

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 85 - L2 Version 4  
Chandra X-Ray Center

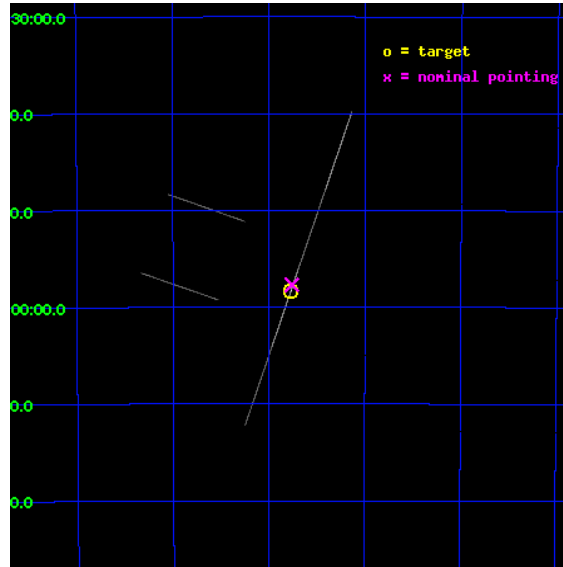
L2 Processing Date : Sep 2 2012

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# 1 Front

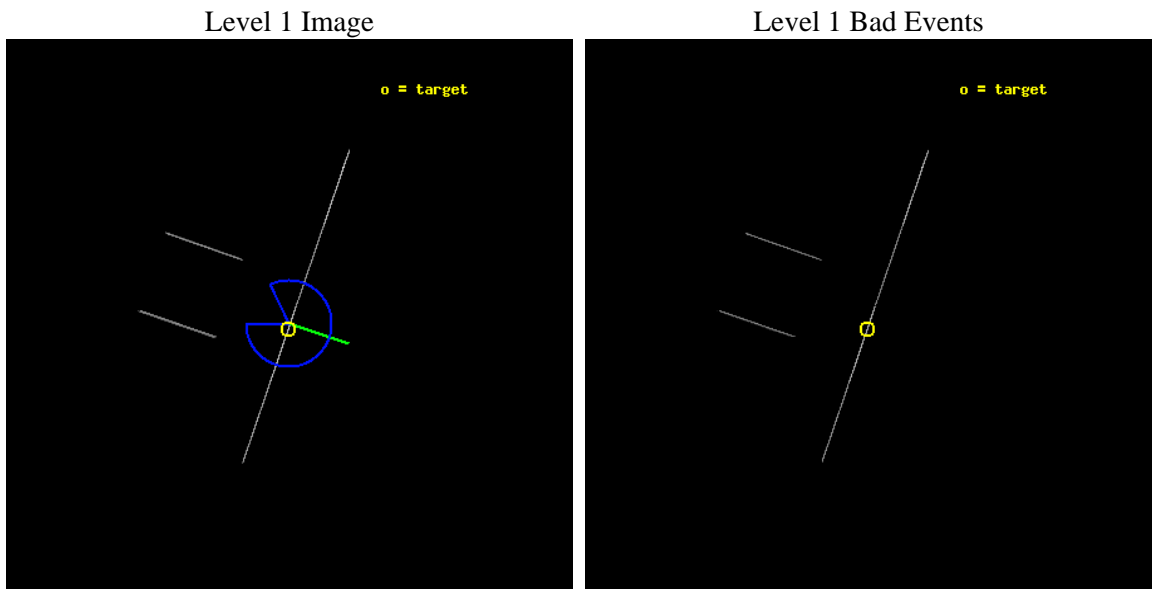
|          |                          |                                       |
|----------|--------------------------|---------------------------------------|
| seq_num  | 300010                   | Sequence number                       |
| obs_id   | 85                       | Observation id                        |
| title    | SUPER-SOFT X-RAY SOURCES | Proposal title                        |
| observer | Dr. Stephen Murray       | Principal investigator                |
| object   | RX J0925.7-4758          | Source name                           |
| ra_targ  | 141.4425                 | Observer's specified target RA [deg]  |
| dec_targ | -47.971389               | Observer's specified target Dec [deg] |
| ra_nom   | 141.44018512124          | Nominal RA [deg]                      |
| dec_nom  | -47.961690712479         | Nominal Dec [deg]                     |
| roll_nom | 109.00431741581          | Nominal Roll [deg]                    |
| revision | 4                        | Processing version of data            |
| ontime   | 1241.0                   | Sum of GTIs [s]                       |
| livetime | 1236.15234375            | Livetime [s]                          |
| ontime2  | 1241.0                   | Sum of GTIs [s]                       |
| ontime3  | 1241.0                   | Sum of GTIs [s]                       |
| ontime5  | 1241.0                   | Sum of GTIs [s]                       |
| ontime6  | 1241.0                   | Sum of GTIs [s]                       |
| ontime7  | 1241.0                   | Sum of GTIs [s]                       |
| ontime8  | 1241.0                   | Sum of GTIs [s]                       |
| l2events | 18031                    | Number of level 2 events              |



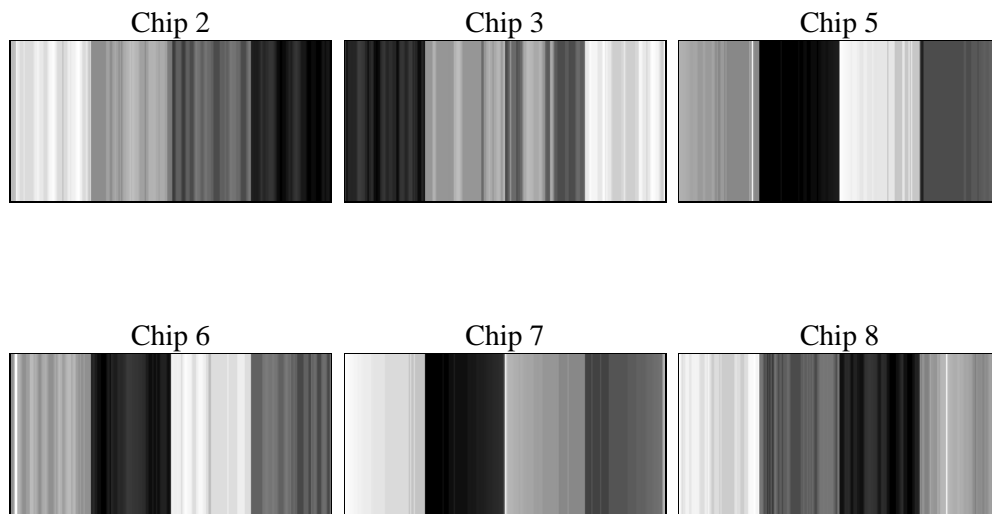
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |                                |                |             |   |
|----------|---------------------|--------------------------------|----------------|-------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 1100.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 1241.0      | Sum of GTIs [s]                         |
| caldsver | 4.5.1.1             | &#160                          | ontime2        | 1241.0      | Sum of GTIs [s]                         |
| date     | 2012-09-02T09:34:54 | Date and time of file creation | ontime3        | 1241.0      | Sum of GTIs [s]                         |
| revision | 4                   | Processing version of data     | ontime5        | 1241.0      | Sum of GTIs [s]                         |
|          |                     |                                | ontime6        | 1241.0      | Sum of GTIs [s]                         |
|          |                     |                                | ontime7        | 1241.0      | Sum of GTIs [s]                         |
|          |                     |                                | ontime8        | 1241.0      | Sum of GTIs [s]                         |
|          |                     |                                | l1events       | 93932       | Number of level 1 events                |

### 2.1.4 Events

|                 | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 5361  | 5382  | 32064 | 7724  | 33164 | 10237 |
| rejected events | 4285  | 4303  | 23982 | 6240  | 24176 | 7617  |
| rejected %      | 79%   | 79%   | 74%   | 80%   | 72%   | 74%   |

|                | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 834   | 766   | 7405  | 1231  | 5515  | 2292  |
|                | 15%   | 14%   | 23%   | 15%   | 16%   | 22%   |
| grade 1 events | 4     | 14    | 41    | 12    | 36    | 19    |
|                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
| grade 2 events | 3130  | 3065  | 9138  | 4824  | 7189  | 4779  |
|                | 58%   | 56%   | 28%   | 62%   | 21%   | 46%   |
| grade 3 events | 335   | 406   | 1346  | 380   | 2888  | 682   |
|                | 6%    | 7%    | 4%    | 4%    | 8%    | 6%    |
| grade 4 events | 351   | 360   | 1361  | 376   | 2883  | 648   |
|                | 6%    | 6%    | 4%    | 4%    | 8%    | 6%    |
| grade 5 events | 286   | 287   | 1166  | 327   | 1109  | 513   |
|                | 5%    | 5%    | 3%    | 4%    | 3%    | 5%    |
| grade 6 events | 421   | 484   | 11607 | 574   | 13544 | 1304  |
|                | 7%    | 8%    | 36%   | 7%    | 40%   | 12%   |
| grade 7 events | 0     | 0     | 0     | 0     | 0     | 0     |
|                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |

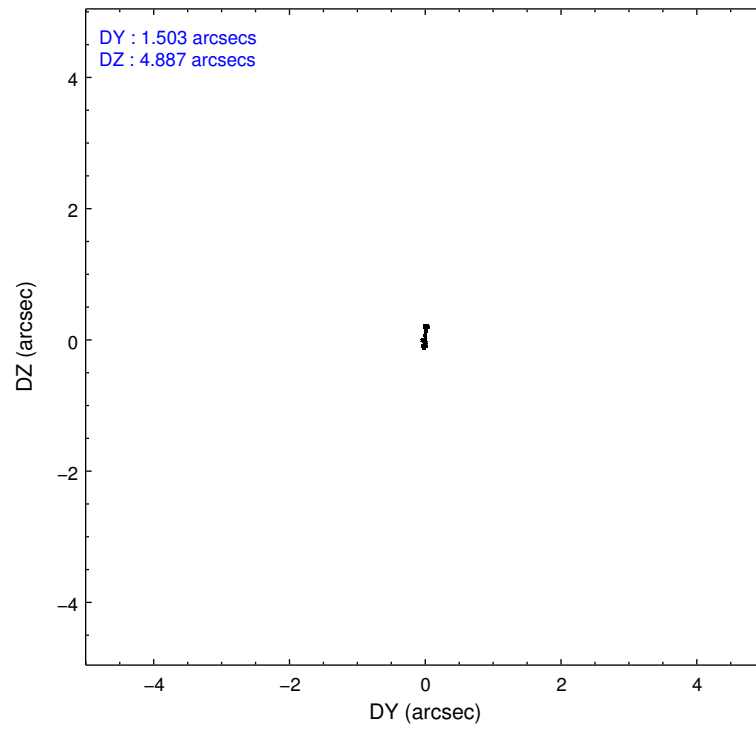
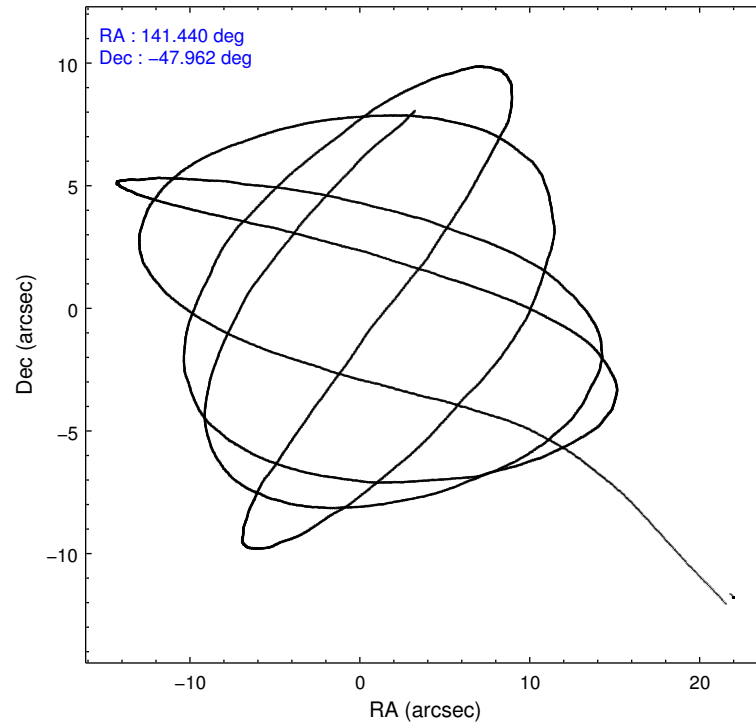


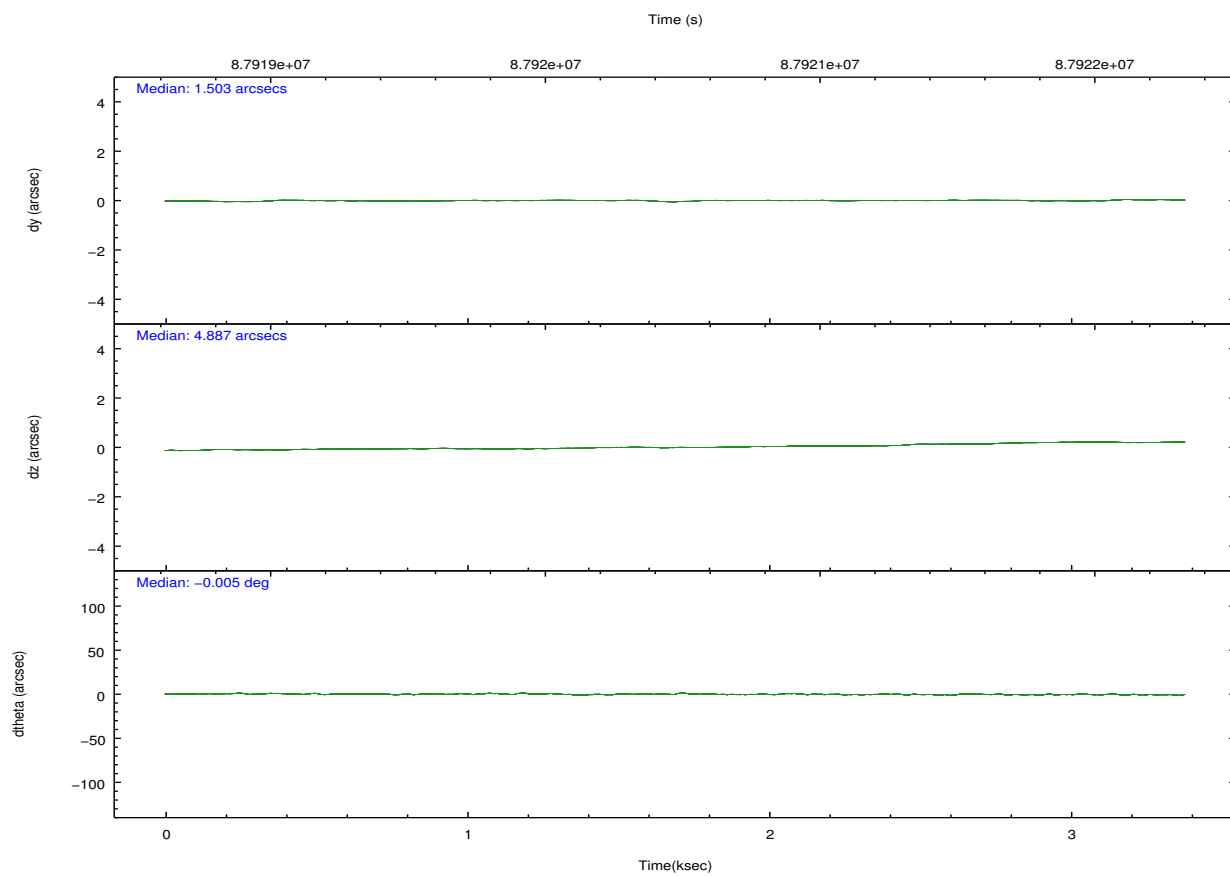
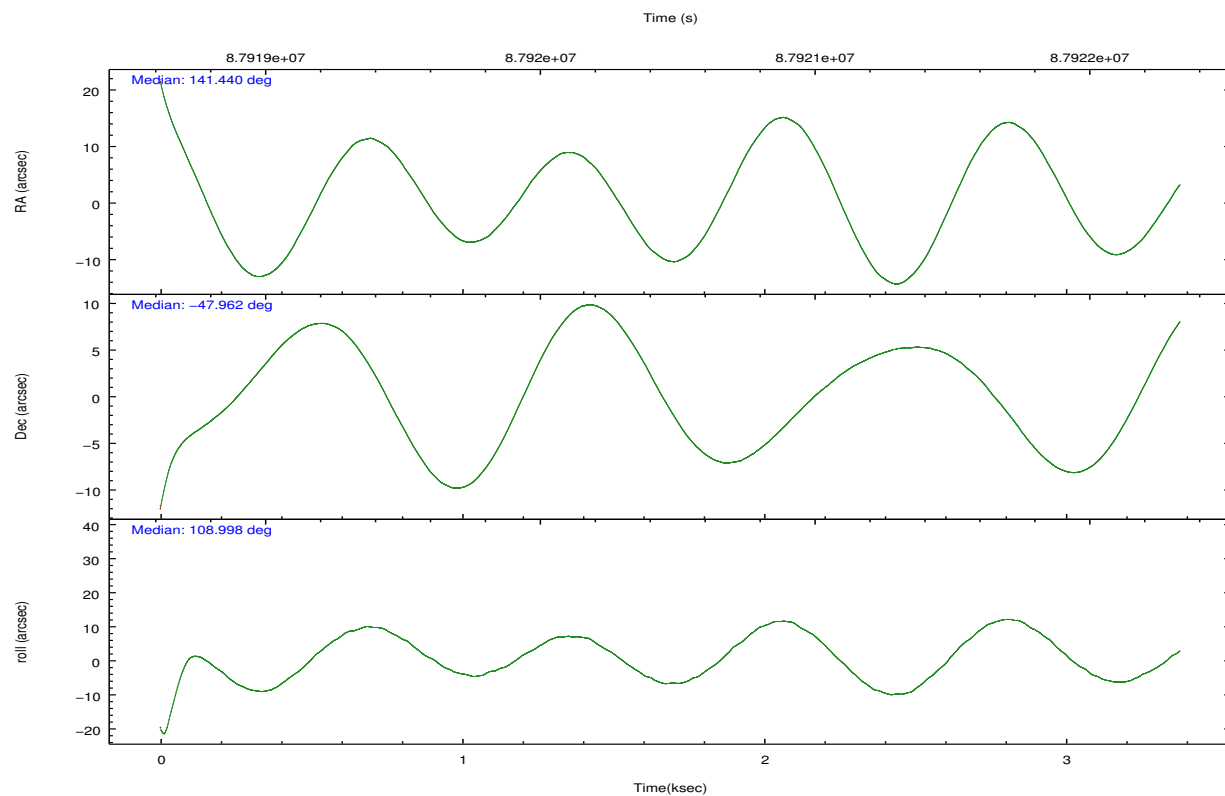
## 2.2 Compared Parameters

| Parameter                            | Planned             | Actual               |
|--------------------------------------|---------------------|----------------------|
| Instrument                           | ACIS                | ACIS                 |
| Detector                             | ACIS-235678         | ACIS-235678          |
| Grating                              | NONE                | NONE                 |
| Data mode                            | CC33_FAINT          | CC33_FAINT           |
| Observation mode                     | POINTING            | POINTING             |
| [deg] Pointing RA                    | 141.471322          | 141.4401851212397    |
| [deg] Pointing Dec                   | -47.979414          | -47.96169071247945   |
| [deg] Pointing Roll                  | 108.870967          | 109.0043174158135    |
| [deg] Roll angle                     | 120.000000          | 120.000000           |
| [deg] Roll tolerance                 | 147.000000          | 147.000000           |
| Roll constraint allows 180D rotation | N                   | N                    |
| [mm] SIM focus pos                   | -0.684267           | -0.6828225247311905  |
| [mm] SIM defocus                     | 0                   | 0.001444936568705701 |
| [mm] SIM translation stage pos       | -190.132523         | -190.1400660498719   |
| [mm] SIM translation stage offset    | 0                   | 0.00754346686406393  |
| [s] Observation start time (MET)     | 87918927.184000     | 87917789.780821      |
| Observation start date               | 2000-10-14T13:54:23 | 2000-10-14T13:36:29  |
| [s] Observation end time (MET)       | 87920027.184000     | 87922855.331012      |
| Observation end date                 | 2000-10-14T14:12:43 | 2000-10-14T15:00:55  |
| Read mode                            | CONTINUOUS          | CONTINUOUS           |

| Parameter                             | Planned   | Actual  |
|---------------------------------------|-----------|---------|
| Obspar format version number          | 7         | 7       |
| Obspar file type                      | PREDICTED | ACTUAL  |
| Obspar update status                  | NONE      | UPDATED |
| Number of optional ACIS chips dropped | 0         | 0       |
| On-chip summing requested             | N         | N       |
| Subarray requested                    | NONE      | NONE    |
| Alternating exposures requested       | N         | N       |
| [s] Primary exposure time             | 0.000000  | 0       |

## 2.3 Aspect



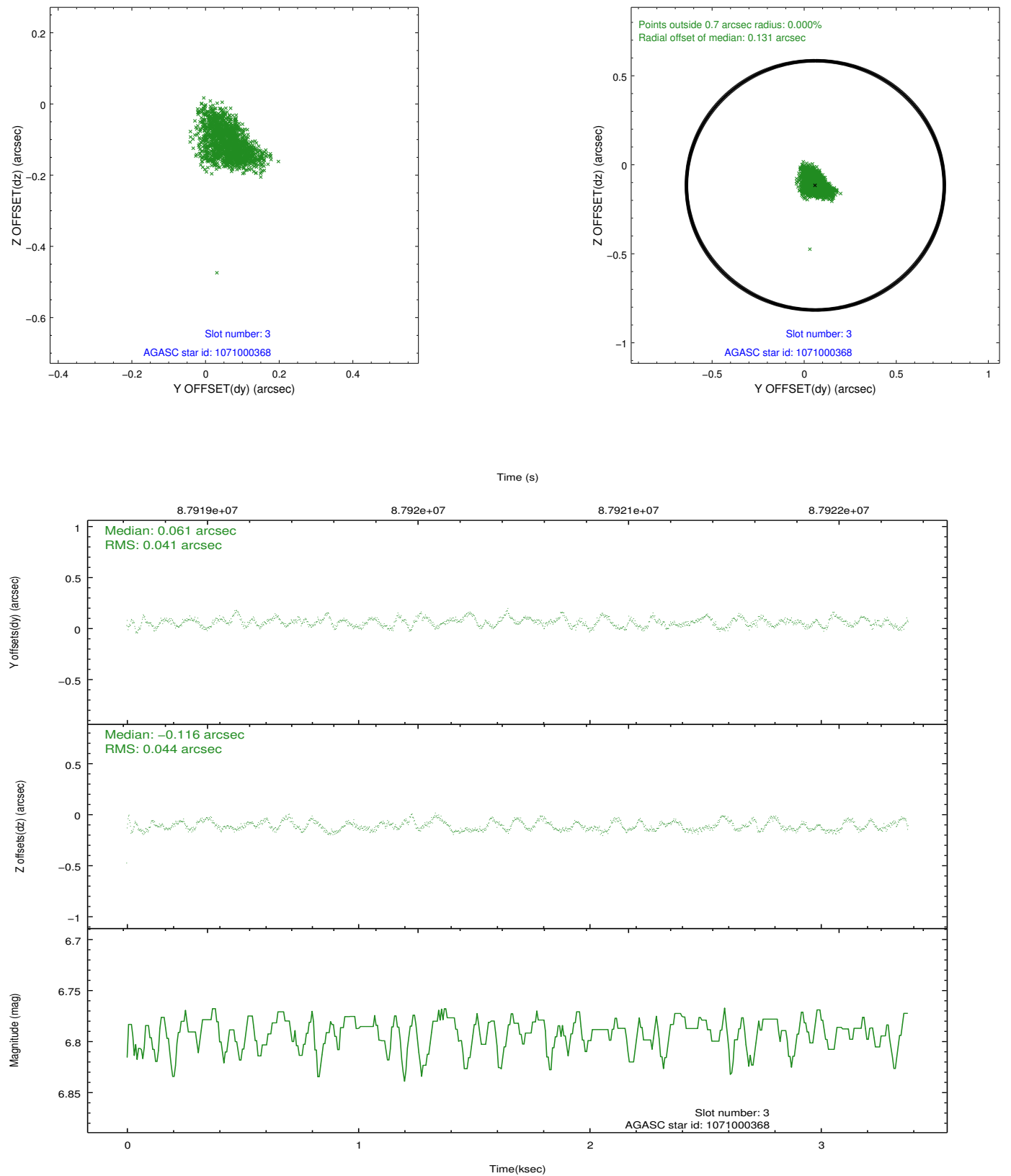


### Slot Statistics

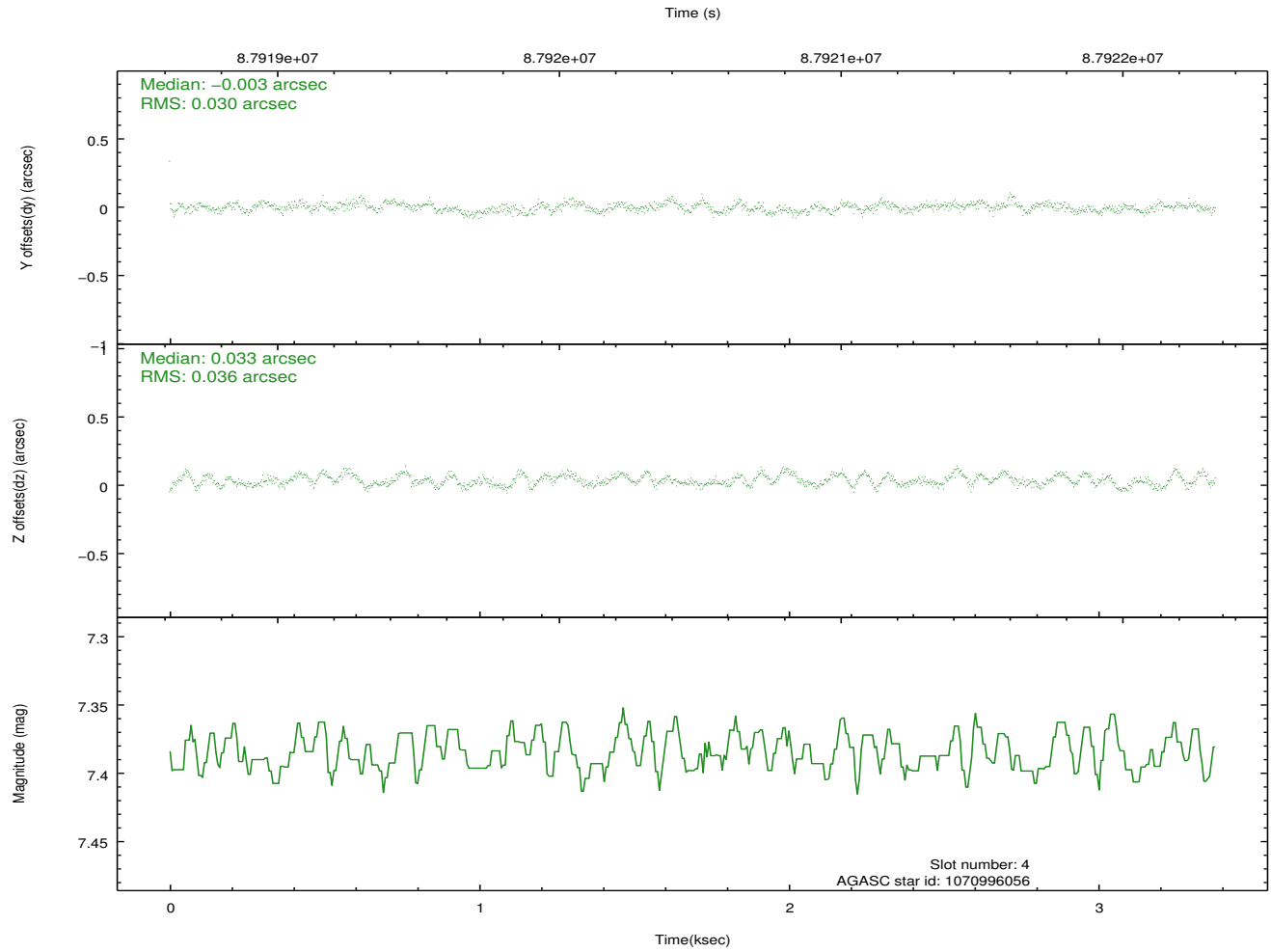
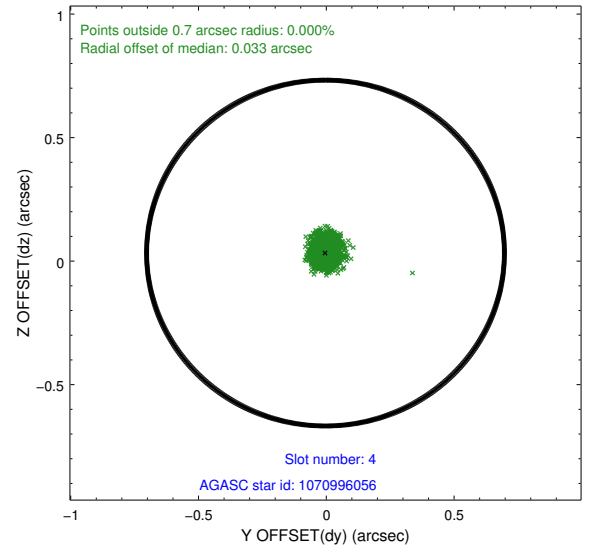
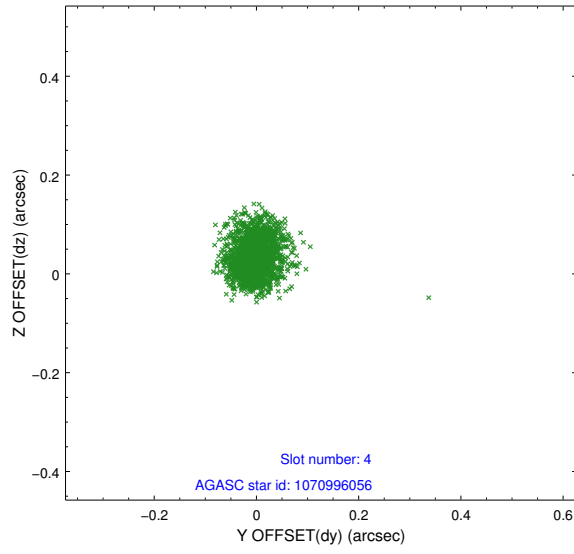
| slot | status | id         | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec        | mean_y   | mean_z   |
|------|--------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0    | FID    | ACIS-S-2   | 7.11 | 825   | -0.044 | -0.006 | 0.007 | 0.012 | 0.000000   | 0.000000   | -754.13  | -1726.04 |
| 1    | FID    | ACIS-S-4   | 7.21 | 825   | -0.007 | 0.023  | 0.006 | 0.011 | 0.000000   | 0.000000   | 2158.32  | 180.57   |
| 2    | FID    | ACIS-S-5   | 7.24 | 824   | 0.019  | -0.008 | 0.006 | 0.012 | 0.000000   | 0.000000   | -1804.51 | 176.30   |
| 3    | GUIDE  | 1071000368 | 6.79 | 1649  | 0.061  | -0.116 | 0.064 | 0.102 | 140.855687 | -48.286946 | -575.94  | 1755.62  |
| 4    | GUIDE  | 1070996056 | 7.39 | 1649  | -0.003 | 0.033  | 0.050 | 0.080 | 141.533898 | -47.763265 | 687.32   | -393.37  |
| 5    | GUIDE  | 1070996440 | 8.17 | 1649  | -0.103 | -0.108 | 0.052 | 0.080 | 140.656127 | -47.748431 | 1415.81  | 1601.77  |
| 6    | GUIDE  | 1070996096 | 8.85 | 1649  | 0.001  | 0.112  | 0.060 | 0.101 | 141.828397 | -47.740560 | 533.56   | -1093.98 |
| 7    | GUIDE  | 1070993888 | 8.56 | 1648  | 0.043  | 0.070  | 0.066 | 0.104 | 142.257798 | -48.287703 | -1667.68 | -1421.01 |

## 2.4 Star Slots

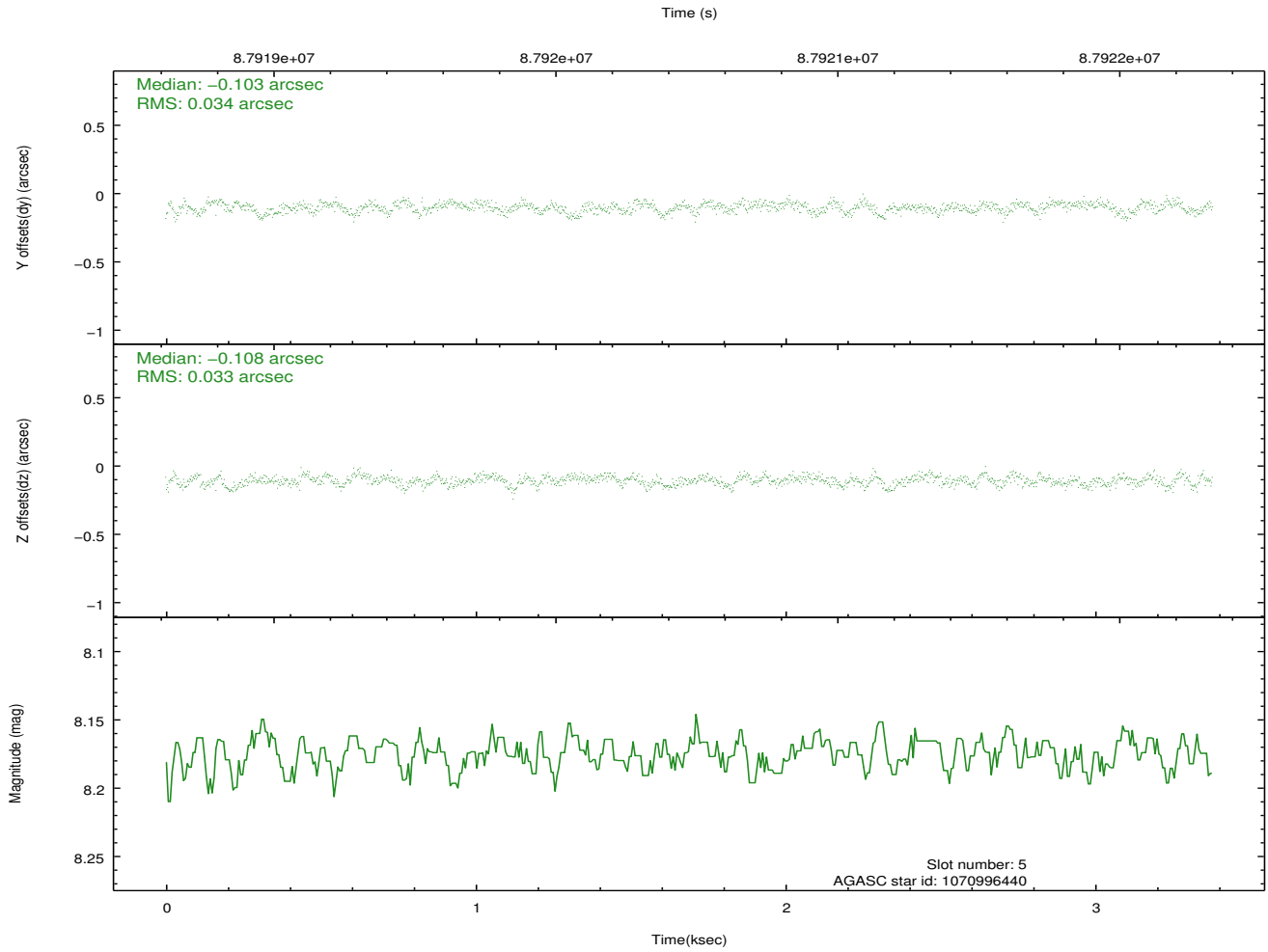
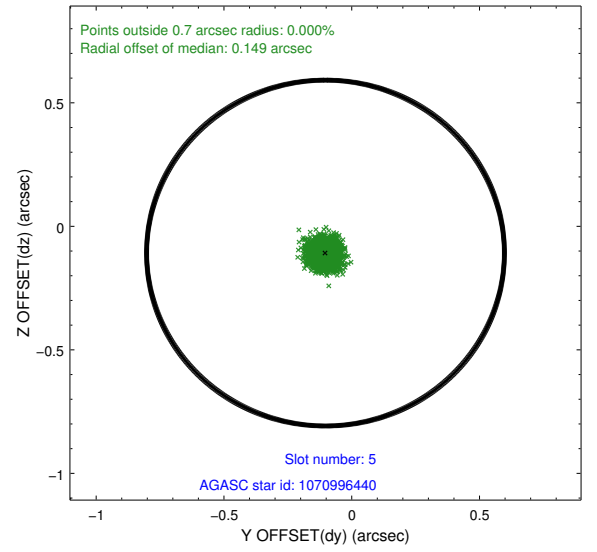
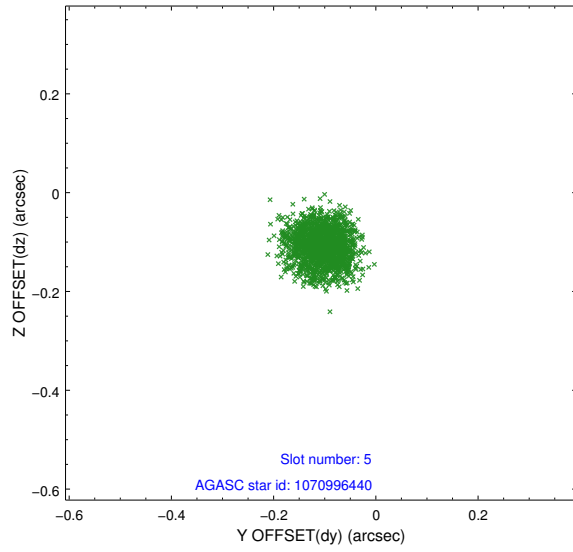
### 2.4.1 Slot 3



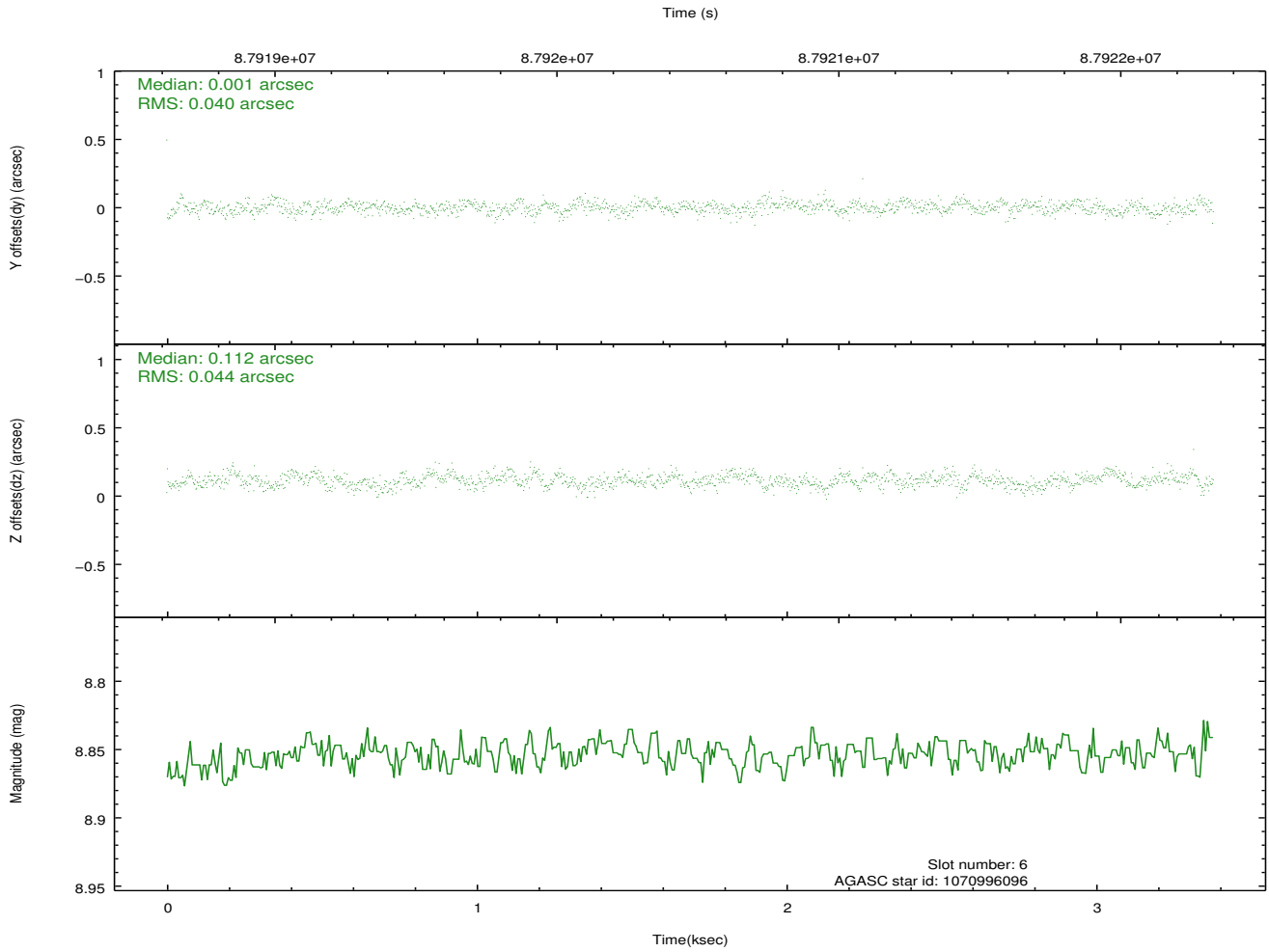
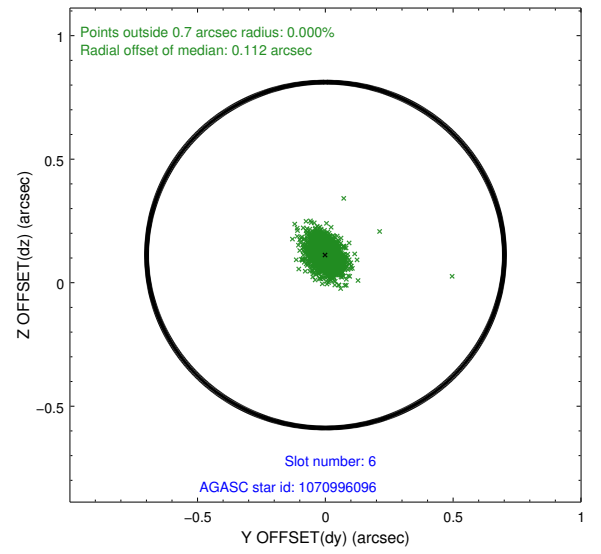
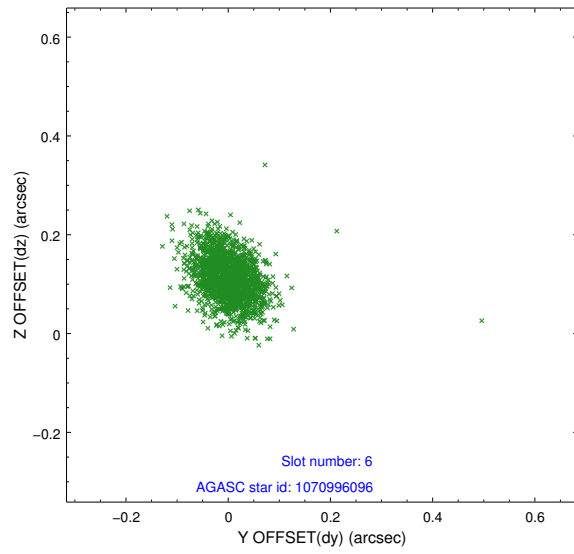
## 2.4.2 Slot 4



### 2.4.3 Slot 5

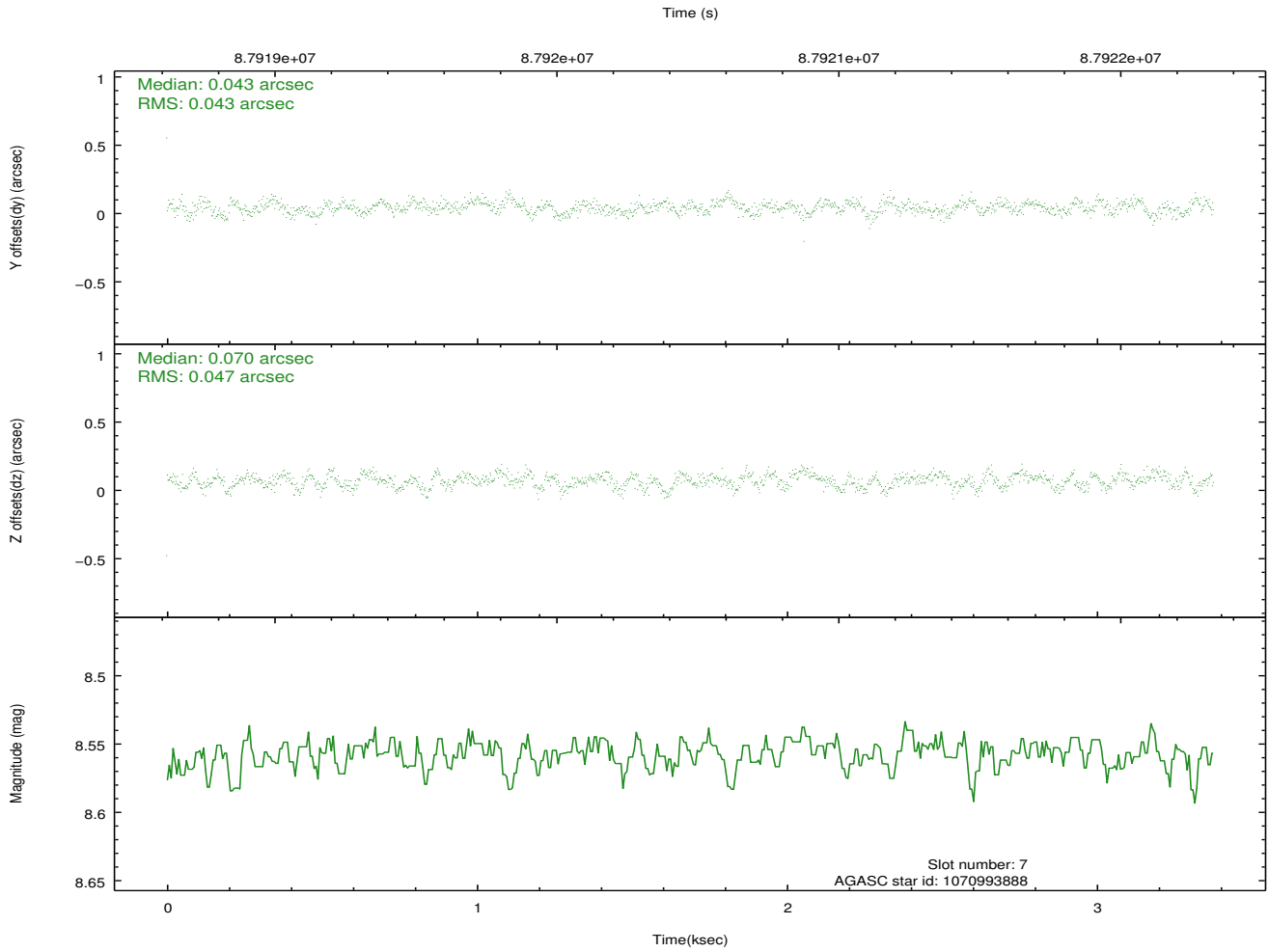
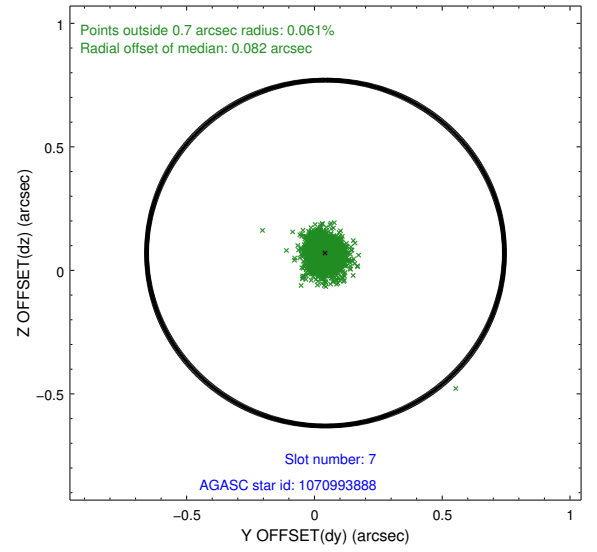
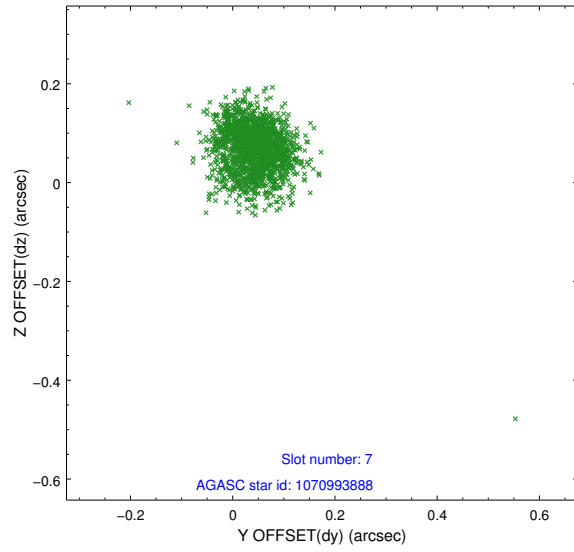


## 2.4.4 Slot 6



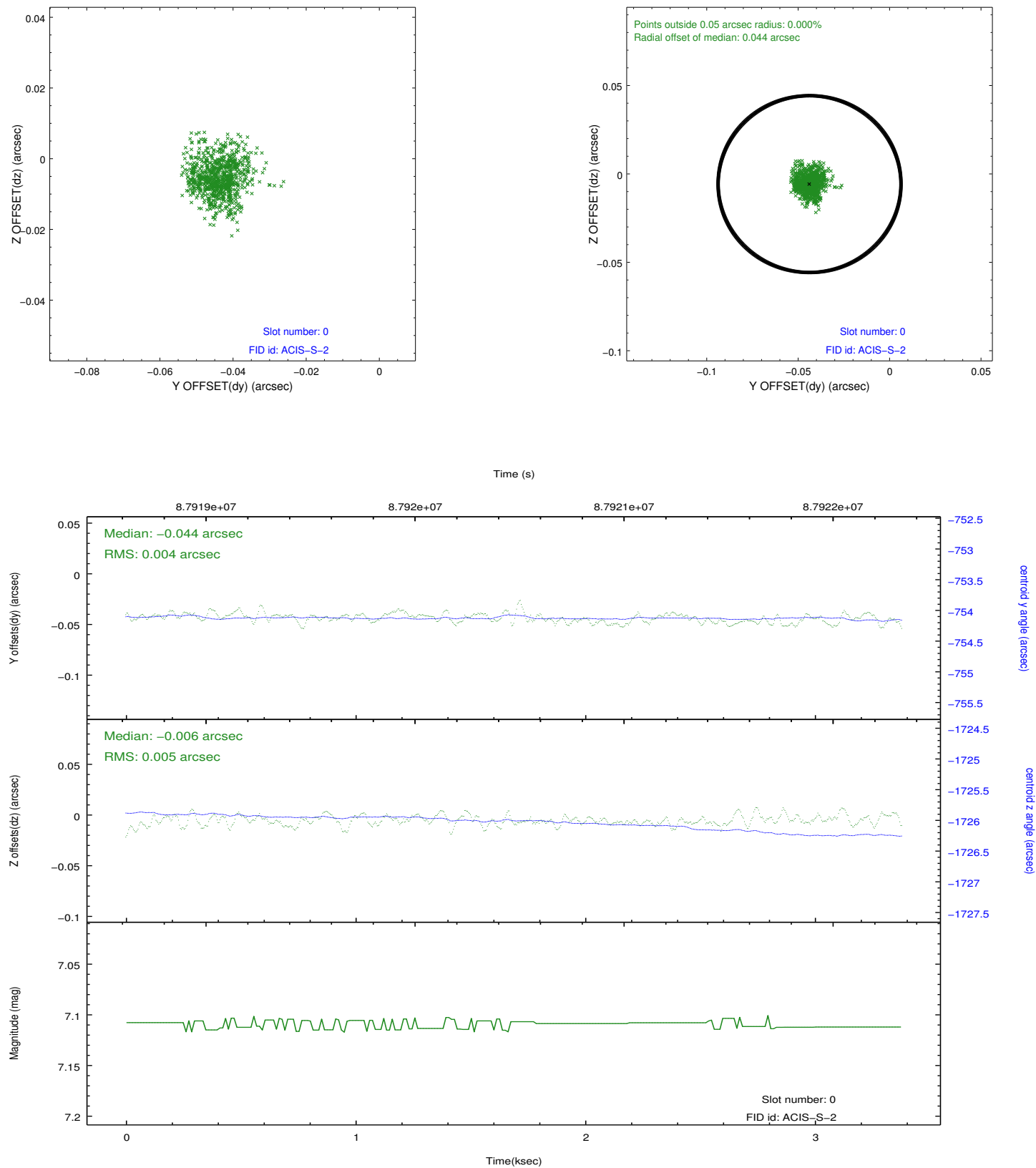


## 2.4.5 Slot 7

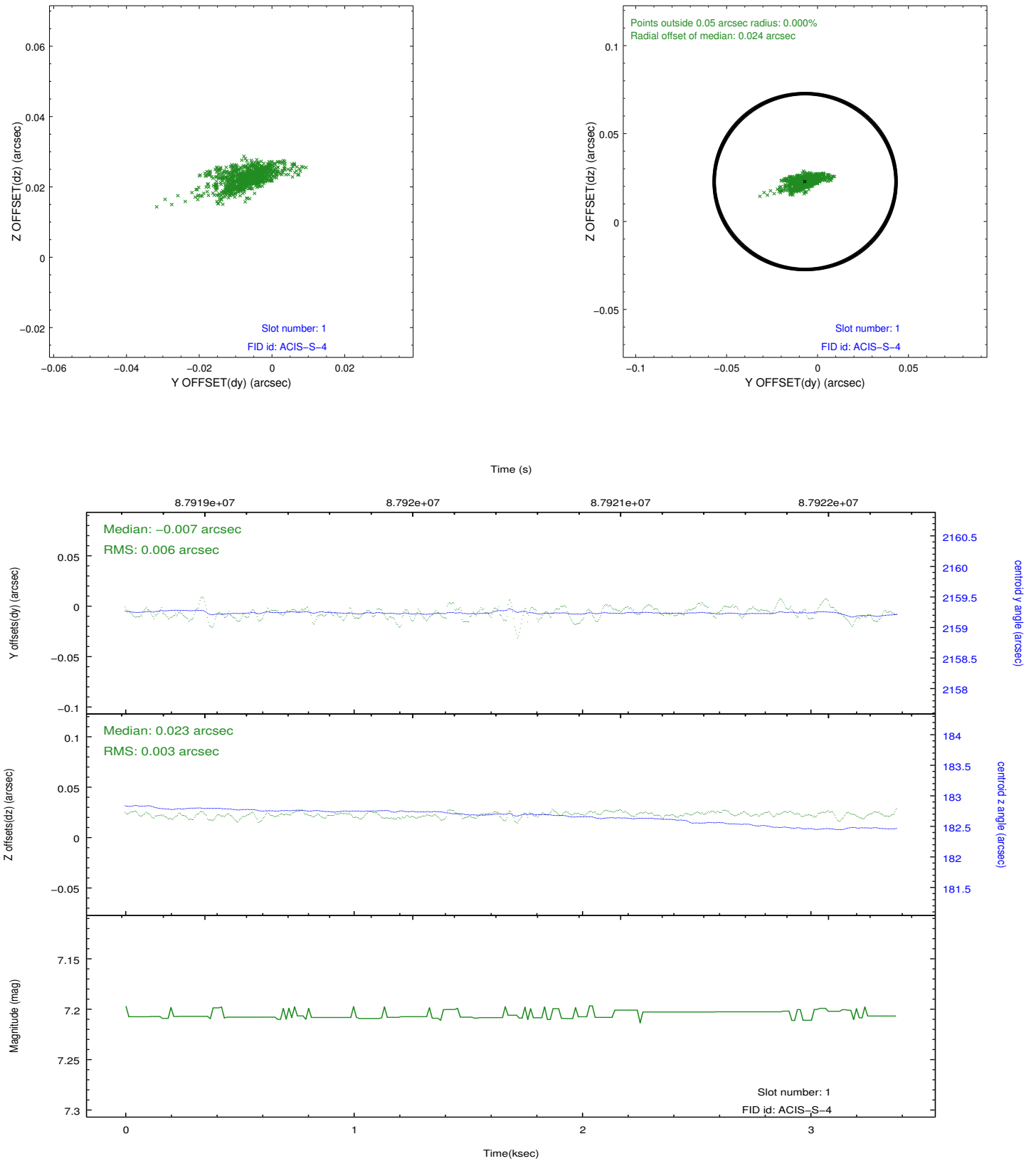


## 2.5 FID Slots

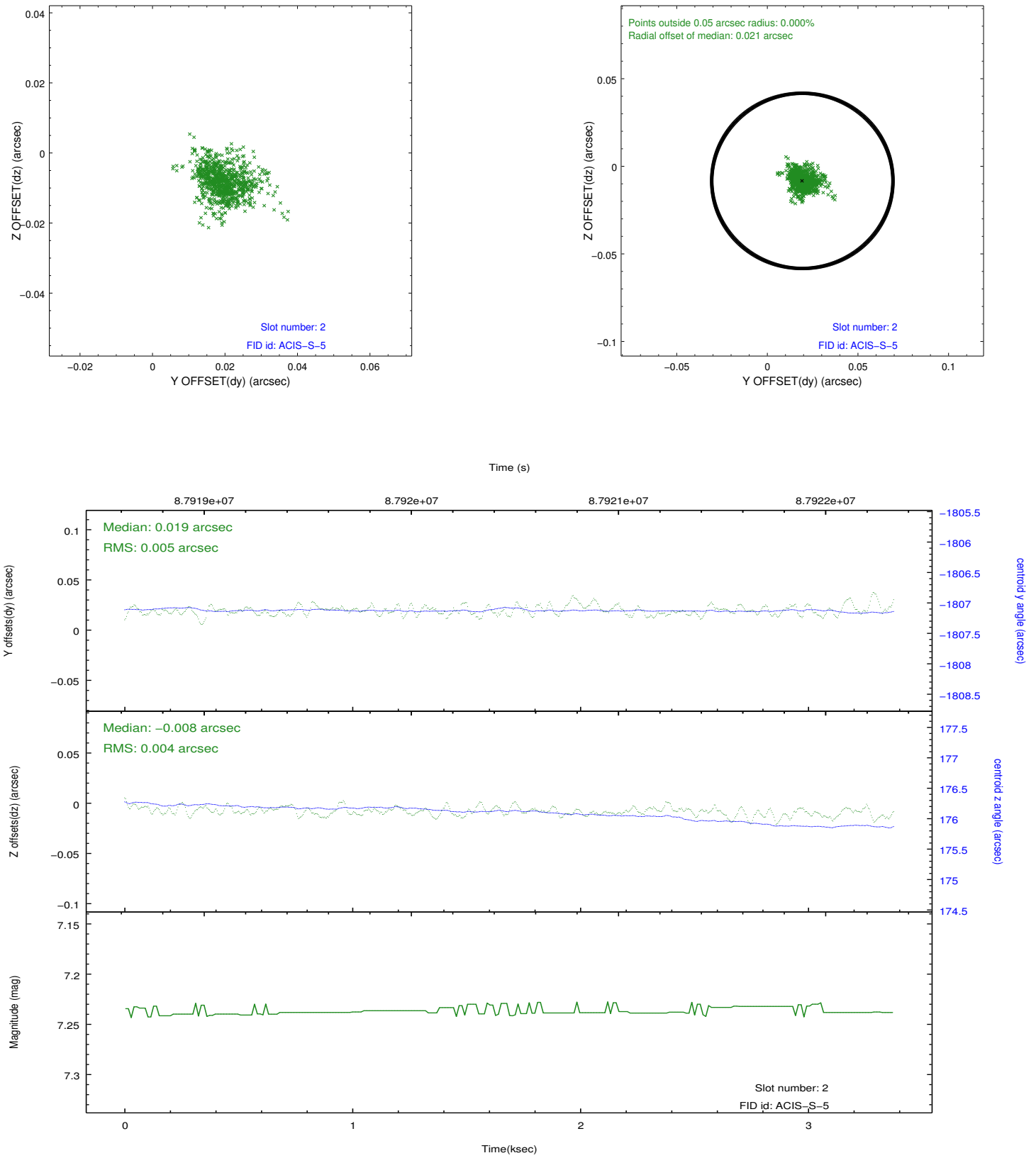
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

|                            |             |
|----------------------------|-------------|
| V&V Scientist              | Joy Nichols |
| V&V Date (YYYY-MM-DD)      | 2012.09.04  |
| V&V Edition                | 1           |
| V&V Disposition and Status | OK          |
| V&V Charge Time            | 1.244       |

### A.2 Comments

Charge time for this ObsId remains at previous value of 1.244 ks, although it would be 1.241 ks with the current processing.