

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.2

Observation 5308 - L2 Version 001  
Chandra X-Ray Center

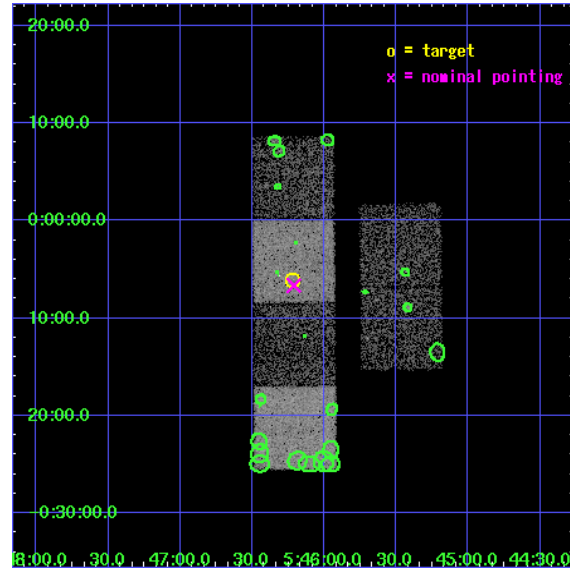
L2 Processing Date : May 29 2006

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# 1 Front

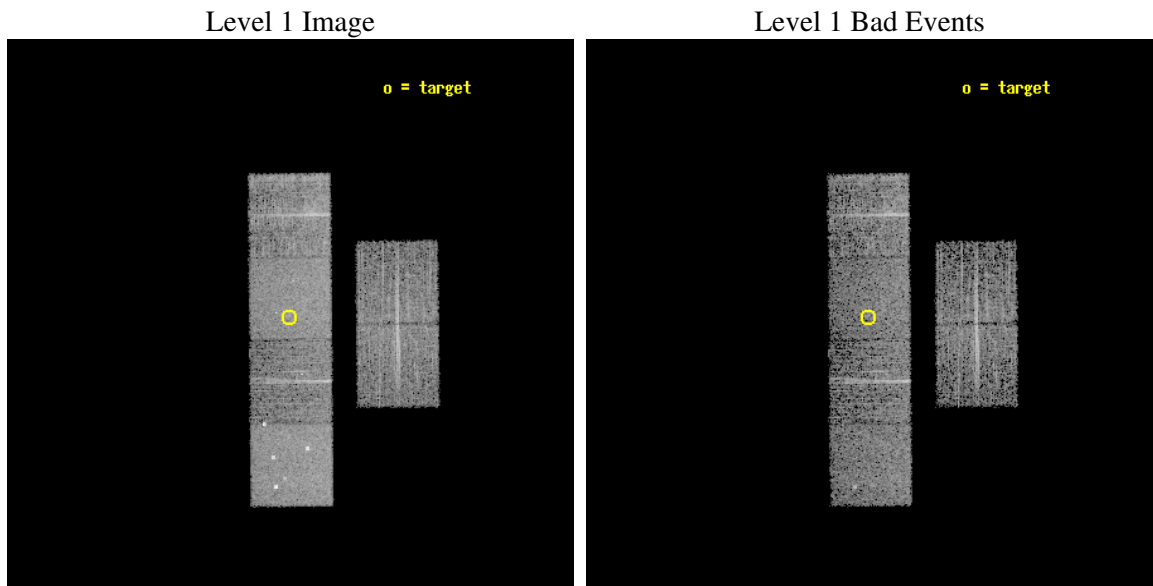
|          |  |
|----------|--|
| seq_num  | 200298   |
| obs_id   | 5308   |
| title    | A Star is Born: X-ray Imaging of the Onset of an FU Ori Outburst |
| observer | Prof. Joel Kastner   |
| object   | IRAS05436-0007   |
| dtcycle  | 0  |
| cycle    | P  |
| ra_targ  | 86.554583  |
| dec_targ | -0.101389  |
| ra_nom   | 86.552818672718  |
| dec_nom  | -0.11078393421423  |
| roll_nom | 269.50485172425  |
| revision | 2  |
| ontime   | 4959.9999815226  |
| livetime | 4897.1934752031  |
| ontime2  | 4959.9999815226  |
| ontime3  | 4959.9999815226  |
| ontime5  | 4959.9999815226  |
| ontime6  | 4959.9999815226  |
| ontime7  | 4959.9999815226  |
| ontime8  | 4959.9999815226  |
| l2events | 51669  |



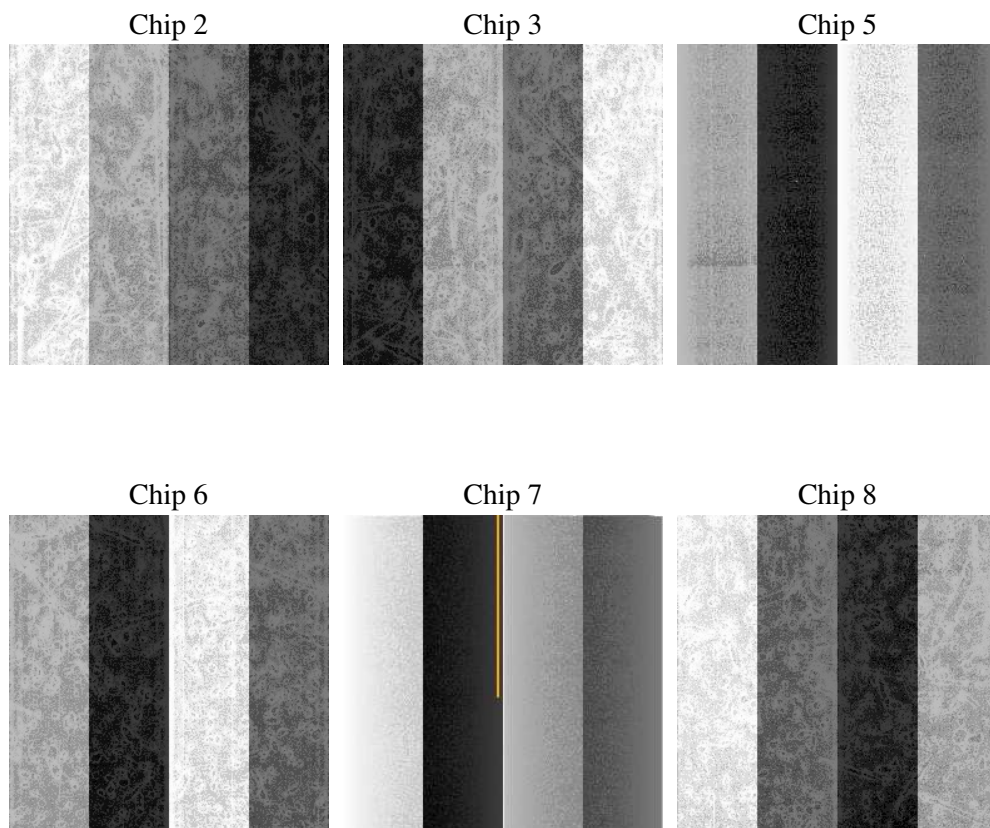
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |
|----------|---------------------|
| obi_num  | 0                   |
| ascdsver | 7.6.7.2             |
| caldsver | 3.2.2               |
| date     | 2006-05-29T17:02:00 |
| revision | 2                   |

|                |                 |
|----------------|-----------------|
| sched_exp_time | 5000.000000     |
| ontime         | 4965.2116383016 |
| ontime2        | 4965.2116383016 |
| ontime3        | 4965.2116383016 |
| ontime5        | 4965.2116383016 |
| ontime6        | 4965.2116383016 |
| ontime7        | 4965.2116383016 |
| ontime8        | 4965.2116083801 |
| l1events       | 239687          |

### 2.1.4 Events

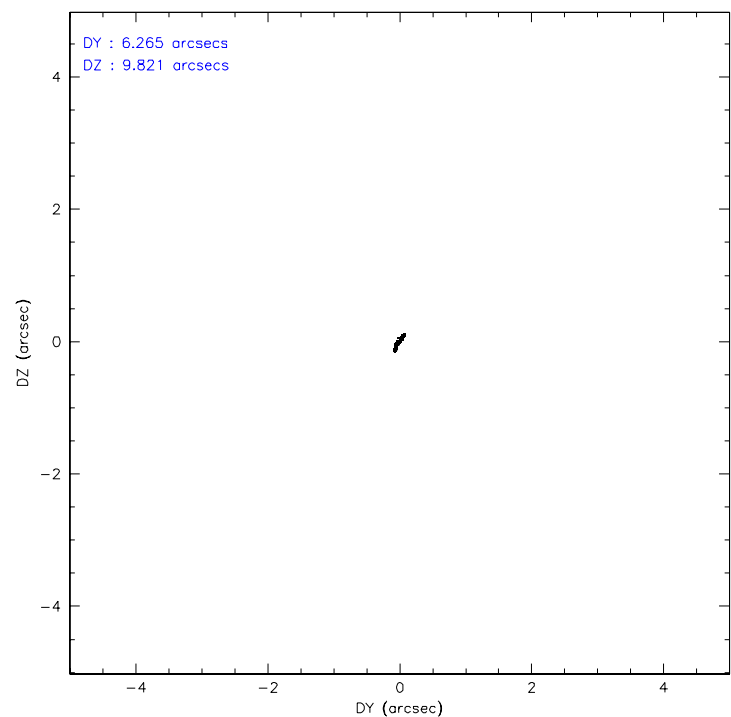
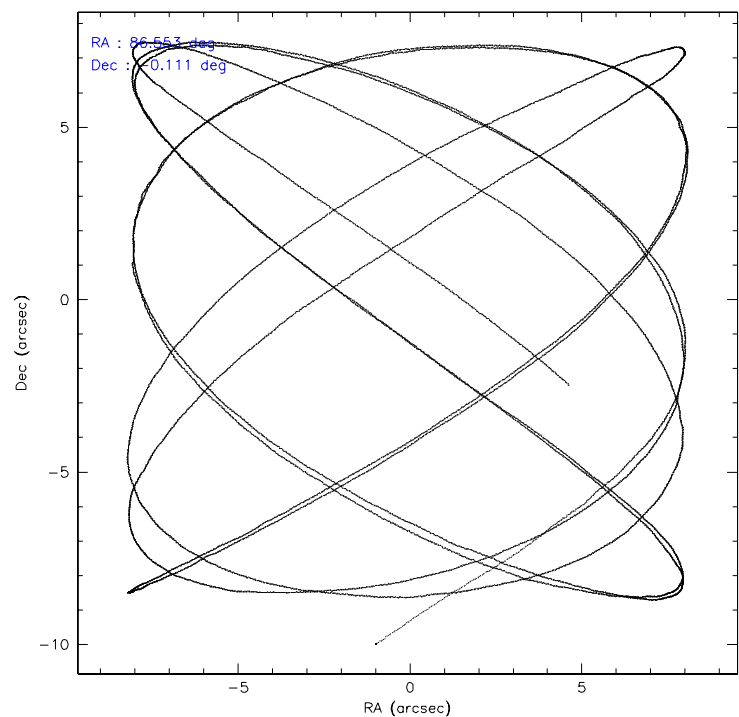
|                 | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 33341 | 31940 | 51997 | 33337 | 45956 | 43116 |
| rejected events | 29236 | 28229 | 28451 | 29170 | 28522 | 34184 |
| rejected %      | 87%   | 88%   | 54%   | 87%   | 62%   | 79%   |

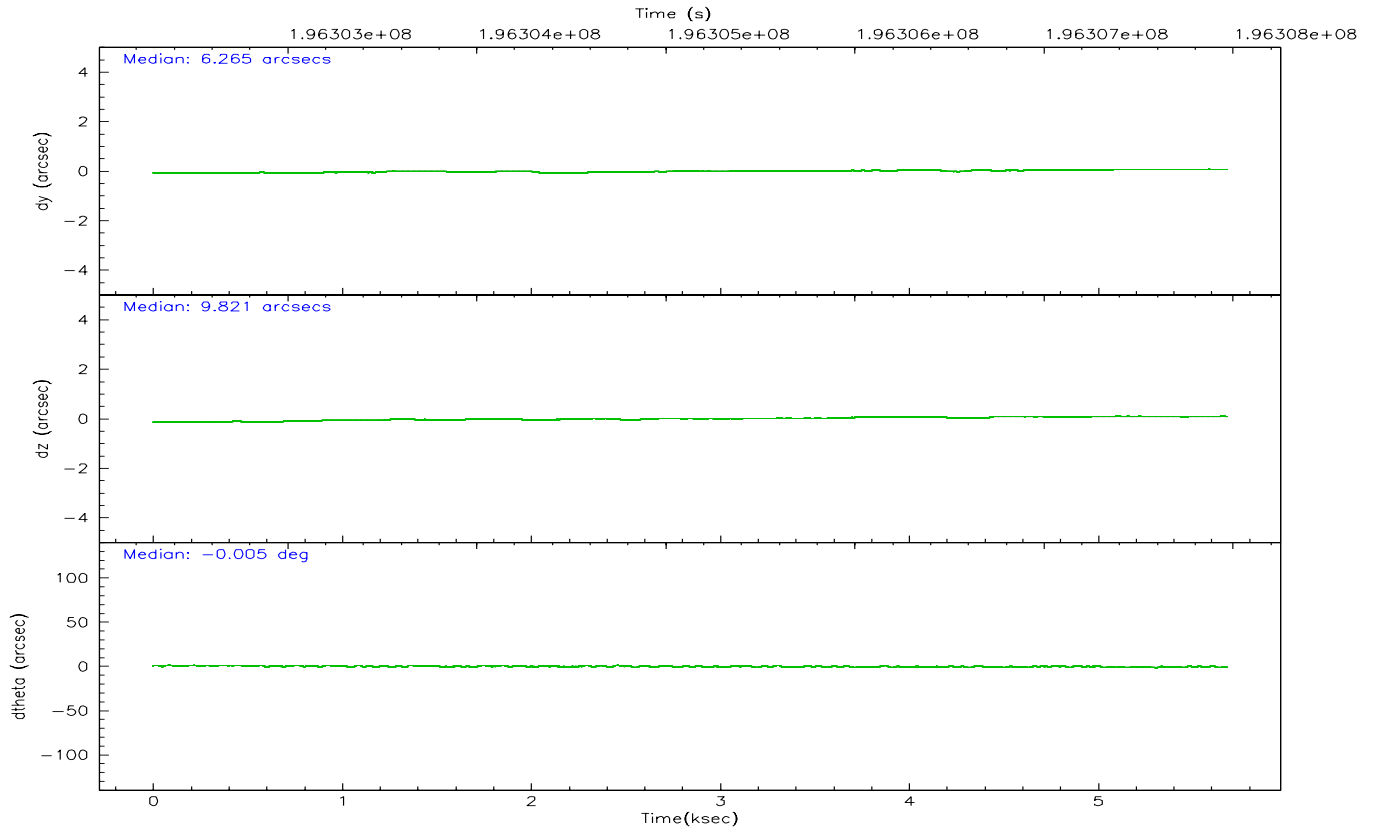
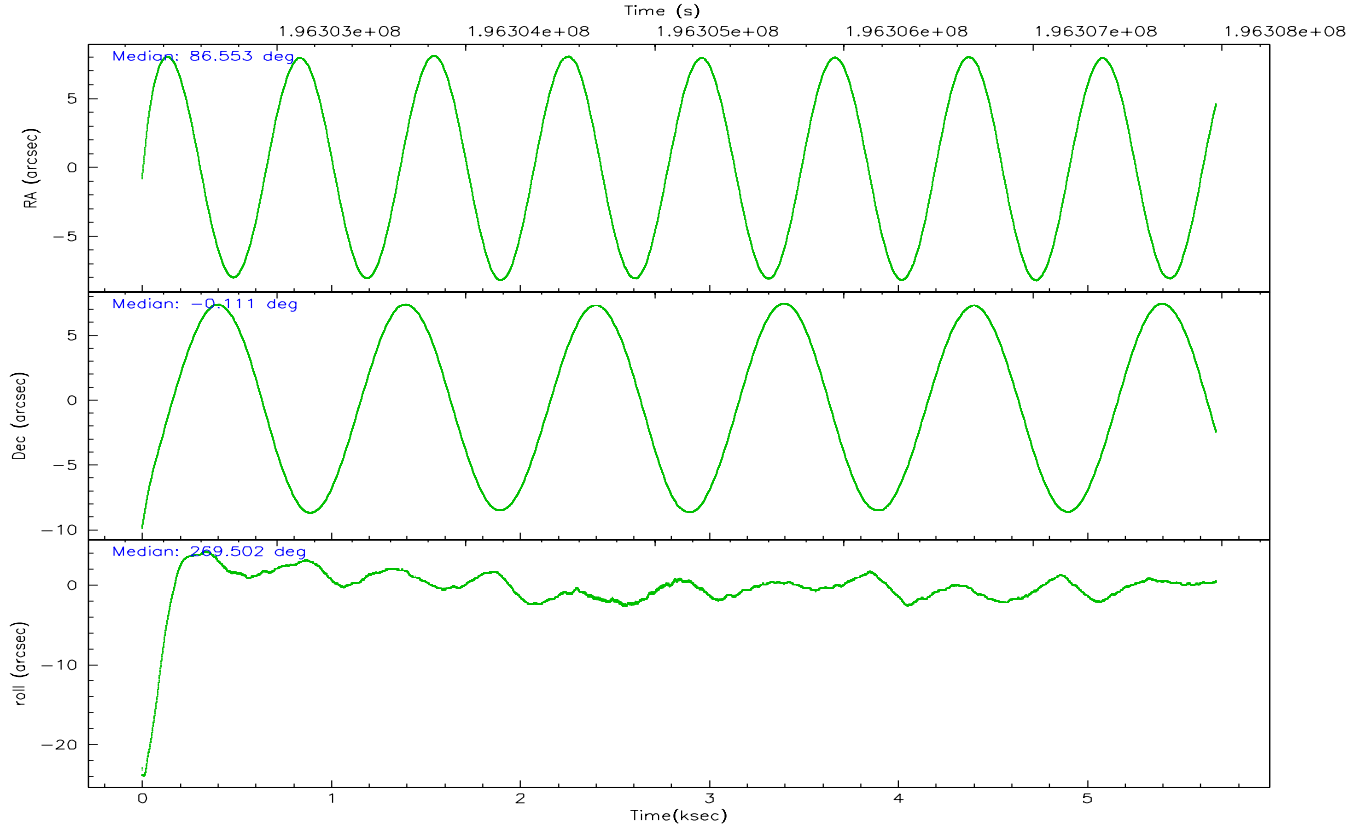
|                | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 1828  | 1609  | 2746  | 1732  | 1007  | 2908  |
|                | 5%    | 5%    | 5%    | 5%    | 2%    | 6%    |
| grade 1 events | 15    | 18    | 63    | 18    | 32    | 32    |
|                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
| grade 2 events | 856   | 697   | 7438  | 837   | 4340  | 2035  |
|                | 2%    | 2%    | 14%   | 2%    | 9%    | 4%    |
| grade 3 events | 376   | 375   | 556   | 416   | 924   | 947   |
|                | 1%    | 1%    | 1%    | 1%    | 2%    | 2%    |
| grade 4 events | 380   | 377   | 473   | 405   | 893   | 824   |
|                | 1%    | 1%    | 0%    | 1%    | 1%    | 1%    |
| grade 5 events | 1347  | 1461  | 2355  | 1525  | 3070  | 2089  |
|                | 4%    | 4%    | 4%    | 4%    | 6%    | 4%    |
| grade 6 events | 670   | 655   | 12370 | 782   | 10293 | 2227  |
|                | 2%    | 2%    | 23%   | 2%    | 22%   | 5%    |
| grade 7 events | 27869 | 26748 | 25996 | 27622 | 25397 | 32054 |
|                | 83%   | 83%   | 49%   | 82%   | 55%   | 74%   |

## 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                         | FAINT               | FAINT                | On-chip summing requested       | N         | N       |
| Observation mode                  | POINTING            | POINTING             | Subarray requested              | NONE      | NONE    |
| Pointing RA                       | 86.539069           | 86.55281867271751    | Alternating exposures requested | N         | N       |
| Pointing Dec                      | -0.087376           | -0.1107839342142274  | Primary exposure time           | 0.000000  | 3.2     |
| Pointing Roll                     | 269.348220          | 269.5048517242461    |                                 |           |         |
| 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            | 196302968.184000    | 196301758.02896      |                                 |           |         |
| Observation start date            | 2004-03-22T00:35:04 | 2004-03-22T00:15:58  |                                 |           |         |
| Observation end time              | 196307968.184000    | 196308613.74176      |                                 |           |         |
| Observation end date              | 2004-03-22T01:58:24 | 2004-03-22T02:10:13  |                                 |           |         |
| Read mode                         | TIMED               | TIMED                |                                 |           |         |

2.3 Aspect





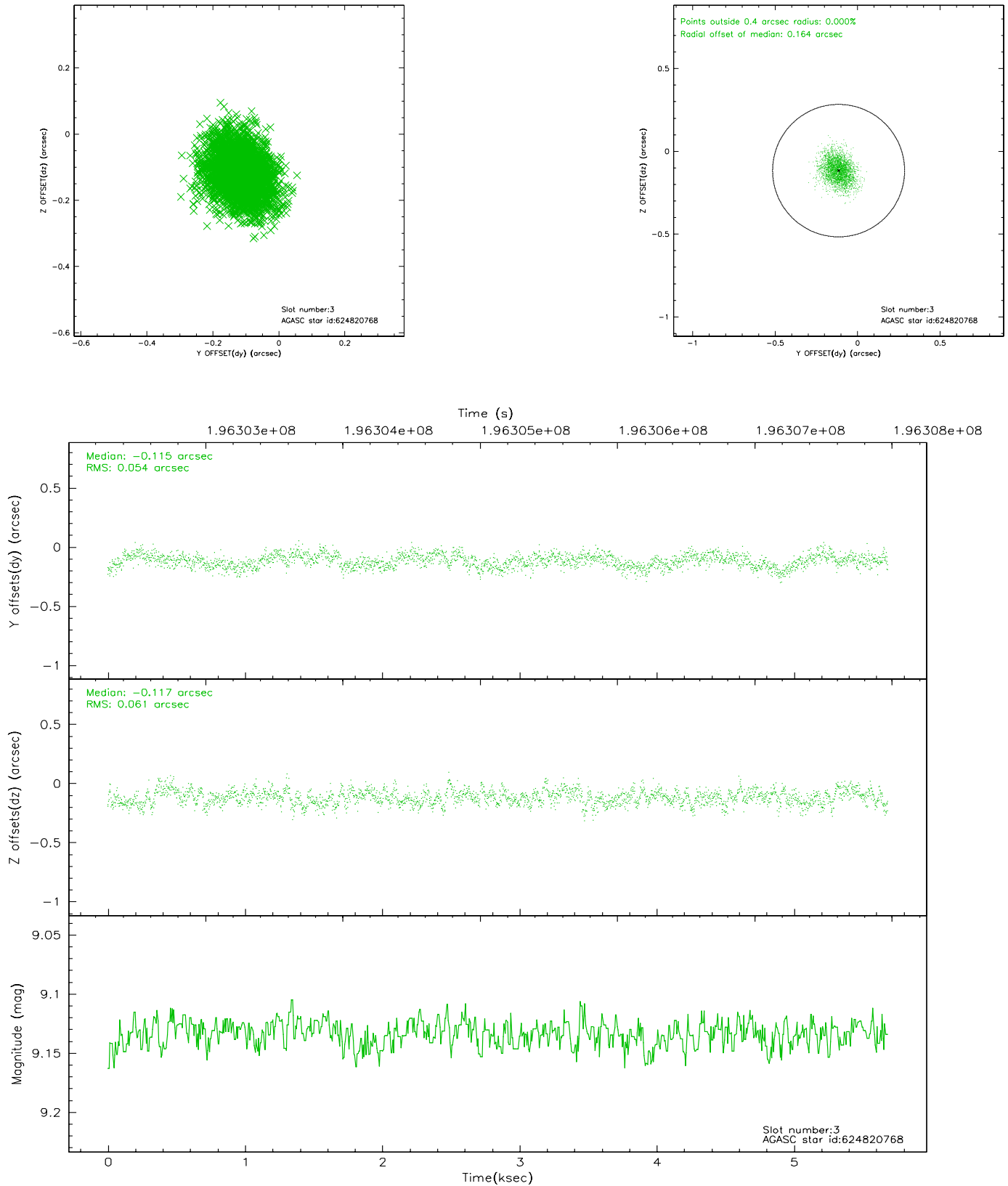
### Slot Statistics

| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra        | dec       | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0    | FID    | ACIS-S-1  | 7.18 | 1387  | -0.012 | 0.019  | 0.007 | 0.013 | 0.000000  | 0.000000  | 937.03   | -1726.68 |
| 1    | FID    | ACIS-S-5  | 7.23 | 1387  | -0.018 | -0.002 | 0.005 | 0.009 | 0.000000  | 0.000000  | -1811.38 | 169.79   |
| 2    | FID    | ACIS-S-6  | 7.34 | 1387  | 0.009  | -0.005 | 0.008 | 0.013 | 0.000000  | 0.000000  | 401.48   | 814.92   |
| 3    | GUIDE  | 624820768 | 9.13 | 2773  | -0.115 | -0.117 | 0.086 | 0.141 | 86.202480 | -0.061953 | -77.29   | -1212.82 |
| 4    | GUIDE  | 624954088 | 9.61 | 2772  | 0.028  | -0.079 | 0.101 | 0.163 | 86.606399 | -0.671650 | 2100.97  | 265.88   |
| 5    | GUIDE  | 624956456 | 8.03 | 2774  | -0.010 | 0.212  | 0.059 | 0.099 | 87.042614 | -0.748935 | 2362.07  | 1840.12  |
| 6    | GUIDE  | 624954400 | 9.19 | 2773  | 0.019  | -0.168 | 0.088 | 0.145 | 86.607838 | -0.762568 | 2429.06  | 275.81   |
| 7    | GUIDE  | 624952480 | 7.68 | 2773  | 0.080  | 0.153  | 0.053 | 0.087 | 87.106269 | -0.759614 | 2398.14  | 2069.64  |

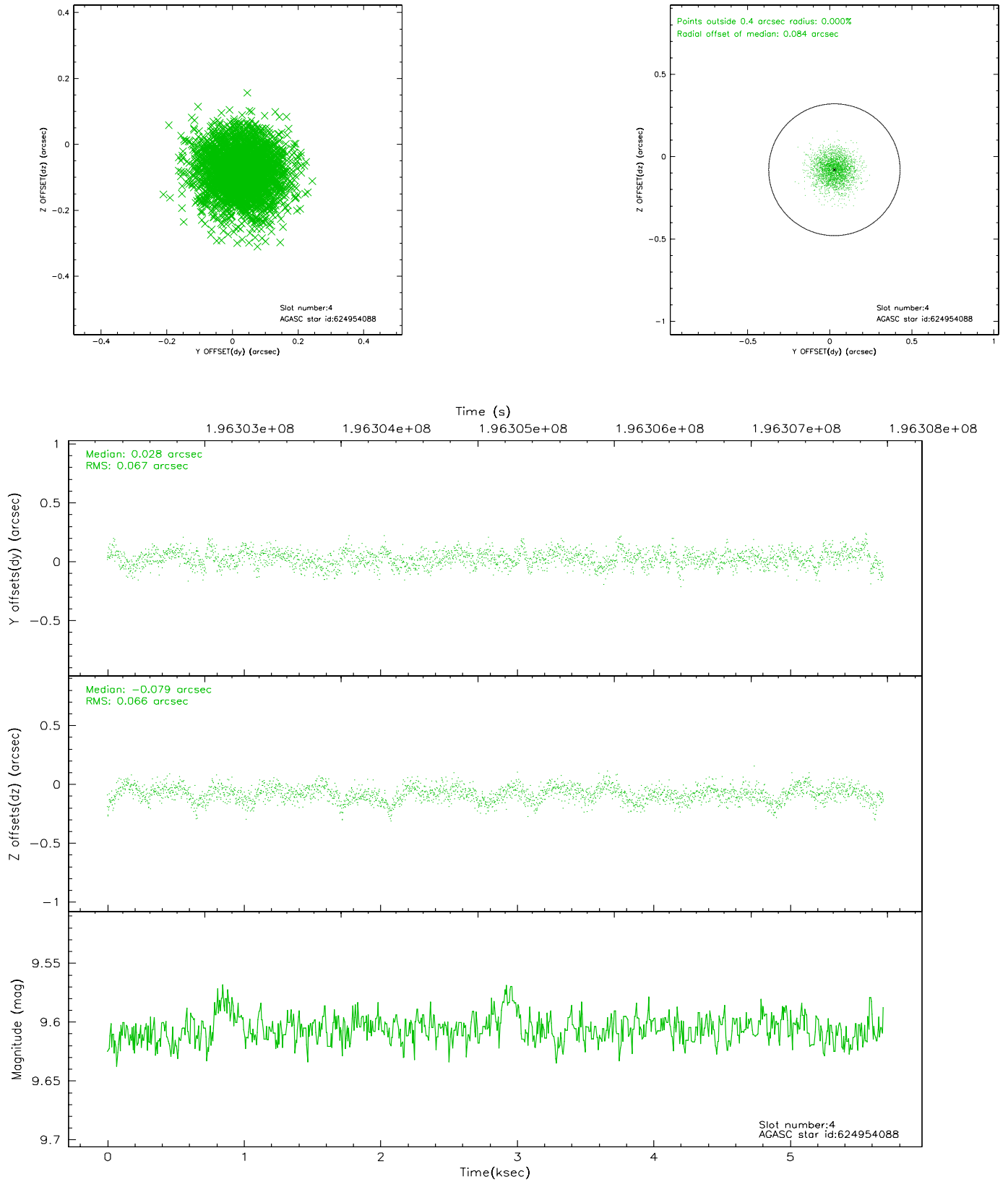


## 2.4 Star Slots

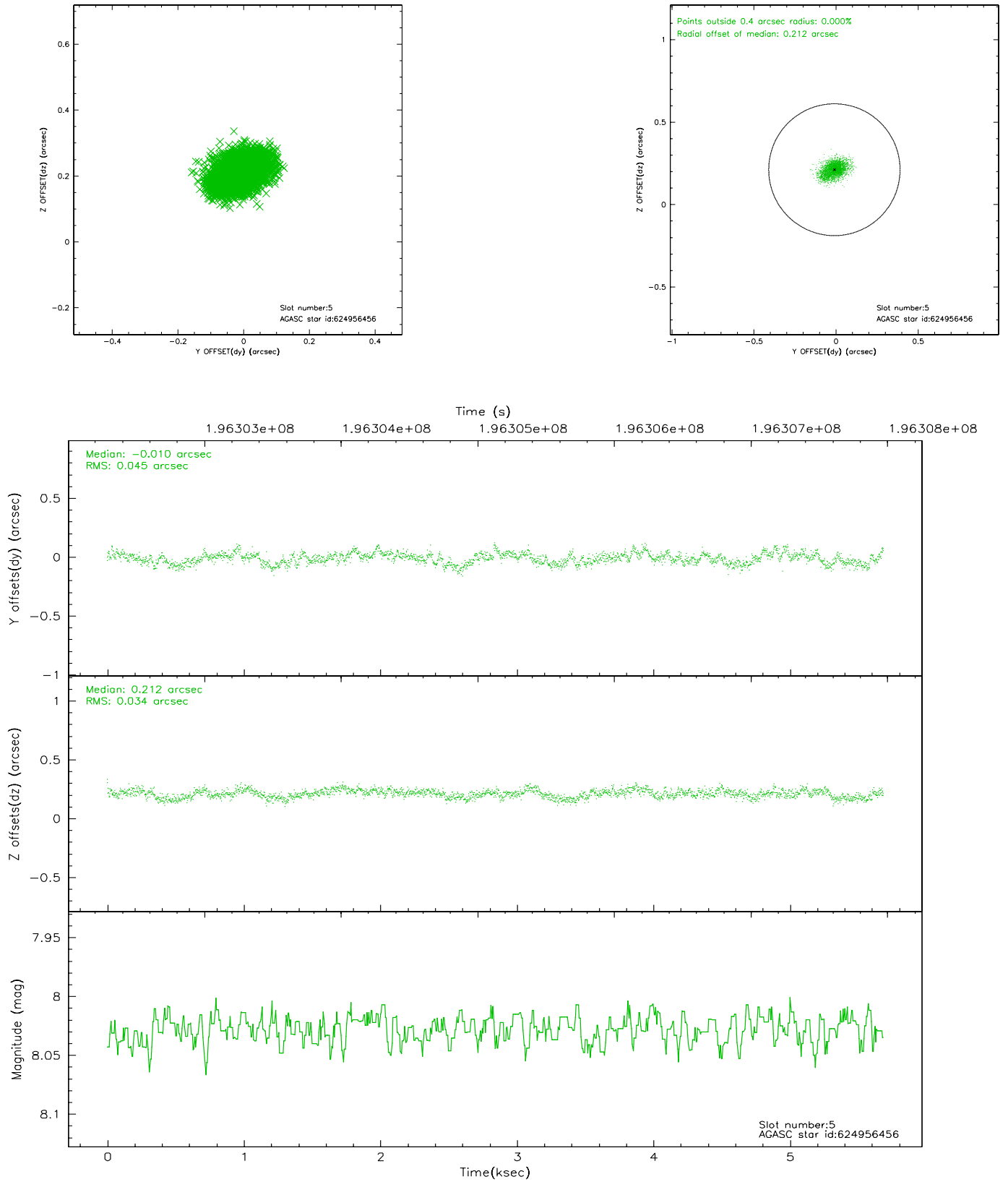
### 2.4.1 Slot 3



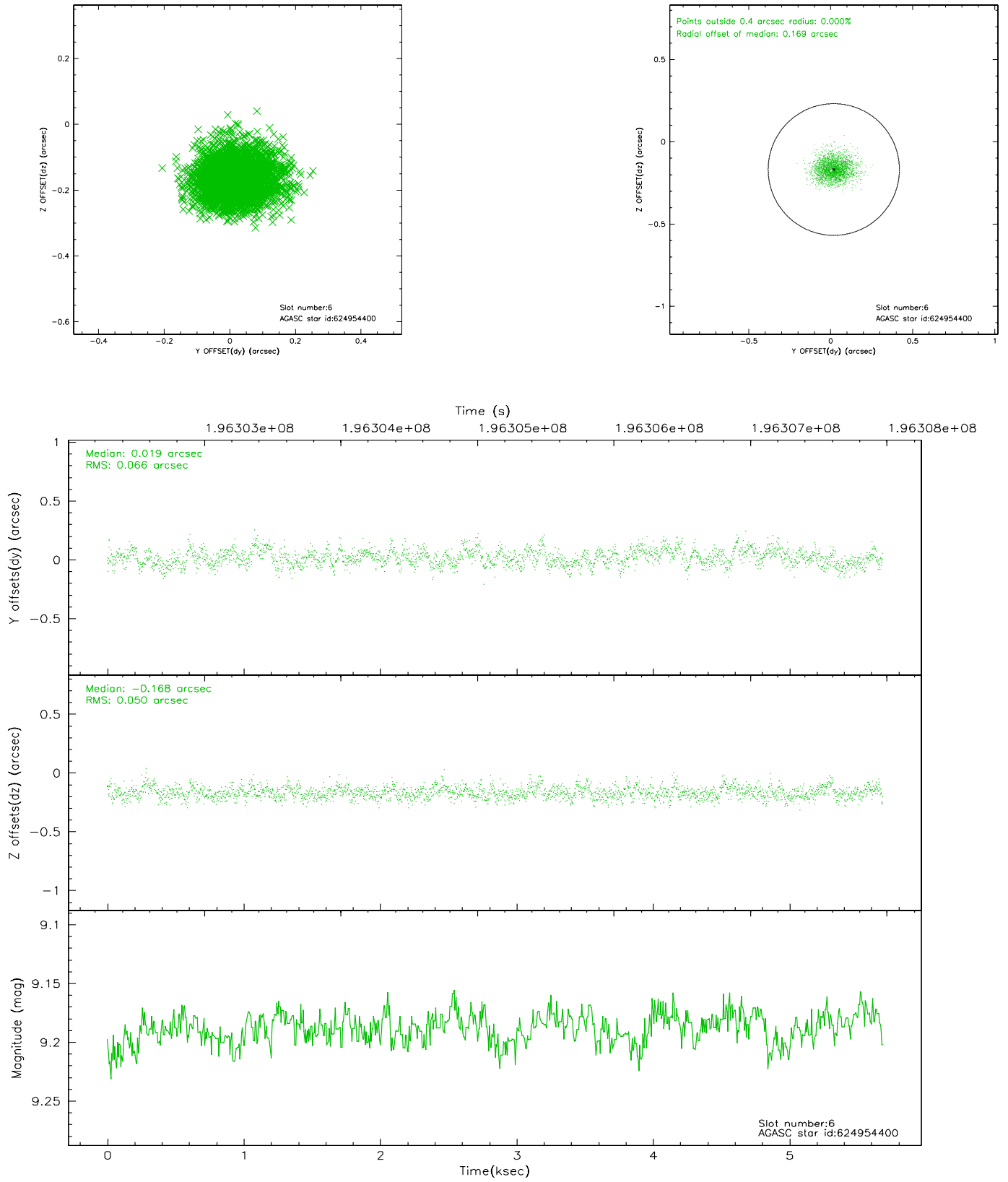
## 2.4.2 Slot 4



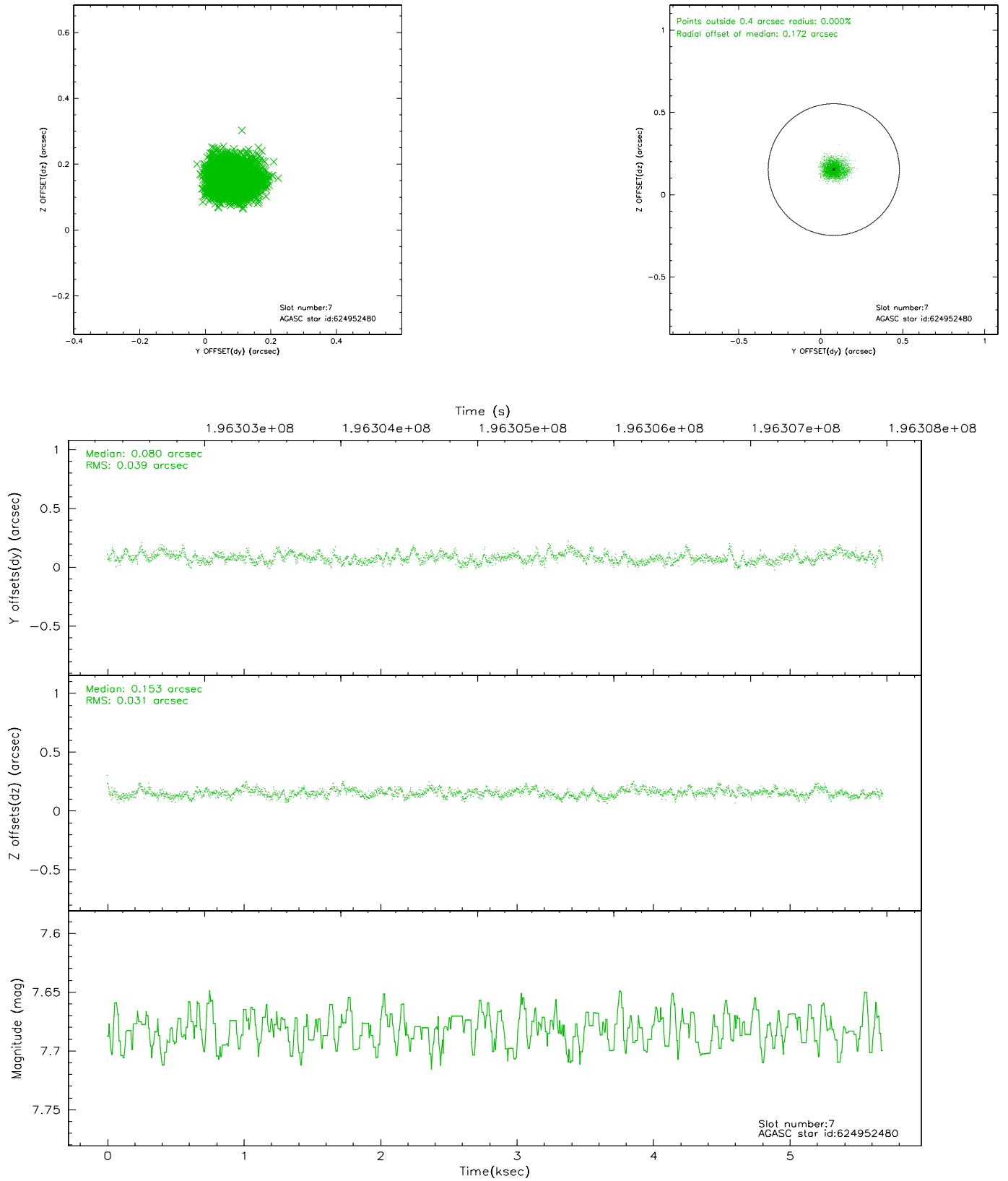
### 2.4.3 Slot 5



## 2.4.4 Slot 6

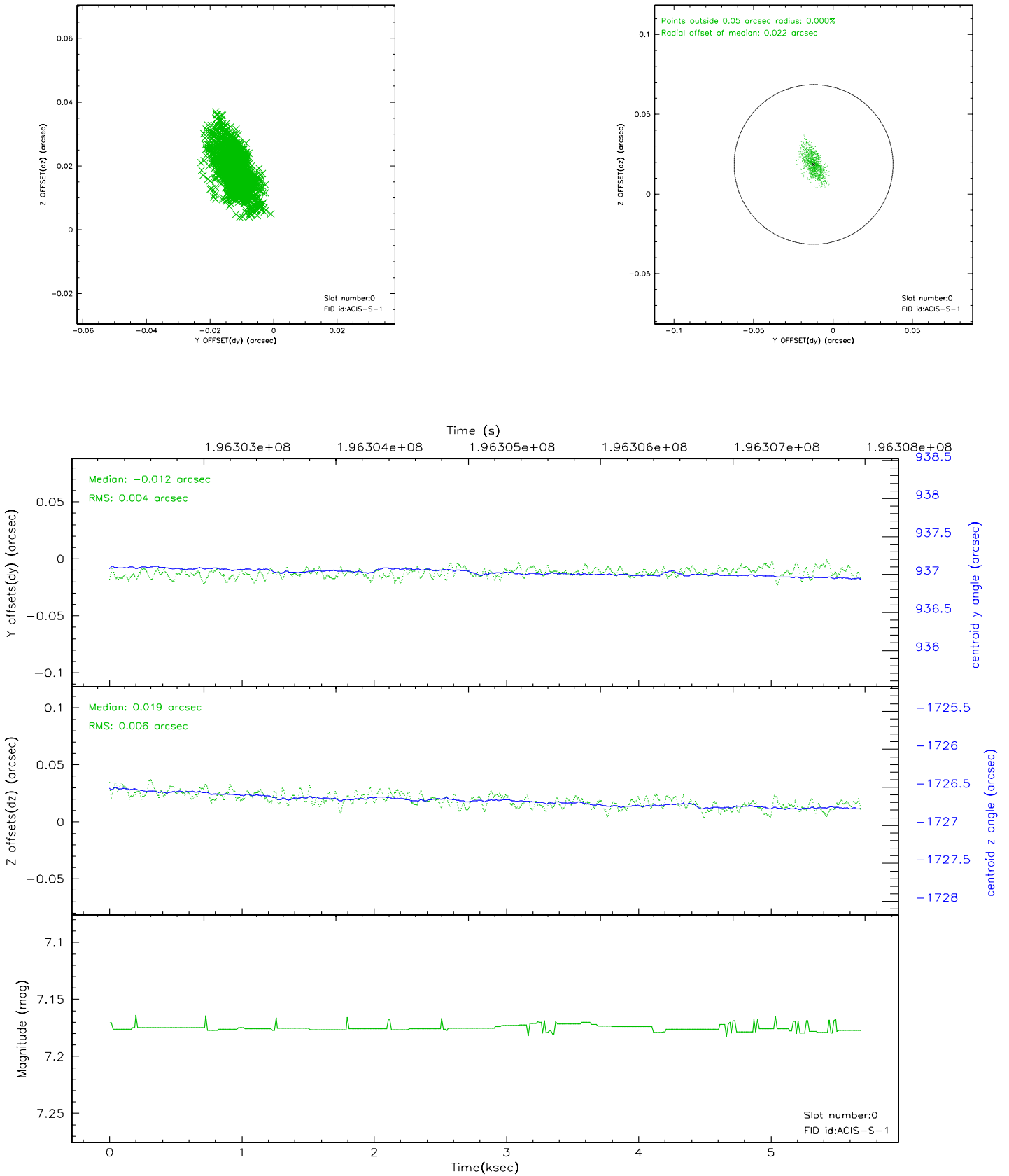


## 2.4.5 Slot 7

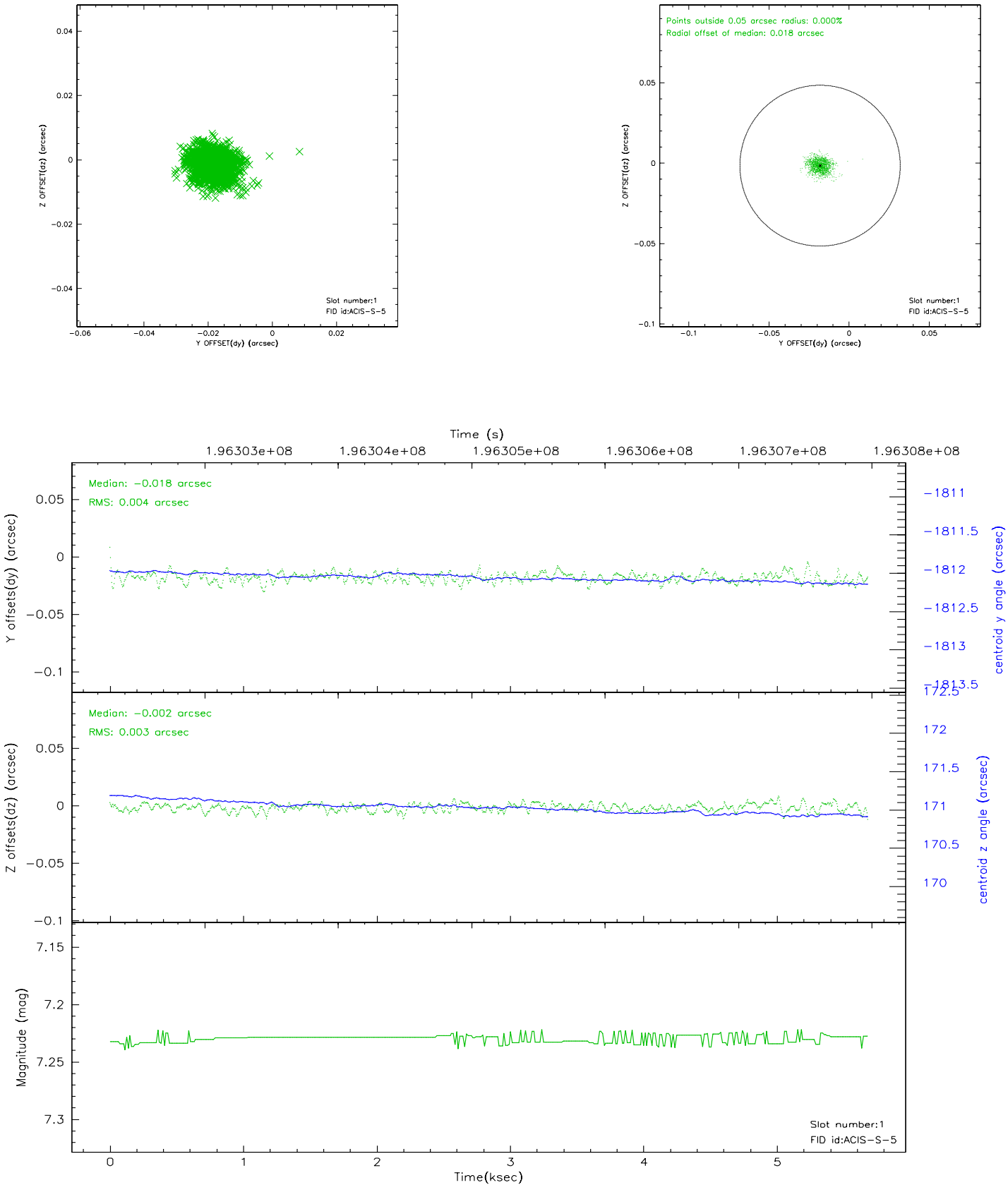


## 2.5 FID Slots

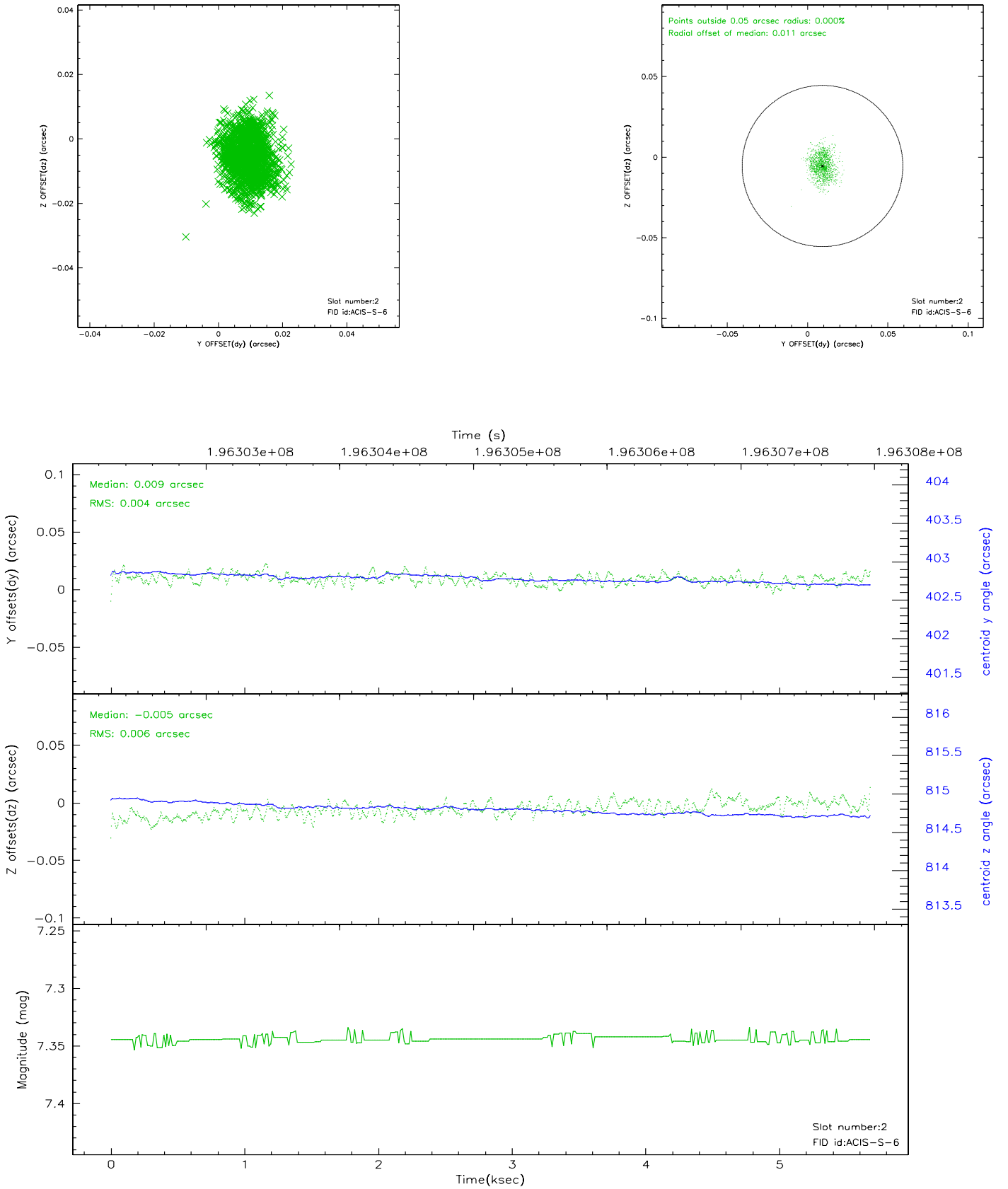
### 2.5.1 Slot 0



2.5.2 Slot 1

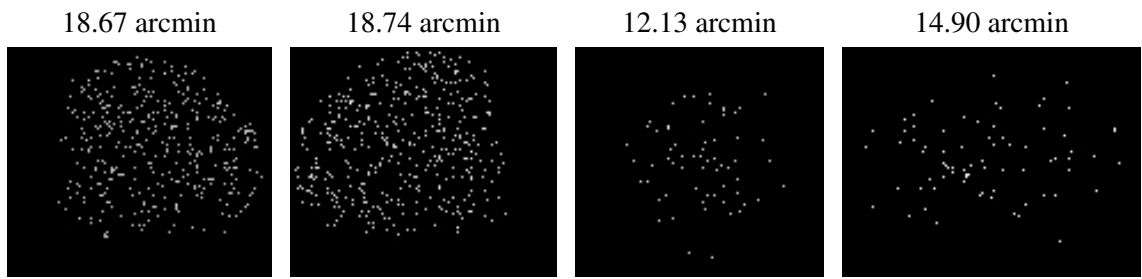


### 2.5.3 Slot 2





### 3 Point Sources



## A Summary

### A.1 Status

|                            |             |
|----------------------------|-------------|
| V&V Scientist              | Doug Morgan |
| V&V Date (YYYY-MM-DD)      | 2006.05.30  |
| V&V Edition                | 1           |
| V&V Disposition and Status | OK          |
| V&V Charge Time            | 4.963       |

### A.2 Comments