

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16218 - L2 Version 1  
Chandra X-Ray Center

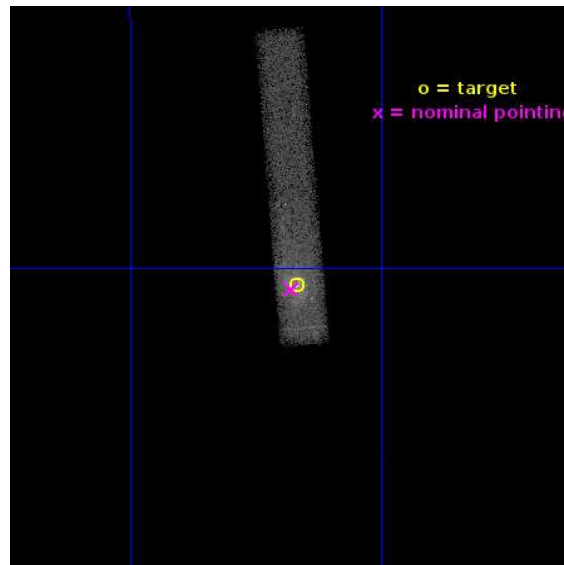
L2 Processing Date : Oct 21 2014

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# 1 Front

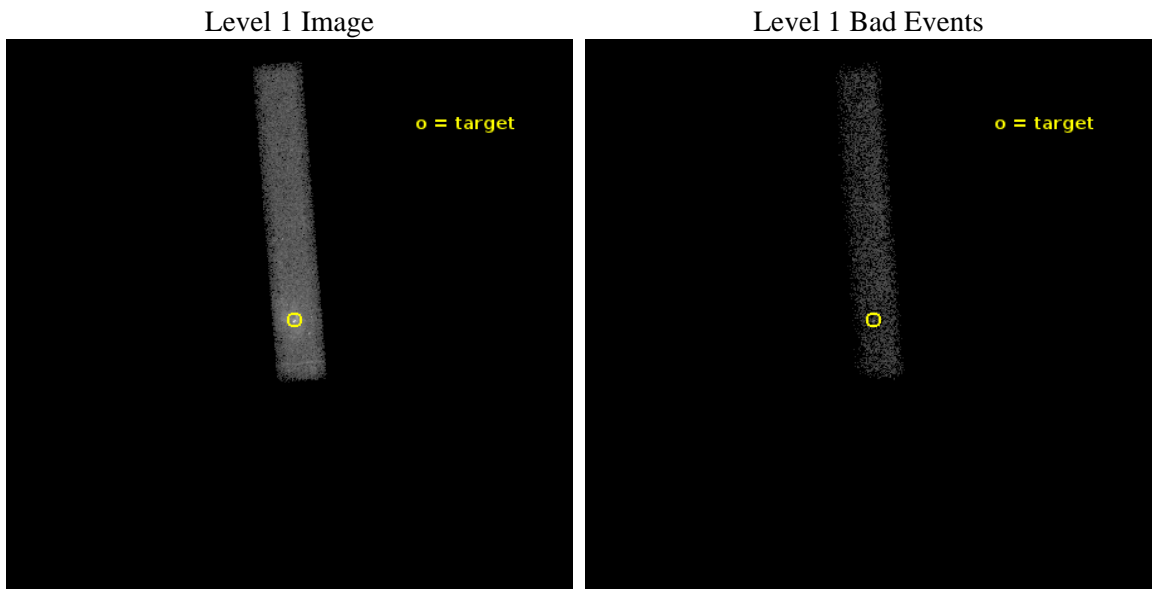
|          |   |   |
|----------|---|---|
| seq_num  | 601130  | Sequence number                             |
| obs_id   | 16218   | Observation id                              |
| title    | Monitoring the Tidal Disruption of the Gas Cloud G2 As It Encounters Sgr A* | Proposal title                              |
| observer | Dr. Daryl Haggard   | Principal investigator                      |
| object   | Sgr A*  | Source name                                 |
| dtcycle  | 0   | &#160                                       |
| cycle    | P   | events from which exps?<br>Prim/Second/Both |
| ra_targ  | 266.416667  | Observer's specified target RA [deg]        |
| dec_targ | -29.007806  | Observer's specified target Dec [deg]       |
| ra_nom   | 266.41946714367   | Nominal RA [deg]                            |
| dec_nom  | -29.009714956899  | Nominal Dec [deg]                           |
| roll_nom | 265.58426603709   | Nominal Roll [deg]                          |
| revision | 1   | Processing version of data                  |
| ontime   | 40069.19761169  | Sum of GTIs [s]                             |
| livetime | 36340.647208135   | Livetime [s]                                |
| ontime7  | 40069.19761169  | Sum of GTIs [s]                             |
| l2events | 42807   | Number of level 2 events                    |



## 2 OBI

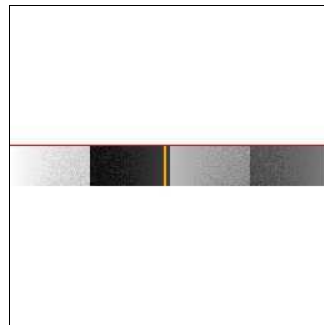
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

|          |                     |                                |                |                |   |
|----------|---------------------|--------------------------------|----------------|----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 40000.000000   | [s] Scheduled observation exposure time |
| ascdsver | 10.2.4              | Processing system revision     | ontime         | 40069.19761169 | Sum of GTIs [s]                         |
| caldsver | 4.6.3               | &#160                          | ontime7        | 40069.19761169 | Sum of GTIs [s]                         |
| date     | 2014-10-21T10:44:14 | Date and time of file creation | l1events       | 63705          | Number of level 1 events                |
| revision | 1                   | Processing version of data     |                |                |   |

### 2.1.4 Events

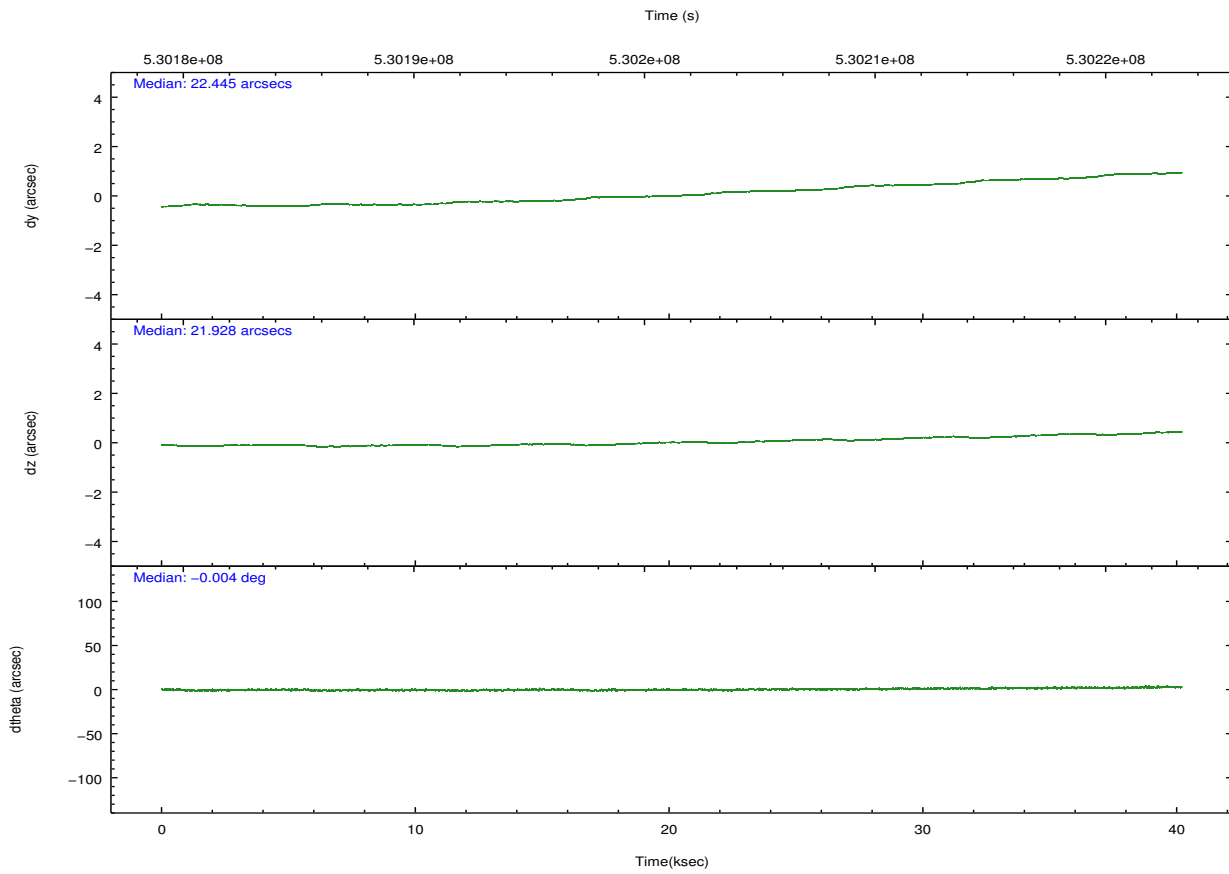
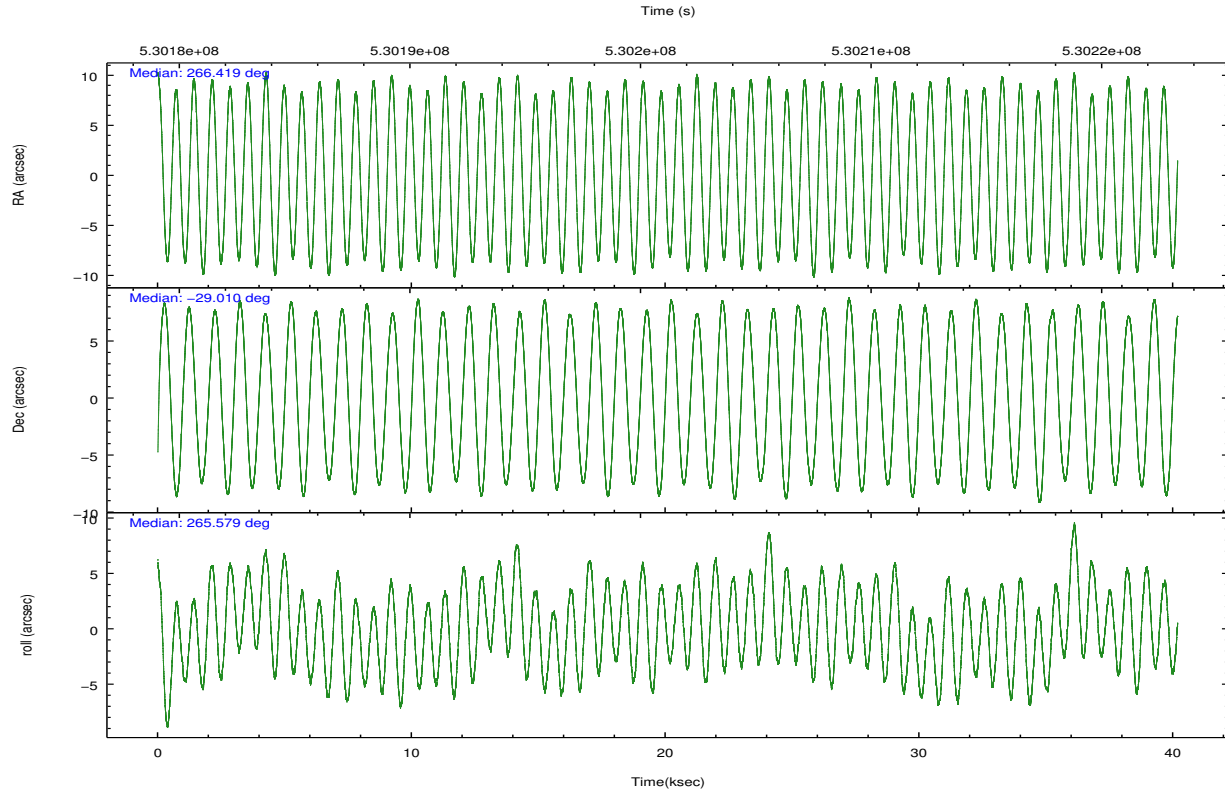
|                 | <b>ccd 7</b> |
|-----------------|--------------|
| level 1 events  | 63705        |
| rejected events | 19947        |
| rejected %      | <b>31%</b>   |

|                | <b>ccd 7</b> |
|----------------|--------------|
| grade 0 events | 6713         |
|                | 10%          |
| grade 1 events | 61           |
|                | 0%           |
| grade 2 events | 9533         |
|                | 14%          |
| grade 3 events | 5257         |
|                | 8%           |
| grade 4 events | 5162         |
|                | 8%           |
| grade 5 events | 4153         |
|                | 6%           |
| grade 6 events | 17094        |
|                | 26%          |
| grade 7 events | 15732        |
|                | 24%          |

## 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                 | 266.405548          | 266.4194671436667    | Subarray requested                    | CUSTOM    | 1/8     |
| [deg] Pointing Dec                | -28.985119          | -29.00971495689913   | Subarray start row                    | 449       | 449     |
| [deg] Pointing Roll               | 265.420898          | 265.5842660370937    | Subarray row count                    | 128       | 128     |
| [s] Window start time (MET)       | 529804867.184000    | 529804867.184000     | Alternating exposures requested       | N         | N       |
| [s] Window stop time (MET)        | 530496067.184000    | 530496067.184000     | [s] Primary exposure time             | 0.000000  | 0.4     |
| [mm] SIM focus pos                | -0.684267           | -0.6828225247311905  |                                       |           |         |
| [mm] SIM defocus                  | 0                   | 0.001444936568705701 |                                       |           |         |
| [mm] SIM translation stage pos    | -190.132523         | -190.1425803651734   |                                       |           |         |
| [mm] SIM translation stage offset | 0                   | 0.01005778216563158  |                                       |           |         |
| [s] Observation start time (MET)  | 530181286.184000    | 530180548.15244      |                                       |           |         |
| Observation start date            | 2014-10-20T08:33:39 | 2014-10-20T08:22:28  |                                       |           |         |
| [s] Observation end time (MET)    | 530221286.184000    | 530222356.36726      |                                       |           |         |
| Observation end date              | 2014-10-20T19:40:19 | 2014-10-20T19:59:16  |                                       |           |         |
| Read mode                         | TIMED               | TIMED                |                                       |           |         |

## 2.3 Aspect

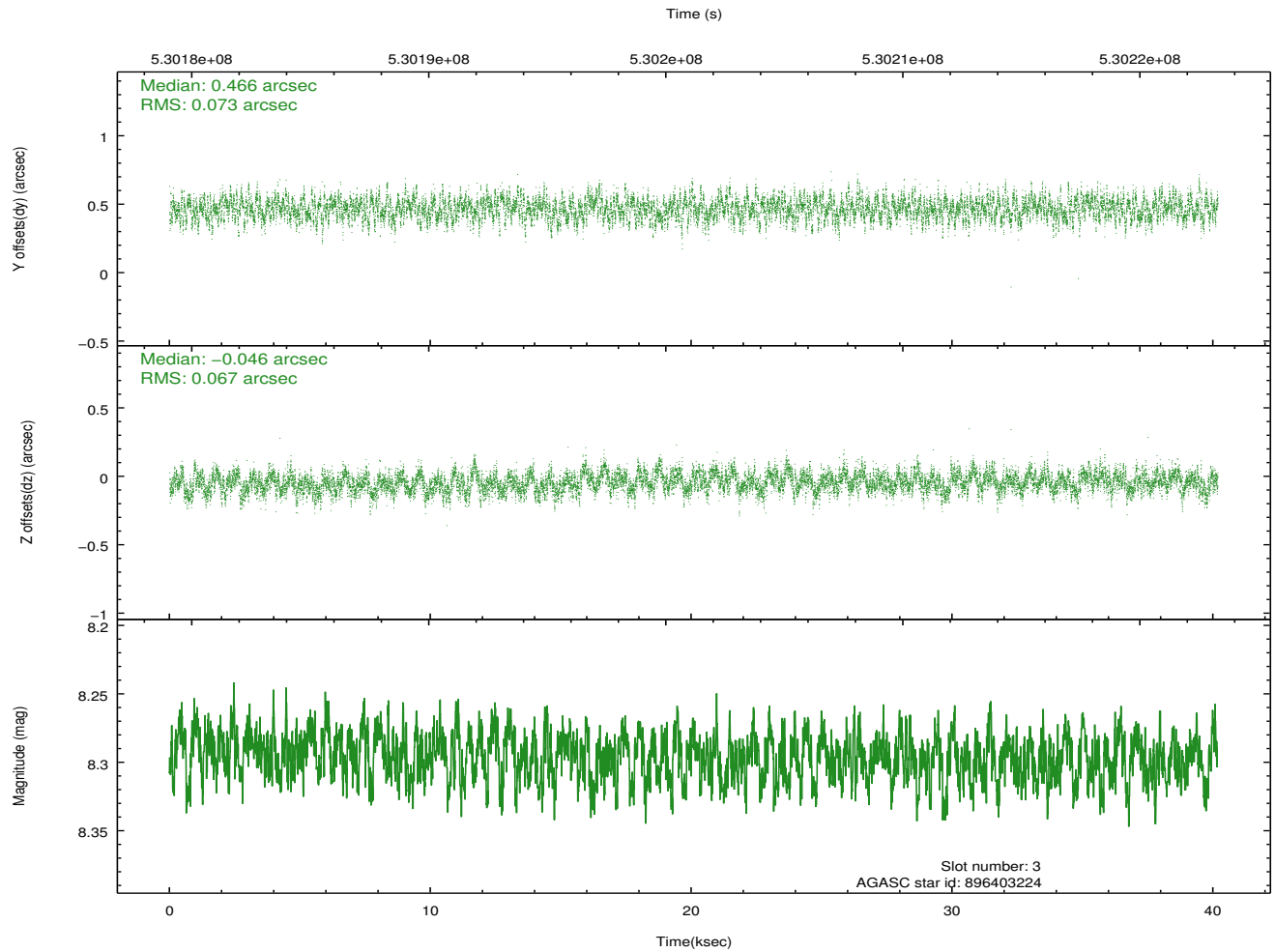
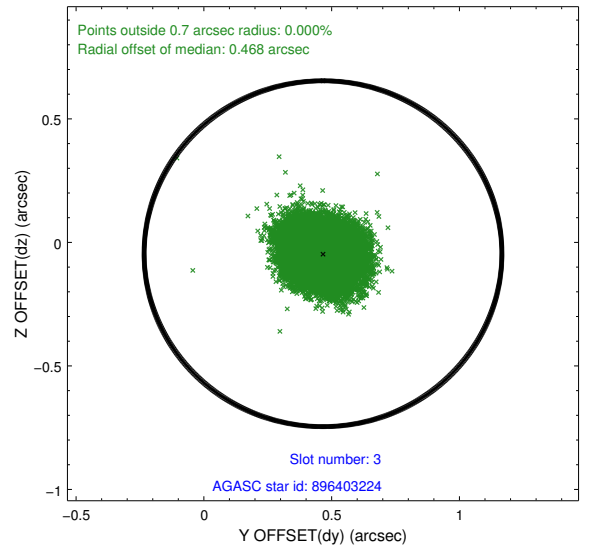
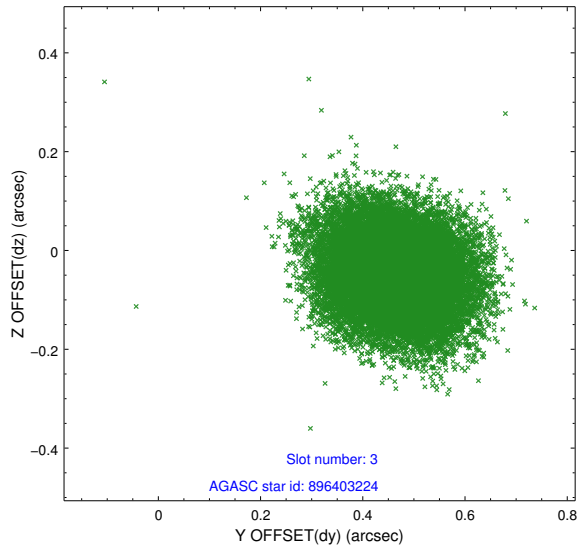


### Slot Statistics

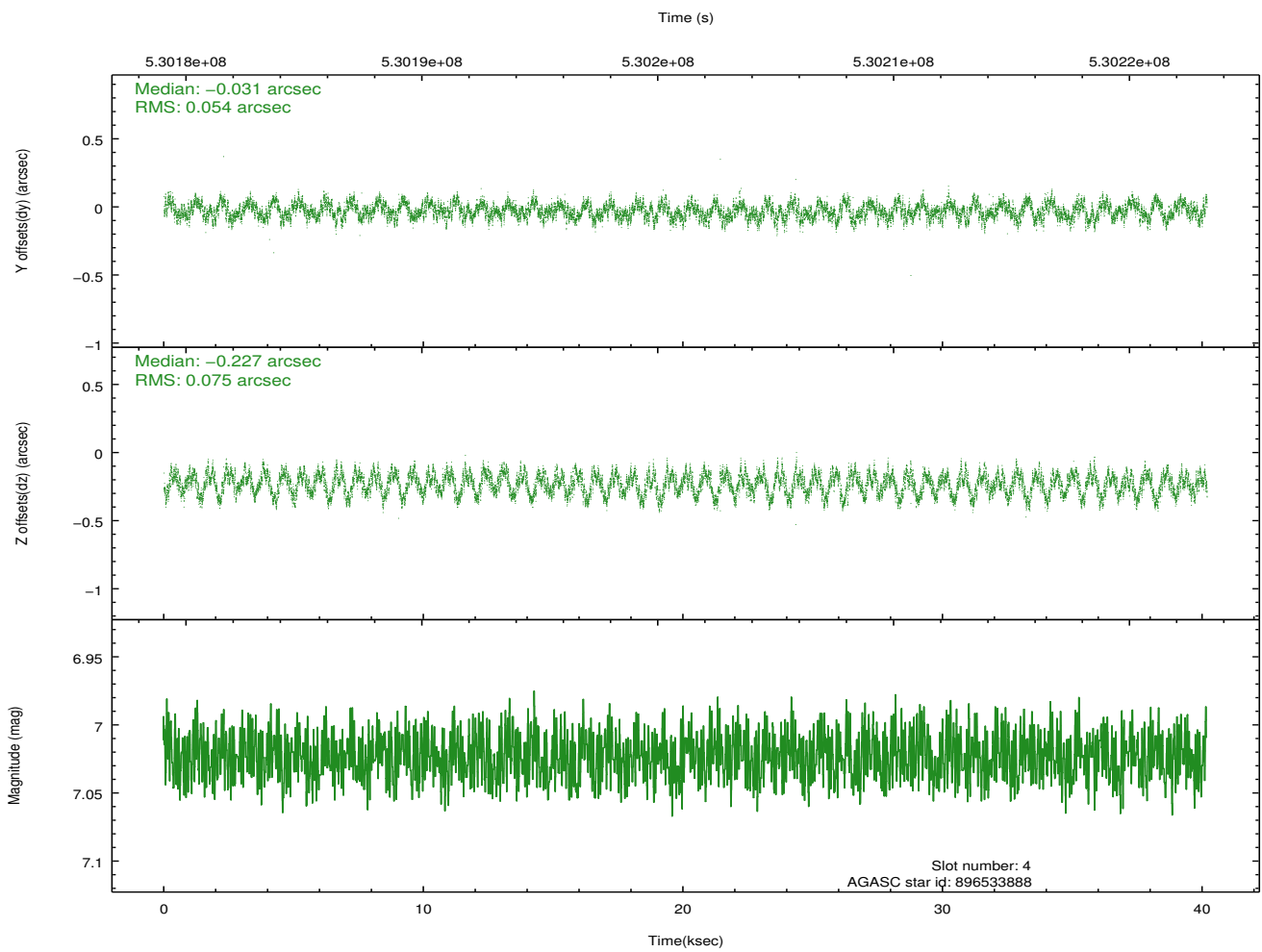
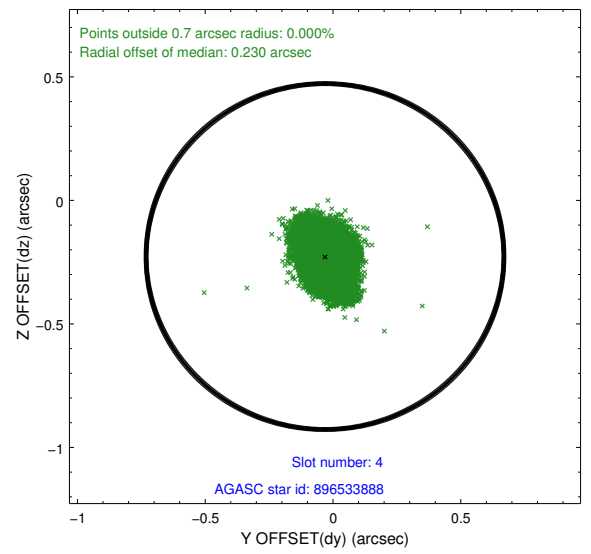
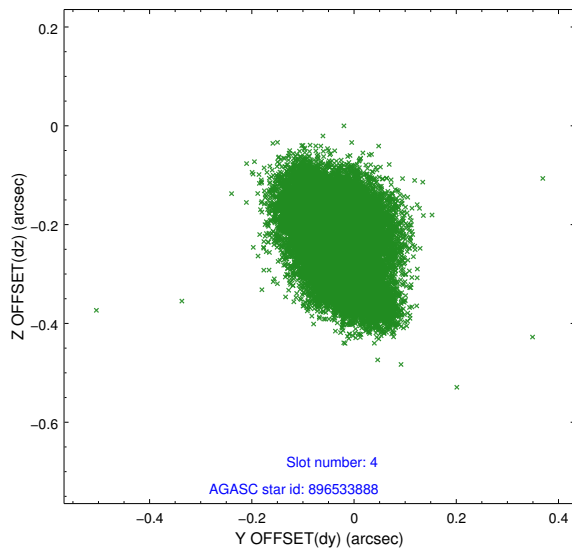
| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec        | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0    | FID    | ACIS-S-1  | 7.01 | 9801  | 0.123  | -0.014 | 0.019 | 0.034 | 0.000000   | 0.000000   | 920.38   | -1739.16 |
| 1    | FID    | ACIS-S-2  | 6.94 | 9801  | -0.135 | -0.009 | 0.013 | 0.032 | 0.000000   | 0.000000   | -775.78  | -1743.68 |
| 2    | FID    | ACIS-S-6  | 7.15 | 9799  | -0.007 | 0.027  | 0.014 | 0.022 | 0.000000   | 0.000000   | 385.98   | 802.22   |
| 3    | GUIDE  | 896403224 | 8.30 | 19596 | 0.466  | -0.046 | 0.106 | 0.169 | 265.612825 | -29.438915 | 1836.54  | -2345.99 |
| 4    | GUIDE  | 896533888 | 7.02 | 19602 | -0.031 | -0.227 | 0.100 | 0.157 | 266.666434 | -29.392757 | 1398.65  | 932.82   |
| 5    | GUIDE  | 896541576 | 8.18 | 19600 | -0.207 | 0.004  | 0.088 | 0.140 | 267.051055 | -28.762912 | -954.56  | 1967.29  |
| 6    | GUIDE  | 896538696 | 6.80 | 19602 | -0.087 | 0.392  | 0.077 | 0.118 | 266.298470 | -28.325572 | -2339.38 | -527.40  |
| 7    | GUIDE  | 896537776 | 7.53 | 19599 | -0.138 | -0.115 | 0.067 | 0.108 | 266.655684 | -29.665673 | 2380.48  | 975.87   |

## 2.4 Star Slots

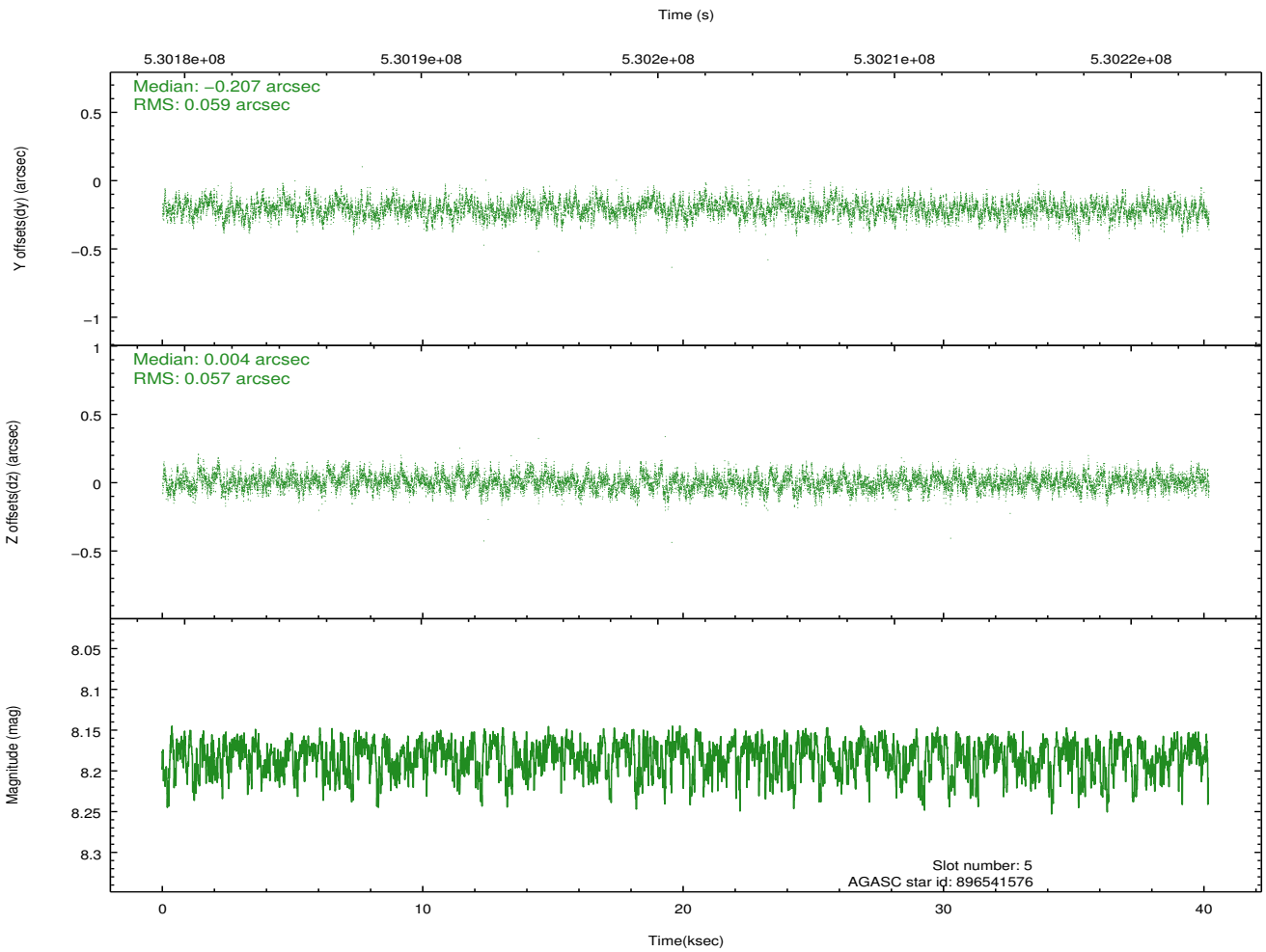
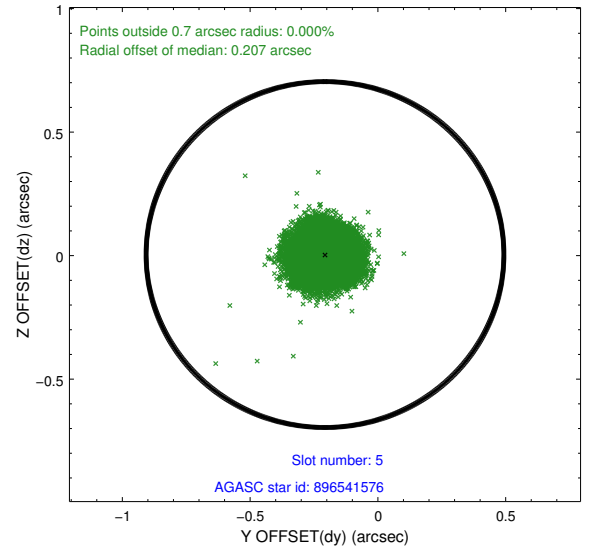
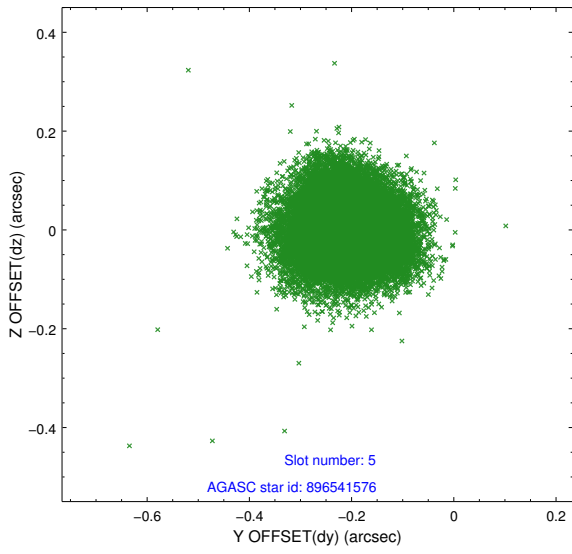
### 2.4.1 Slot 3



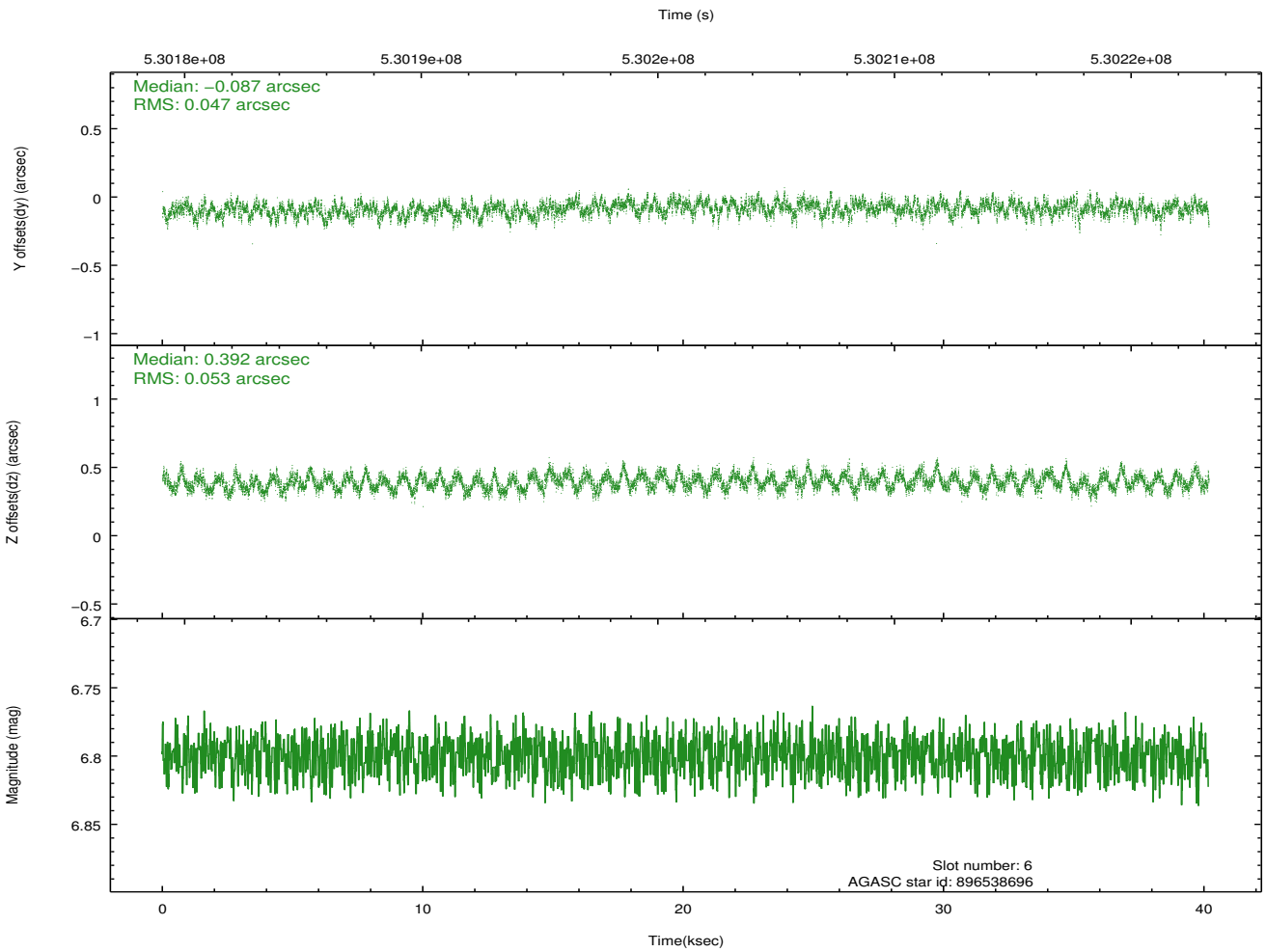
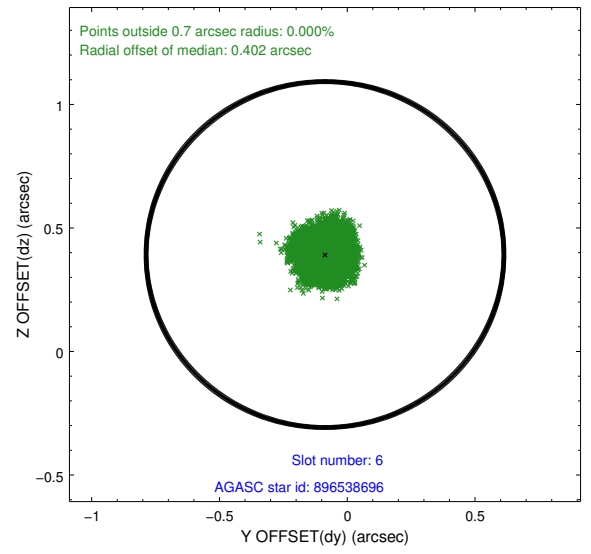
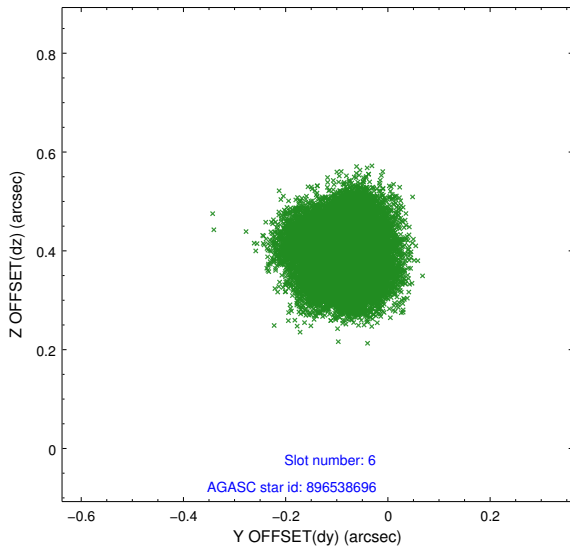
## 2.4.2 Slot 4



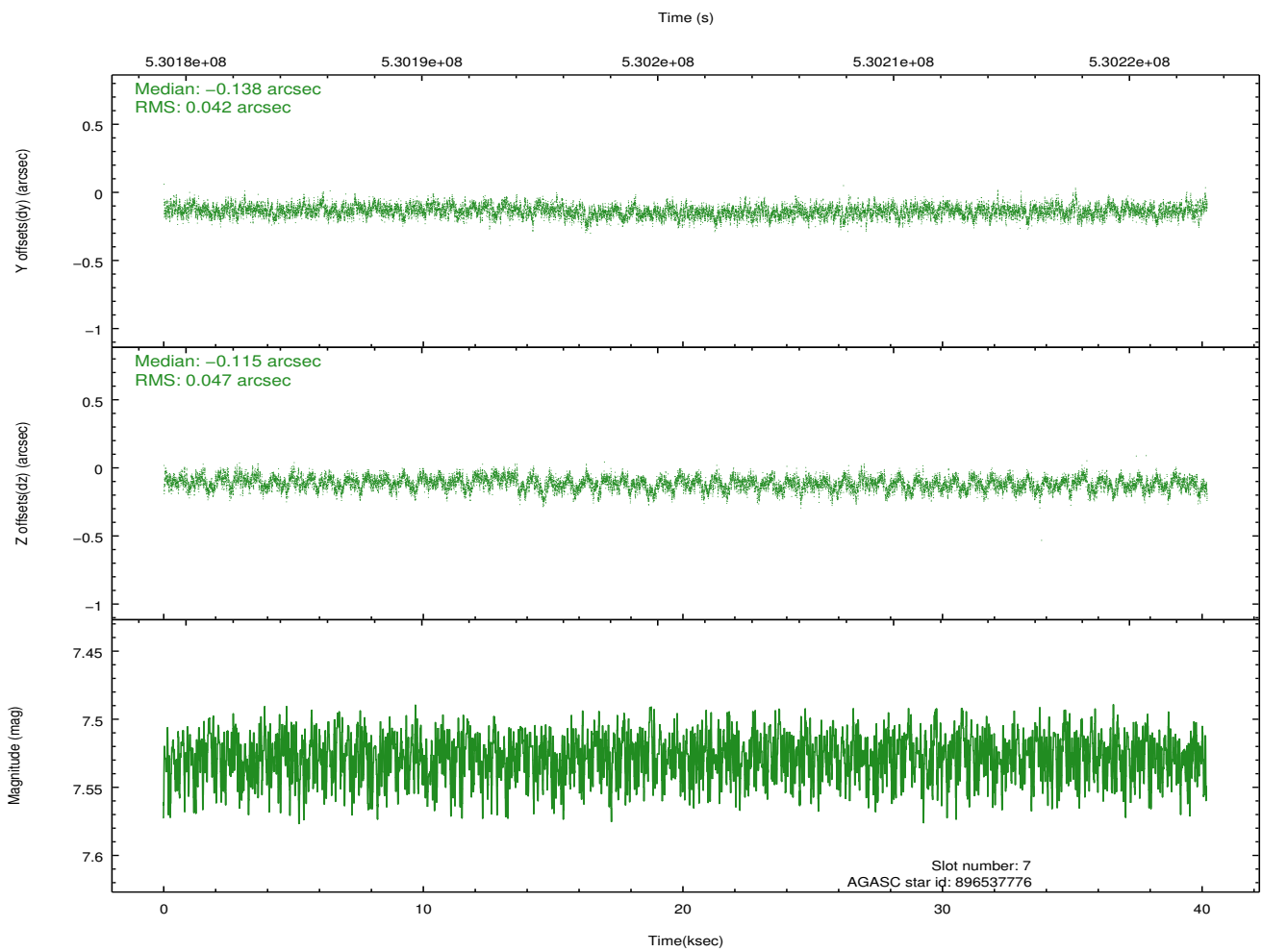
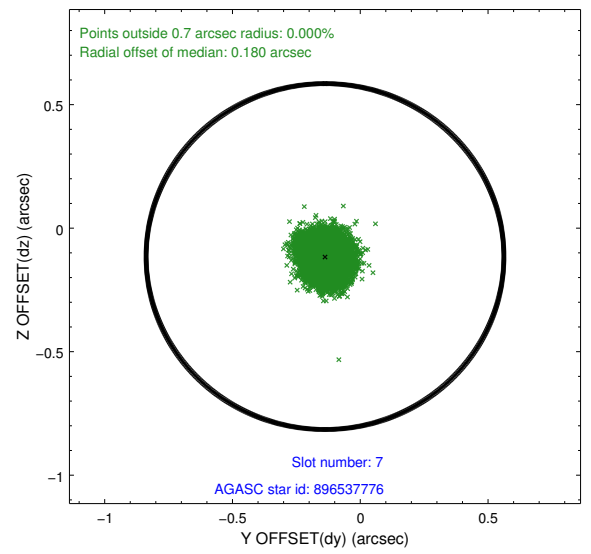
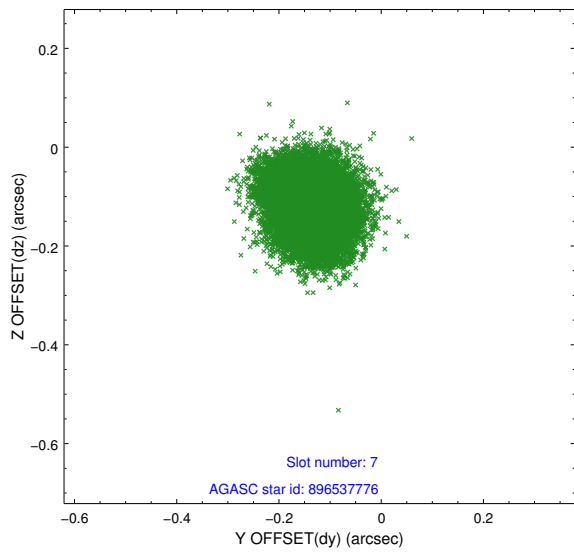
### 2.4.3 Slot 5



### 2.4.4 Slot 6

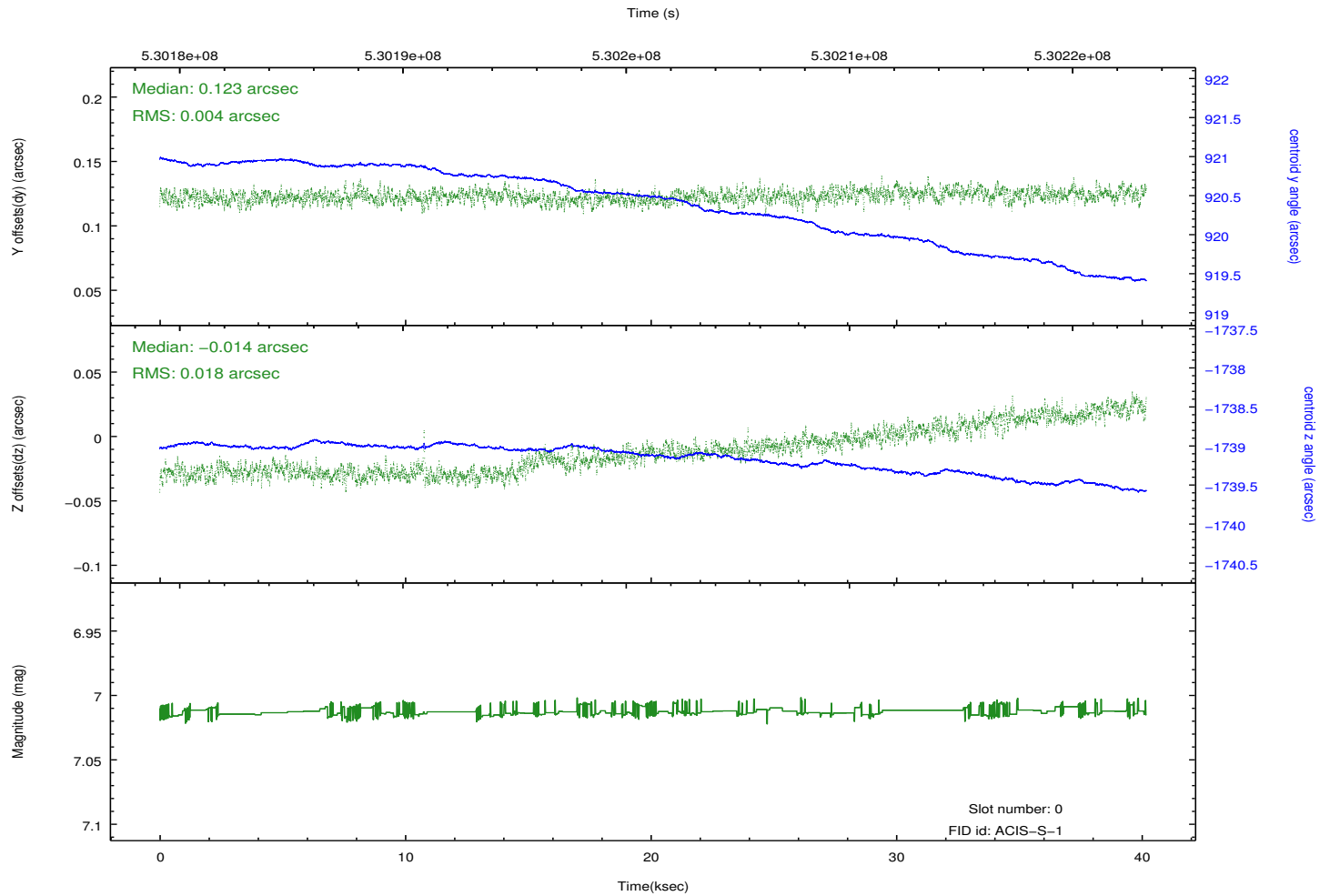
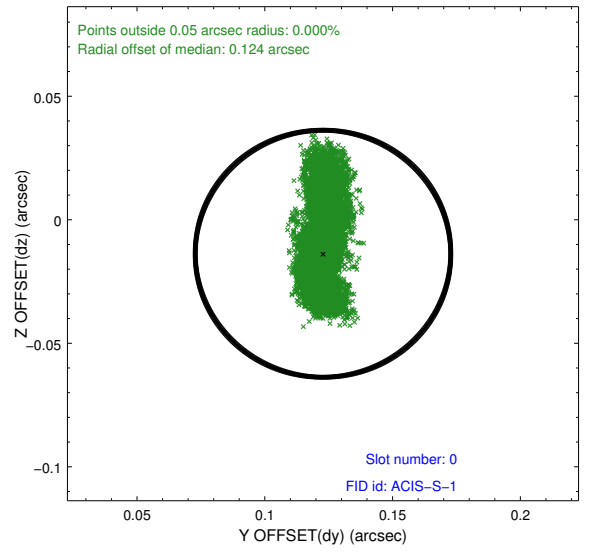
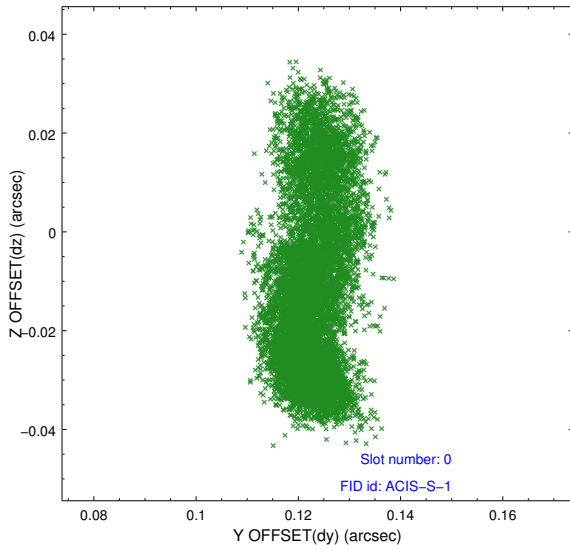


## 2.4.5 Slot 7

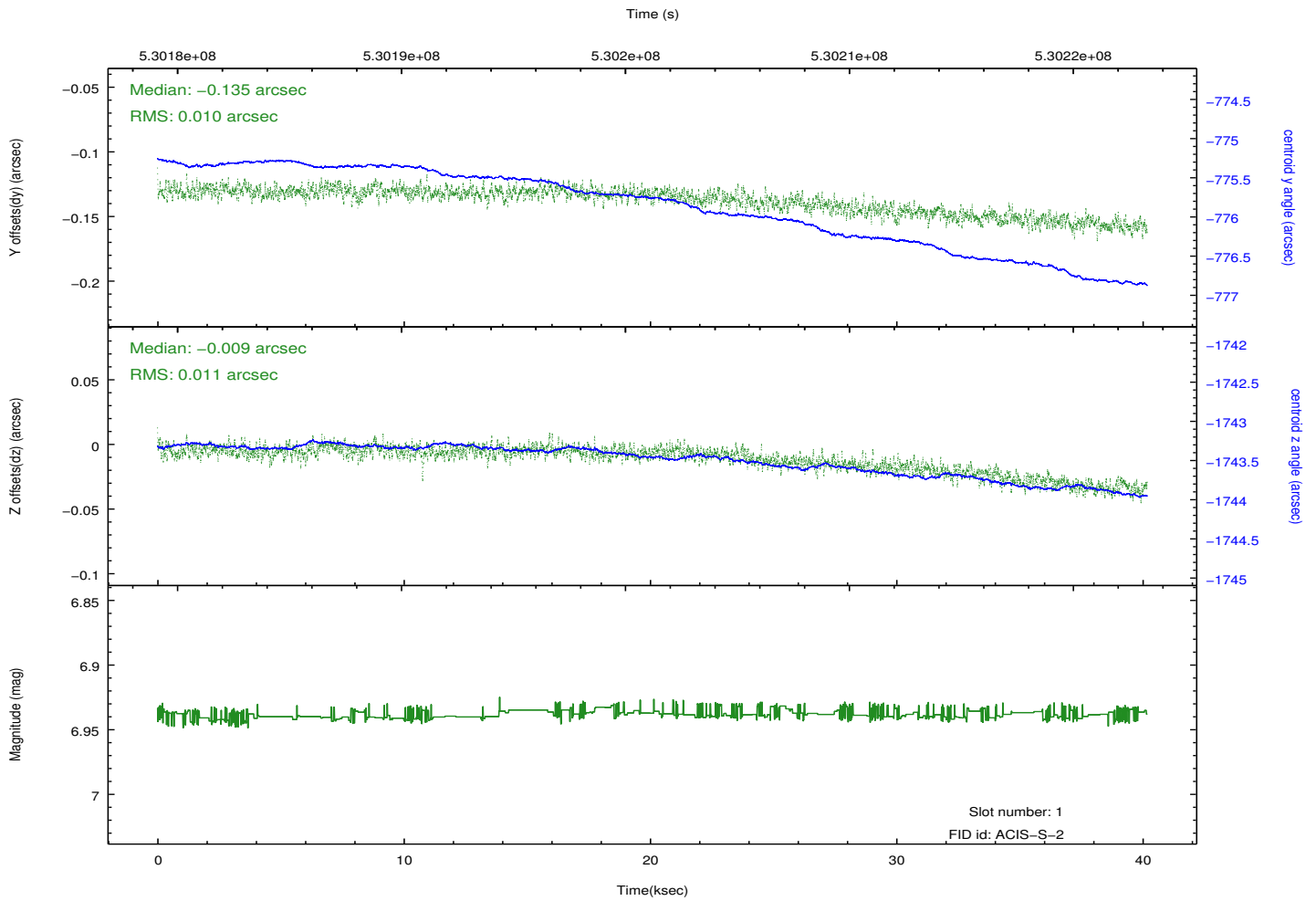
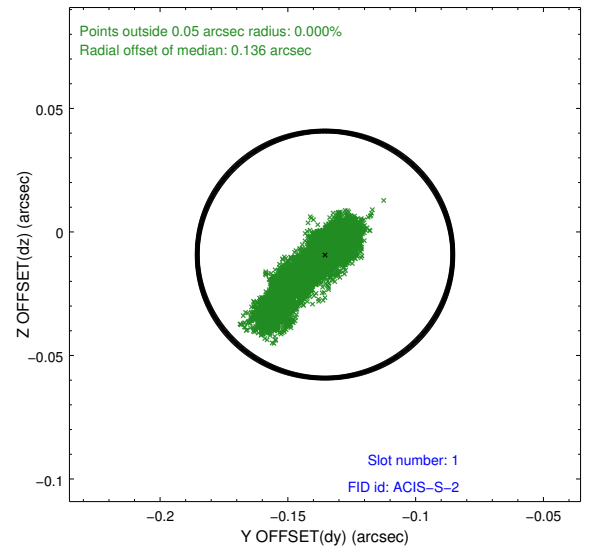
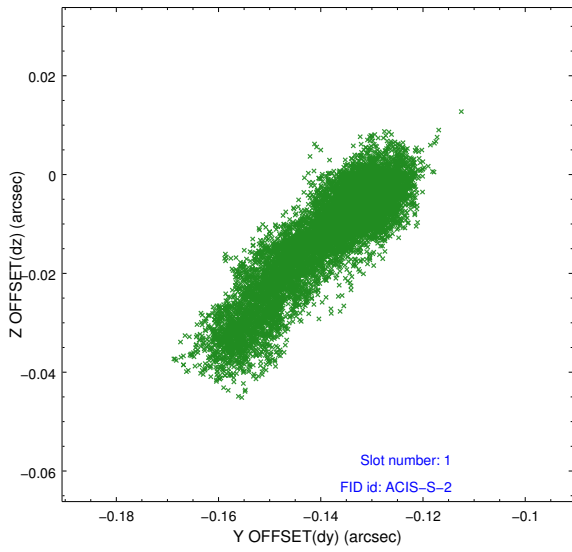


## 2.5 FID Slots

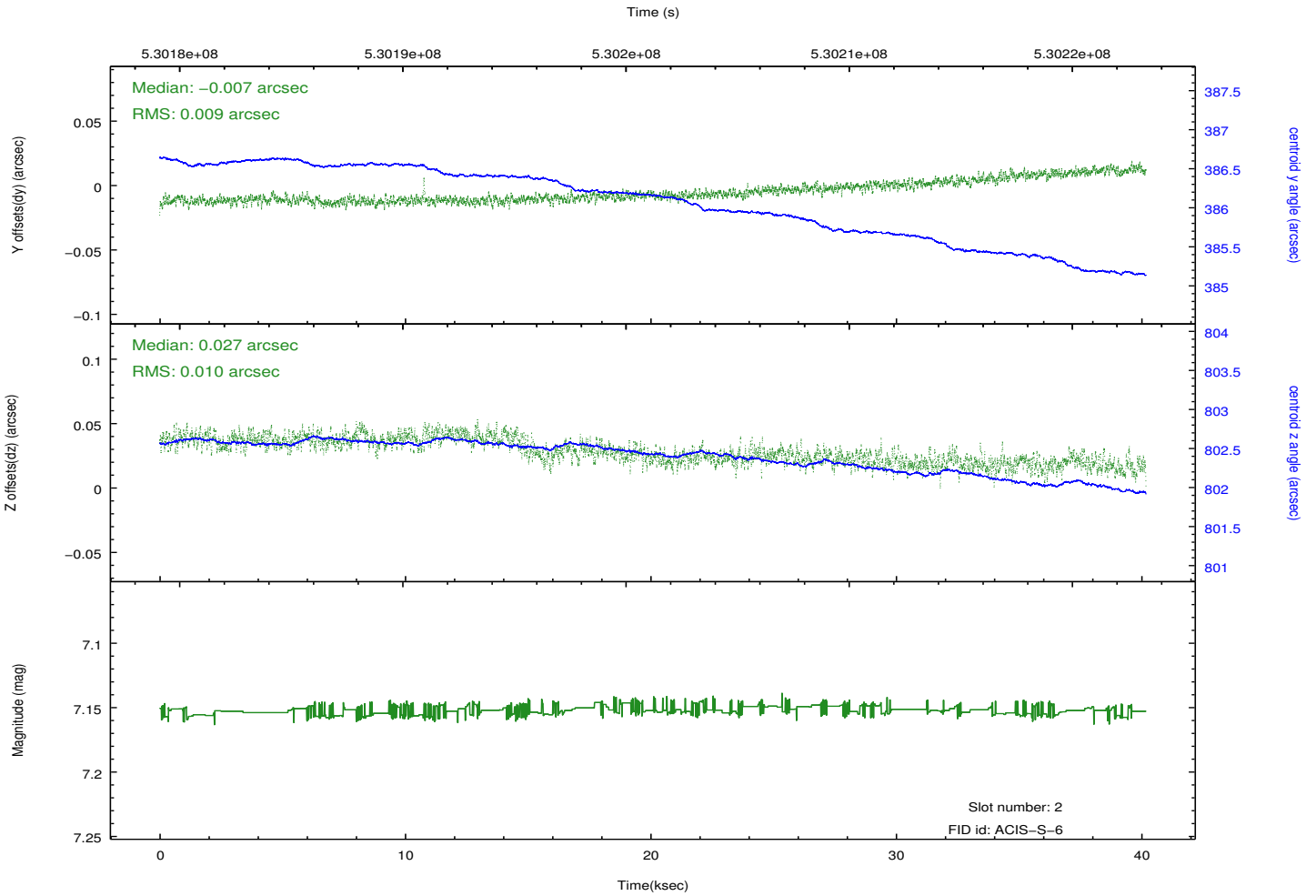
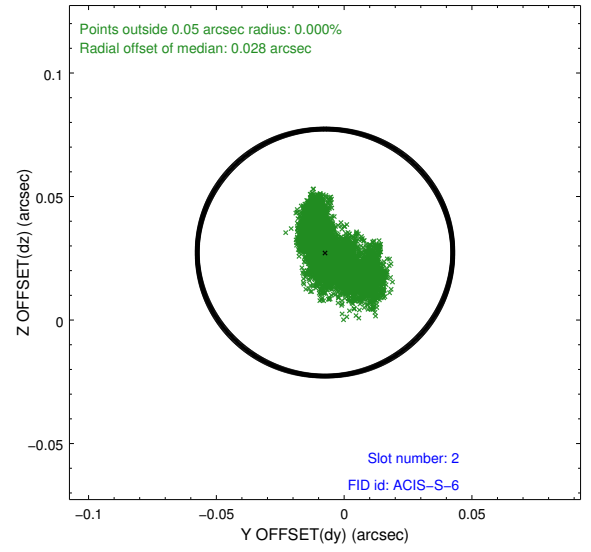
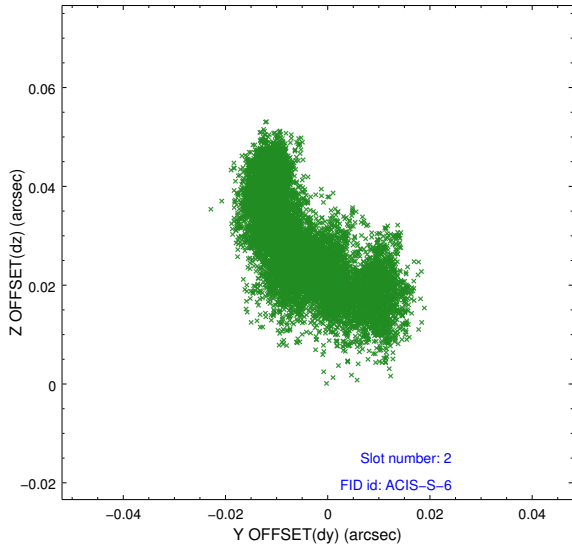
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

|                            |                |
|----------------------------|----------------|
| V&V Scientist              | Beth Sundheim  |
| V&V Date (YYYY-MM-DD)      | 2014.10.21     |
| V&V Edition                | 1              |
| V&V Disposition and Status | OK             |
| V&V Charge Time            | 40.06919761169 |

## A.2 Comments

Joint proposal with NRAO.

Window preference met.