

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 4714 - L2 Version 001  
Chandra X-Ray Center

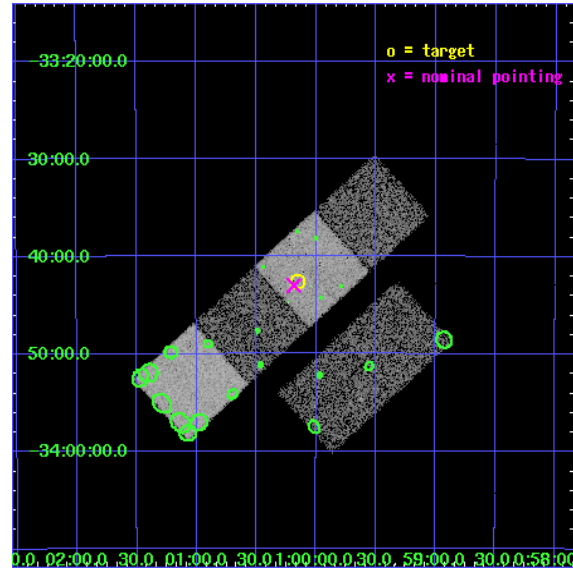
L2 Processing Date : Apr 10 2006

## 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>3</b> | <b>Point Sources</b>          | <b>17</b> |
| <b>A</b> | <b>Summary</b>                | <b>18</b> |
| A.1      | Status . . . . .              | 18        |
| A.2      | Comments . . . . .            | 18        |

# 1 Front

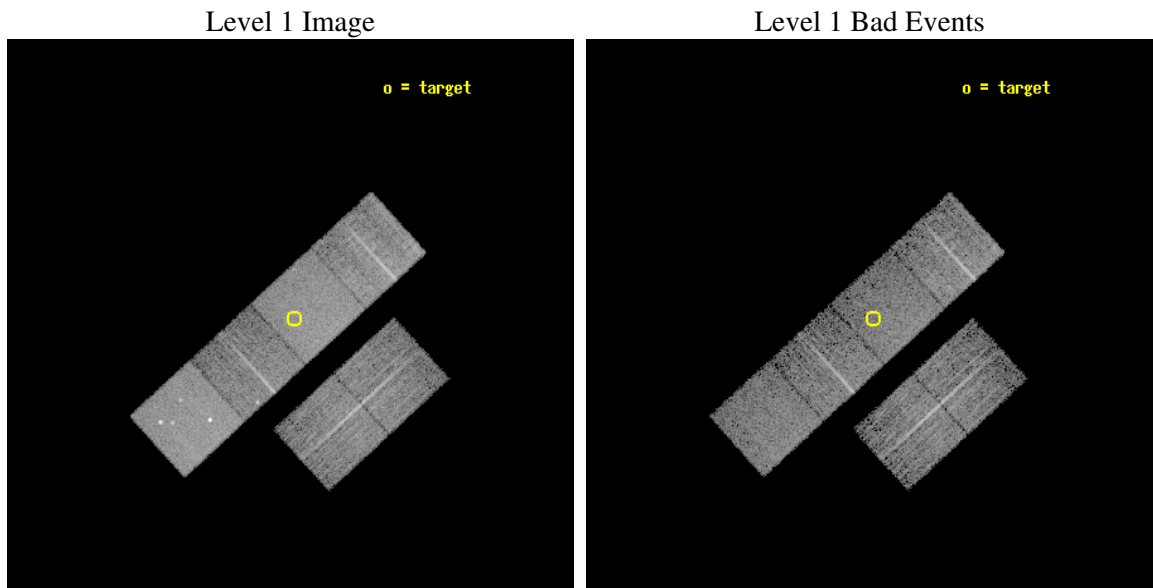
|          |  |
|----------|--|
| seq_num  | 600369   |
| obs_id   | 4714   |
| title    | Using the Sculptor Dwarf Spheroidal Galaxy to Constrain X-ray Binary Production in Population II |
| observer | Dr. Thomas Maccarone   |
| object   | SCULPTOR DWARF SPHEROIDAL  |
| dtcycle  | 0  |
| cycle    | P  |
| ra_targ  | 15.039167  |
| dec_targ | -33.708889   |
| ra_nom   | 15.046222247862  |
| dec_nom  | -33.716555950915   |
| roll_nom | 317.44431540406  |
| revision | 2  |
| ontime   | 6121.5999771953  |
| livetime | 6044.084592299   |
| ontime2  | 6118.3590069115  |
| ontime3  | 6121.5999771953  |
| ontime5  | 6121.5999771953  |
| ontime6  | 6118.3590069115  |
| ontime7  | 6121.5999771953  |
| ontime8  | 6121.5999771953  |
| l2events | 77825  |



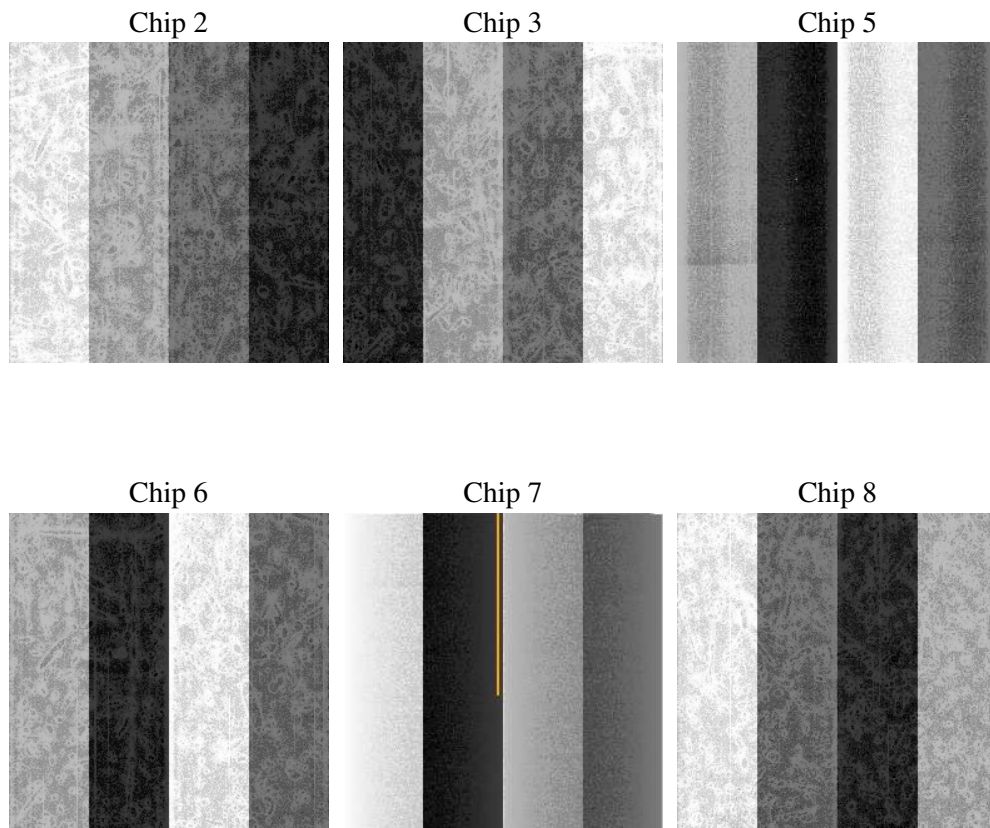
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |
|----------|---------------------|
| obi_num  | 1                   |
| ascdsver | 7.6.7.1             |
| caldsver | 3.2.1               |
| date     | 2006-04-10T10:40:09 |
| revision | 2                   |

|                |                 |
|----------------|-----------------|
| sched_exp_time | 6000.000000     |
| ontime         | 7587.189570725  |
| ontime2        | 7583.9486004412 |
| ontime3        | 7587.1895407736 |
| ontime5        | 7587.189570725  |
| ontime6        | 7583.9485704899 |
| ontime7        | 7587.189570725  |
| ontime8        | 7587.1895407736 |
| l1events       | 421292          |

### 2.1.4 Events

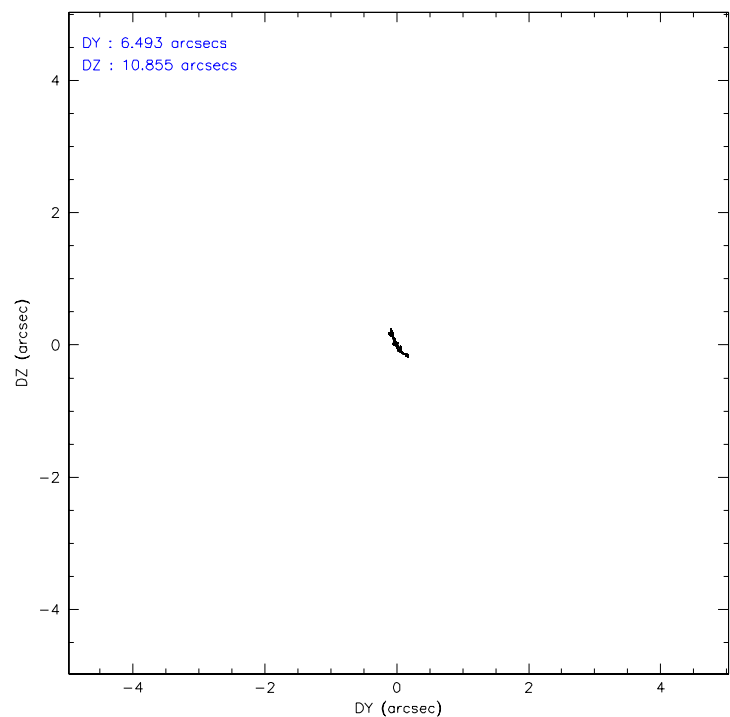
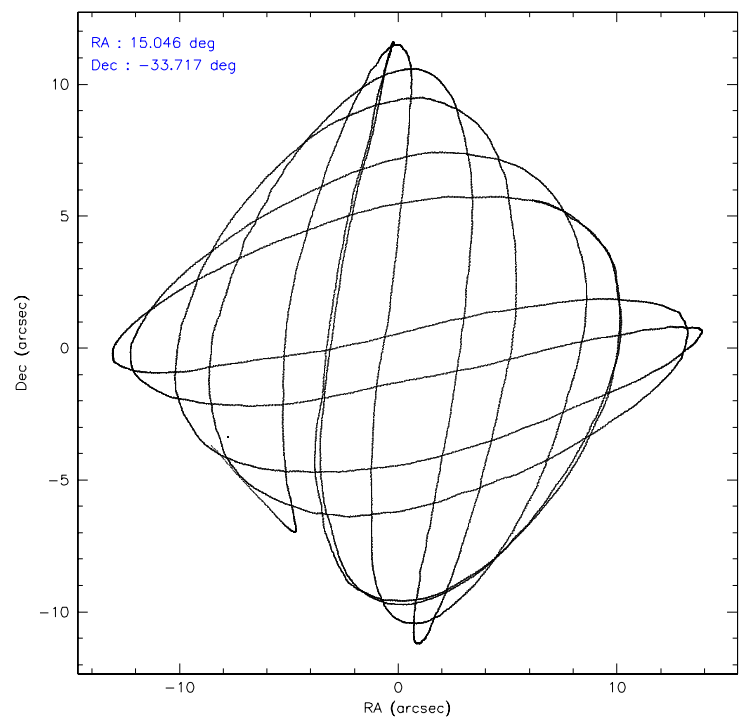
|                 | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events  | 59928 | 55780 | 91348 | 58459 | 80397 | 75380 |
| rejected events | 53948 | 50165 | 56947 | 52118 | 54529 | 62148 |
| rejected %      | 90%   | 89%   | 62%   | 89%   | 67%   | 82%   |

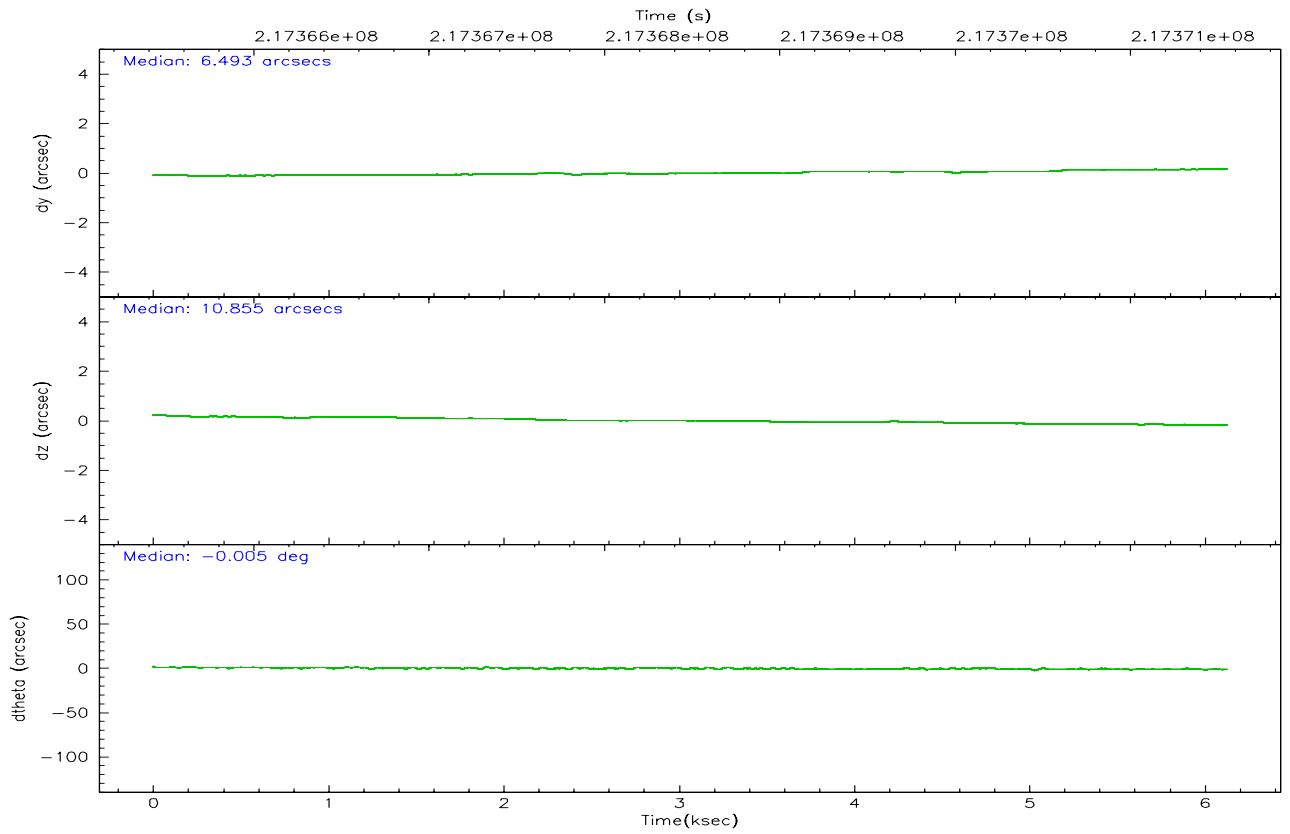
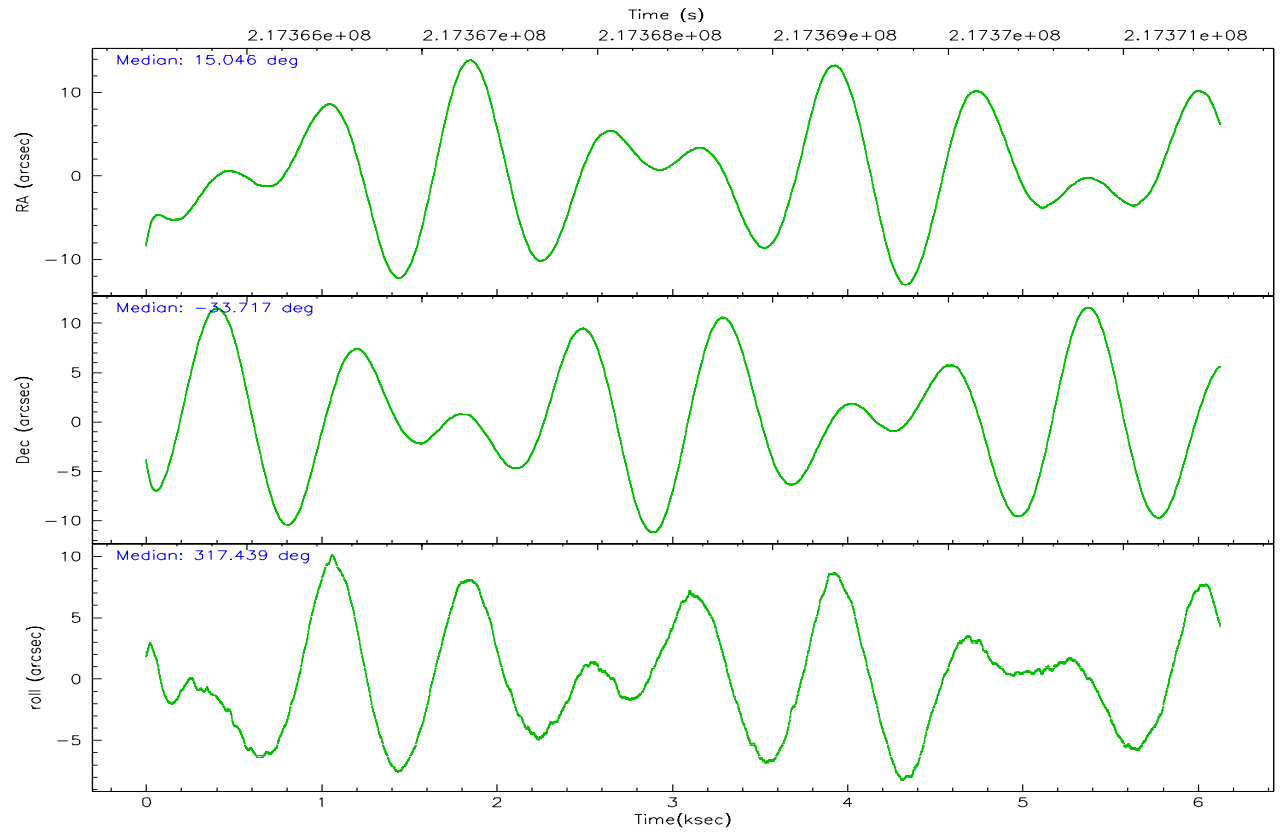
|                | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 3406  | 3055  | 5163  | 3333  | 1878  | 5293  |
|                | 5%    | 5%    | 5%    | 5%    | 2%    | 7%    |
| grade 1 events | 33    | 40    | 109   | 24    | 42    | 57    |
|                | 0%    | 0%    | 0%    | 0%    | 0%    | 0%    |
| grade 2 events | 1470  | 1373  | 12668 | 1553  | 7792  | 3449  |
|                | 2%    | 2%    | 13%   | 2%    | 9%    | 4%    |
| grade 3 events | 674   | 660   | 892   | 687   | 1638  | 1748  |
|                | 1%    | 1%    | 0%    | 1%    | 2%    | 2%    |
| grade 4 events | 663   | 611   | 902   | 700   | 1516  | 1611  |
|                | 1%    | 1%    | 0%    | 1%    | 1%    | 2%    |
| grade 5 events | 2401  | 2586  | 4320  | 2679  | 5223  | 3563  |
|                | 4%    | 4%    | 4%    | 4%    | 6%    | 4%    |
| grade 6 events | 1130  | 1246  | 22770 | 1419  | 18785 | 4086  |
|                | 1%    | 2%    | 24%   | 2%    | 23%   | 5%    |
| grade 7 events | 50151 | 46209 | 44524 | 48064 | 43523 | 55573 |
|                | 83%   | 82%   | 48%   | 82%   | 54%   | 73%   |

## 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                       | 15.014179           | 15.04622224786152    | Alternating exposures requested | N         | N       |
| Pointing Dec                      | -33.711014          | -33.71655595091509   | Primary exposure time           | 0.000000  | 3.2     |
| Pointing Roll                     | 317.269891          | 317.4443154040578    |                                 |           |         |
| 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            | 217365549.184000    | 217363775.68927      |                                 |           |         |
| Observation start date            | 2004-11-20T19:18:05 | 2004-11-20T18:49:35  |                                 |           |         |
| Observation end time              | 217371549.184000    | 217372159.16465      |                                 |           |         |
| Observation end date              | 2004-11-20T20:58:05 | 2004-11-20T21:09:19  |                                 |           |         |
| Read mode                         | TIMED               | TIMED                |                                 |           |         |

## 2.3 Aspect





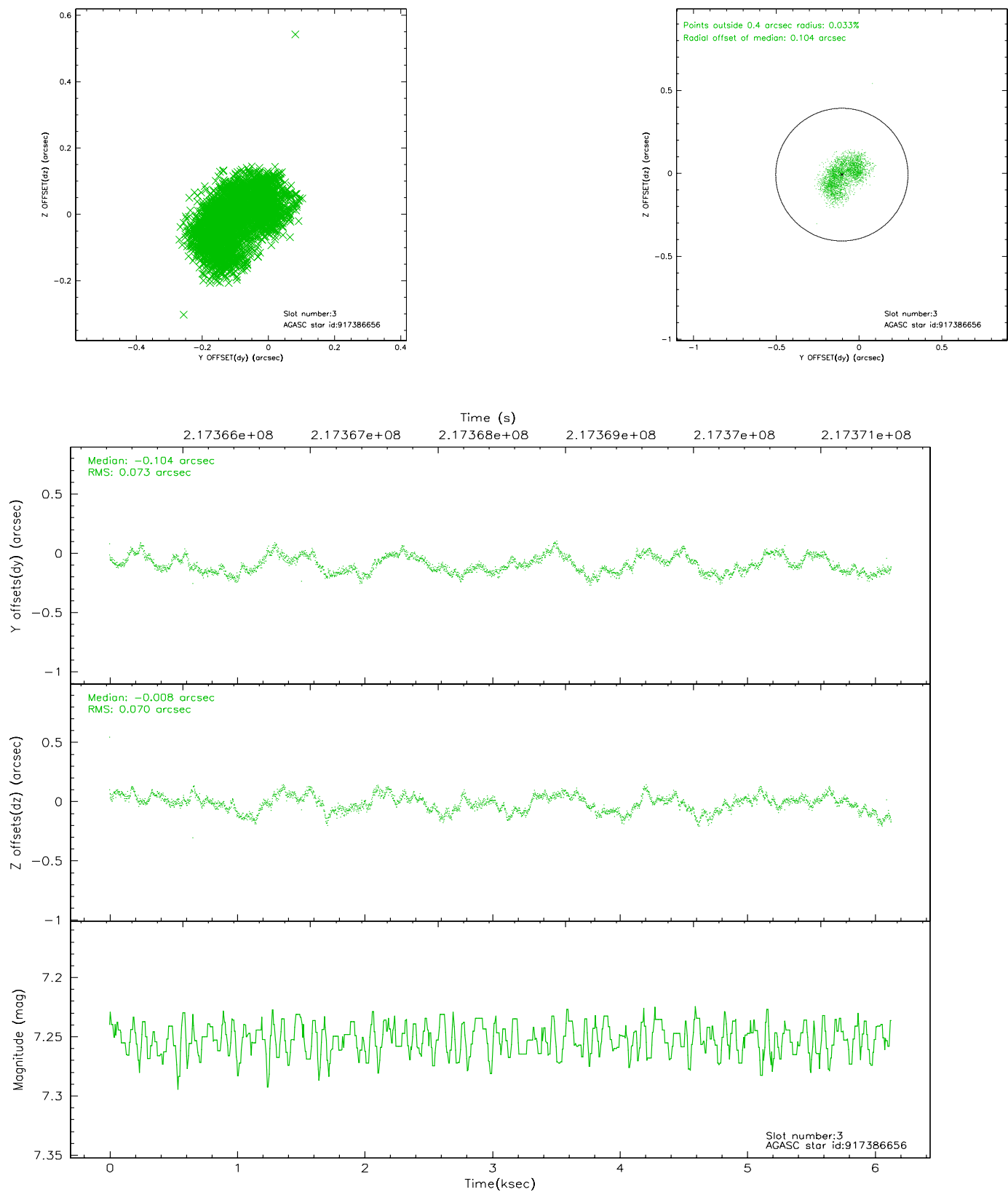
### Slot Statistics

| 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 | 1495  | 0.004  | -0.035 | 0.013 | 0.028 | 0.000000  | 0.000000   | 936.79   | -1727.81 |
| 1    | FID    | ACIS-S-5  | 7.23 | 1496  | -0.018 | 0.004  | 0.010 | 0.022 | 0.000000  | 0.000000   | -1811.68 | 168.82   |
| 2    | FID    | ACIS-S-6  | 7.35 | 1494  | -0.007 | 0.044  | 0.010 | 0.021 | 0.000000  | 0.000000   | 401.31   | 813.89   |
| 3    | GUIDE  | 917386656 | 7.25 | 2991  | -0.104 | -0.008 | 0.111 | 0.162 | 15.342124 | -33.359890 | -132.30  | 1596.59  |
| 4    | GUIDE  | 917389288 | 9.59 | 2991  | -0.035 | -0.089 | 0.161 | 0.243 | 15.394706 | -33.185862 | -439.22  | 2165.48  |
| 5    | GUIDE  | 917650528 | 8.71 | 2990  | -0.038 | -0.099 | 0.126 | 0.189 | 14.274554 | -33.869842 | -1230.35 | -1925.41 |
| 6    | GUIDE  | 917389592 | 9.98 | 2985  | 0.429  | 0.392  | 0.131 | 0.206 | 16.074673 | -33.644125 | 2182.44  | 2321.58  |
| 7    | GUIDE  | 917653720 | 9.52 | 2989  | -0.271 | -0.207 | 0.280 | 0.395 | 13.921033 | -33.753180 | -2287.49 | -2344.15 |

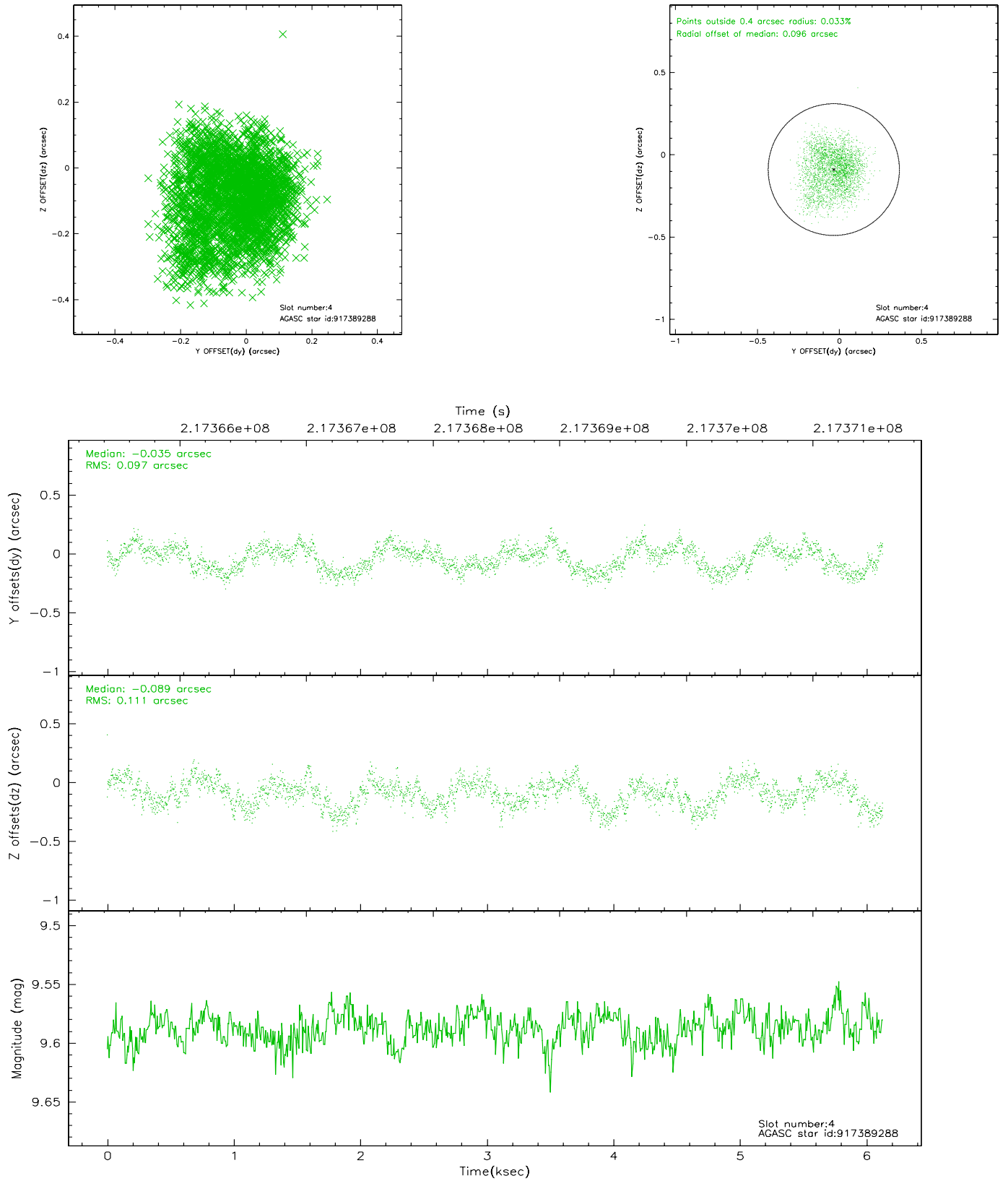


## 2.4 Star Slots

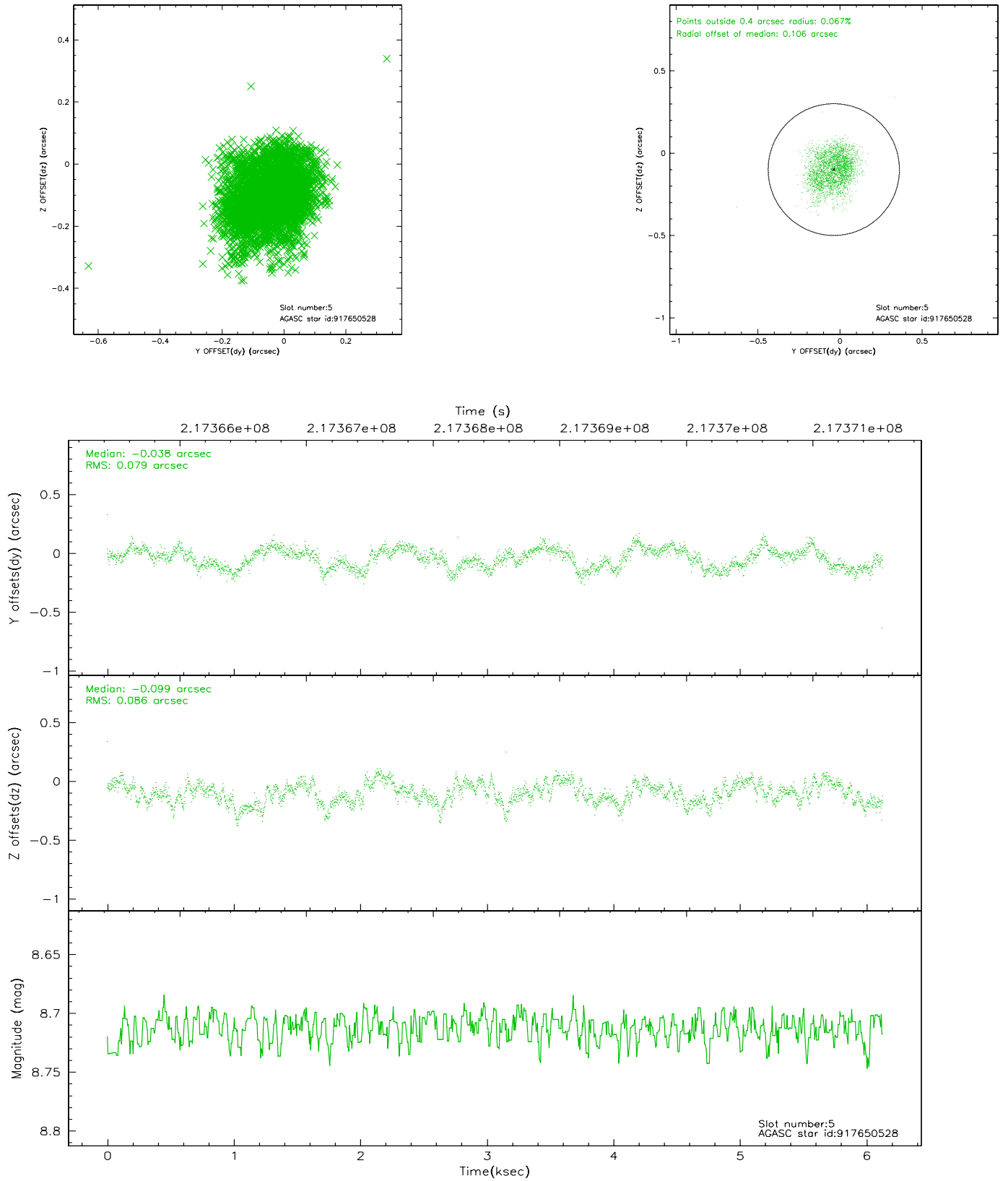
### 2.4.1 Slot 3



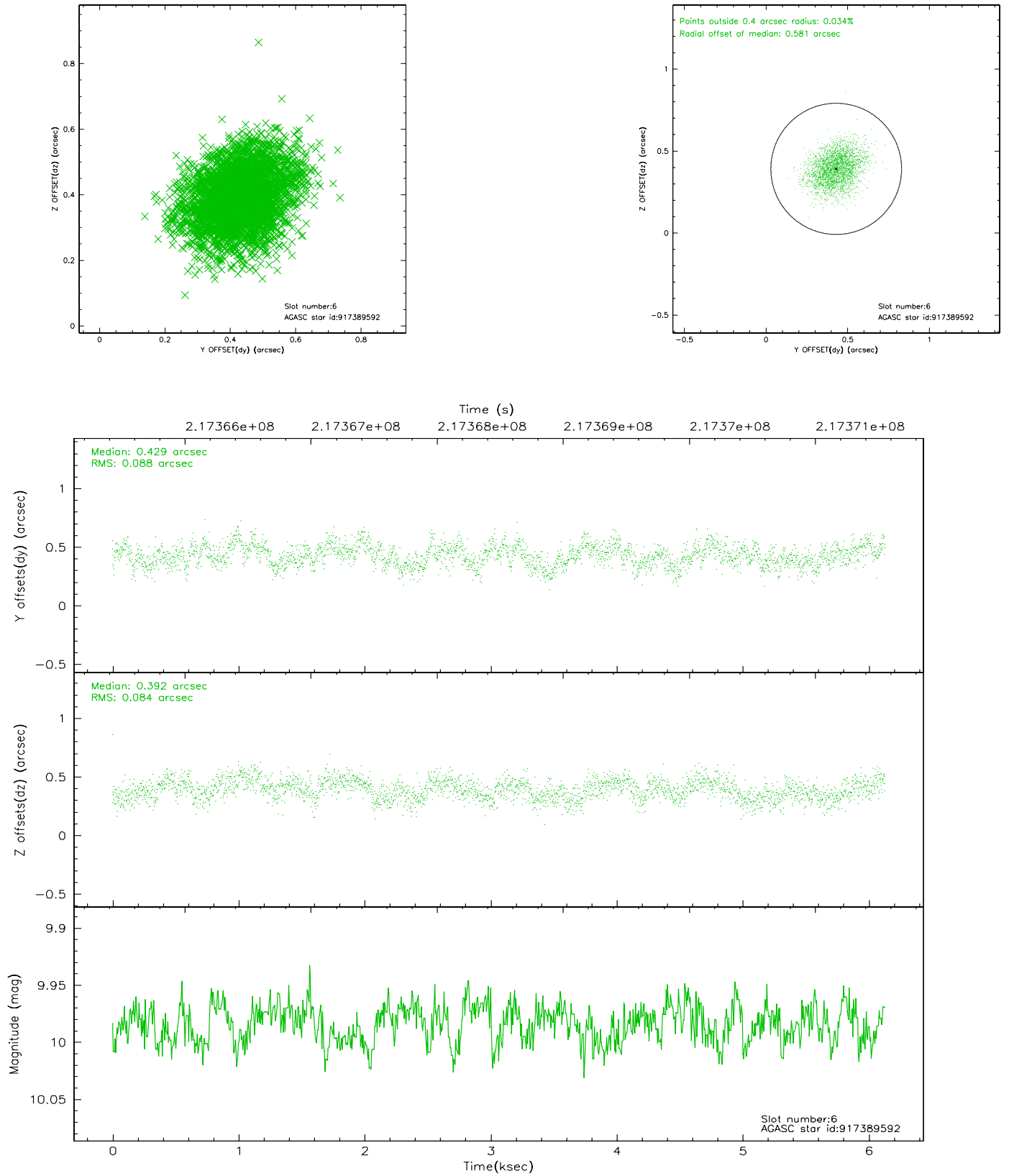
## 2.4.2 Slot 4



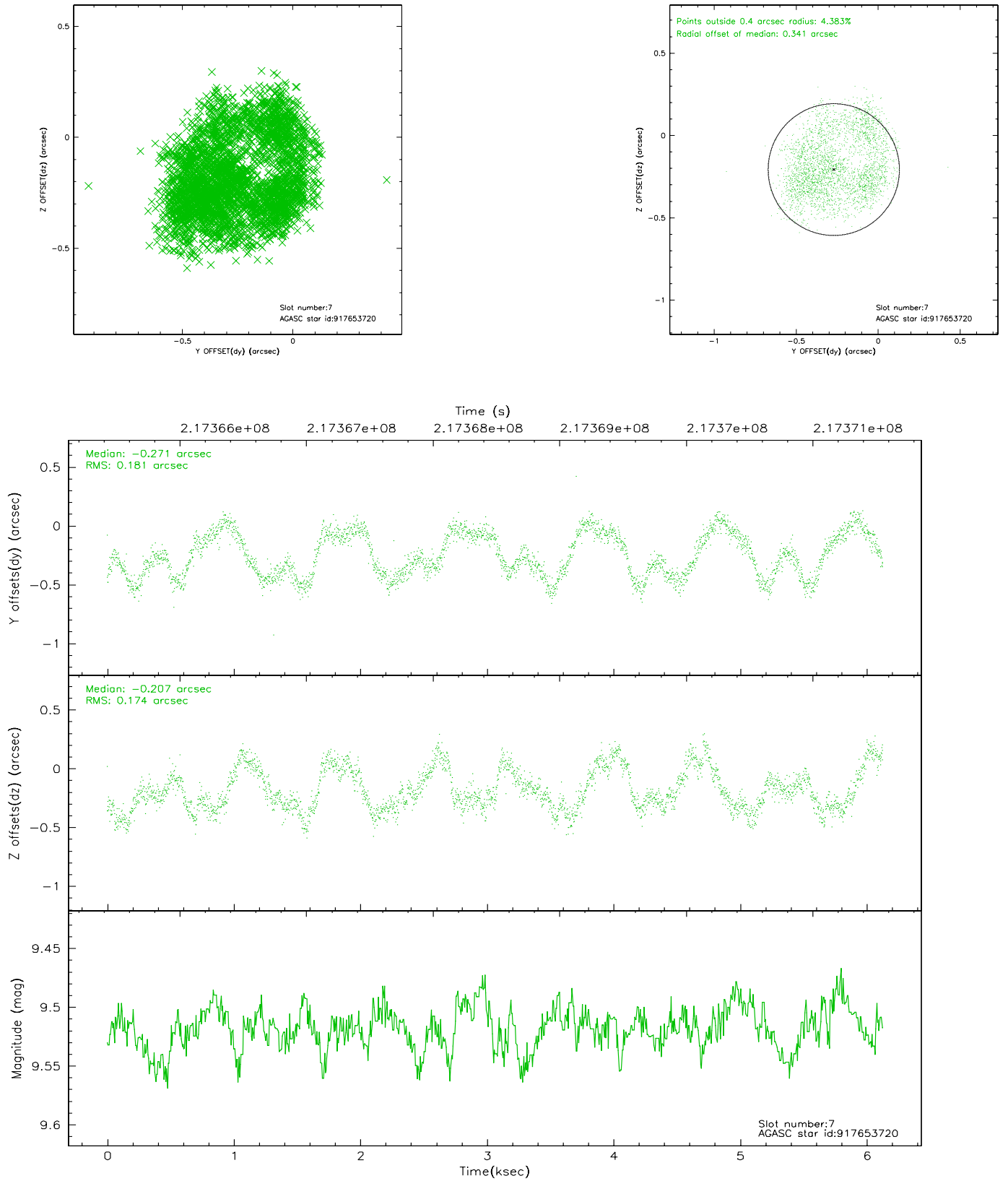
### 2.4.3 Slot 5



## 2.4.4 Slot 6

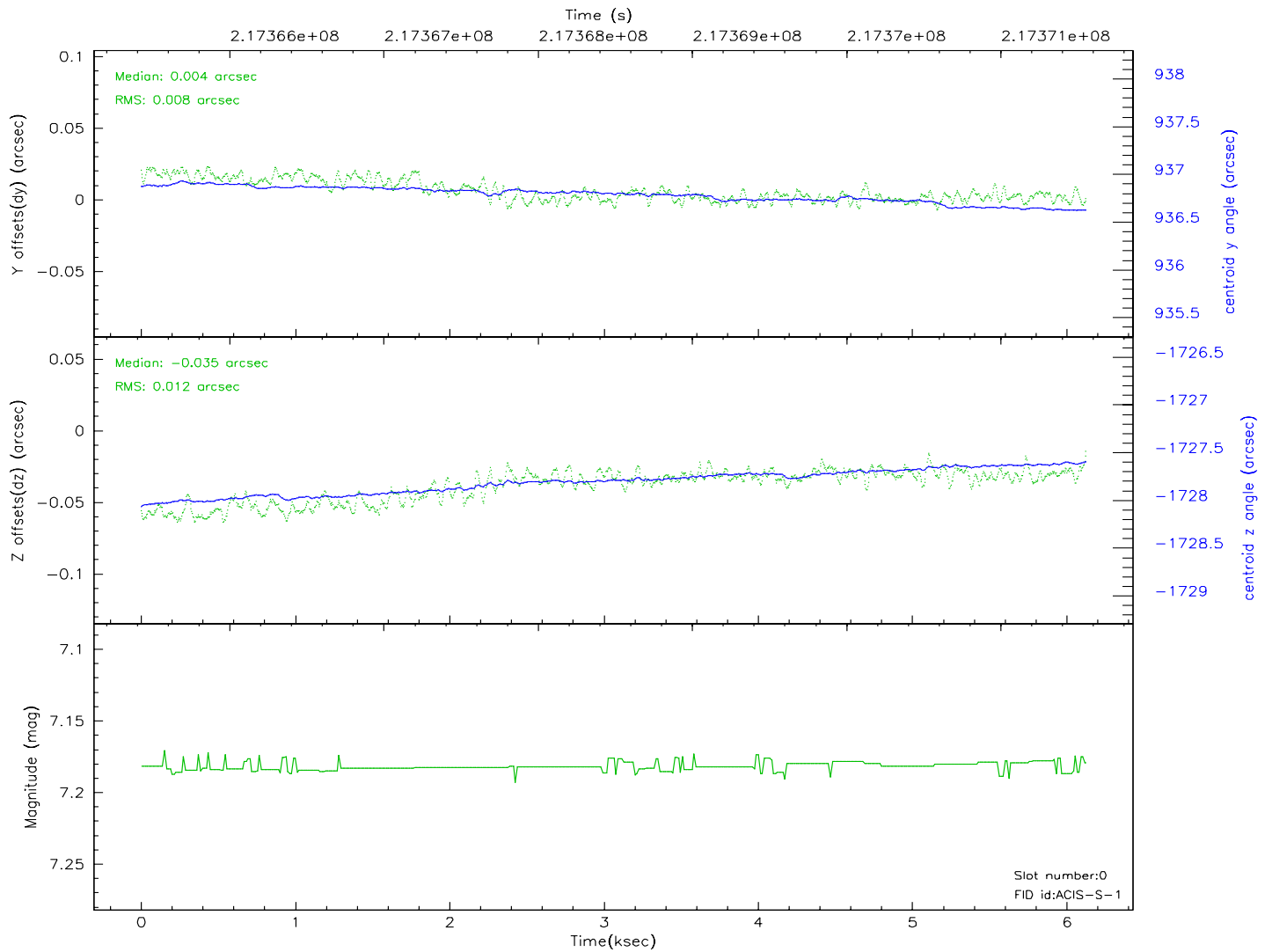
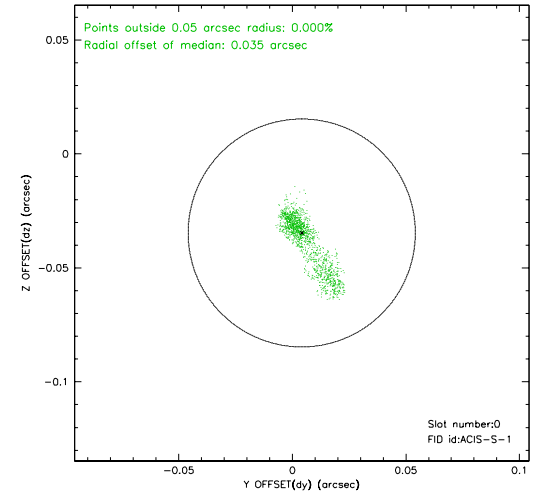
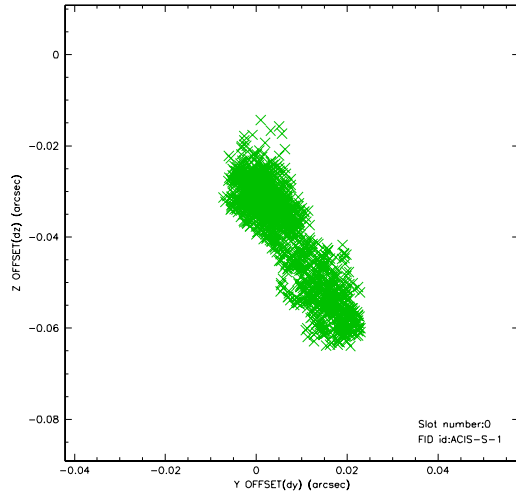


## 2.4.5 Slot 7

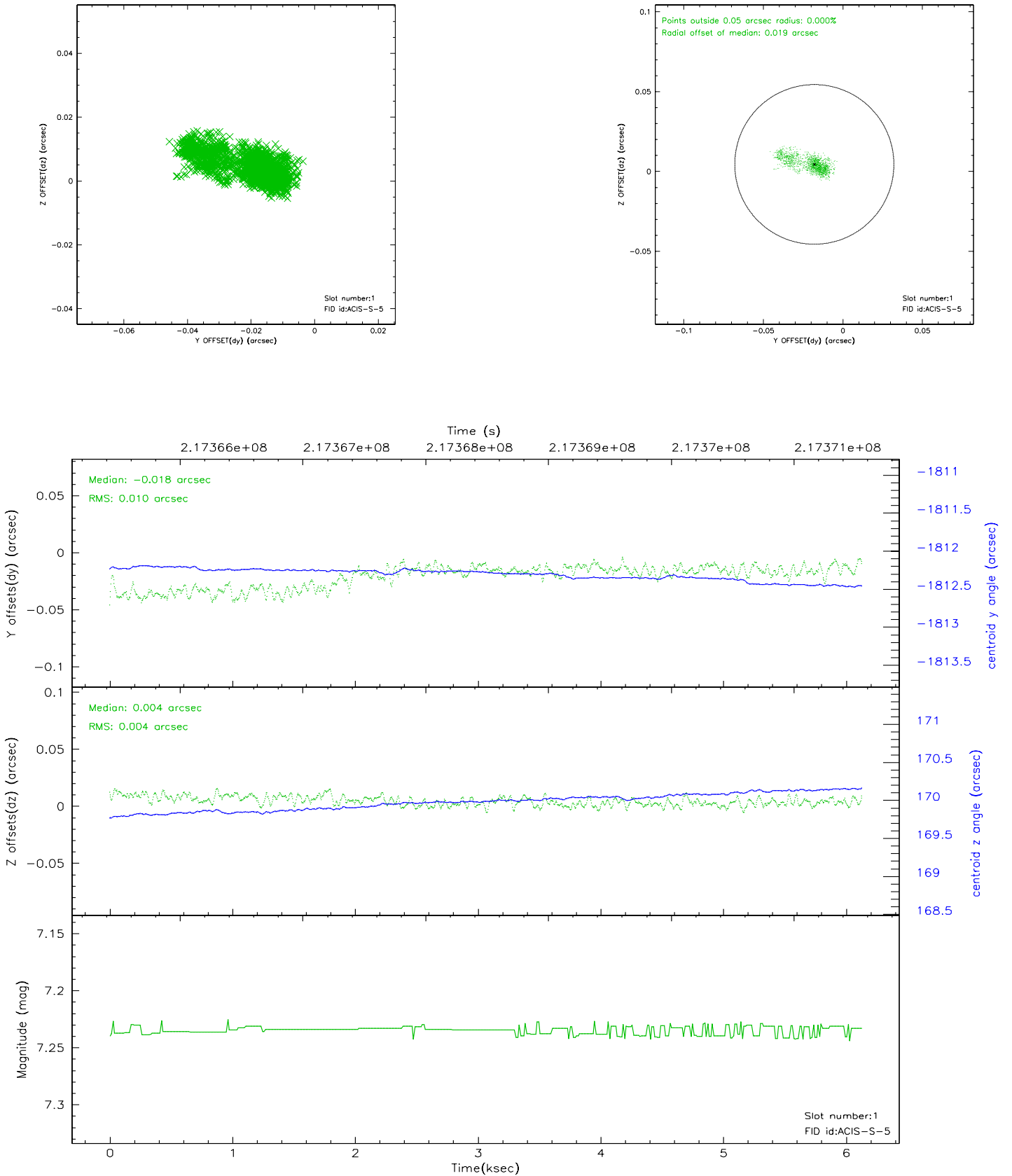


## 2.5 FID Slots

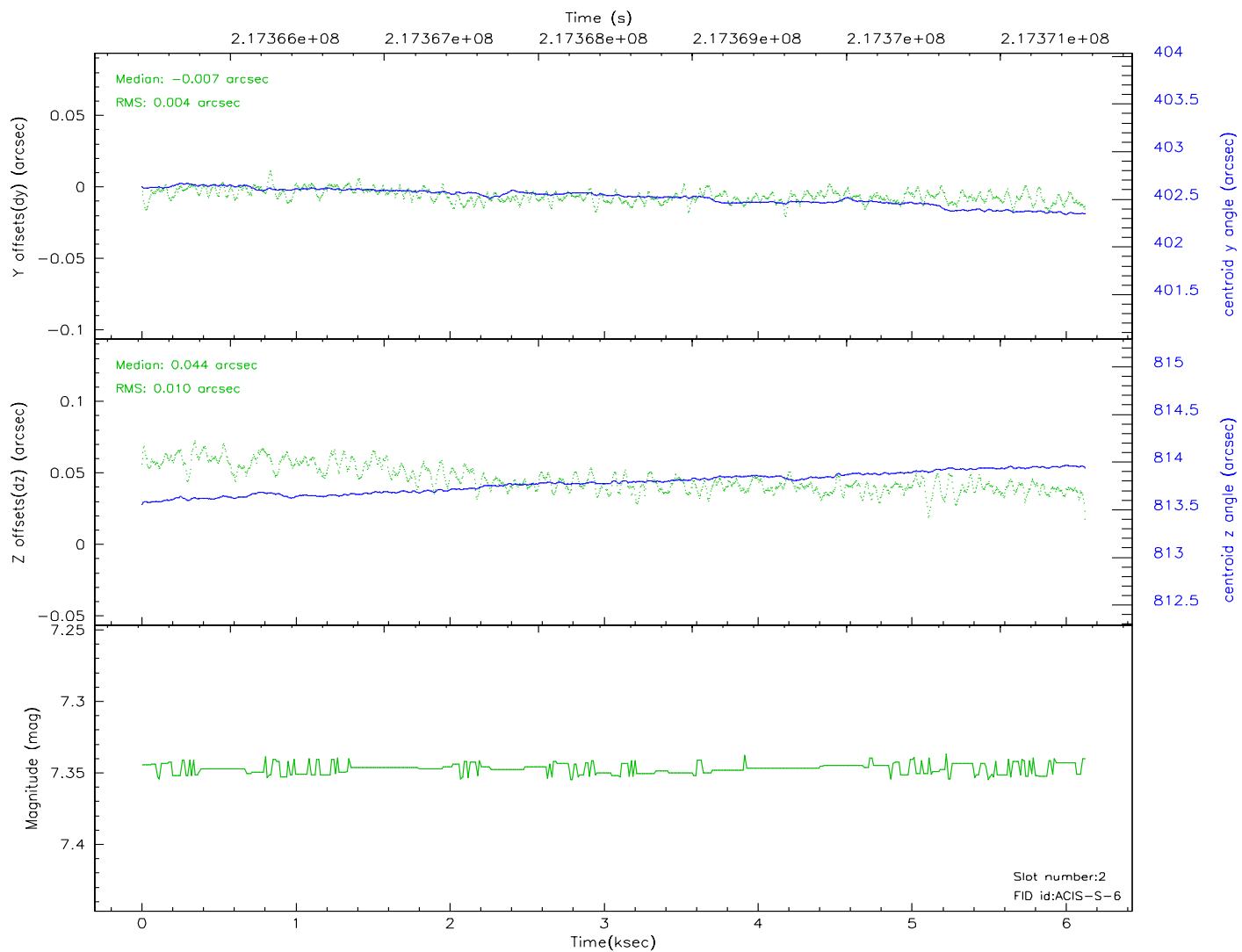
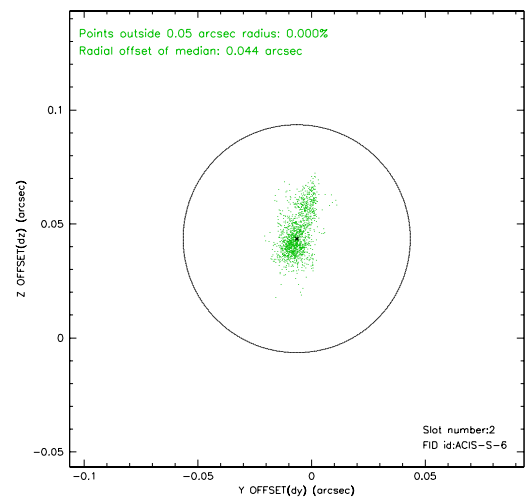
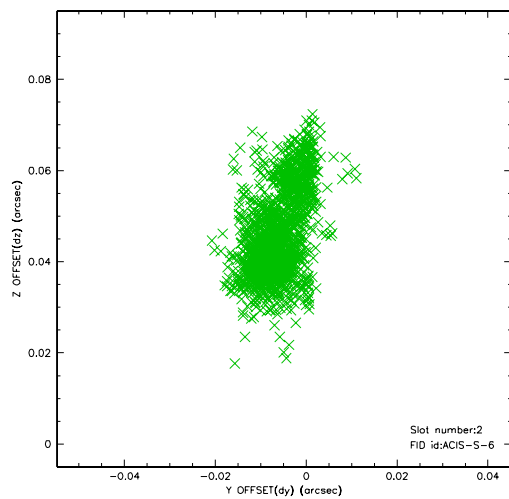
### 2.5.1 Slot 0



## 2.5.2 Slot 1

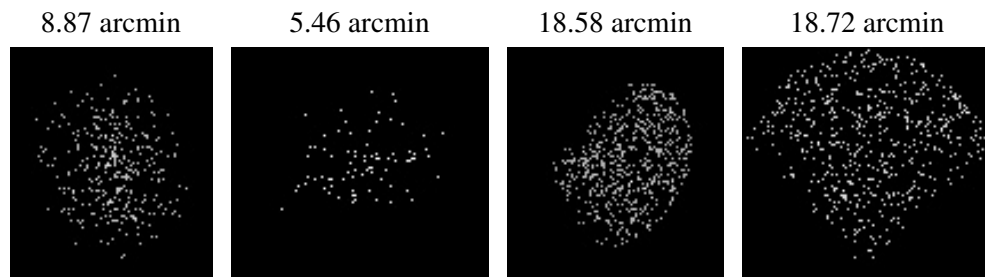


### 2.5.3 Slot 2





### 3 Point Sources



## A Summary

### A.1 Status

|                            |            |
|----------------------------|------------|
| V&V Scientist              | Jen Lauer  |
| V&V Date (YYYY-MM-DD)      | 2006.04.10 |
| V&V Edition                | 1          |
| V&V Disposition and Status | OK         |
| V&V Charge Time            | 6.121      |

### A.2 Comments

Monitor constraint met.