

# V&V Reference Report

## L2 ASCDS Version : 7.6.7

Observation 5530 - L2 Version 002  
Chandra X-Ray Center

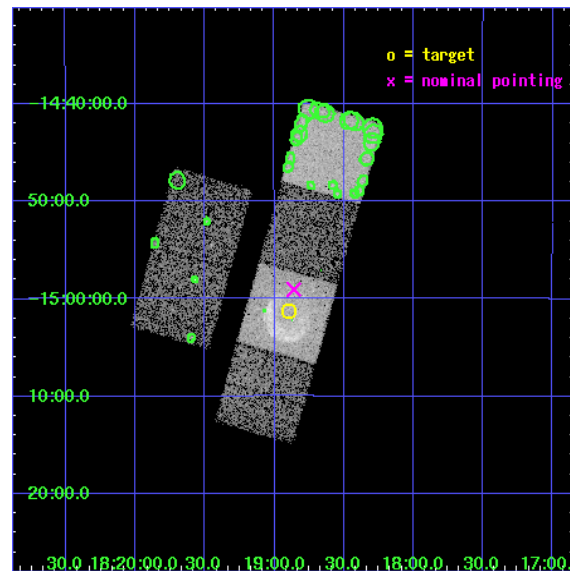
L2 Processing Date: Mar 4 2006

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# 1 Front

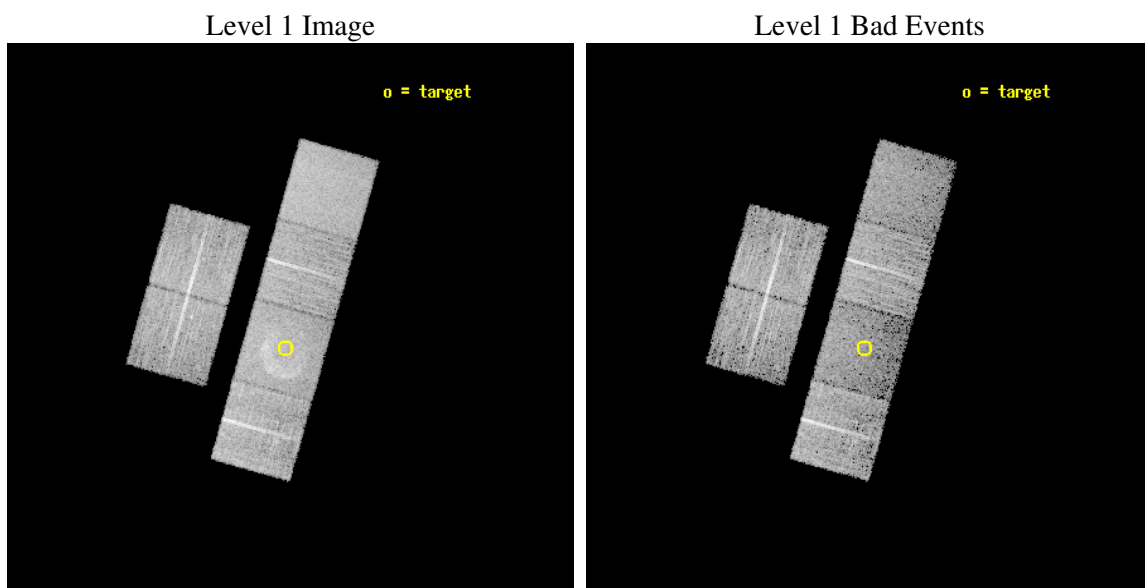
|          |   |
|----------|---|
| seq_num  | 500524  |
| obs_id   | 5530  |
| title    | Small-Diameter Galactic Supernova Remnants: The Missing Young Remnants? |
| observer | Dr. Stephen Reynolds  |
| object   | G15.9+0.2   |
| dtcycle  | 0   |
| cycle    | P   |
| ra_targ  | 274.72375   |
| dec_targ | -15.020556  |
| ra_nom   | 274.71499586564   |
| dec_nom  | -14.98416028942   |
| roll_nom | 105.75438377018   |
| revision | 2   |
| ontime   | 9177.5999658108   |
| livetime | 9061.3876689564   |
| ontime2  | 9177.5999658108   |
| ontime3  | 9174.3589755297   |
| ontime5  | 9177.5999658108   |
| ontime6  | 9177.5999658108   |
| ontime7  | 9177.5999658108   |
| ontime8  | 9177.5999658108   |
| l2events | 80541   |



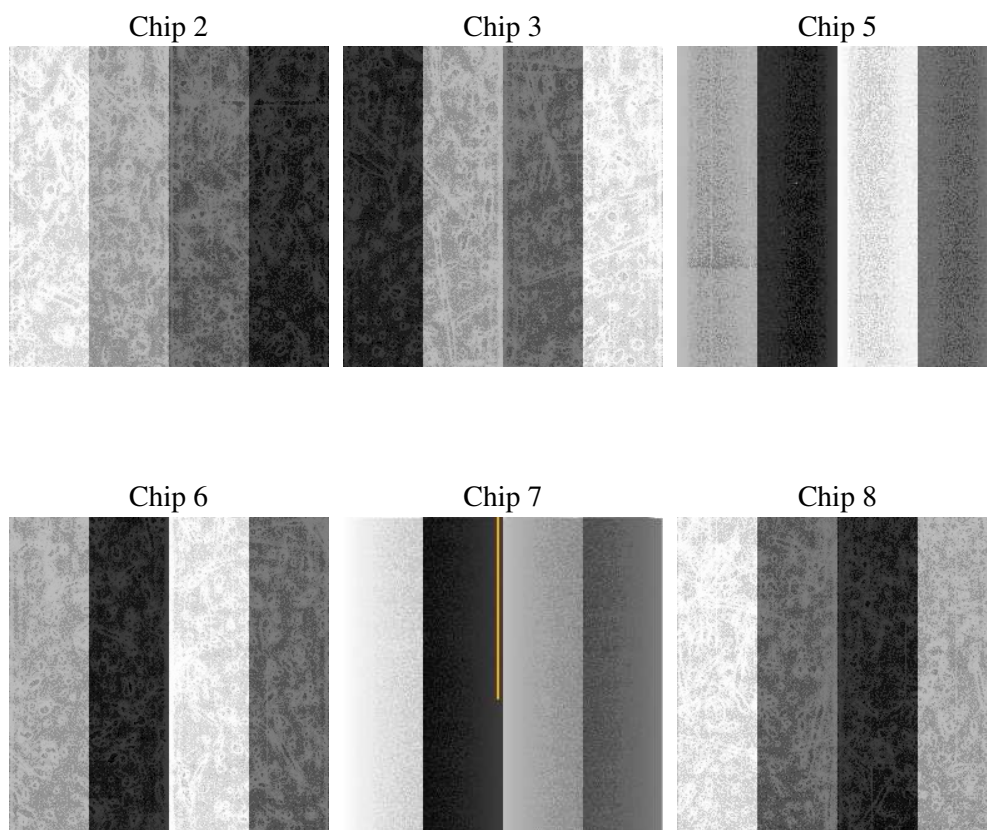
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |
|----------|---------------------|
| obi_num  | 0                   |
| ascdsver | 7.6.7               |
| caldbver | 3.2.1               |
| date     | 2006-03-04T05:13:11 |
| revision | 2                   |

|                |                 |
|----------------|-----------------|
| sched_exp_time | 9000.000000     |
| ontime         | 9227.1631707847 |
| ontime2        | 9227.1631707847 |
| ontime3        | 9223.9221805036 |
| ontime5        | 9227.1631707847 |
| ontime6        | 9227.1631707847 |
| ontime7        | 9227.1631707847 |
| ontime8        | 9227.1631707847 |
| l1events       | 339608          |

### 2.1.4 Events

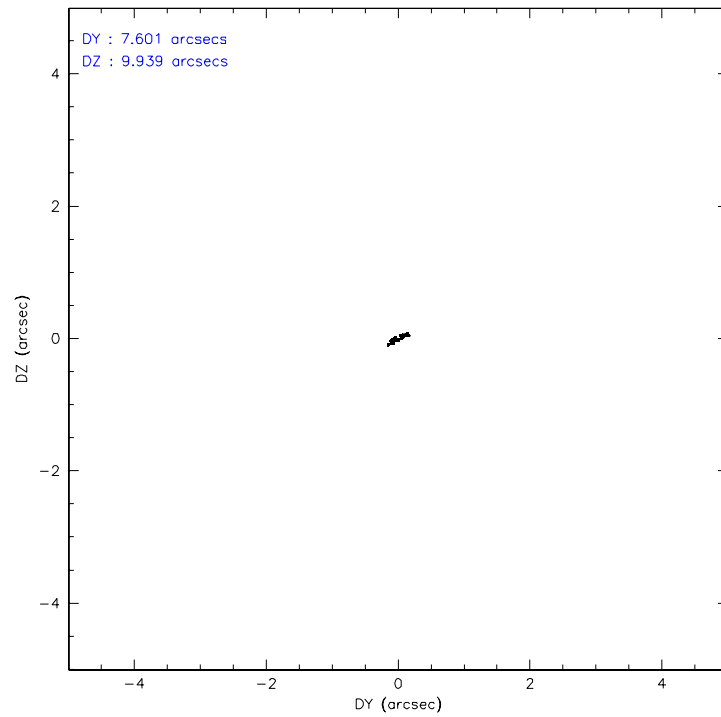
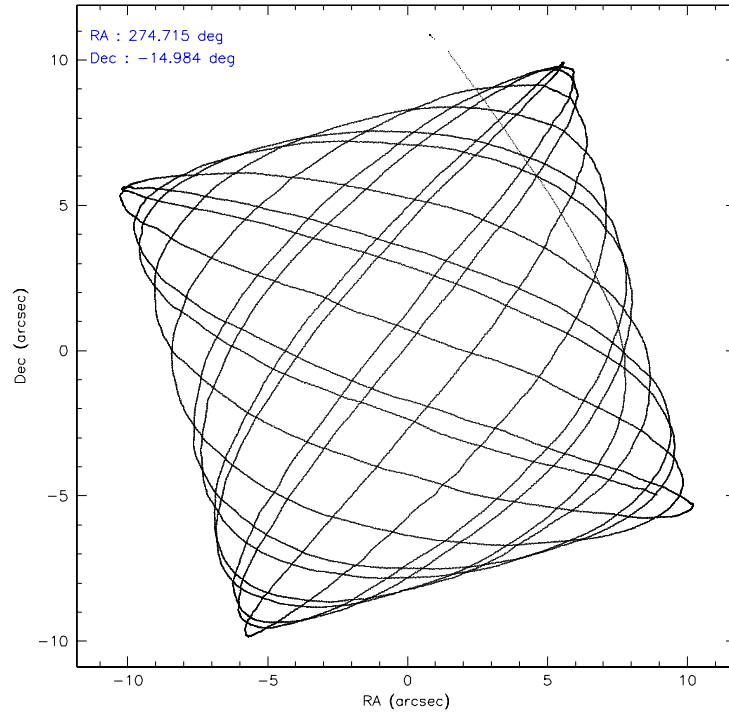
|                 | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 55103 | 48388 | 62712 | 52782 | 61316 | 59307 |
| rejected events | 49795 | 42812 | 33394 | 47192 | 30092 | 48666 |
| rejected %      | 90%   | 88%   | 53%   | 89%   | 49%   | 82%   |

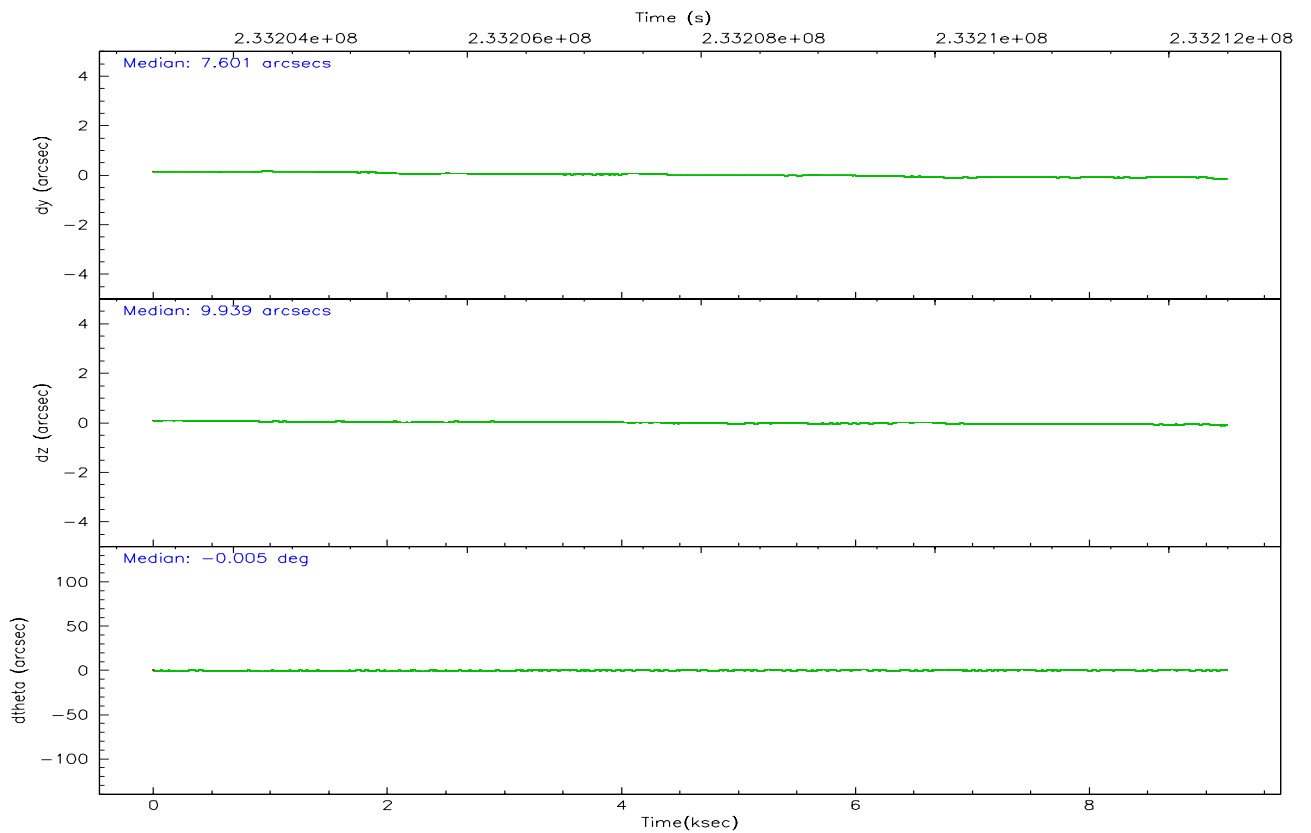
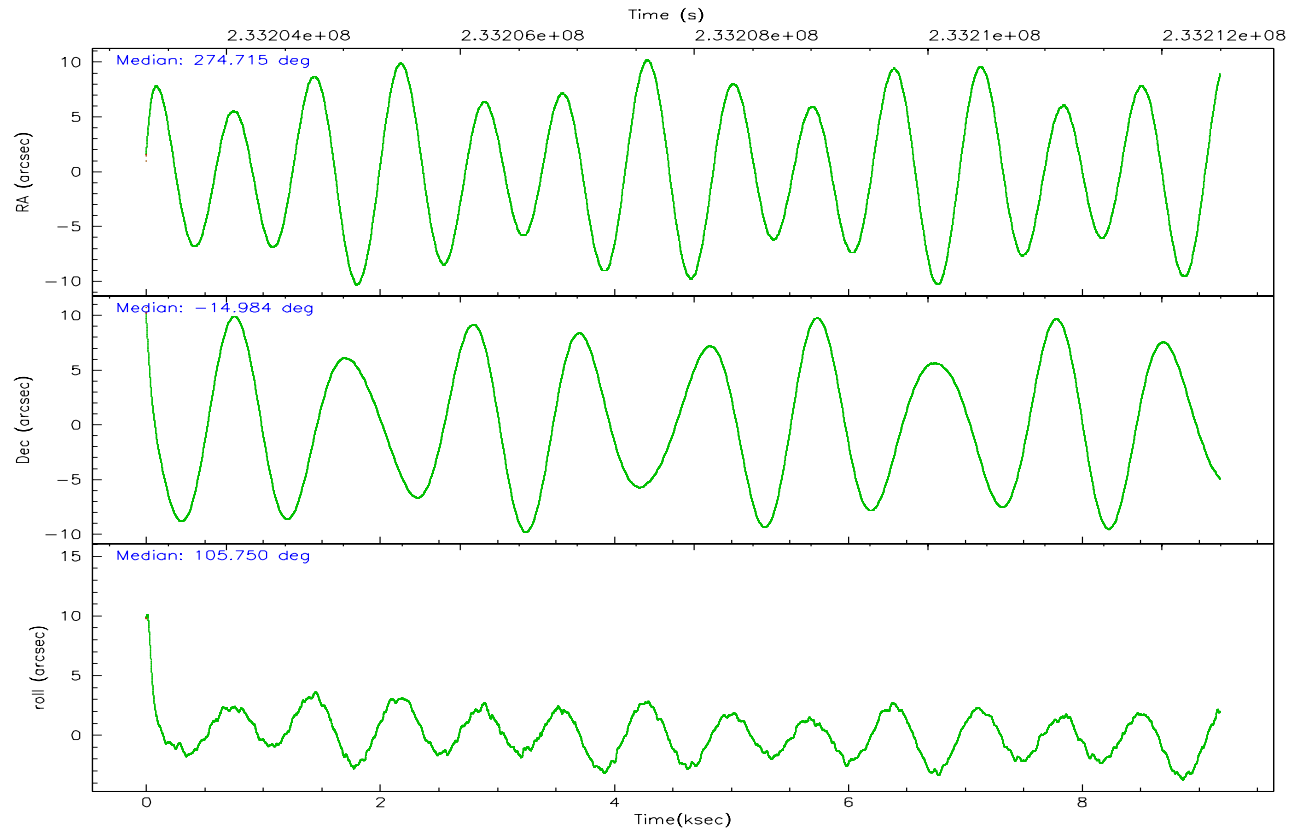
|                | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 2355  | 2464  | 829   | 2245  | 2983  | 2900  |
|                | 4%    | 5%    | 1%    | 4%    | 4%    | 4%    |
| grade 1 events | 26    | 31    | 13    | 19    | 32    | 28    |
|                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
| grade 2 events | 1067  | 1113  | 9163  | 1162  | 8100  | 2237  |
|                | 1%    | 2%    | 14%   | 2%    | 13%   | 3%    |
| grade 3 events | 498   | 524   | 458   | 540   | 2018  | 1053  |
|                | 0%    | 1%    | 0%    | 1%    | 3%    | 1%    |
| grade 4 events | 481   | 498   | 437   | 563   | 2069  | 940   |
|                | 0%    | 1%    | 0%    | 1%    | 3%    | 1%    |
| grade 5 events | 1584  | 1821  | 3353  | 1936  | 4062  | 2732  |
|                | 2%    | 3%    | 5%    | 3%    | 6%    | 4%    |
| grade 6 events | 942   | 1005  | 18600 | 1108  | 16224 | 3580  |
|                | 1%    | 2%    | 29%   | 2%    | 26%   | 6%    |
| grade 7 events | 48150 | 40932 | 29859 | 45209 | 25828 | 45837 |
|                | 87%   | 84%   | 47%   | 85%   | 42%   | 77%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                       | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number    | 6         | 6       |
| Detector                          | ACIS-235678         | ACIS-235678          | Obspar file type                | PREDICTED | ACTUAL  |
| Grating                           | NONE                | NONE                 | Obspar update status            | NONE      | UPDATED |
| Data mode                         | VFAINT              | VFAINT               | On-chip summing requested       | N         | N       |
| Observation mode                  | POINTING            | POINTING             | Subarray requested              | NONE      | NONE    |
| Pointing RA                       | 274.735477          | 274.7149958656406    | Alternating exposures requested | N         | N       |
| Pointing Dec                      | -15.002863          | -14.98416028941966   | Primary exposure time           | 0.000000  | 3.2     |
| Pointing Roll                     | 105.603030          | 105.7543837701802    |                                 |           |         |
| SIM focus pos (mm)                | -0.684267           | -0.6828225247311905  |                                 |           |         |
| SIM defocus (mm)                  | 0                   | 0.001444936568705701 |                                 |           |         |
| SIM translation stage pos (mm)    | -190.132523         | -190.1400660498719   |                                 |           |         |
| SIM translation stage offset (mm) | 0                   | 0.00754346686406393  |                                 |           |         |
| Observation start time            | 233203493.184000    | 233202399.28108      |                                 |           |         |
| Observation start date            | 2005-05-23T02:43:49 | 2005-05-23T02:26:39  |                                 |           |         |
| Observation end time              | 233212493.184000    | 233213330.39407      |                                 |           |         |
| Observation end date              | 2005-05-23T05:13:49 | 2005-05-23T05:28:50  |                                 |           |         |
| Read mode                         | TIMED               | TIMED                |                                 |           |         |

## 2.3 Aspect





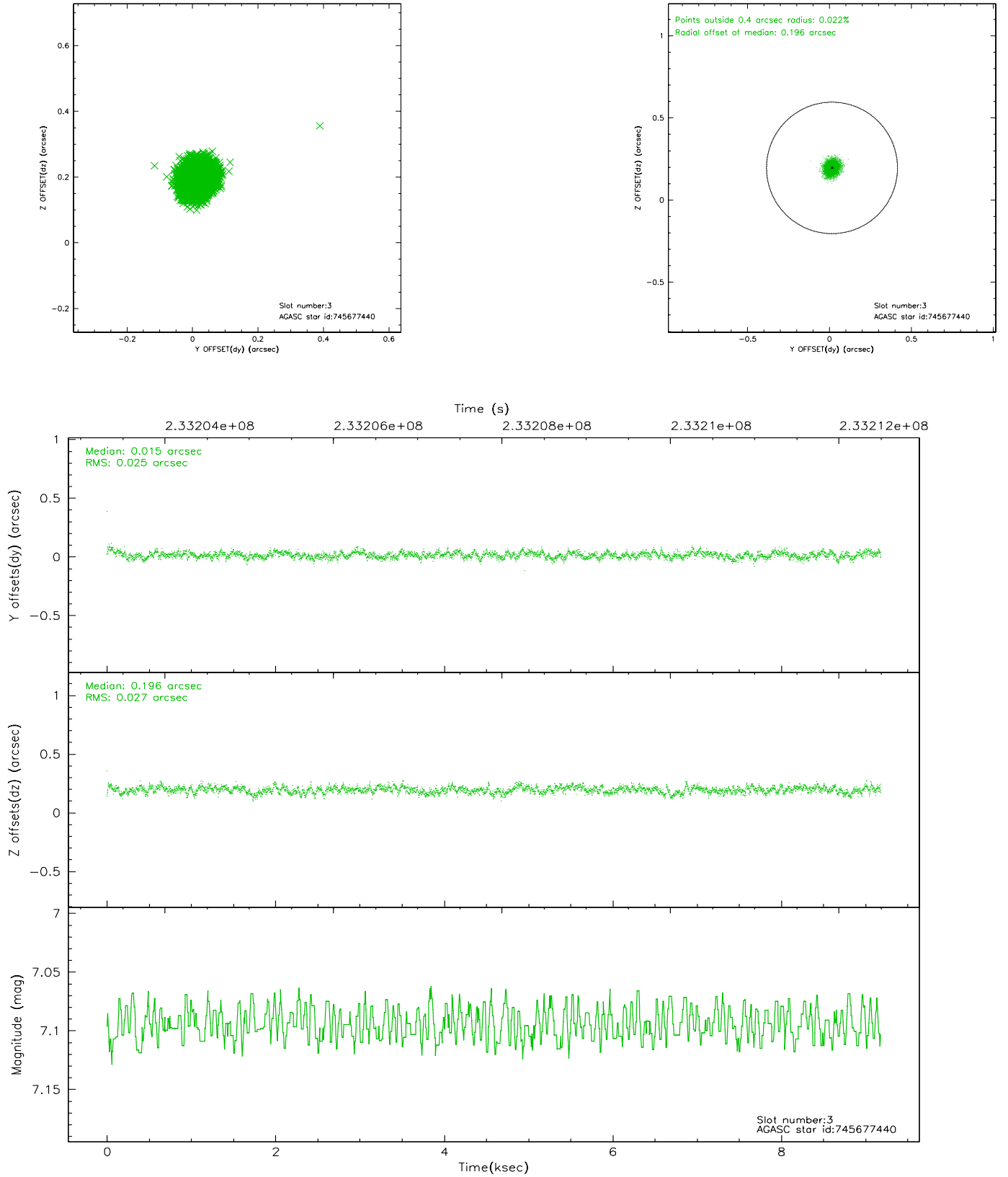
### Slot Statistics

| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec        | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0    | FID    | ACIS-S-2  | 7.10 | 2241  | -0.034 | 0.000  | 0.007 | 0.011 | 0.000000   | 0.000000   | -760.37  | -1731.20 |
| 1    | FID    | ACIS-S-4  | 7.21 | 2240  | 0.062  | 0.016  | 0.006 | 0.010 | 0.000000   | 0.000000   | 2152.69  | 176.75   |
| 2    | FID    | ACIS-S-5  | 7.23 | 2240  | -0.059 | -0.008 | 0.008 | 0.013 | 0.000000   | 0.000000   | -1812.52 | 170.98   |
| 3    | GUIDE  | 745677440 | 7.09 | 4481  | 0.015  | 0.196  | 0.039 | 0.063 | 275.264510 | -14.978543 | -412.61  | -1794.46 |
| 4    | GUIDE  | 745680576 | 8.68 | 4478  | -0.038 | -0.076 | 0.077 | 0.122 | 274.063292 | -14.644899 | 1867.43  | 1909.08  |
| 5    | GUIDE  | 821172096 | 7.76 | 4480  | 0.050  | 0.133  | 0.051 | 0.080 | 275.077024 | -15.219483 | -1070.43 | -932.21  |
| 6    | GUIDE  | 821179256 | 7.40 | 4481  | 0.182  | -0.004 | 0.049 | 0.075 | 274.840900 | -15.612800 | -2213.19 | 238.24   |
| 7    | GUIDE  | 745679408 | 7.61 | 4479  | -0.211 | -0.249 | 0.059 | 0.092 | 274.073517 | -14.949069 | 801.79   | 2166.30  |

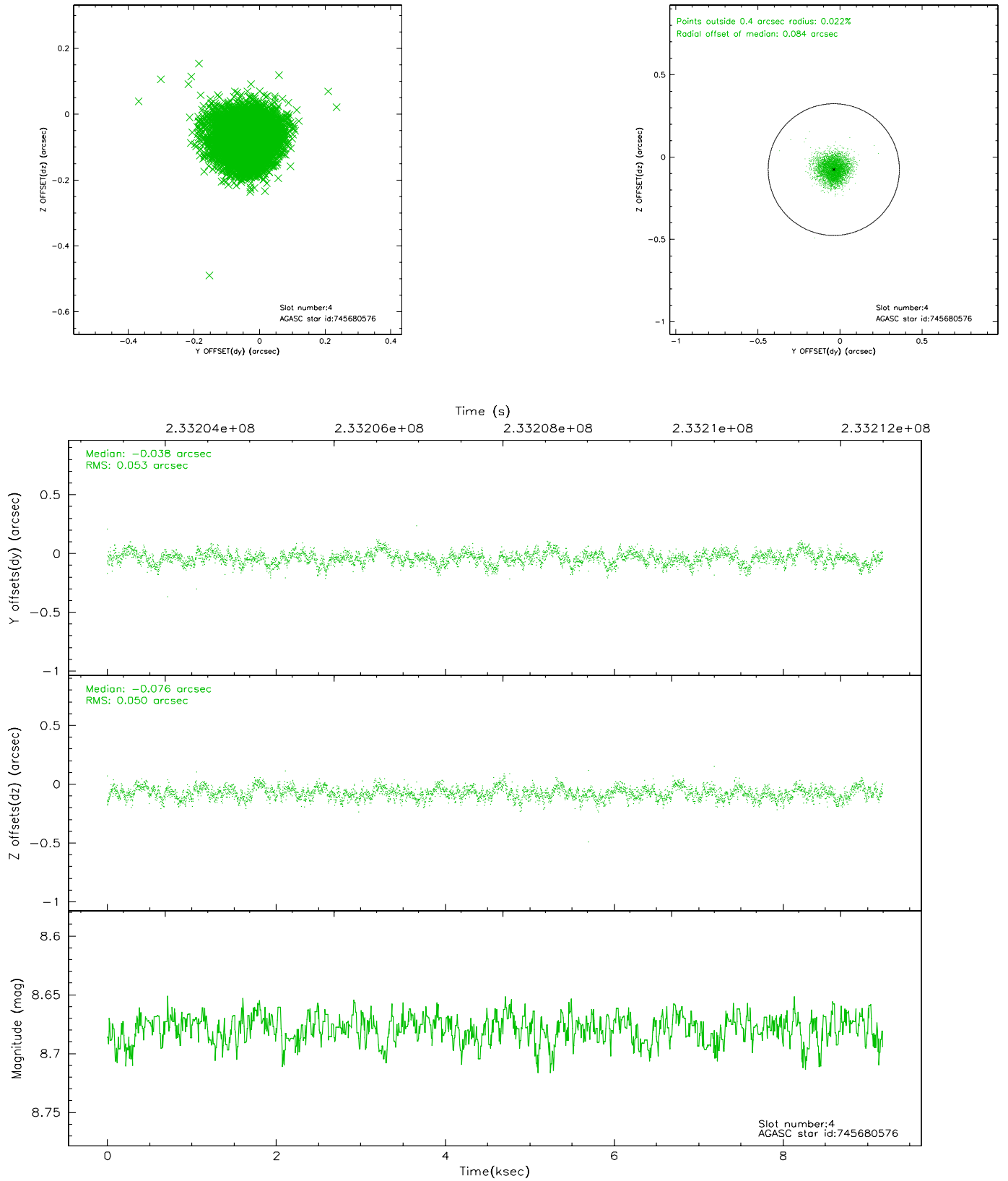


## 2.4 Star Slots

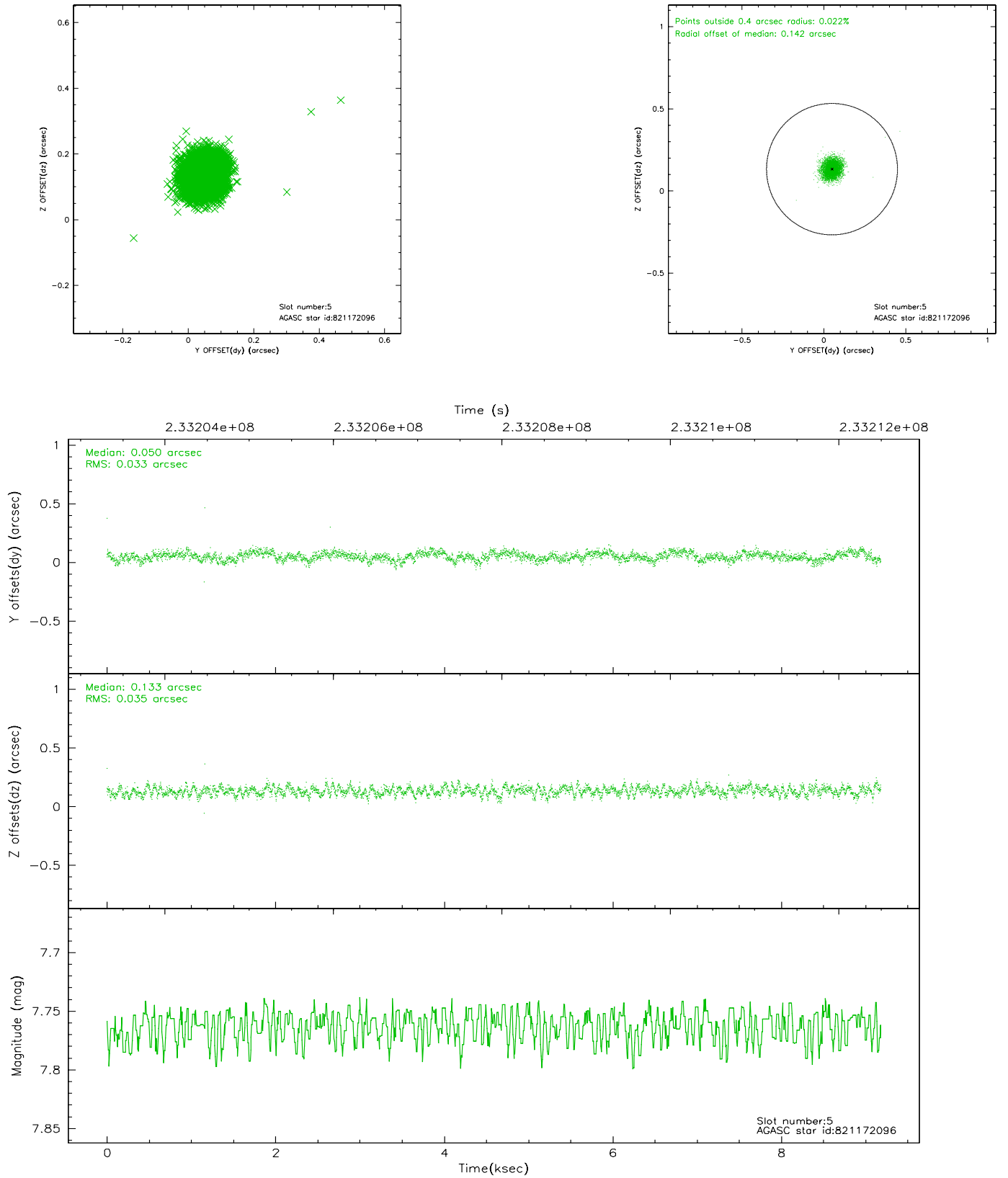
### 2.4.1 Slot 3



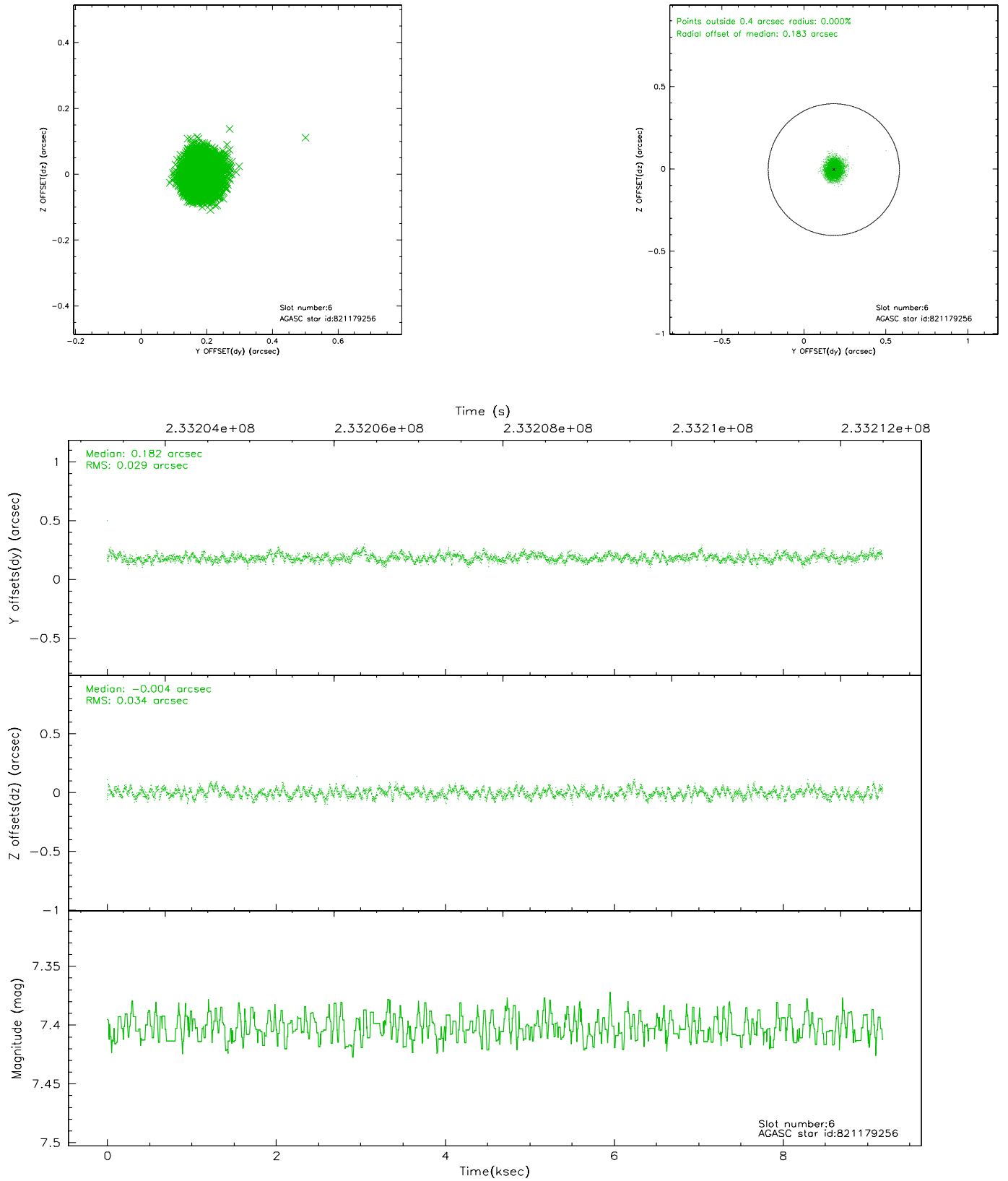
## 2.4.2 Slot 4



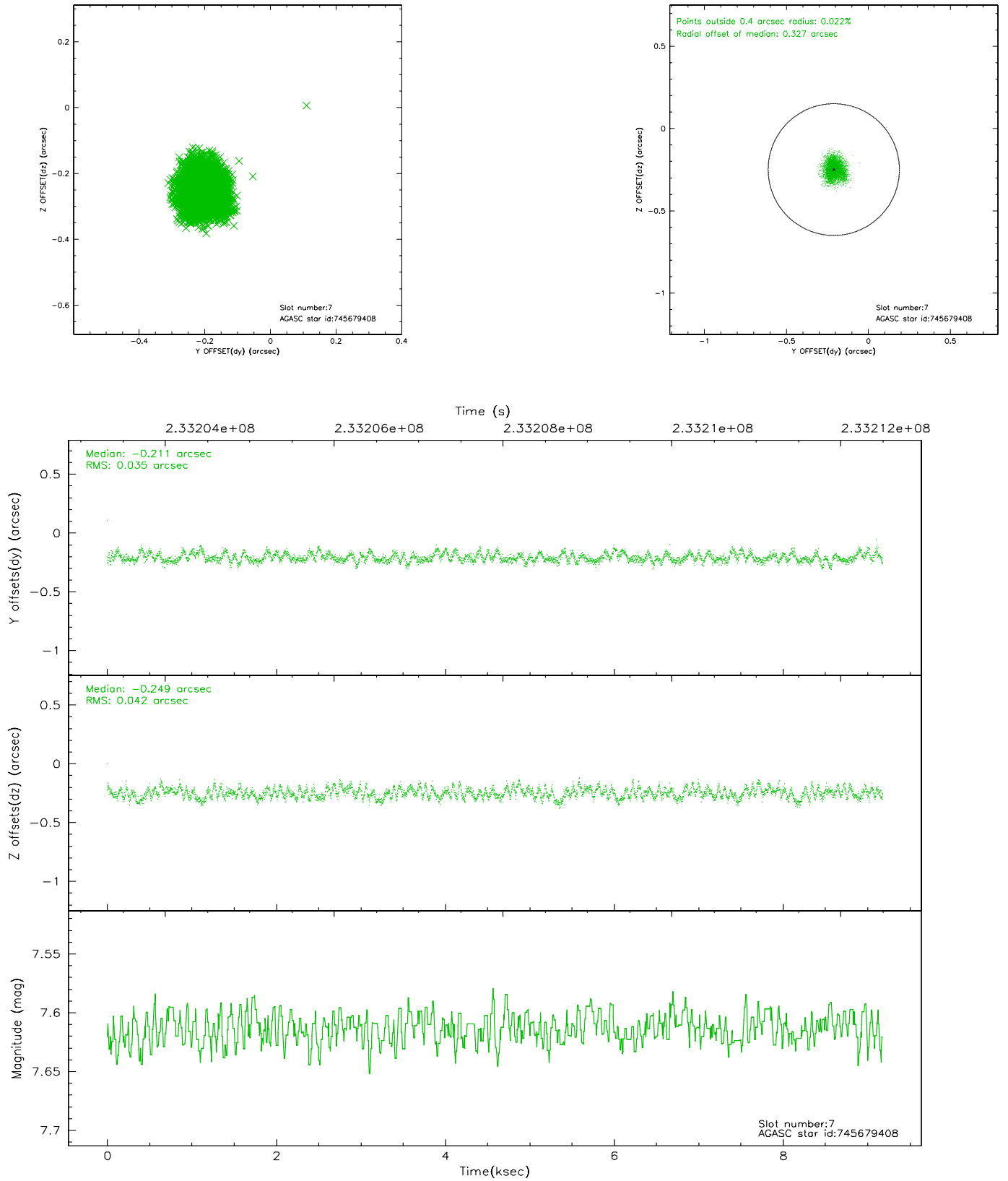
### 2.4.3 Slot 5



## 2.4.4 Slot 6

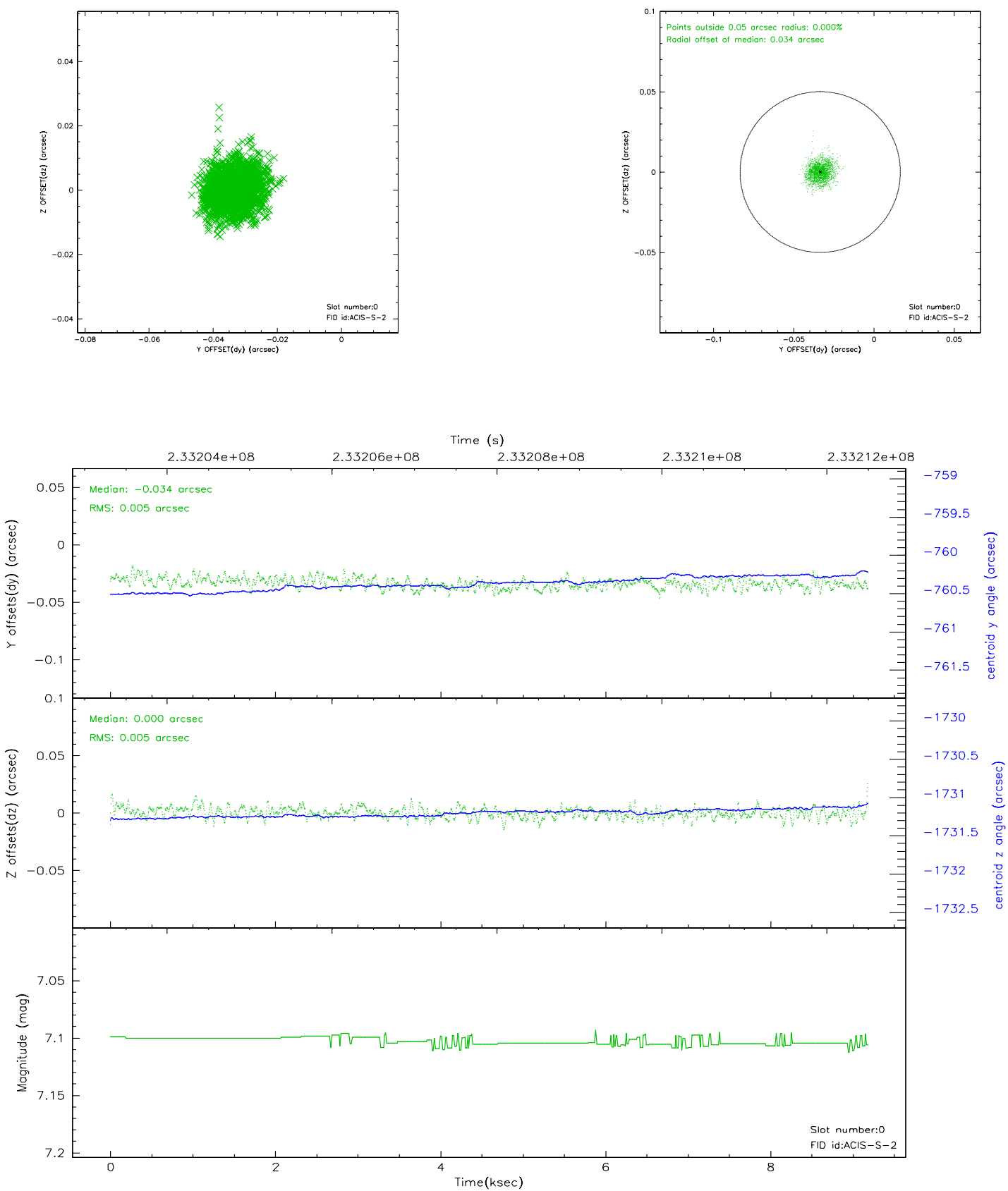


## 2.4.5 Slot 7

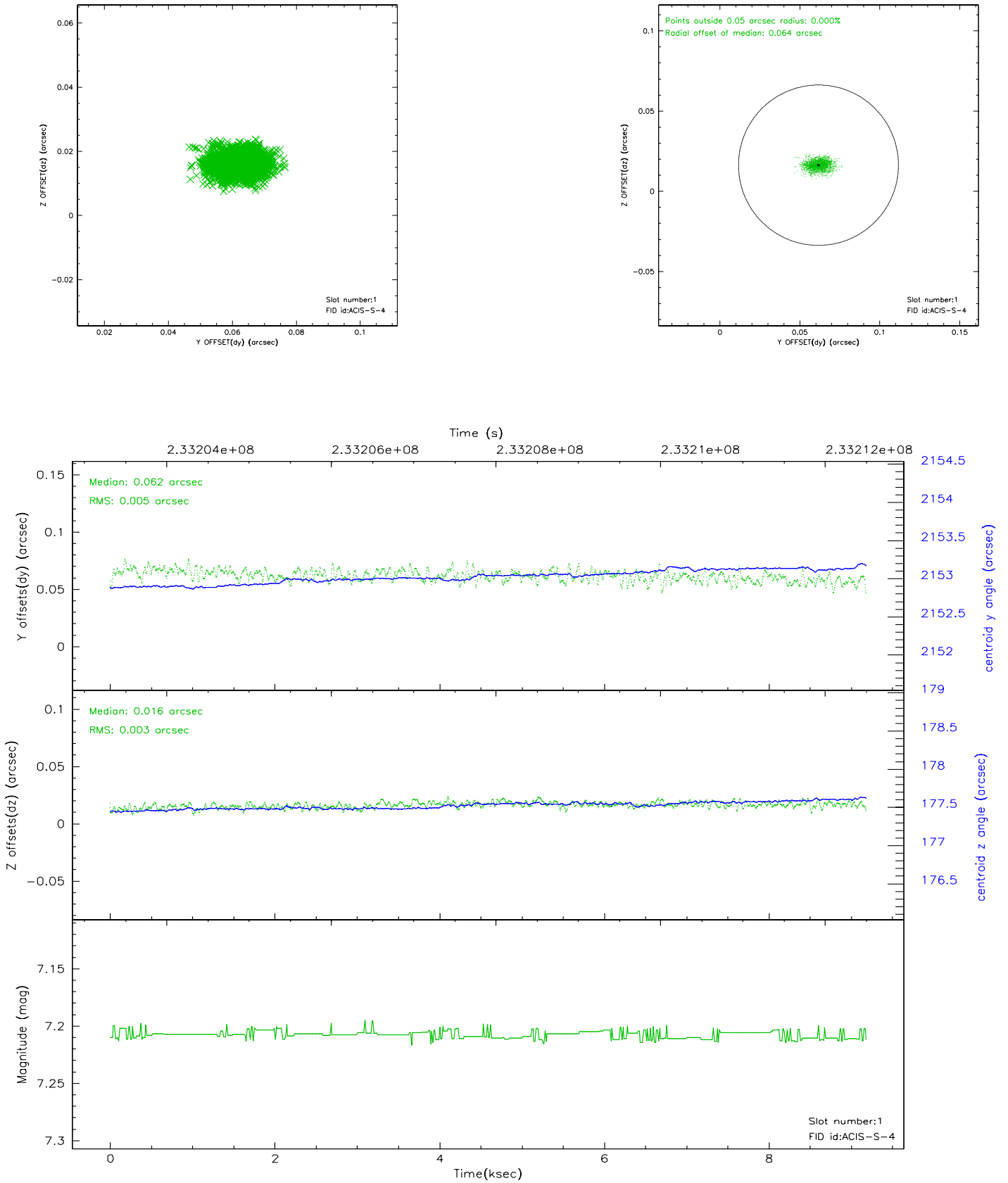


## 2.5 FID Slots

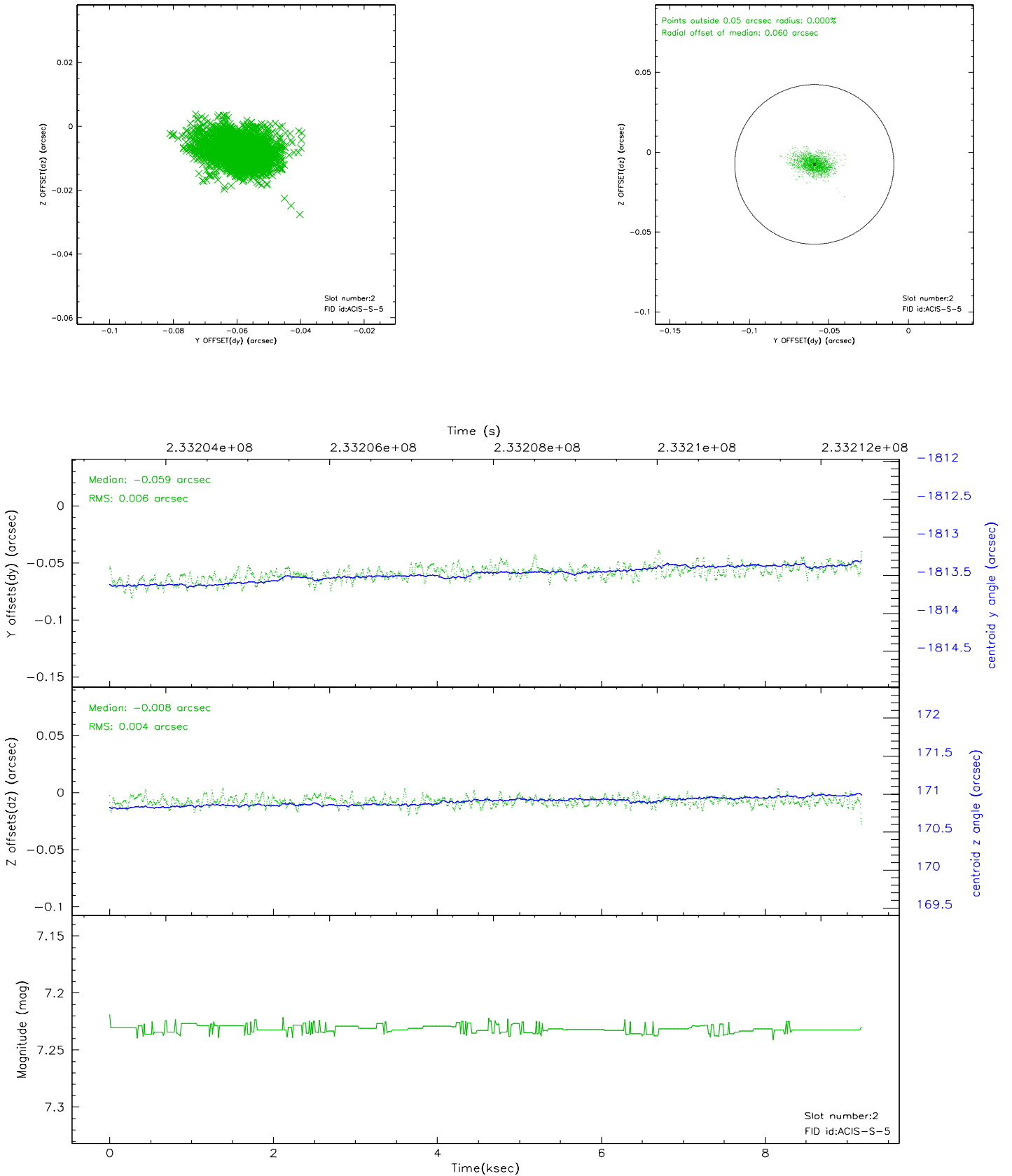
### 2.5.1 Slot 0



## 2.5.2 Slot 1

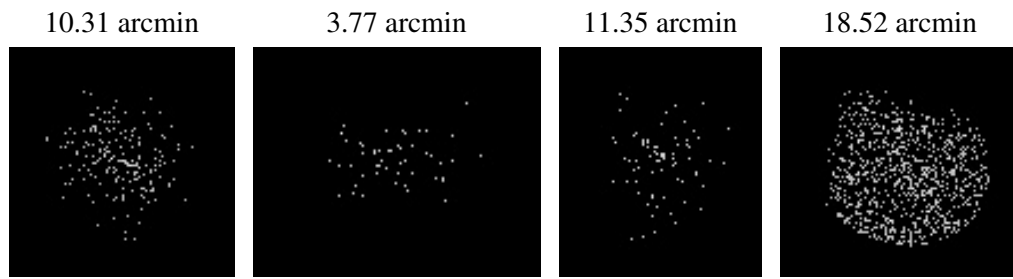


### 2.5.3 Slot 2





### 3 Point Sources



## A Summary

### A.1 Status

|                            |               |
|----------------------------|---------------|
| V&V Scientist              | Beth Sundheim |
| V&V Date (YYYY-MM-DD)      | 2006.03.05    |
| V&V Edition                | 1             |
| V&V Disposition and Status | OK            |
| V&V Charge Time            | 9.177599      |

### A.2 Comments