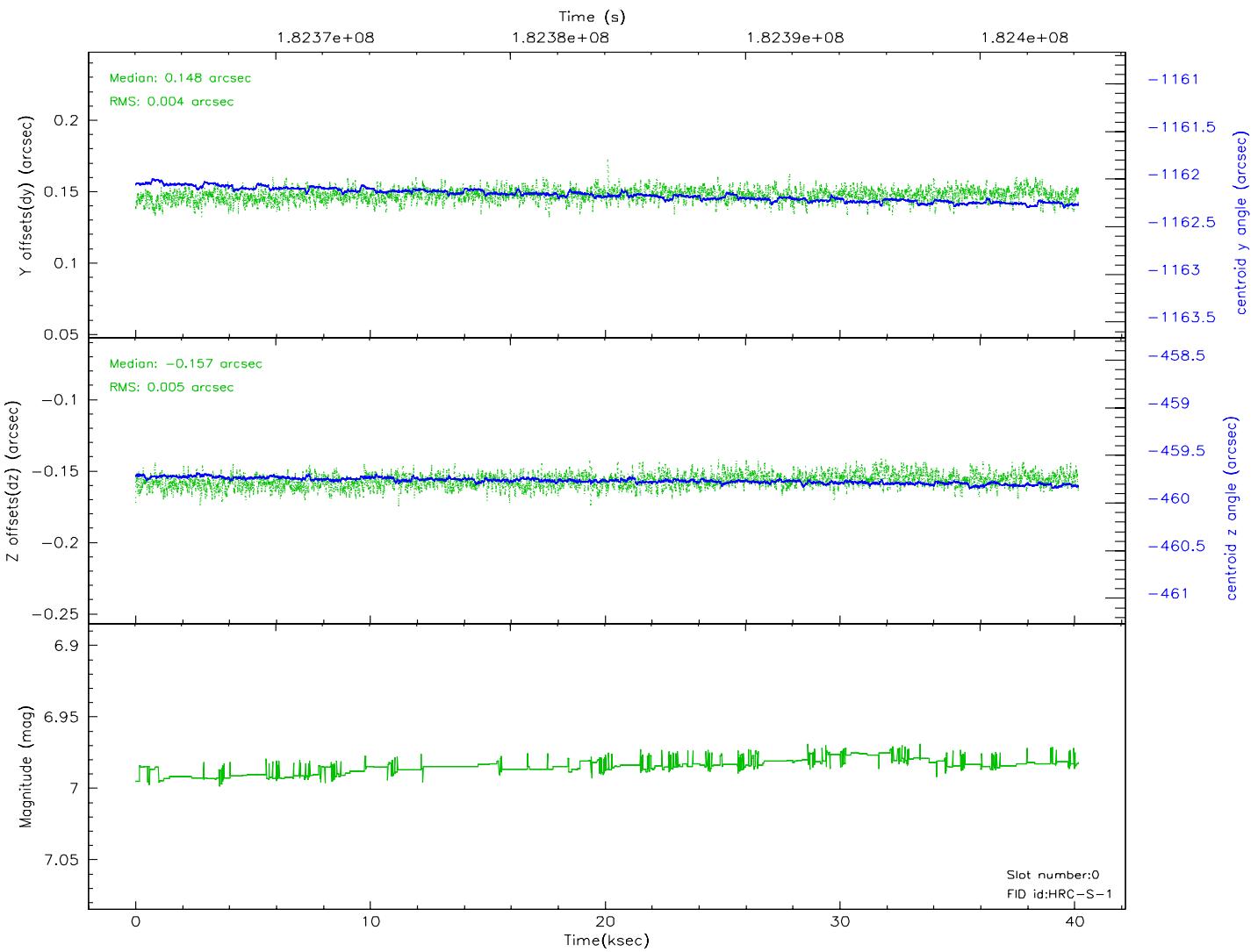
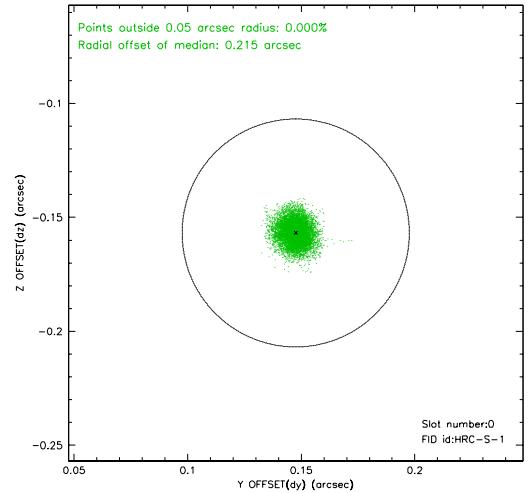
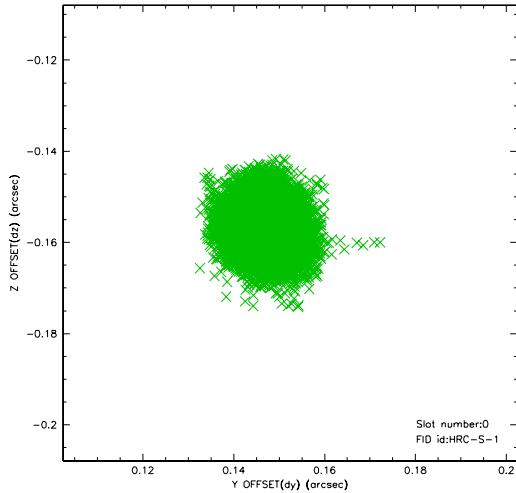


## 2.4.5 Slot 7

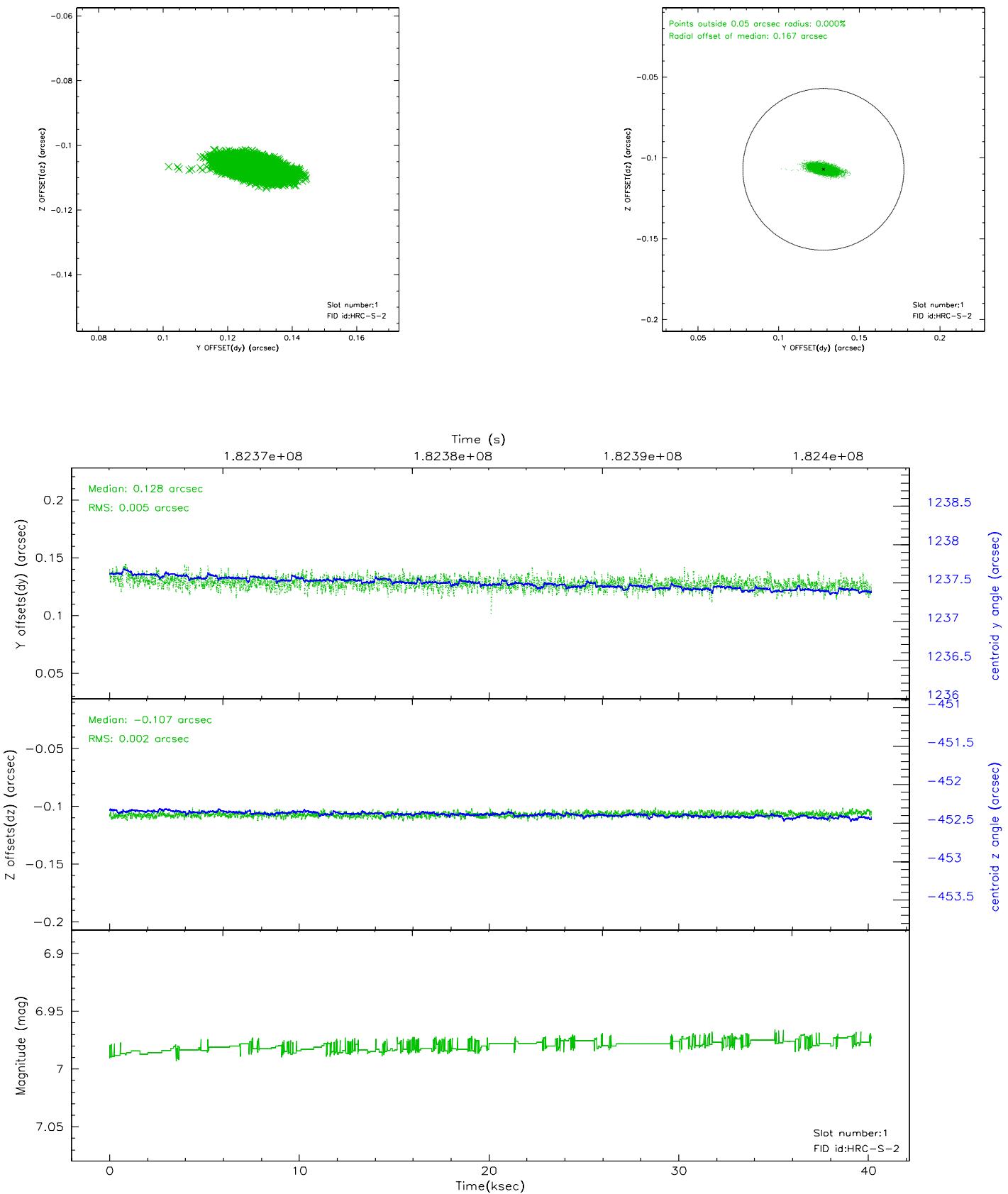


## 2.5 FID Slots

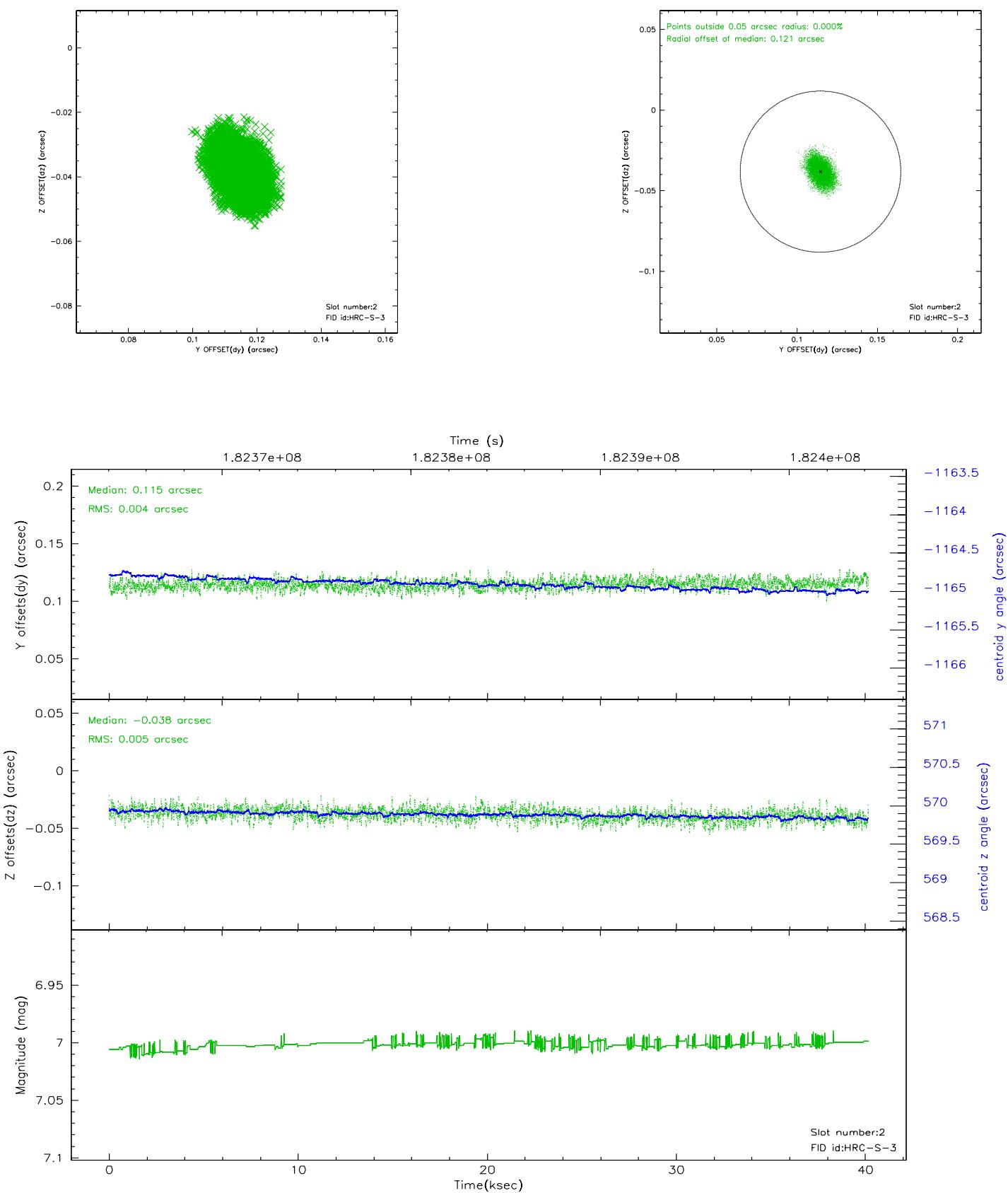
### 2.5.1 Slot 0



## 2.5.2 Slot 1

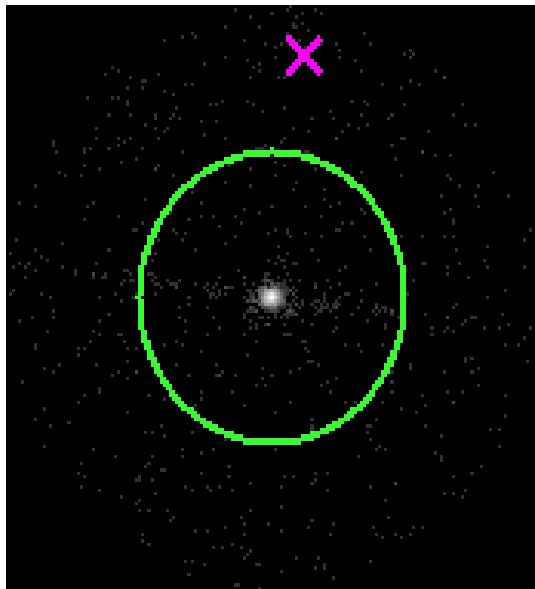


### 2.5.3 Slot 2



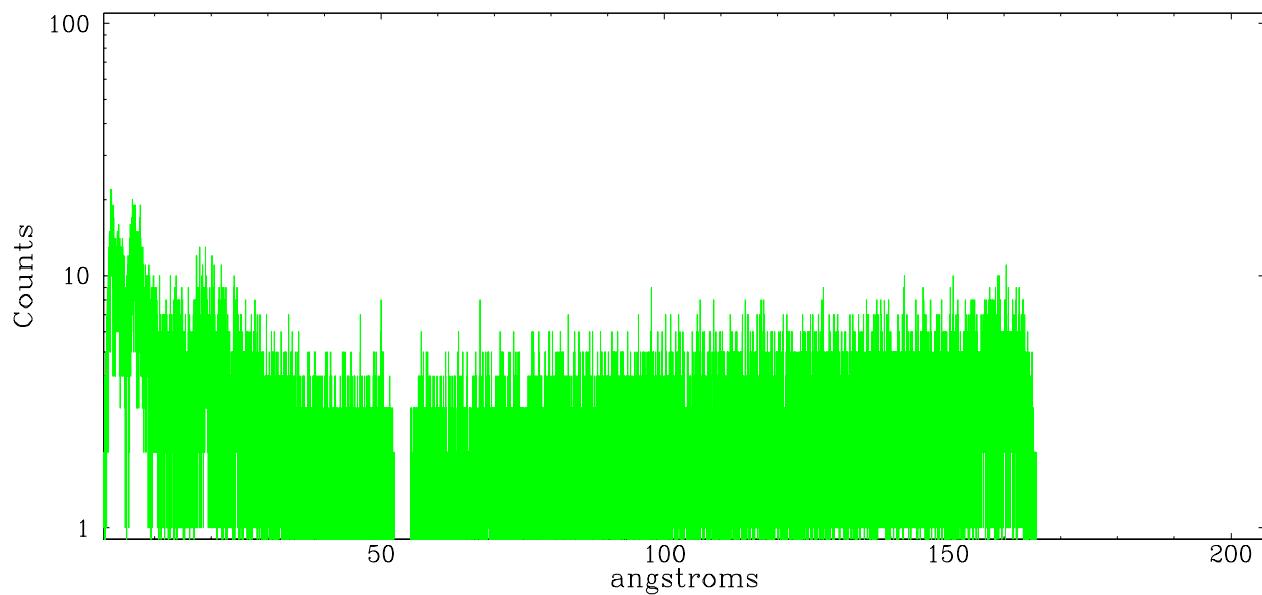
### 3 Gratings

#### 3.1 LETG Arm

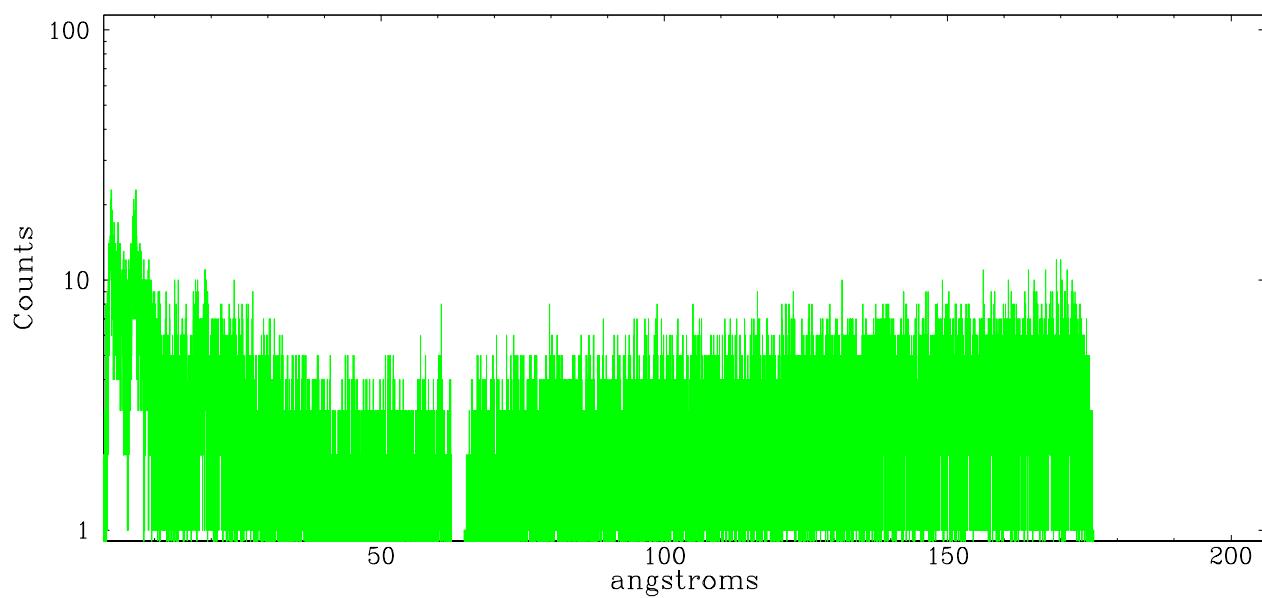


LETG Zero Order

leg order -1



leg order +1



# A Summary

## A.1 Status

|                            |               |
|----------------------------|---------------|
| V&V Scientist              | Beth Sundheim |
| V&V Date (YYYY-MM-DD)      | 2006.07.03    |
| V&V Edition                | 1             |
| V&V Disposition and Status | OK            |
| V&V Charge Time            | 39.982        |

## A.2 Comments