

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3385 - L2 Version 3  
Chandra X-Ray Center

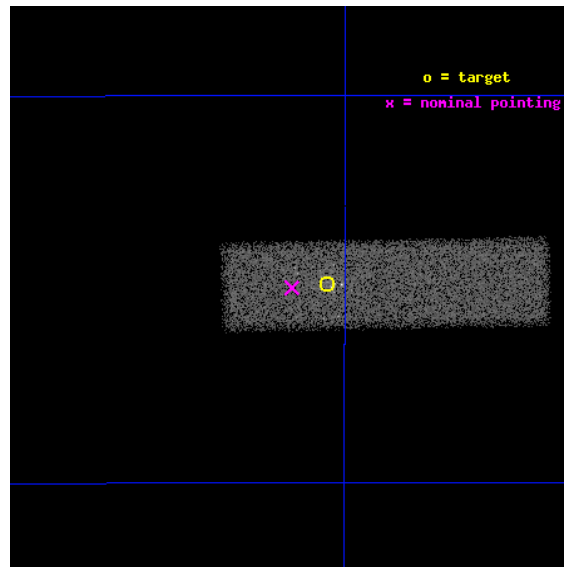
L2 Processing Date : Oct 15 2012

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# 1 Front

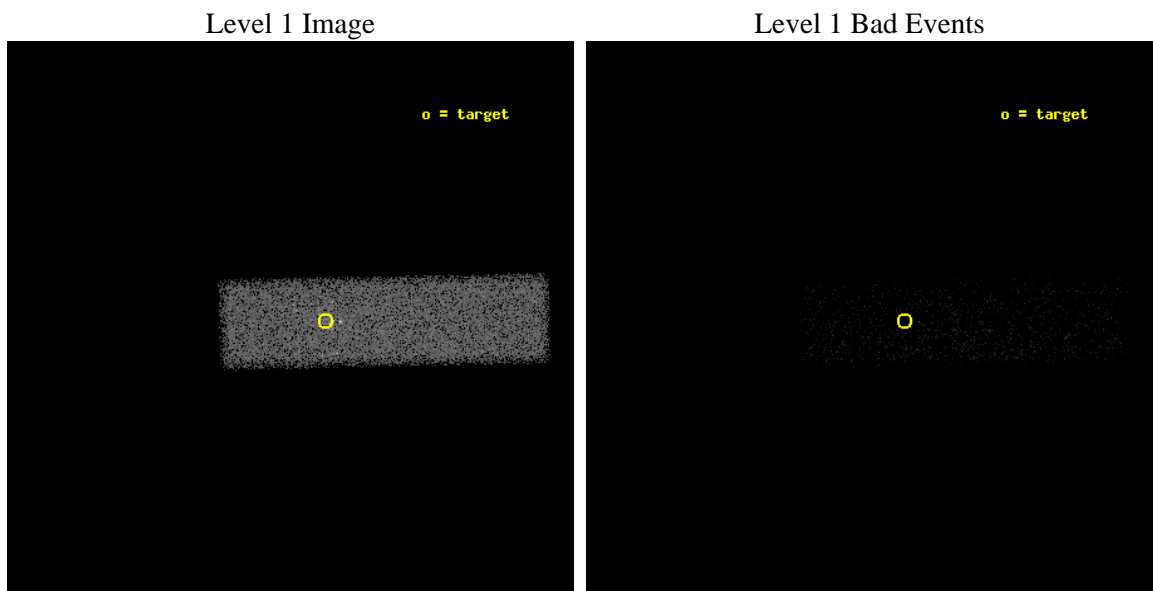
|           |  |   |
|-----------|--|---|
| seq_num   | 400216   | Sequence number                             |
| obs_id    | 3385   | Observation id                              |
| title     | COMPLETE COMPACT OBJECT AND BINARY SURVEY OF 47TUC | Proposal title                              |
| observer  | Professor Johnathan Grindlay                       | Principal investigator                      |
| object    | 47 TUCANAE   | Source name                                 |
| dtcycle   | 0  | &#160                                       |
| cycle     | P  | events from which exps?<br>Prim/Second/Both |
| ra_targ   | 6.024167   | Observer's specified target RA [deg]        |
| dec_targ  | -72.080889   | Observer's specified target Dec [deg]       |
| ra_nom    | 6.07497575506                                      | Nominal RA [deg]                            |
| dec_nom   | -72.08296221576                                    | Nominal Dec [deg]                           |
| roll_nom  | 358.81825690851                                    | Nominal Roll [deg]                          |
| revision  | 3  | Processing version of data                  |
| ontime    | 5579.2000831366                                    | Sum of GTIs [s]                             |
| liveltime | 5306.9533749991                                    | Livetime [s]                                |
| ontime7   | 5579.2000831366                                    | Sum of GTIs [s]                             |
| l2events  | 33297  | Number of level 2 events                    |



## 2 OBI

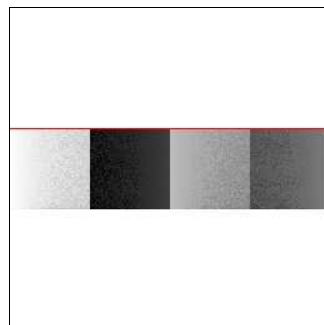
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 4750.000000     | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 5579.2000831366 | Sum of GTIs [s]                         |
| caldsver | 4.5.2               | &#160                          | ontime7        | 5579.2000831366 | Sum of GTIs [s]                         |
| date     | 2012-10-15T12:43:24 | Date and time of file creation | l1events       | 41336           | Number of level 1 events                |
| revision | 3                   | Processing version of data     |                |                 |   |

### 2.1.4 Events

|                 |              |
|-----------------|--------------|
|                 | <b>ccd 7</b> |
| level 1 events  | 41336        |
| rejected events | 7585         |
| rejected %      | 18%          |

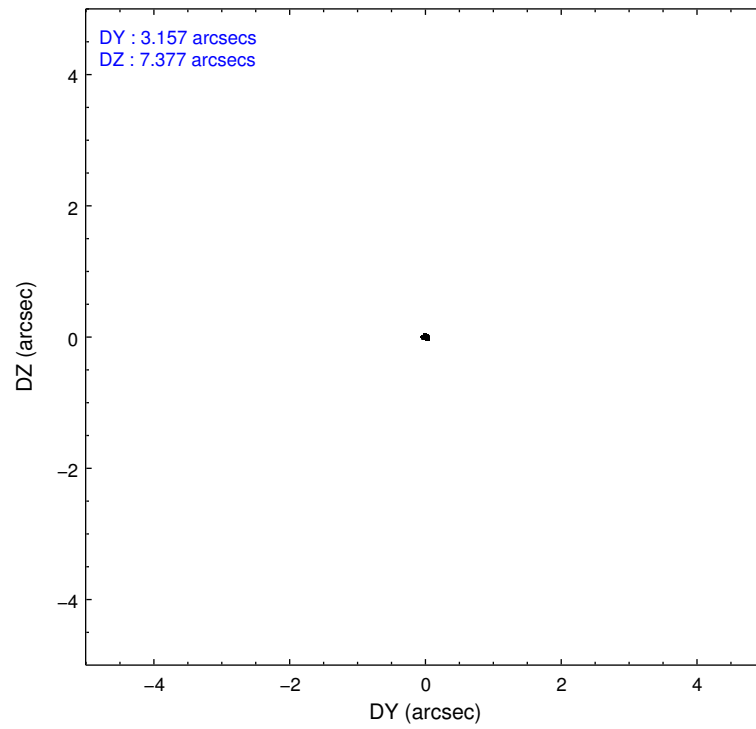
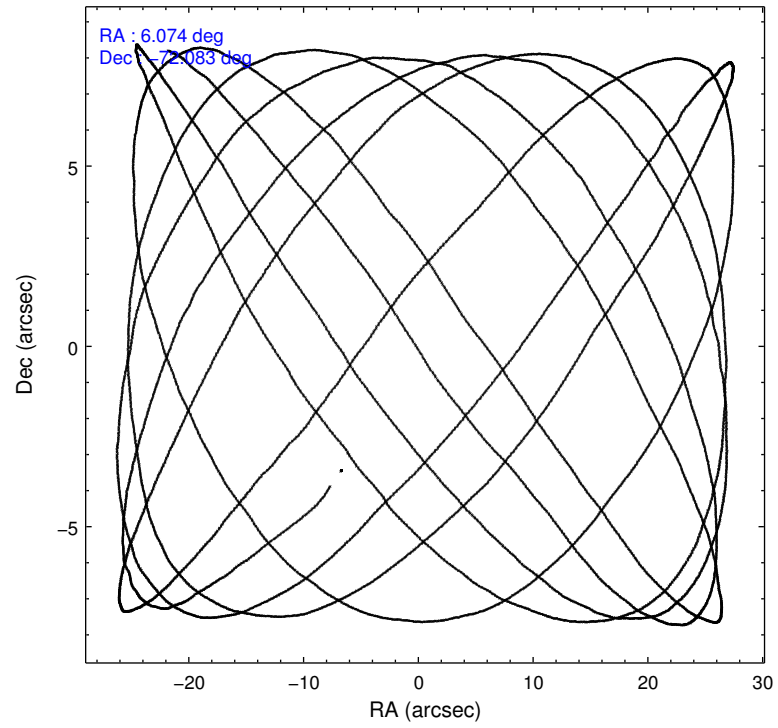
|                |              |
|----------------|--------------|
|                | <b>ccd 7</b> |
| grade 0 events | 4652         |
|                | 11%          |
| grade 1 events | 43           |
|                | 0%           |
| grade 2 events | 6241         |
|                | 15%          |
| grade 3 events | 2917         |
|                | 7%           |
| grade 4 events | 2852         |
|                | 6%           |
| grade 5 events | 1362         |
|                | 3%           |
| grade 6 events | 17089        |
|                | 41%          |
| grade 7 events | 6180         |
|                | 14%          |

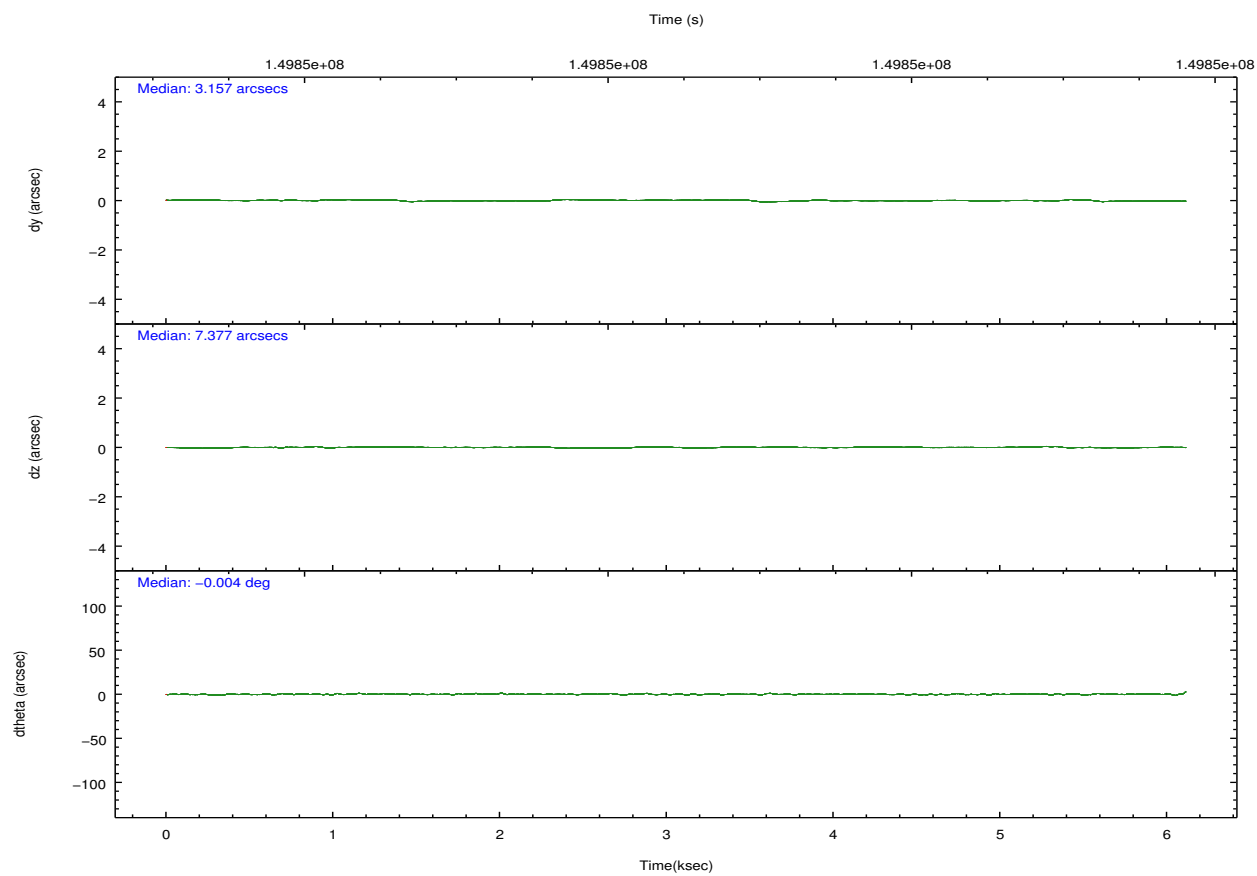
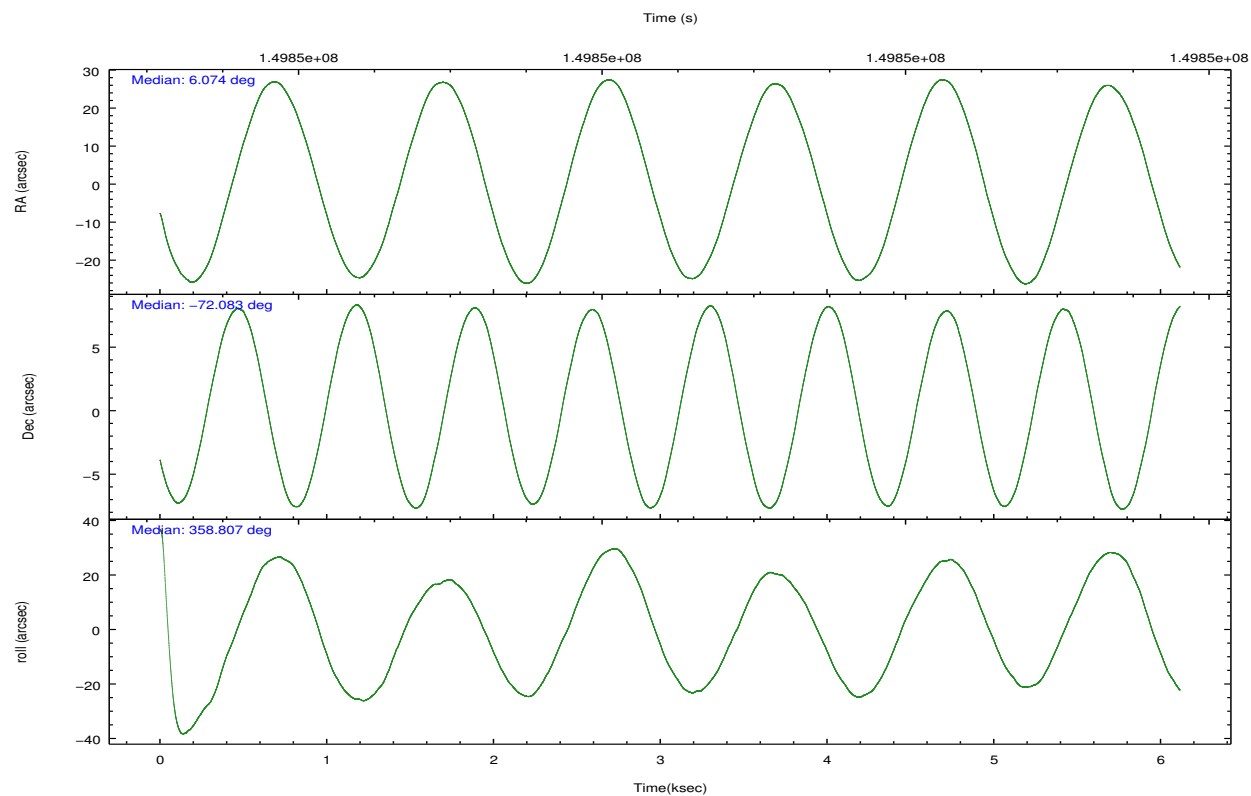


## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number          | 7         | 7       |
| Detector                          | ACIS-7              | ACIS-7               | Obspar file type                      | PREDICTED | ACTUAL  |
| Grating                           | NONE                | NONE                 | Obspar update status                  | NONE      | UPDATED |
| Data mode                         | FAINT               | FAINT                | Number of optional ACIS chips dropped | 0         | 0       |
| Observation mode                  | POINTING            | POINTING             | On-chip summing requested             | N         | N       |
| [deg] Pointing RA                 | 5.998010            | 6.074975755059981    | Subarray requested                    | CUSTOM    | 1/4     |
| [deg] Pointing Dec                | -72.096353          | -72.08296221575995   | Subarray start row                    | 384       | 384     |
| [deg] Pointing Roll               | 358.588240          | 358.8182569085141    | Subarray row count                    | 256       | 256     |
| [mm] SIM focus pos                | -0.684267           | -0.6828225247311905  | Alternating exposures requested       | N         | N       |
| [mm] SIM defocus                  | 0                   | 0.001444936568705701 | [s] Primary exposure time             | 0.000000  | 0.8     |
| [mm] SIM translation stage pos    | -190.132523         | -190.1400660498719   |                                       |           |         |
| [mm] SIM translation stage offset | 0                   | 0.00754346686406393  |                                       |           |         |
| [s] Observation start time (MET)  | 149848758.184000    | 149847212.40023      |                                       |           |         |
| Observation start date            | 2002-10-01T08:38:14 | 2002-10-01T08:13:32  |                                       |           |         |
| [s] Observation end time (MET)    | 149853508.184000    | 149854160.36302      |                                       |           |         |
| Observation end date              | 2002-10-01T09:57:24 | 2002-10-01T10:09:20  |                                       |           |         |
| Read mode                         | TIMED               | TIMED                |                                       |           |         |

## 2.3 Aspect



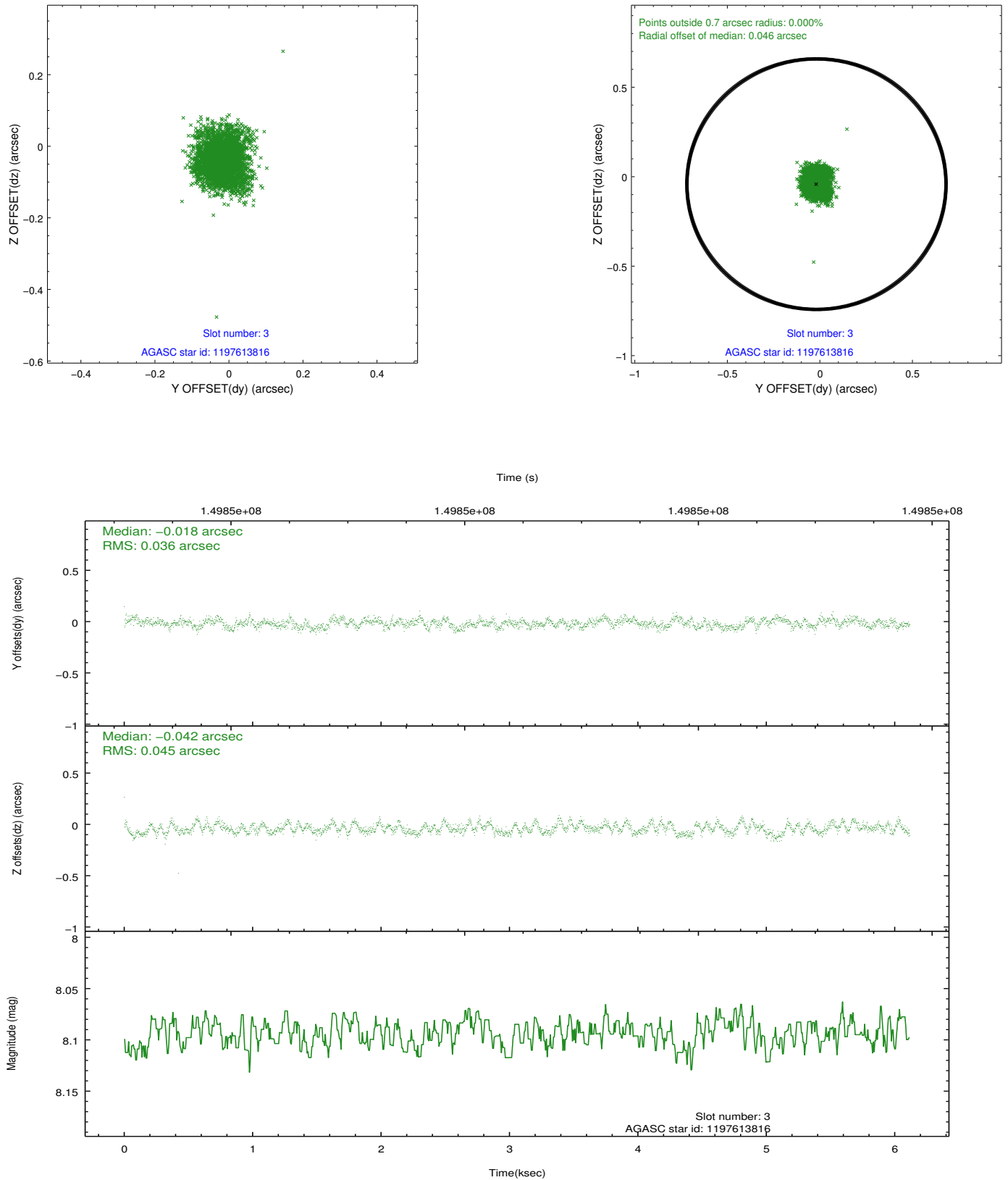


### Slot Statistics

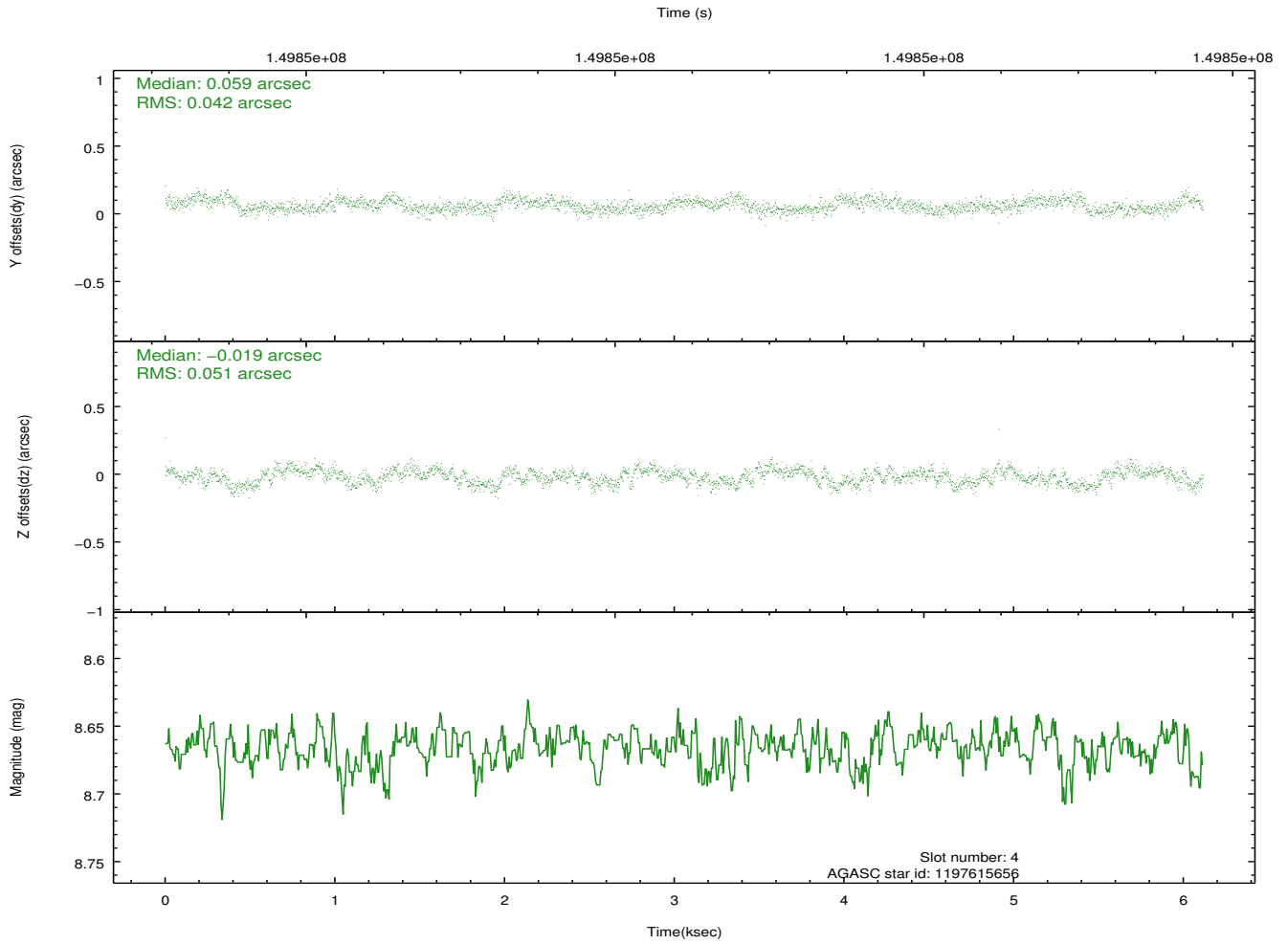
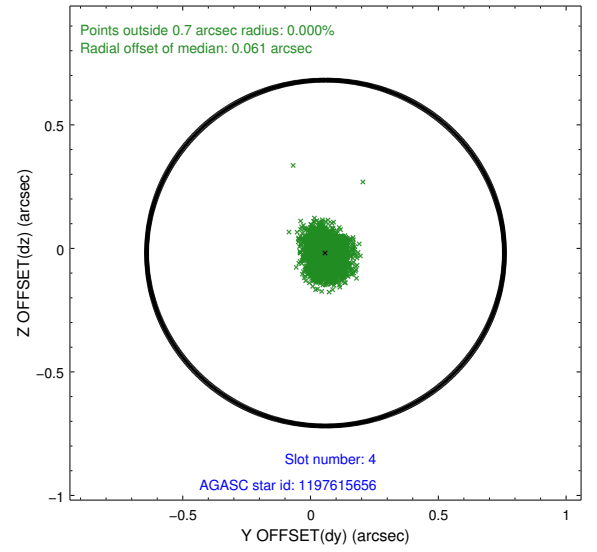
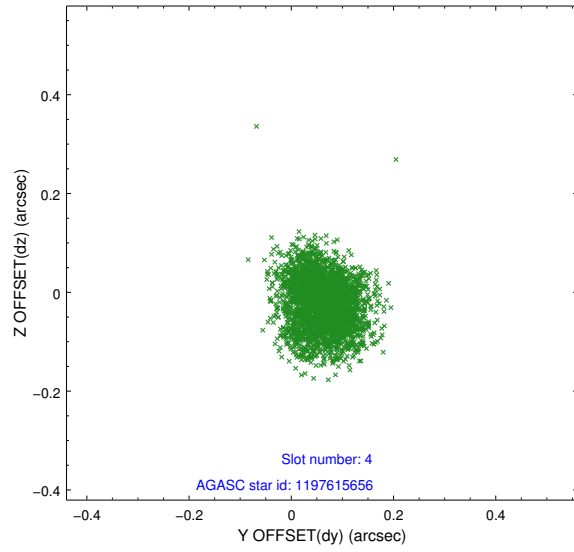
| slot | status | id         | mag   | n_pts | med_dy | med_dz | dr1   | dr2   | ra       | dec        | mean_y   | mean_z   |
|------|--------|------------|-------|-------|--------|--------|-------|-------|----------|------------|----------|----------|
| 0    | FID    | ACIS-S-2   | 7.11  | 1492  | -0.012 | -0.001 | 0.007 | 0.012 | 0.000000 | 0.000000   | -755.82  | -1728.55 |
| 1    | FID    | ACIS-S-4   | 7.20  | 1492  | 0.003  | 0.006  | 0.006 | 0.010 | 0.000000 | 0.000000   | 2157.04  | 178.93   |
| 2    | FID    | ACIS-S-5   | 7.24  | 1492  | -0.022 | 0.003  | 0.007 | 0.012 | 0.000000 | 0.000000   | -1807.42 | 173.72   |
| 3    | GUIDE  | 1197613816 | 8.09  | 2984  | -0.018 | -0.042 | 0.061 | 0.097 | 5.181461 | -71.977993 | -918.33  | 397.45   |
| 4    | GUIDE  | 1197615656 | 8.67  | 2974  | 0.059  | -0.019 | 0.070 | 0.113 | 6.909375 | -71.882658 | 1001.92  | 786.99   |
| 5    | GUIDE  | 1197999176 | 8.85  | 2984  | -0.100 | -0.037 | 0.075 | 0.119 | 6.259352 | -72.617840 | 329.03   | -1870.03 |
| 6    | GUIDE  | 1197607928 | 9.63  | 2980  | 0.110  | 0.087  | 0.093 | 0.146 | 7.837743 | -72.165759 | 2035.87  | -230.73  |
| 7    | GUIDE  | 1197619752 | 10.02 | 2980  | -0.054 | 0.008  | 0.109 | 0.178 | 4.510721 | -71.856694 | -1685.53 | 800.62   |

## 2.4 Star Slots

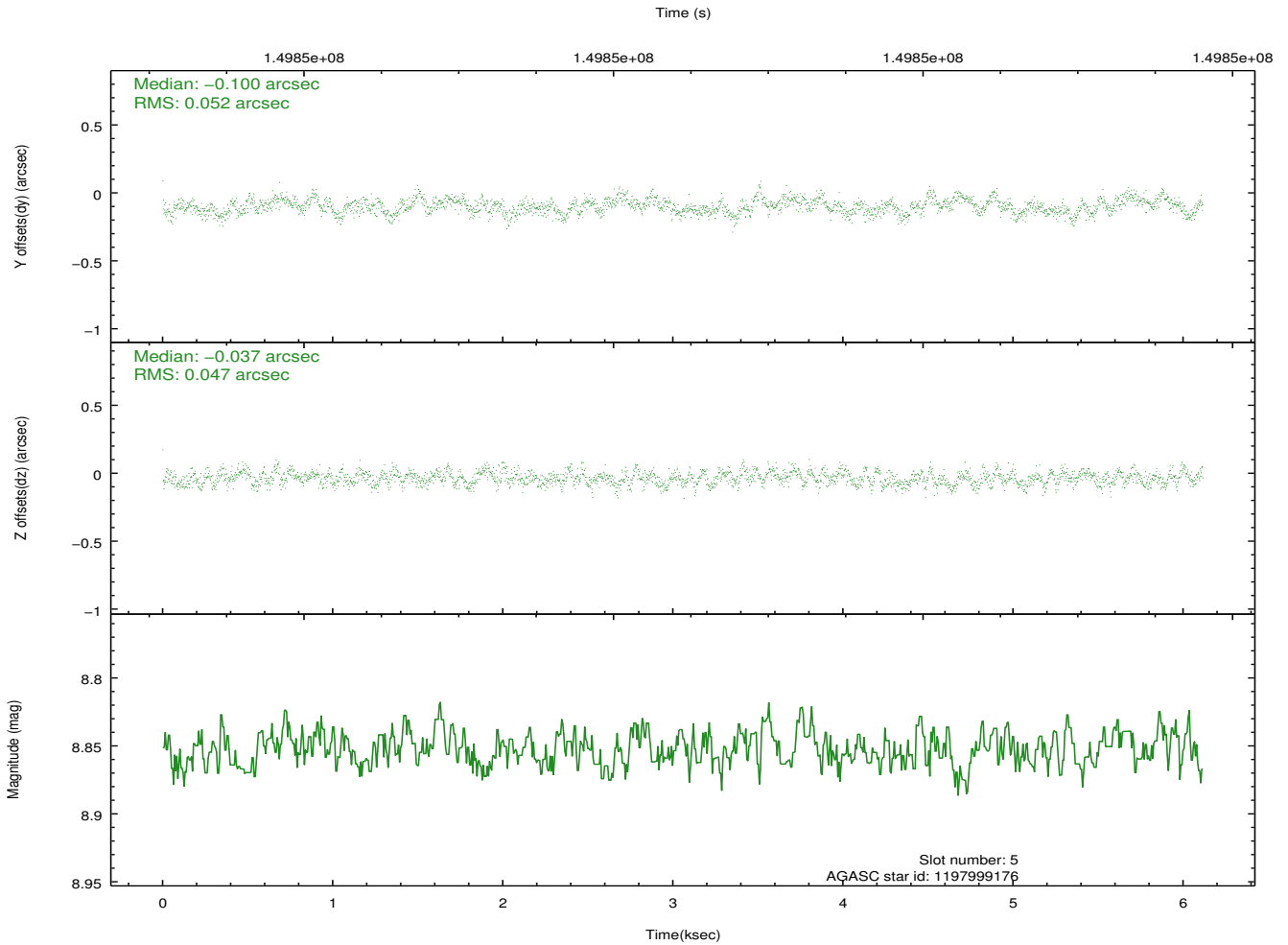
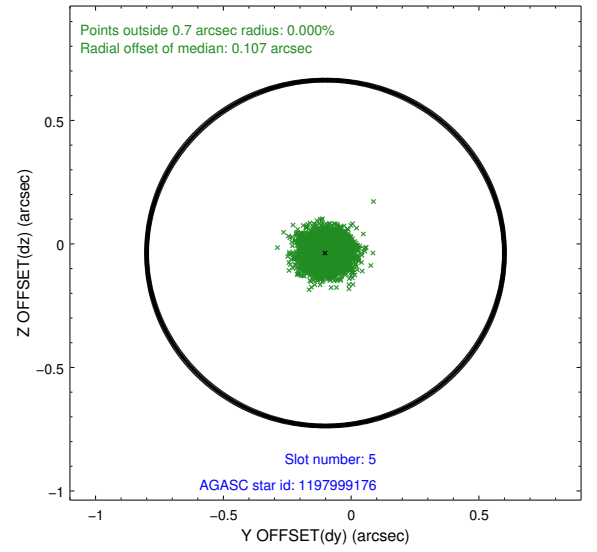
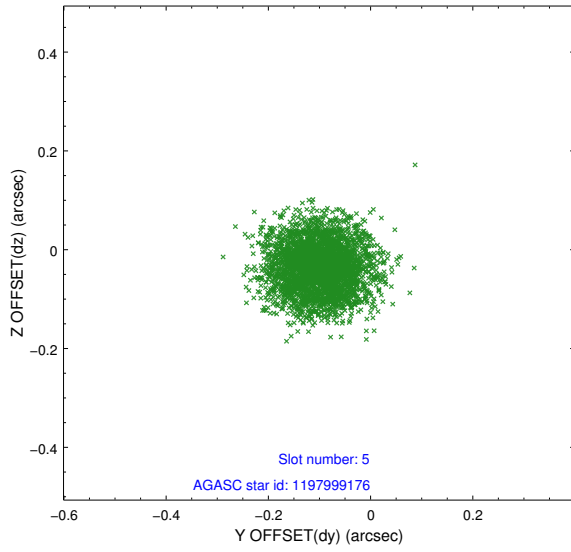
### 2.4.1 Slot 3



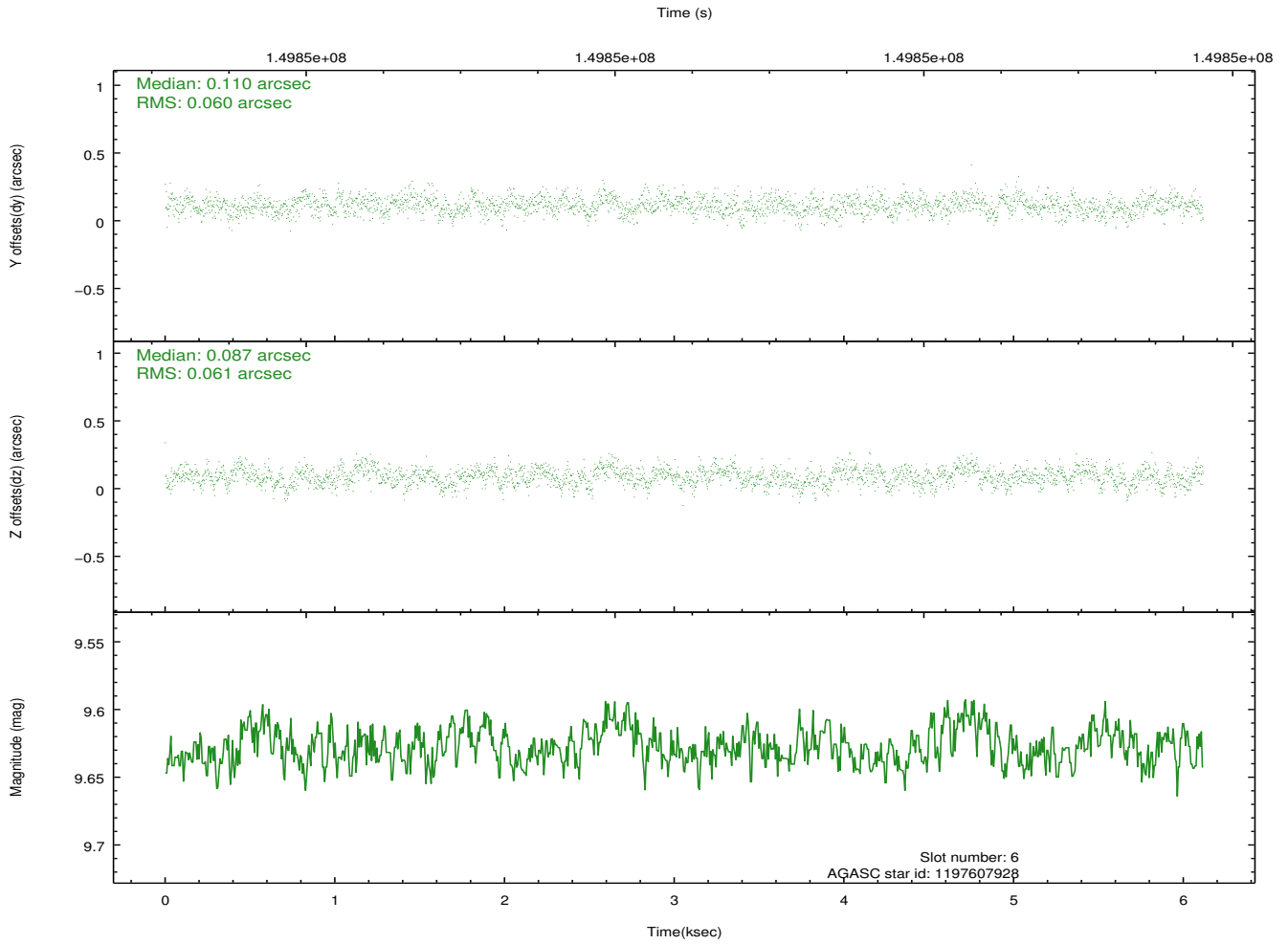
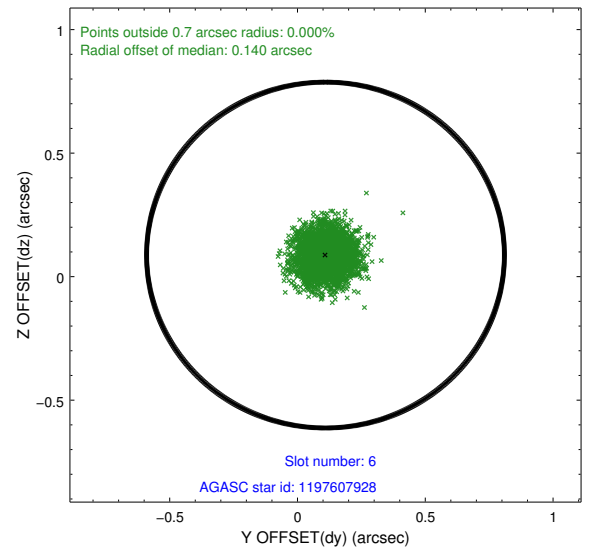
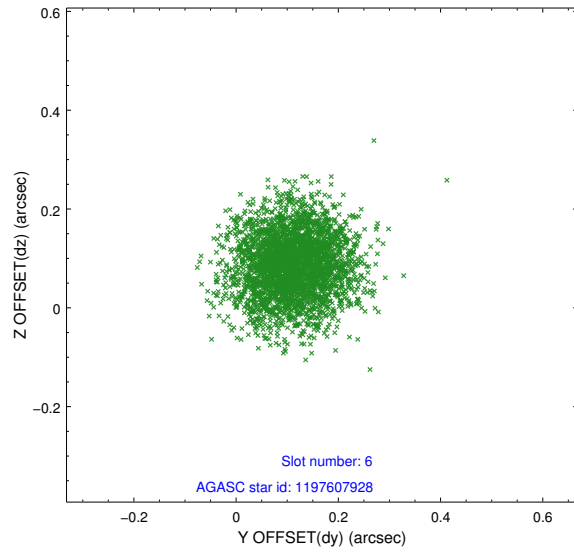
## 2.4.2 Slot 4



### 2.4.3 Slot 5

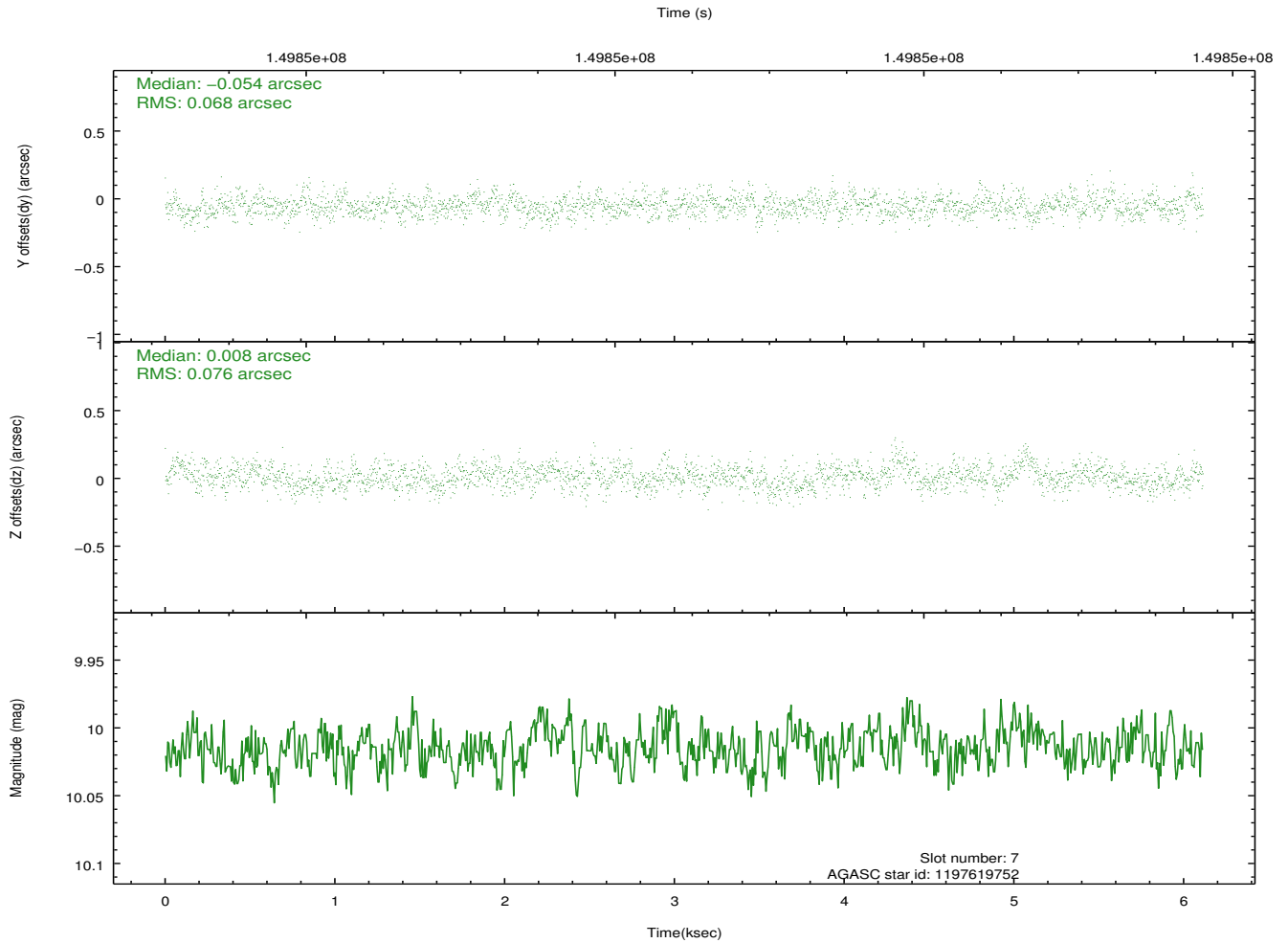
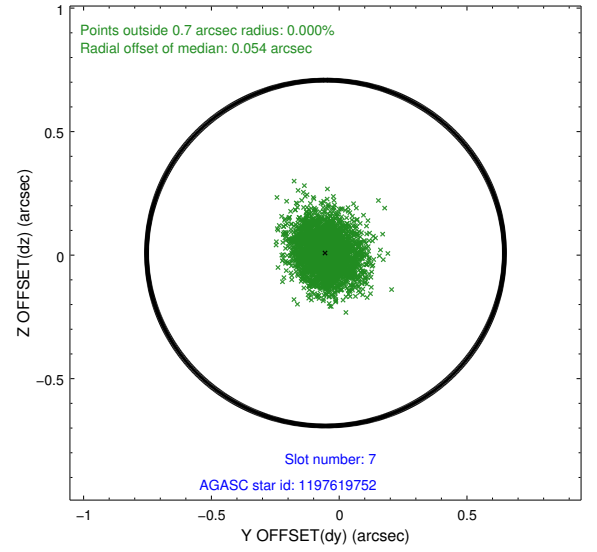
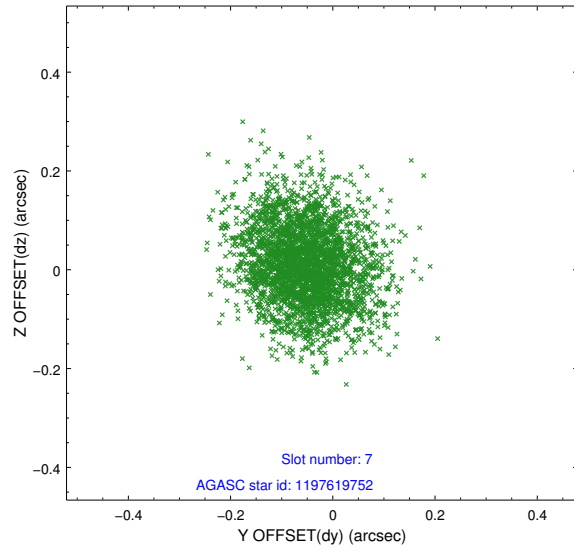


## 2.4.4 Slot 6



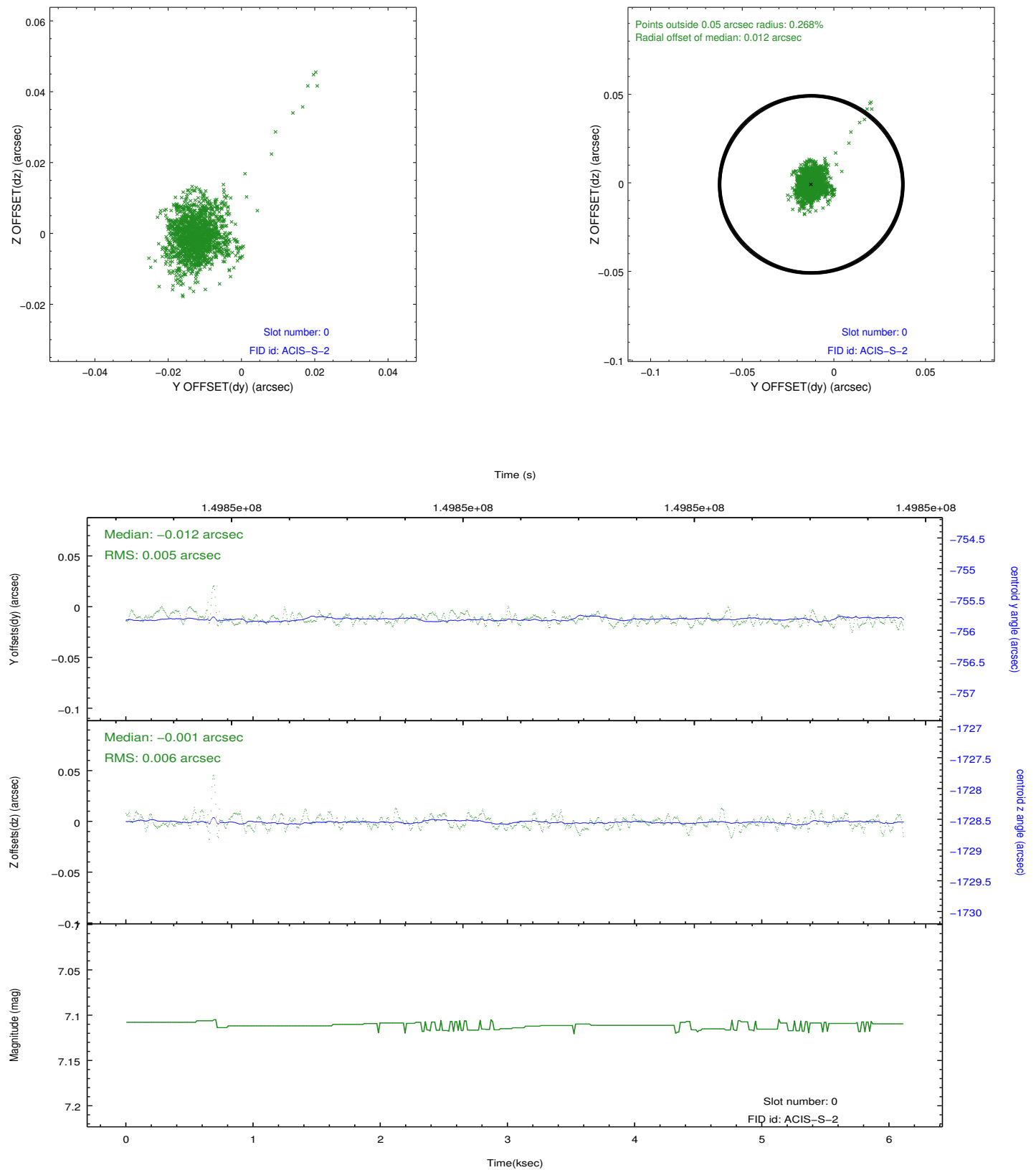


## 2.4.5 Slot 7

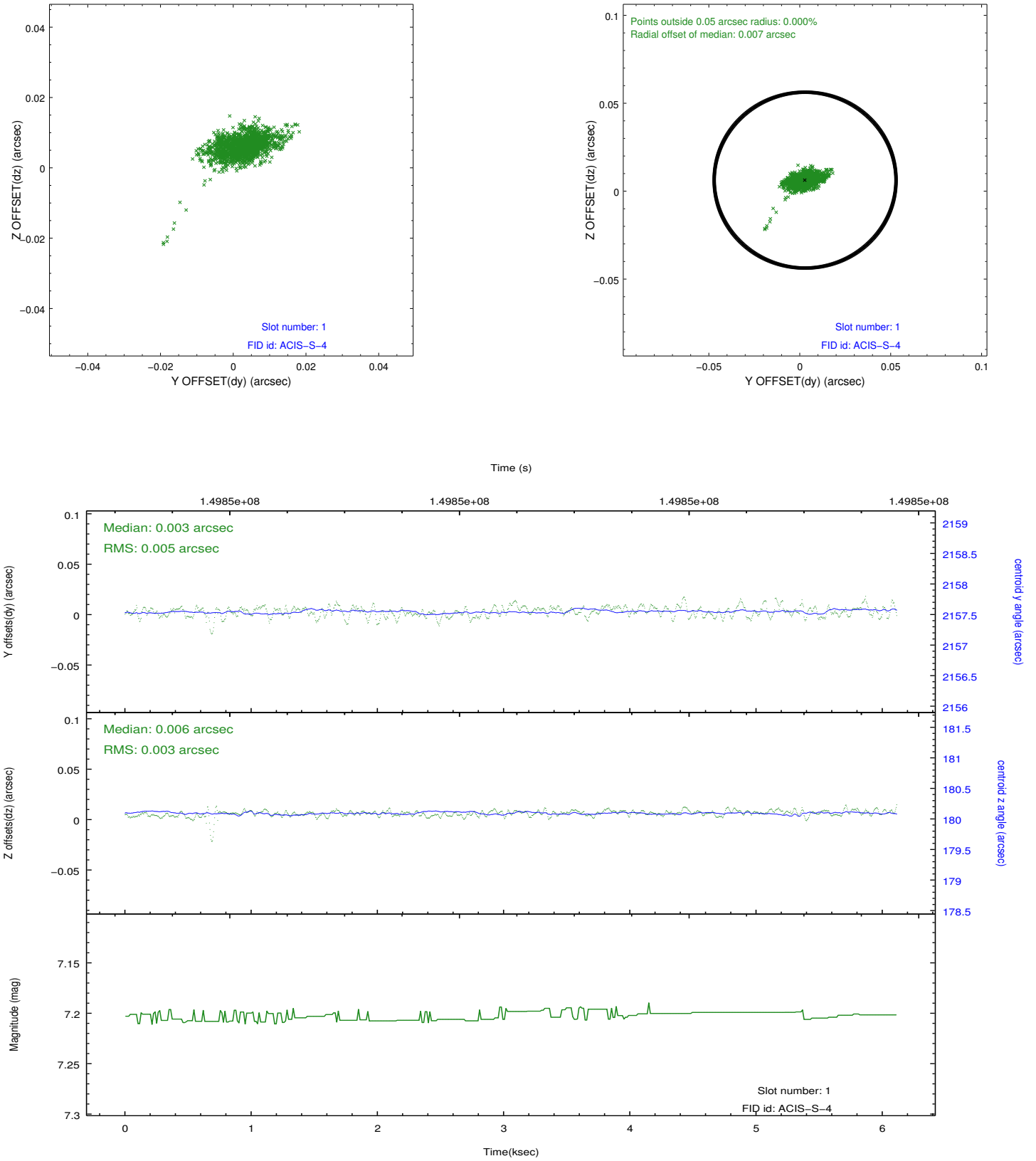


## 2.5 FID Slots

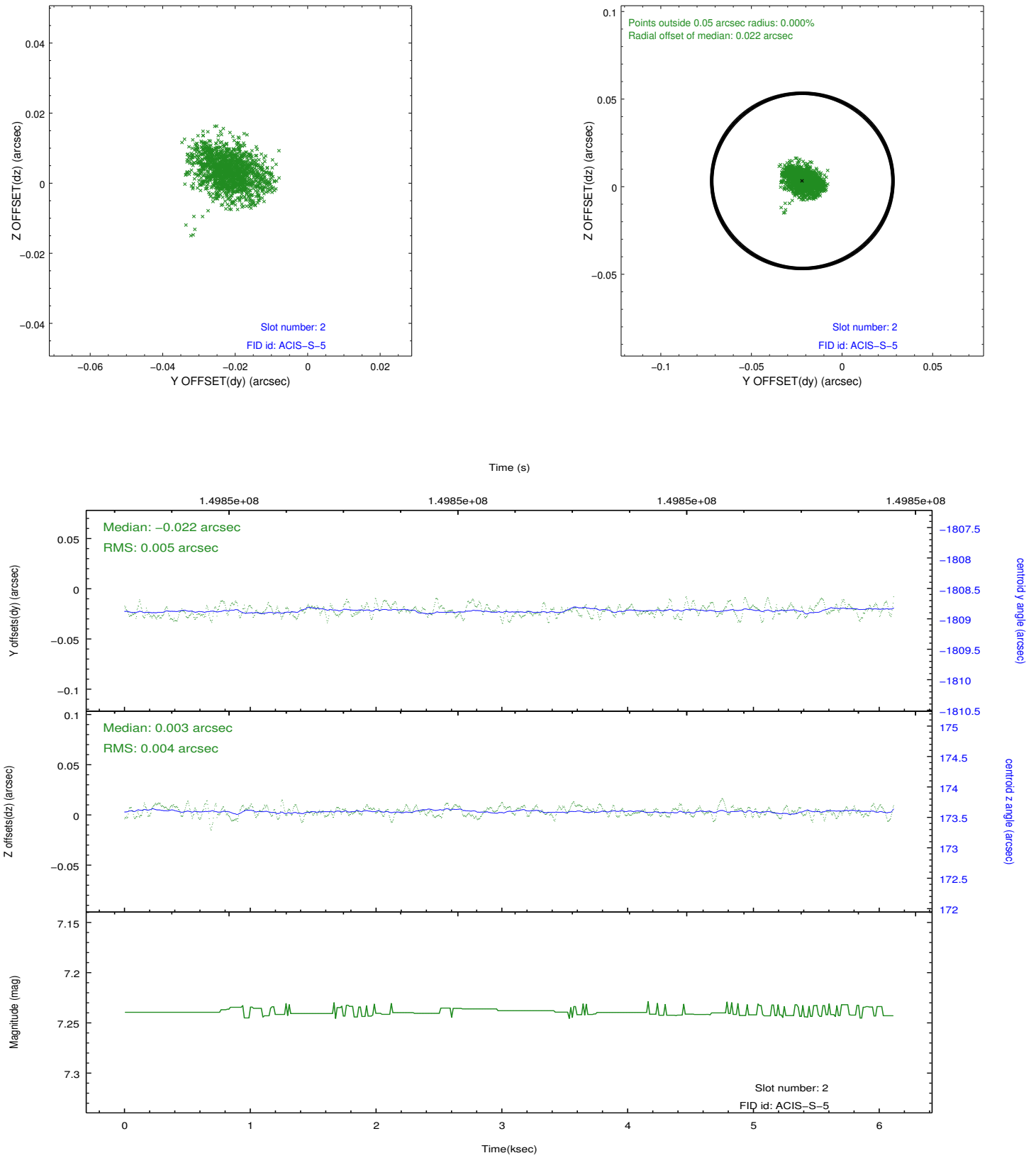
### 2.5.1 Slot 0



## 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)      | 2012.10.24  |
| V&V Edition                | 1           |
| V&V Disposition and Status | OK          |
| V&V Charge Time            | 5.58        |

### A.2 Comments