

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 9102 - L2 Version 2  
Chandra X-Ray Center

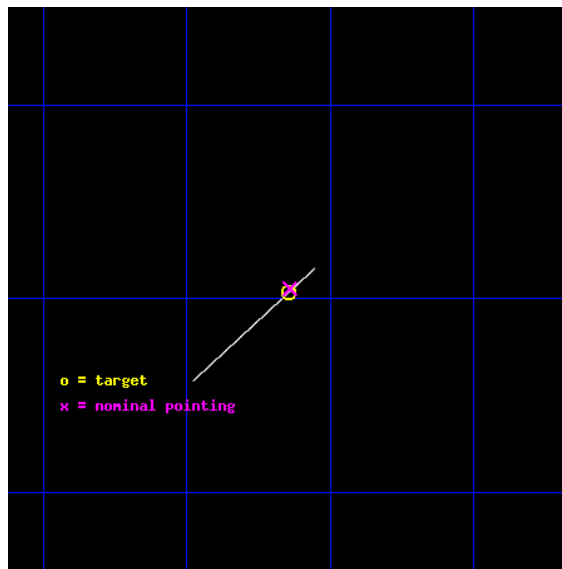
L2 Processing Date : May 16 2012

## 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    | Bias . . . . .                | 3         |
| 2.1.3    | Parameters . . . . .          | 4         |
| 2.1.4    | 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>A</b> | <b>Summary</b>                | <b>17</b> |
| A.1      | Status . . . . .              | 17        |
| A.2      | Comments . . . . .            | 17        |

# 1 Front

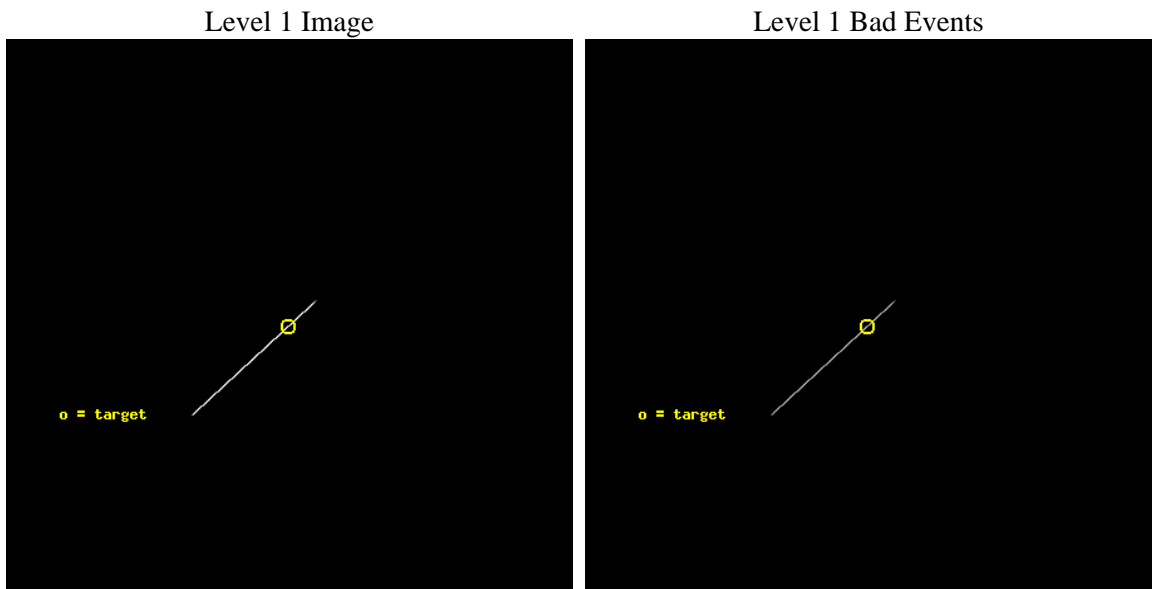
|          |  |                                       |
|----------|--|---------------------------------------|
| seq_num  | 500965   | Sequence number                       |
| obs_id   | 9102   | Observation id                        |
| title    | Timing PSR J1852+004 in Supernova Remnant Kes 79: Plan B | Proposal                              |
| observer | Prof. Jules Halpern                                      | Principal investigator                |
| object   | PSR J1852+0040   | Source name                           |
| ra_targ  | 283.160833   | Observer's specified target RA [deg]  |
| dec_targ | 0.672167   | Observer's specified target Dec [deg] |
| ra_nom   | 283.16010993499  | Nominal RA [deg]                      |
| dec_nom  | 0.67501630194554   | Nominal Dec [deg]                     |
| roll_nom | 137.56302834691  | Nominal Roll [deg]                    |
| revision | 2  | Processing version of data            |
| ontime   | 31176.5  | Sum of GTIs [s]                       |
| livetime | 31054.716796875  | Livetime [s]                          |
| ontime7  | 31176.5  | Sum of GTIs [s]                       |
| l2events | 200338   | Number of level 2 events              |



## 2 OBI

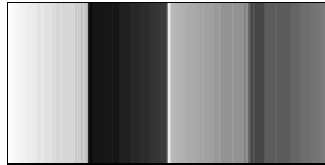
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

|          |                     |                                |                |              |   |
|----------|---------------------|--------------------------------|----------------|--------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 31000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.4               | Processing system revision     | ontime         | 31176.5      | Sum of GTIs [s]                         |
| caldbver | 4.4.9               | &#160                          | ontime7        | 31176.5      | Sum of GTIs [s]                         |
| date     | 2012-05-16T14:48:26 | Date and time of file creation | l1events       | 244616       | Number of level 1 events                |
| revision | 2                   | Processing version of data     |                |              |   |

### 2.1.4 Events

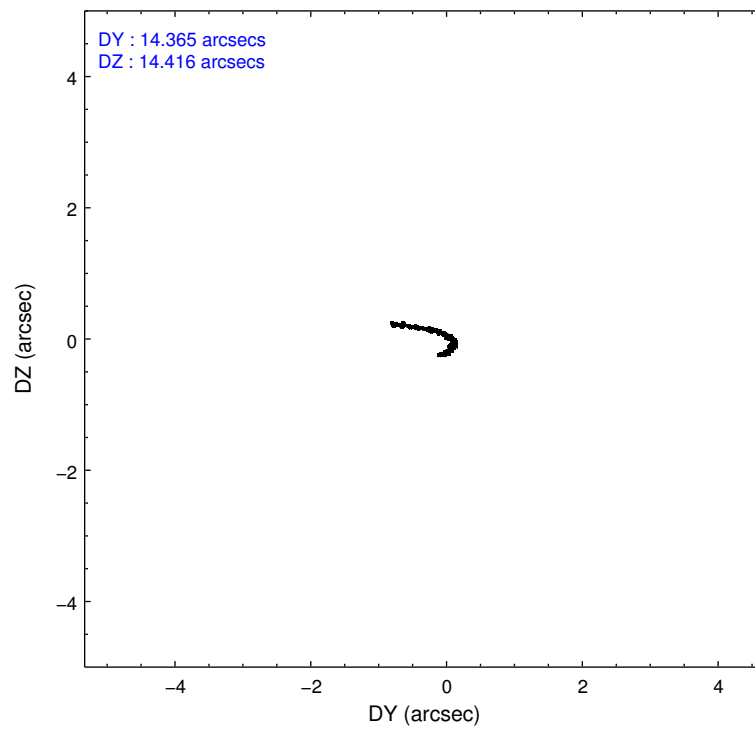
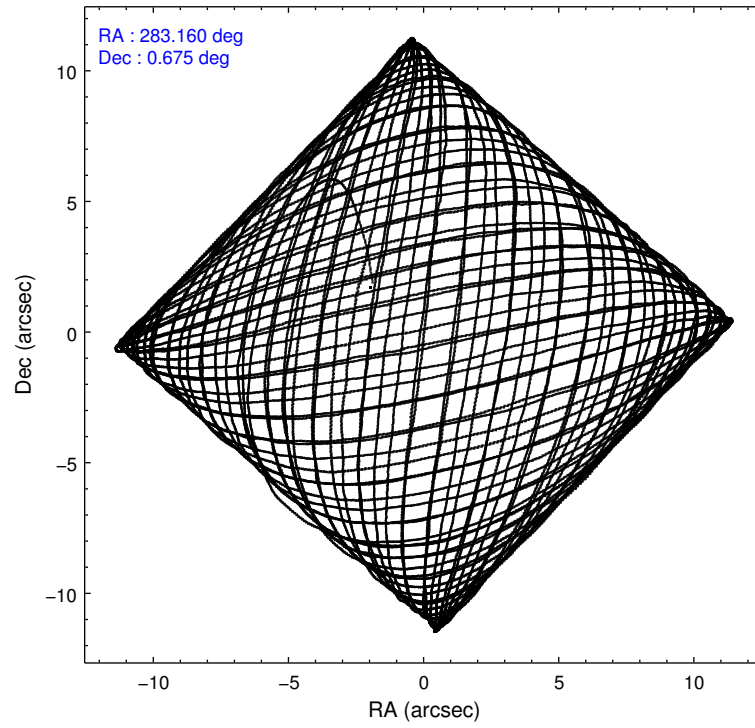
|                 | <b>ccd 7</b> |
|-----------------|--------------|
| level 1 events  | 244616       |
| rejected events | 36691        |
| rejected %      | 14%          |

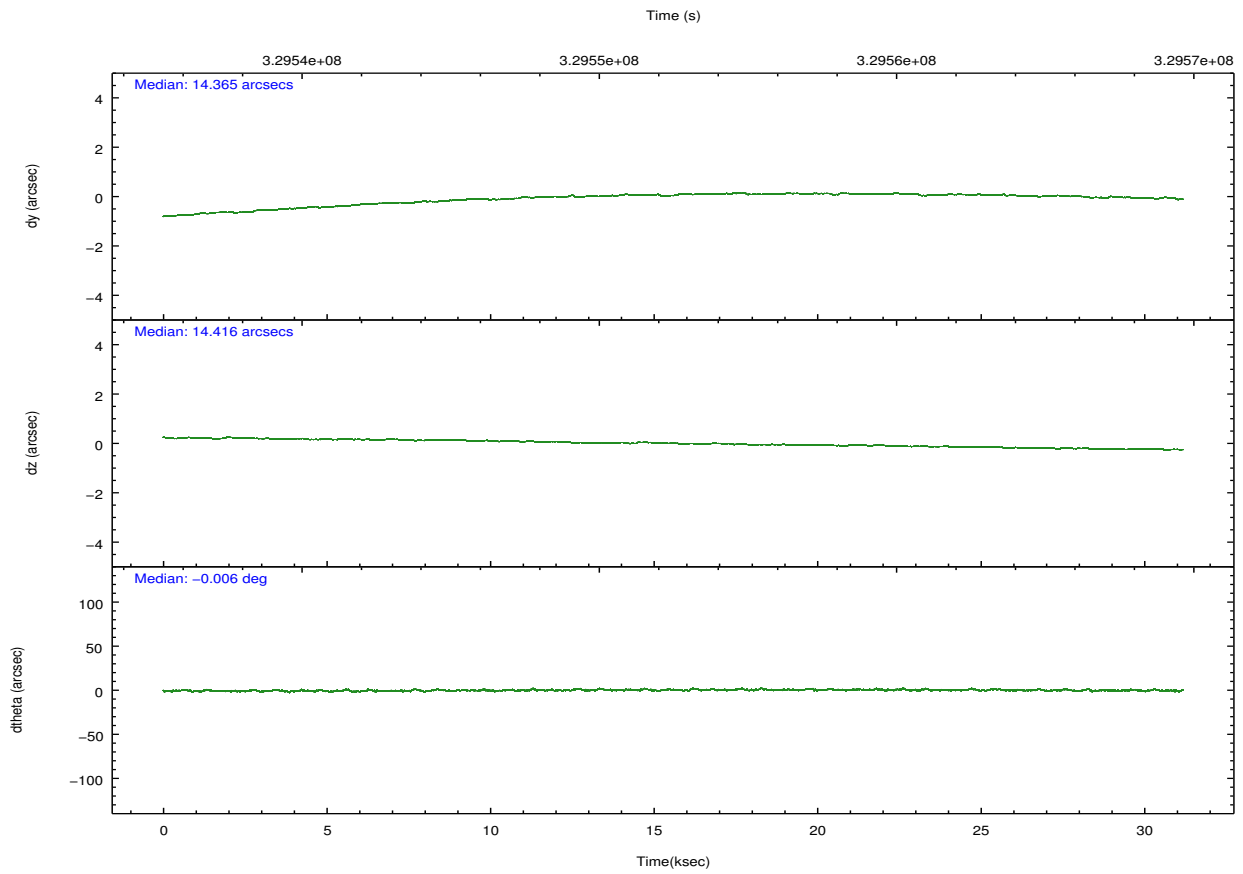
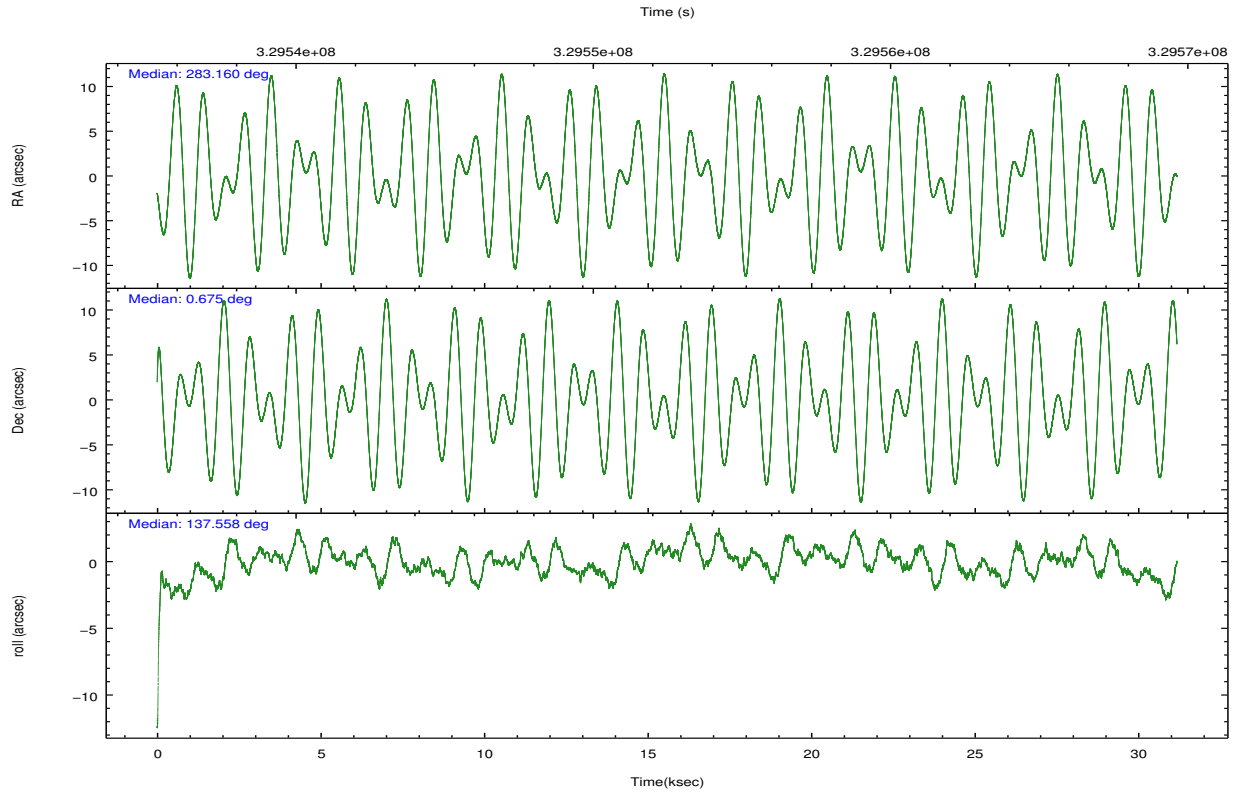
|                | <b>ccd 7</b> |
|----------------|--------------|
| grade 0 events | 21703        |
|                | 8%           |
| grade 1 events | 446          |
|                | 0%           |
| grade 2 events | 57186        |
|                | 23%          |
| grade 3 events | 13483        |
|                | 5%           |
| grade 4 events | 13178        |
|                | 5%           |
| grade 5 events | 32219        |
|                | 13%          |
| grade 6 events | 106401       |
|                | 43%          |
| grade 7 events | 0            |
|                | 0%           |

## 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                         | CC33_FAINT          | CC33_FAINT           | Number of optional ACIS chips dropped | 0         | 0       |
| Observation mode                  | POINTING            | POINTING             | On-chip summing requested             | N         | N       |
| [deg] Pointing RA                 | 283.186903          | 283.1601099349855    | Subarray requested                    | NONE      | NONE    |
| [deg] Pointing Dec                | 0.669485            | 0.6750163019455425   | Alternating exposures requested       | N         | N       |
| [deg] Pointing Roll               | 137.406087          | 137.5630283469081    | [s] Primary exposure time             | 0.000000  | 0       |
| [mm] SIM focus pos                | -0.684267           | -0.6828225247311905  |                                       |           |         |
| [mm] SIM defocus                  | 0                   | 0.001444936568705701 |                                       |           |         |
| [mm] SIM translation stage pos    | -180.462523         | -180.4674950847706   |                                       |           |         |
| [mm] SIM translation stage offset | -9.67               | -9.665027498237237   |                                       |           |         |
| [s] Observation start time (MET)  | 329537064.184000    | 329536135.54642      |                                       |           |         |
| Observation start date            | 2008-06-11T02:03:19 | 2008-06-11T01:48:55  |                                       |           |         |
| [s] Observation end time (MET)    | 329568064.184000    | 329568685.96051      |                                       |           |         |
| Observation end date              | 2008-06-11T10:39:59 | 2008-06-11T10:51:25  |                                       |           |         |
| Read mode                         | CONTINUOUS          | CONTINUOUS           |                                       |           |         |

## 2.3 Aspect



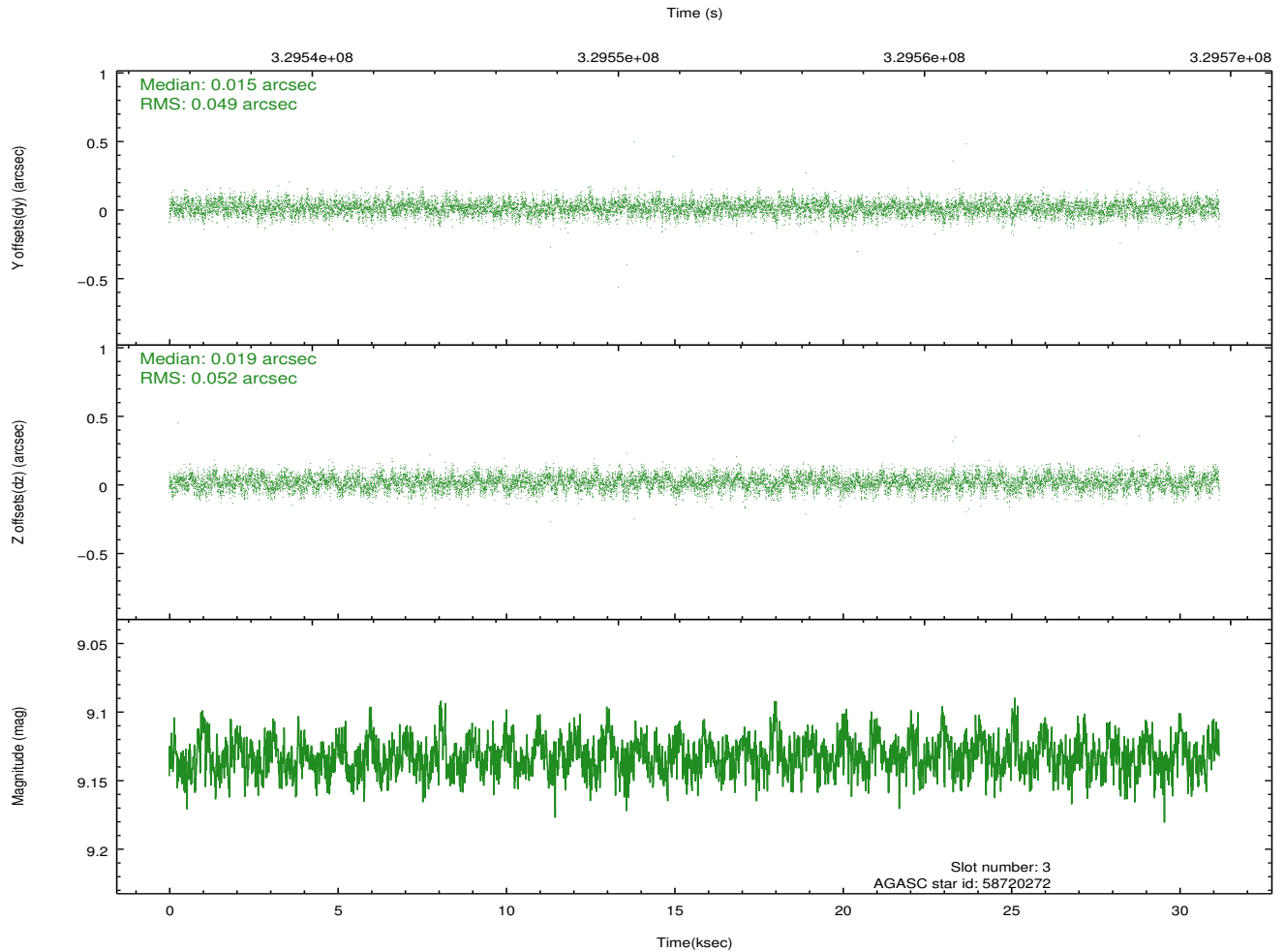
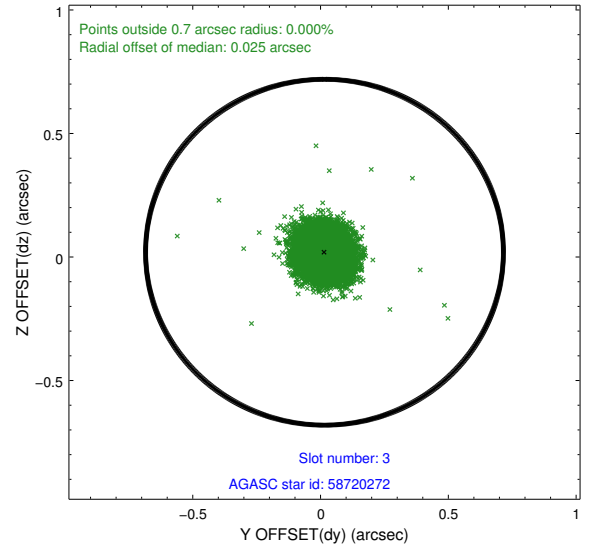
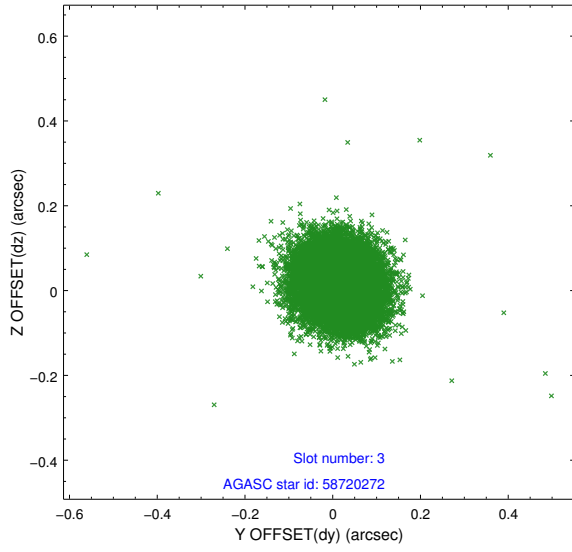


### Slot Statistics

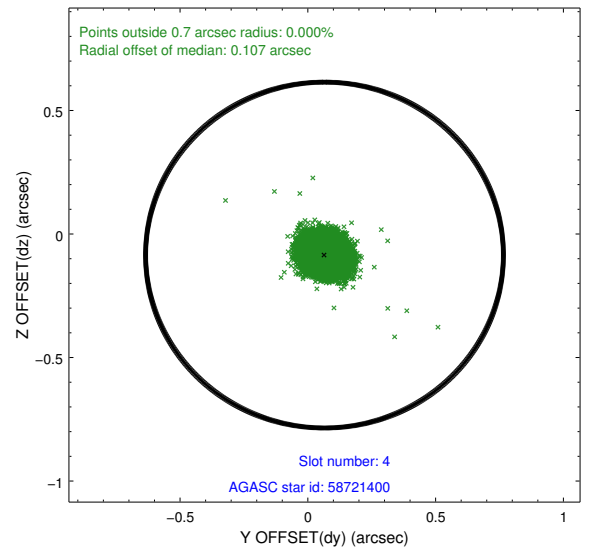
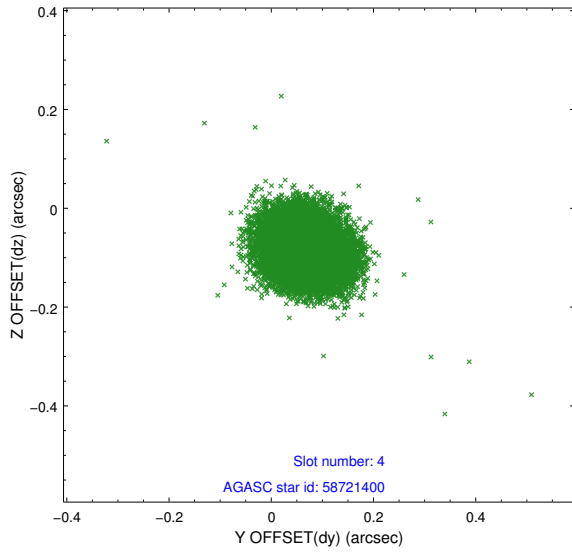
| slot | status | id       | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec      | mean_y   | mean_z   |
|------|--------|----------|------|-------|--------|--------|-------|-------|------------|----------|----------|----------|
| 0    | FID    | ACIS-S-1 | 6.96 | 7605  | 0.098  | 0.188  | 0.014 | 0.025 | 0.000000   | 0.000000 | 929.65   | -1930.24 |
| 1    | FID    | ACIS-S-2 | 6.87 | 7605  | -0.205 | -0.117 | 0.015 | 0.035 | 0.000000   | 0.000000 | -766.51  | -1935.21 |
| 2    | FID    | ACIS-S-6 | 7.18 | 7604  | 0.085  | -0.066 | 0.012 | 0.024 | 0.000000   | 0.000000 | 395.24   | 610.73   |
| 3    | GUIDE  | 58720272 | 9.13 | 15189 | 0.015  | 0.019  | 0.076 | 0.122 | 282.926317 | 0.546362 | 390.51   | 961.51   |
| 4    | GUIDE  | 58721400 | 8.28 | 15201 | 0.065  | -0.085 | 0.062 | 0.099 | 282.817104 | 0.833240 | 1378.85  | 466.95   |
| 5    | GUIDE  | 58721432 | 8.58 | 15200 | -0.223 | -0.065 | 0.077 | 0.126 | 282.605647 | 0.791519 | 1837.62  | 1092.76  |
| 6    | GUIDE  | 58857104 | 9.17 | 15200 | 0.198  | 0.219  | 0.093 | 0.144 | 283.814800 | 0.638238 | -1739.48 | -1446.82 |
| 7    | GUIDE  | 58720848 | 9.20 | 15194 | -0.066 | -0.086 | 0.109 | 0.174 | 282.753905 | 0.246323 | 116.29   | 2176.29  |

## 2.4 Star Slots

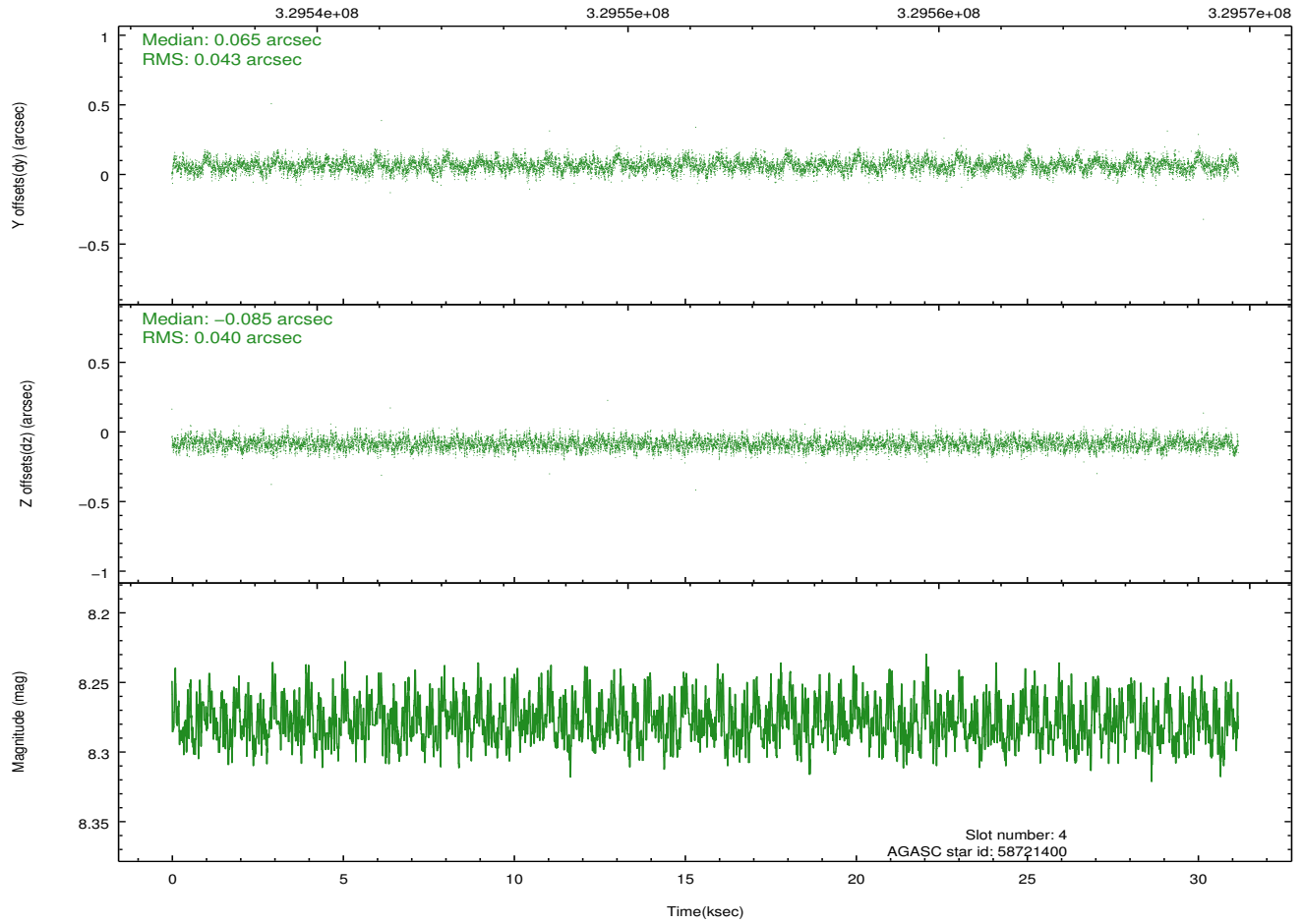
### 2.4.1 Slot 3



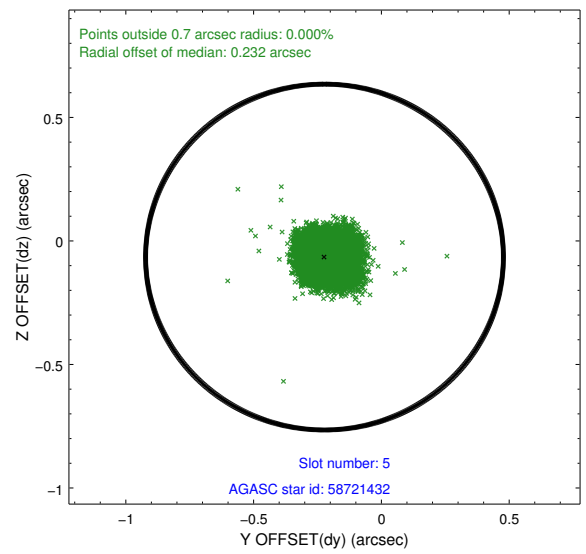
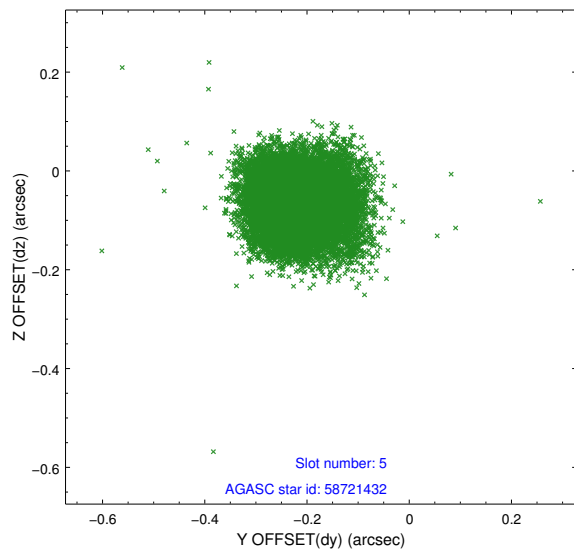
## 2.4.2 Slot 4



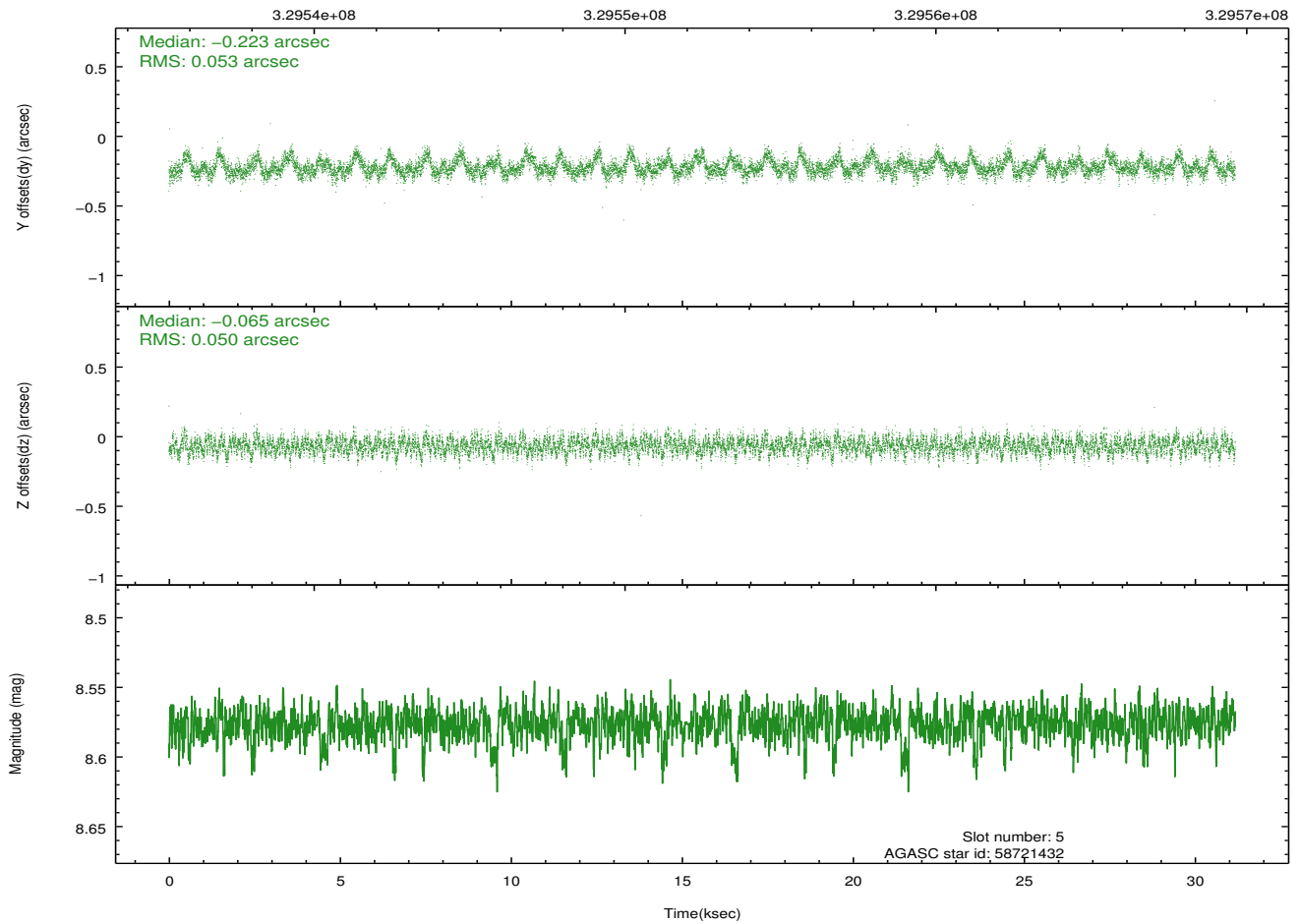
Time (s)



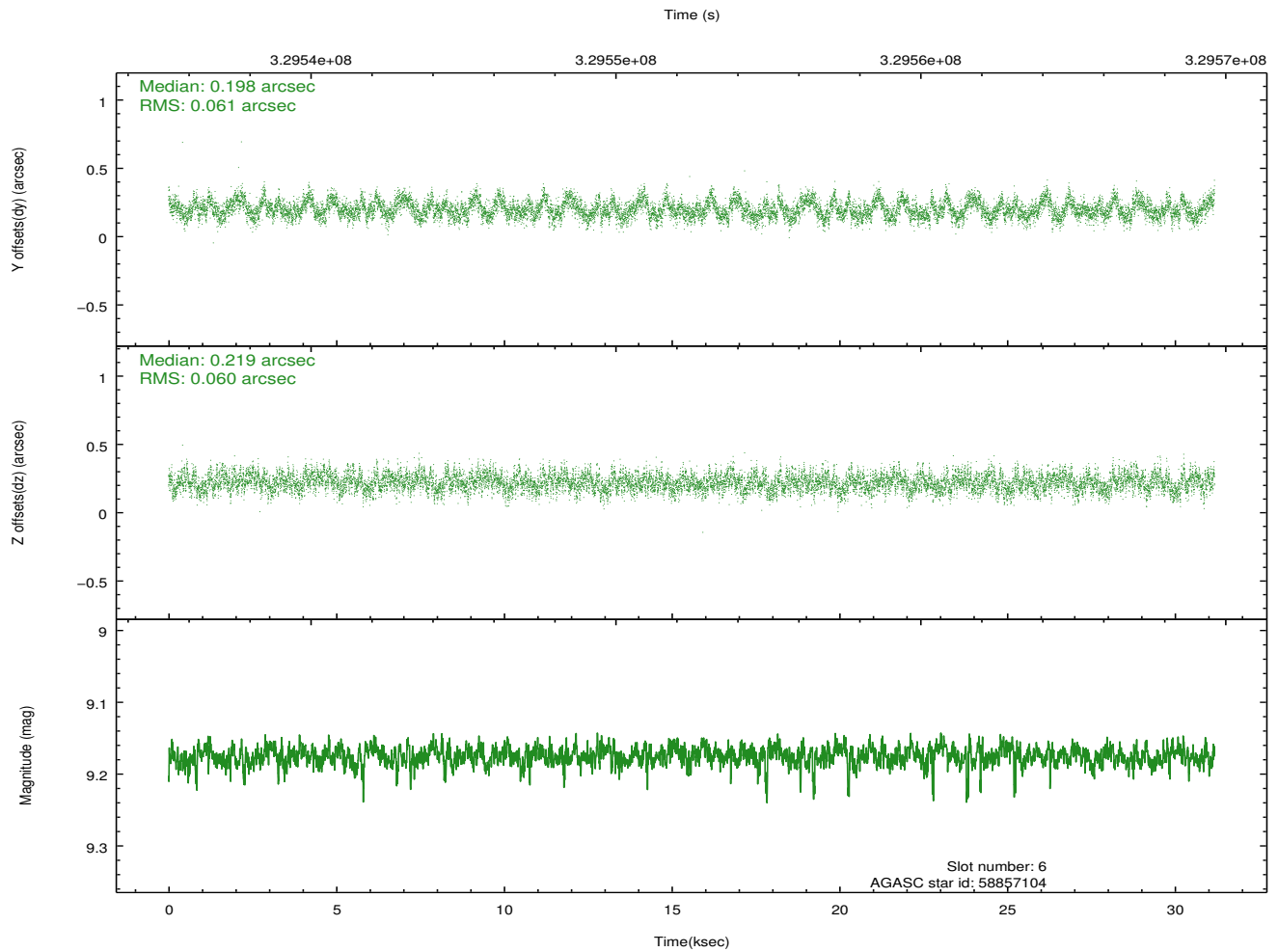
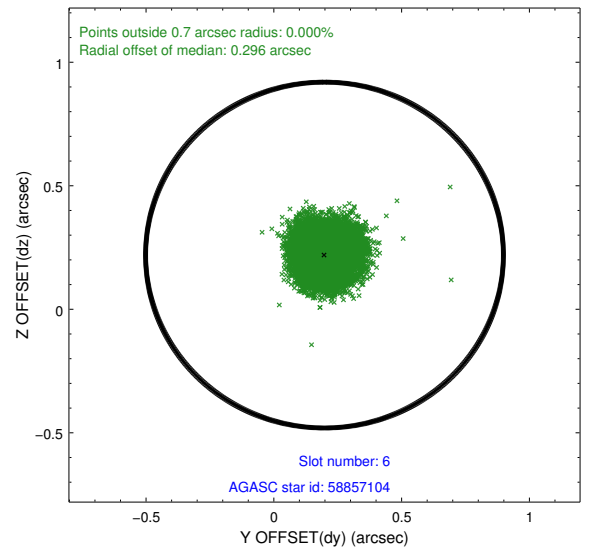
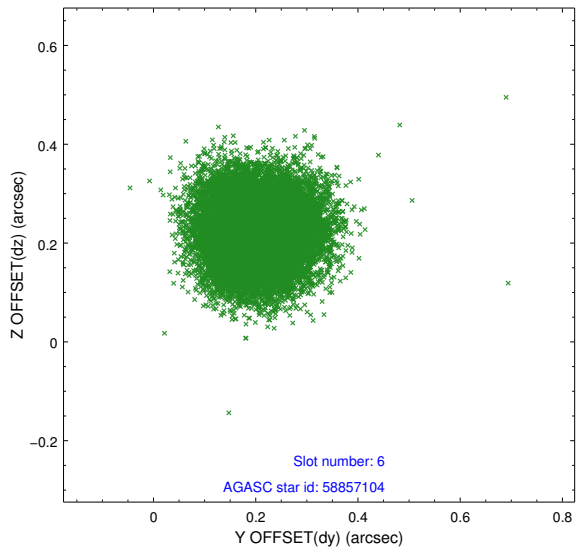
### 2.4.3 Slot 5



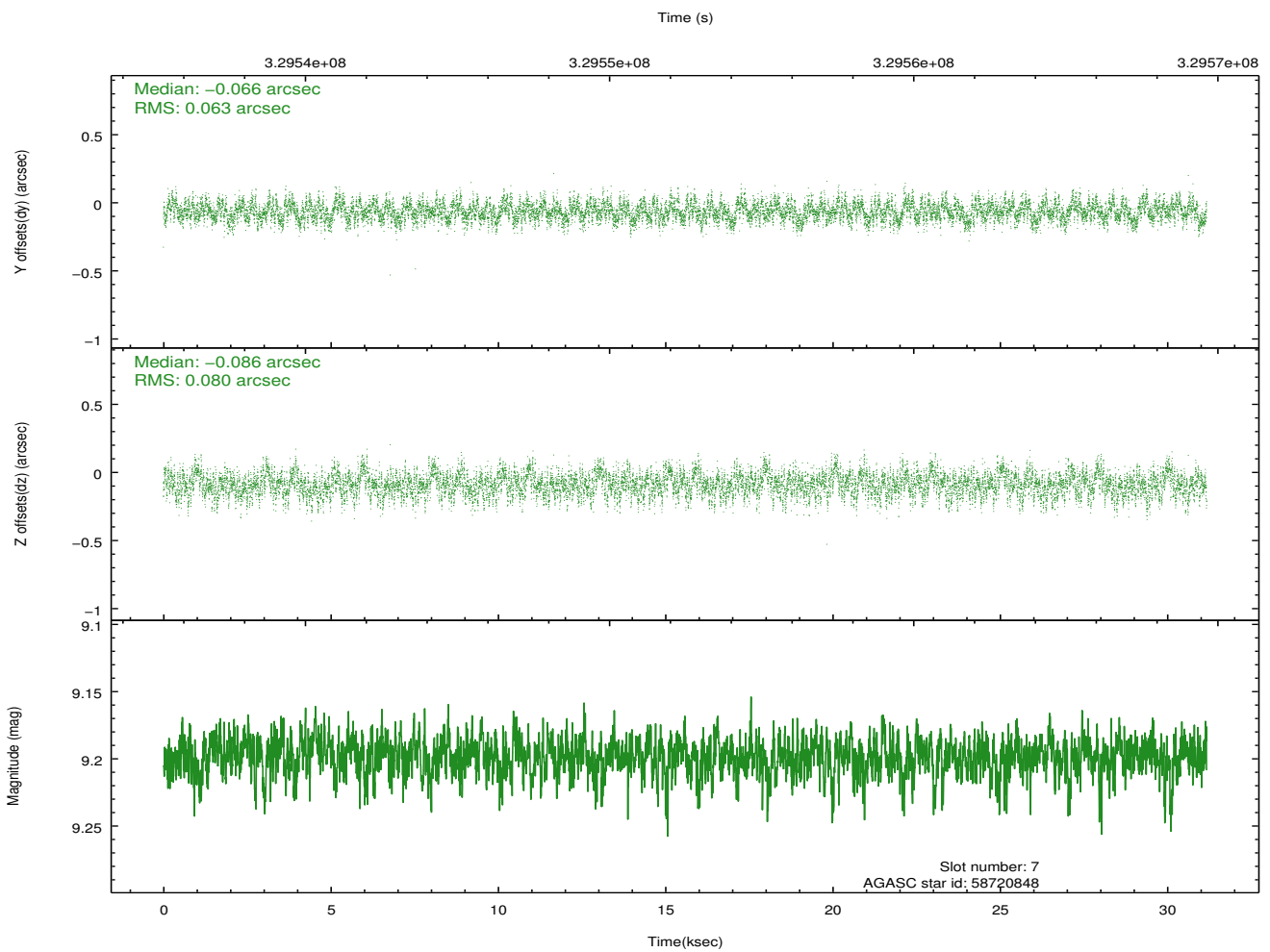
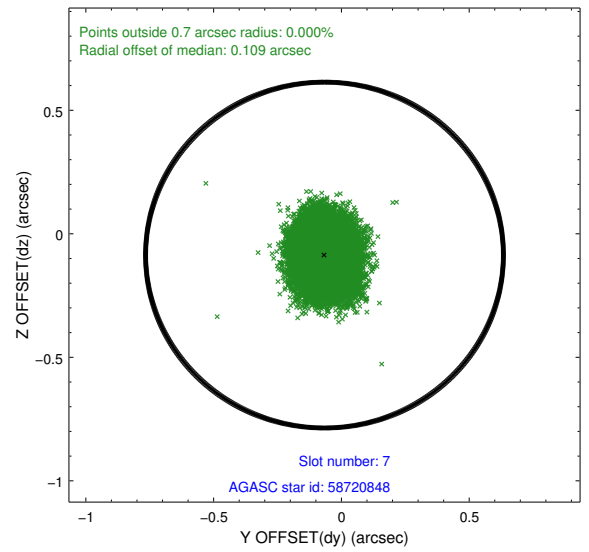
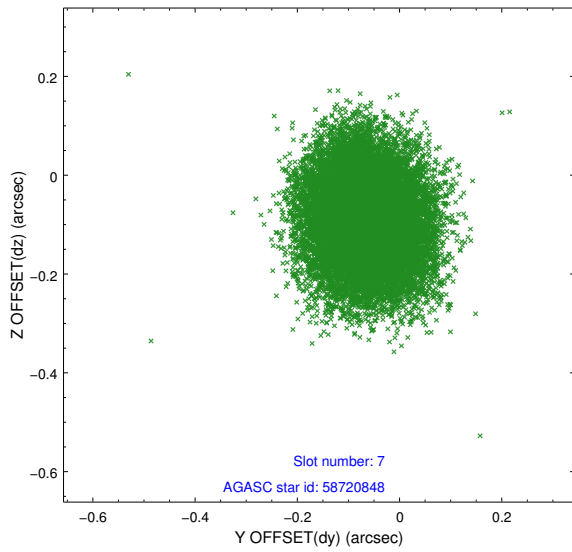
Time (s)



### 2.4.4 Slot 6

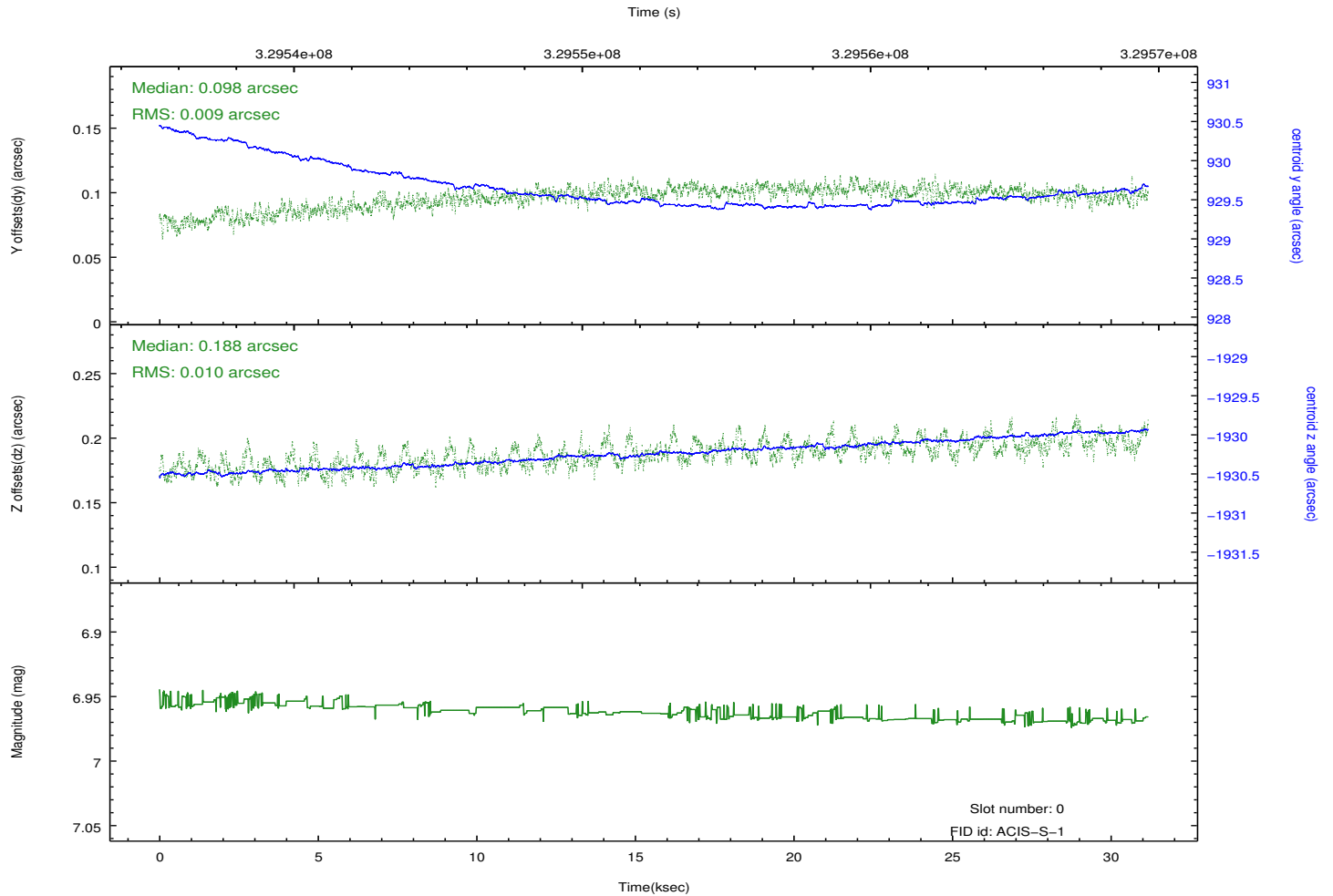
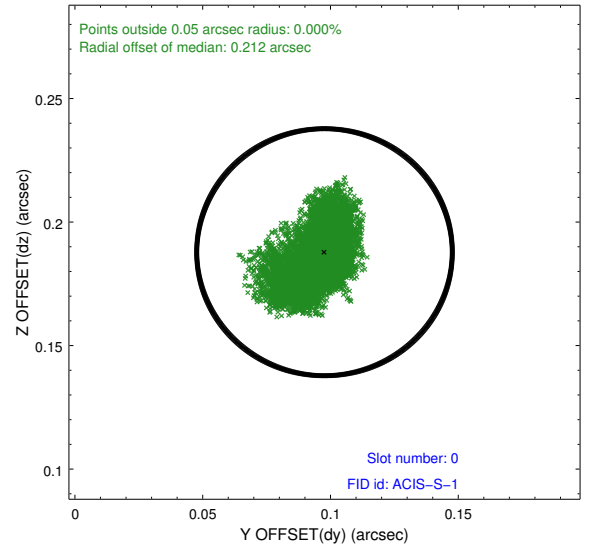
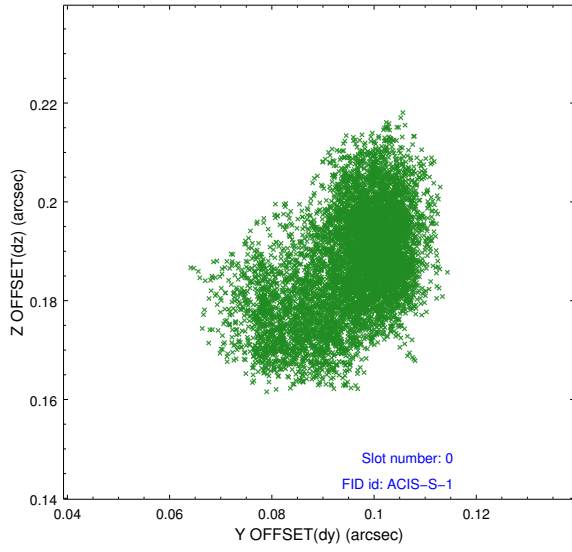


## 2.4.5 Slot 7

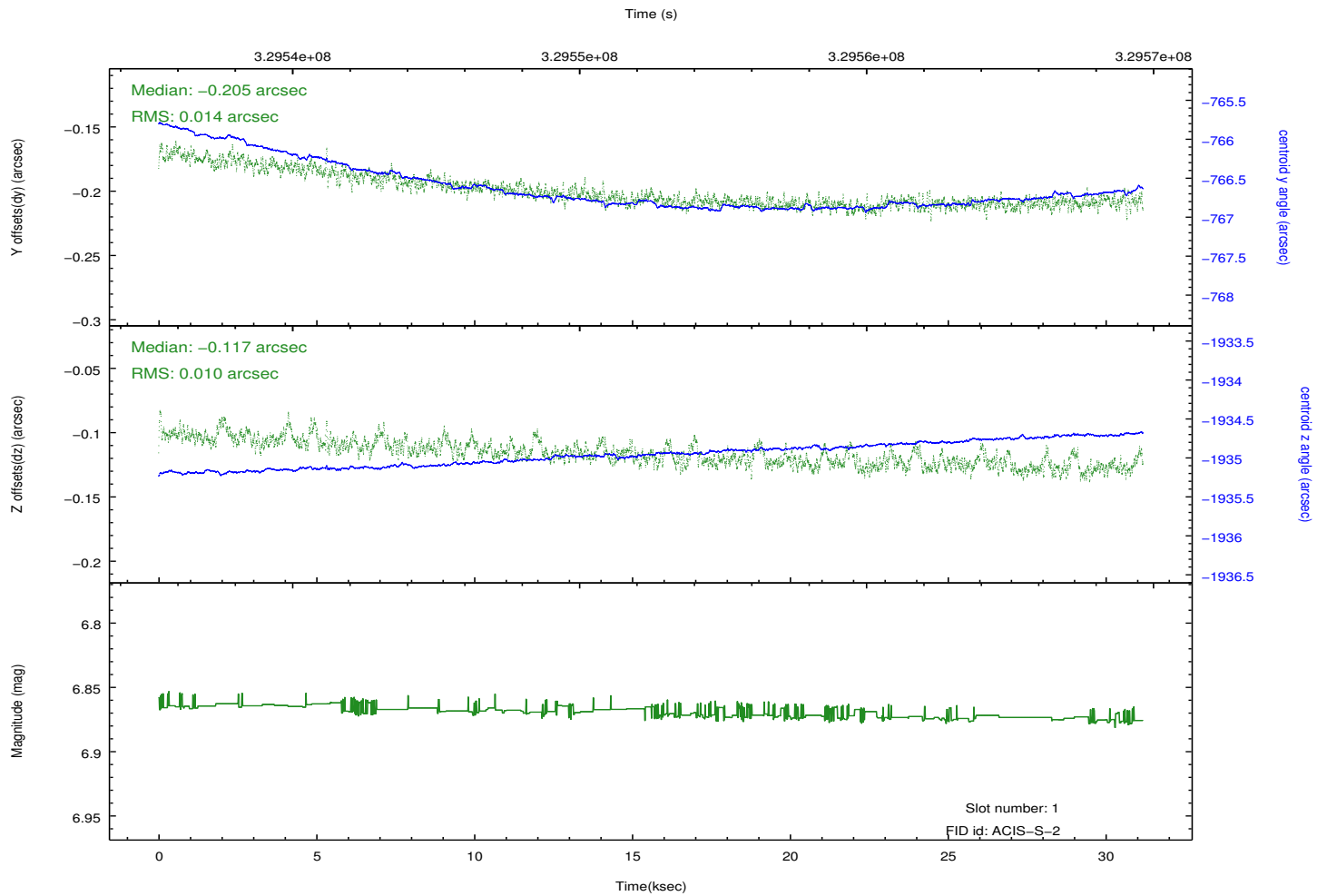
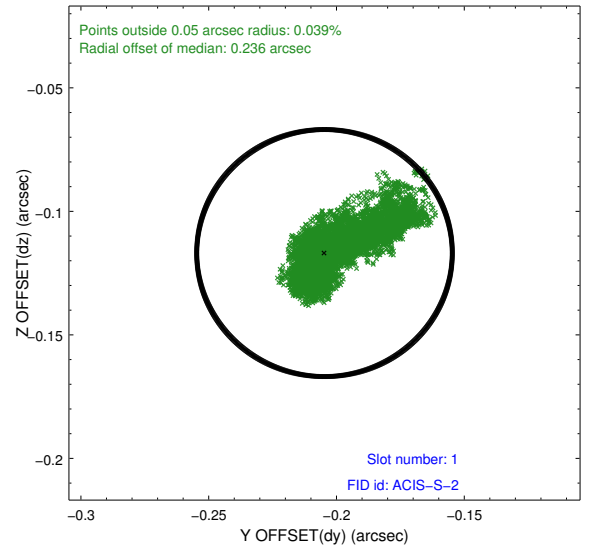
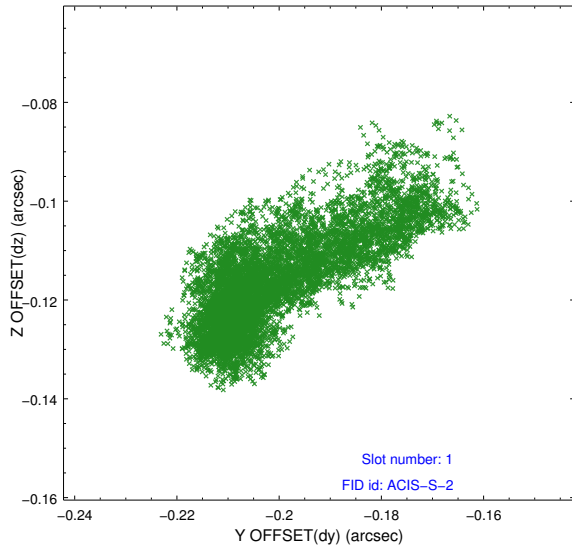


## 2.5 FID Slots

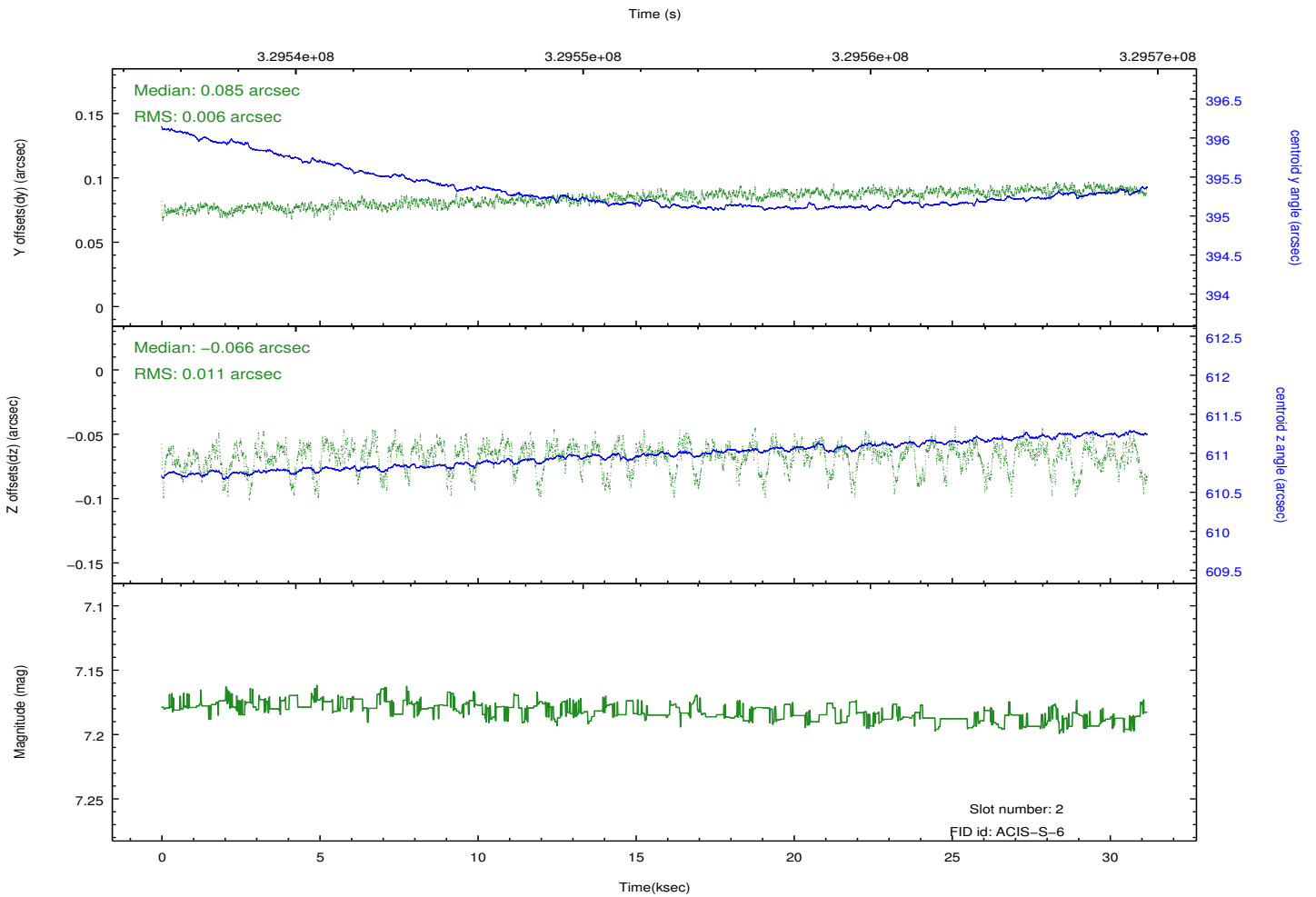
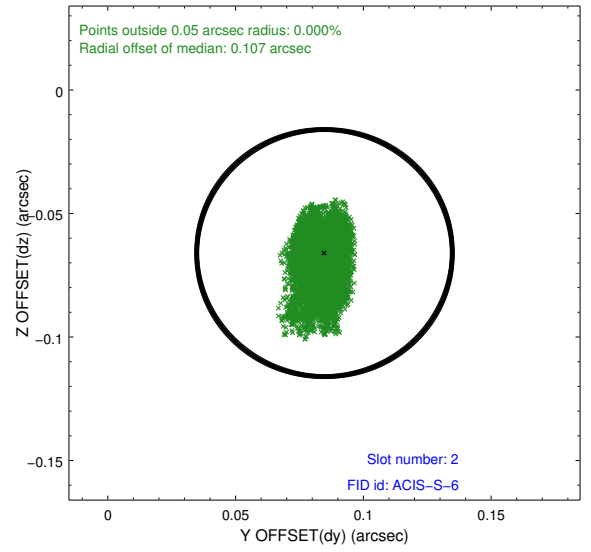
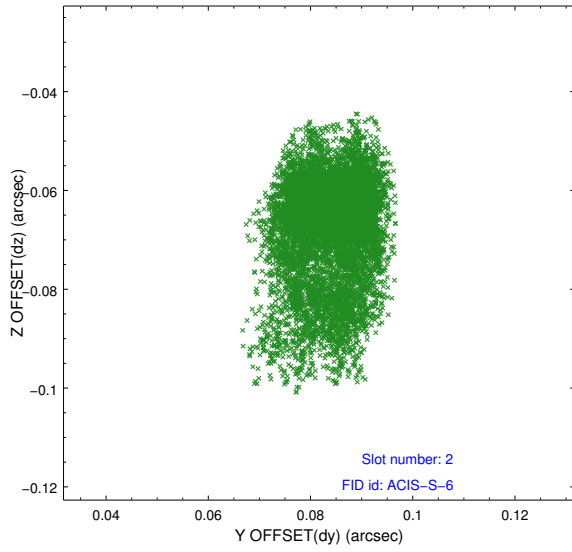
### 2.5.1 Slot 0



## 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)      | 2012.05.18  |
| V&V Edition                | 1           |
| V&V Disposition and Status | OK          |
| V&V Charge Time            | 31.1765     |

## A.2 Comments