

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 4359 - L2 Version 001  
Chandra X-Ray Center

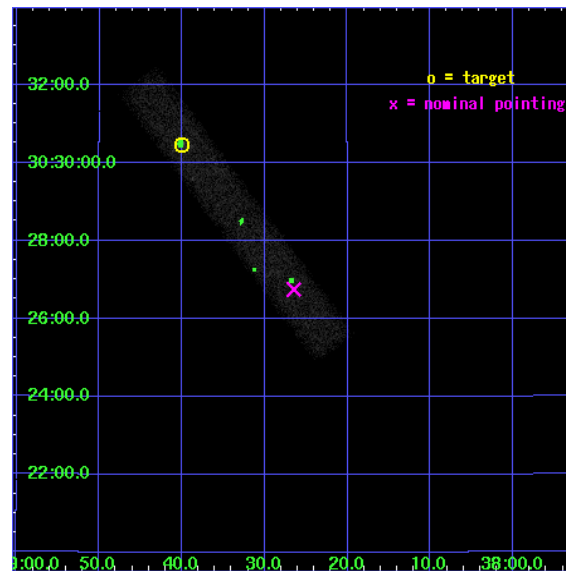
L2 Processing Date : Oct 2 2006

## 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        |
| 2.5      | FID Slots . . . . .           | 13        |
| 2.5.1    | Slot 0 . . . . .              | 13        |
| 2.5.2    | Slot 1 . . . . .              | 14        |
| 2.5.3    | Slot 2 . . . . .              | 15        |
| <b>3</b> | <b>Point Sources</b>          | <b>16</b> |
| <b>A</b> | <b>Summary</b>                | <b>17</b> |
| A.1      | Status . . . . .              | 17        |
| A.2      | Comments . . . . .            | 17        |

# 1 Front

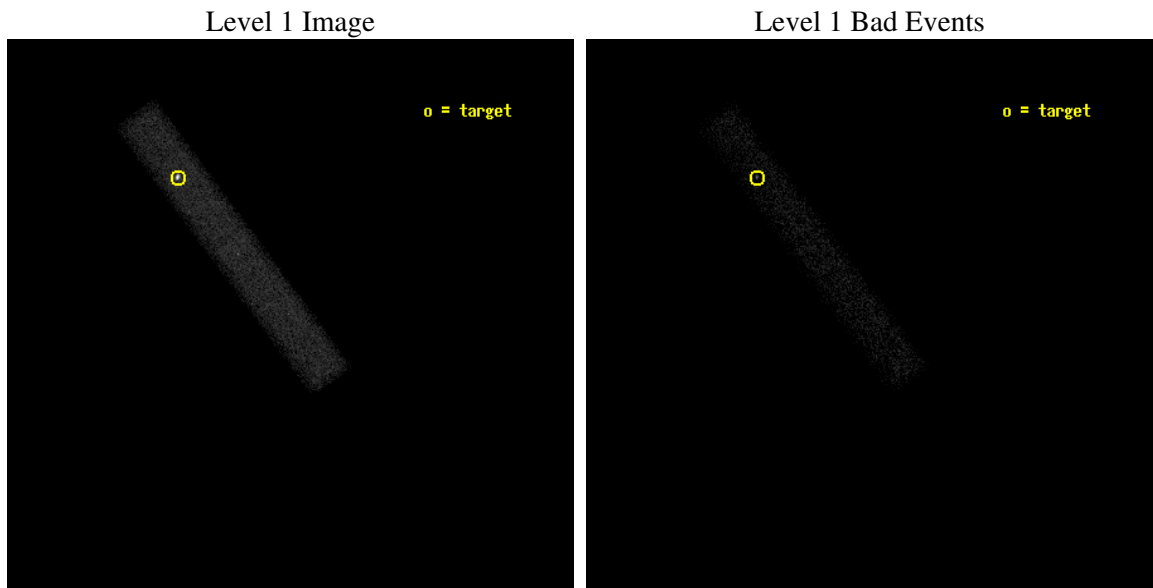
|          |   |
|----------|---|
| seq_num  | 300068  |
| obs_id   | 4359  |
| title    | FLARES, MAGNETIC RECONNECTIONS AND ACCRETION DISK VISCOSITY |
| observer | DR. WILLIAM WELSH   |
| object   | EM CYG  |
| dtcycle  | 0   |
| cycle    | P   |
| ra_targ  | 294.667083  |
| dec_targ | 30.507778   |
| ra_nom   | 294.61037403465   |
| dec_nom  | 30.445636418938   |
| roll_nom | 233.20744567877   |
| revision | 2   |
| ontime   | 25025.159332901   |
| livetime | 22696.498578724   |
| ontime7  | 25025.159332901   |
| l2events | 22775   |



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

|          |                     |
|----------|---------------------|
| obi_num  | 1                   |
| ascdsver | 7.6.9               |
| caldbver | 3.2.3               |
| date     | 2006-10-02T18:50:37 |
| revision | 2                   |

|                |                 |
|----------------|-----------------|
| sched_exp_time | 25000.000000    |
| ontime         | 26058.097335041 |
| ontime7        | 26058.097335041 |
| l1events       | 39519           |

### 2.1.4 Events

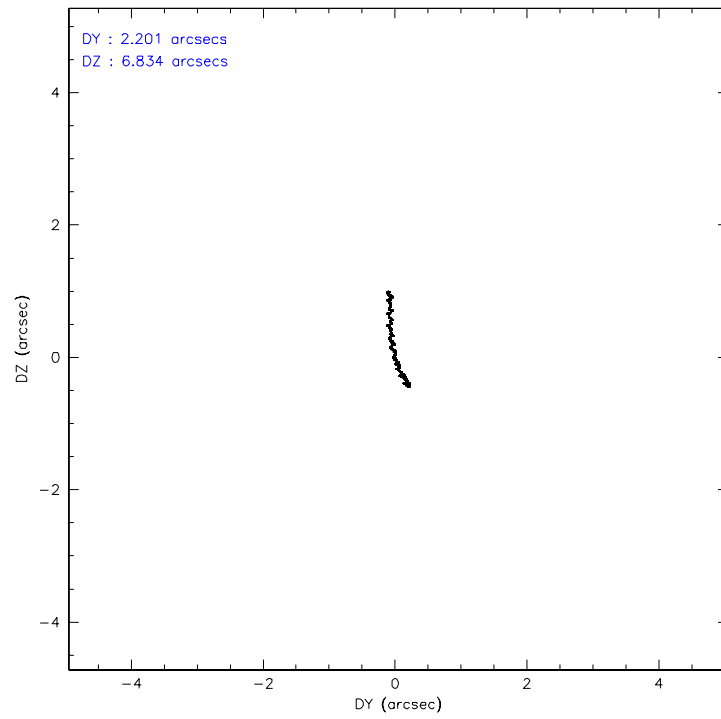
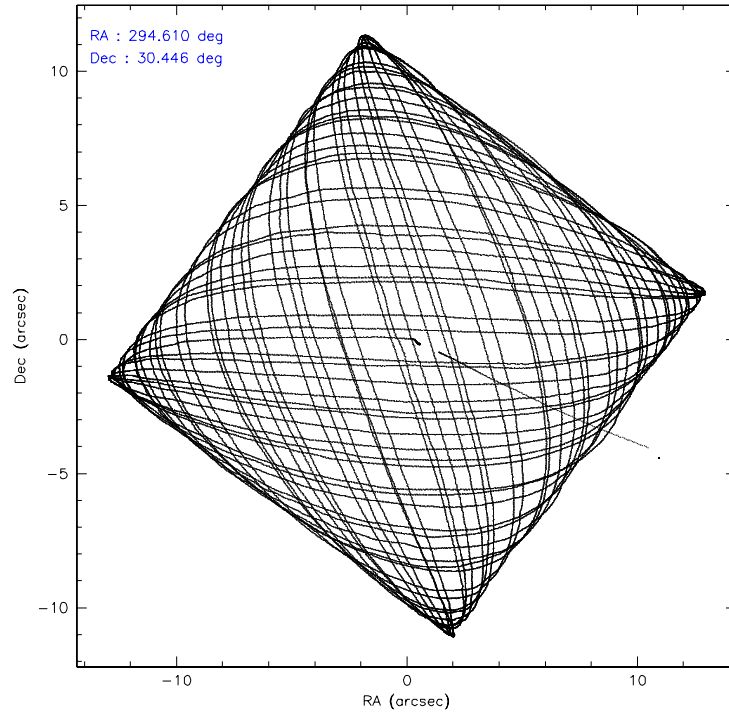
|                 |              |
|-----------------|--------------|
|                 | <b>ccd 7</b> |
| level 1 events  | 39519        |
| rejected events | 16168        |
| rejected %      | 40%          |

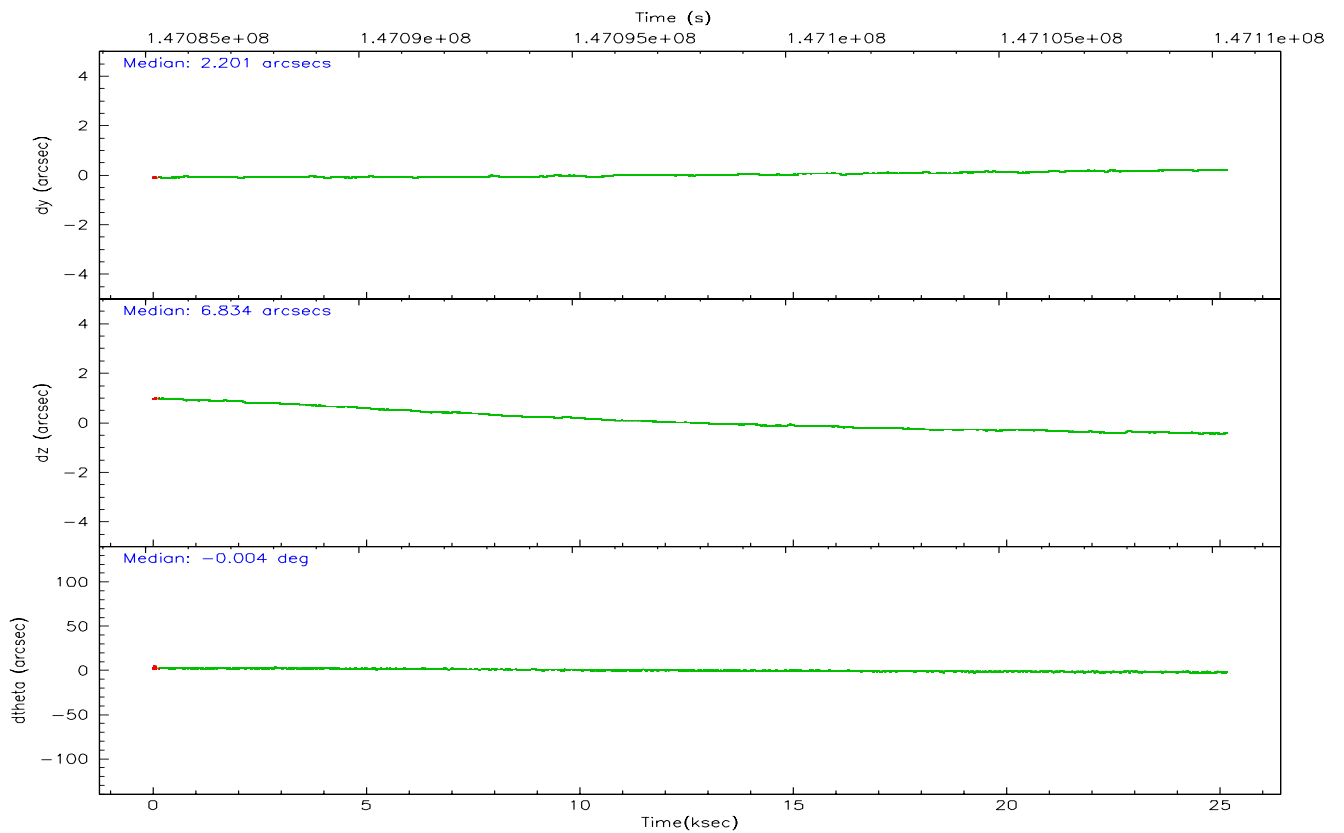
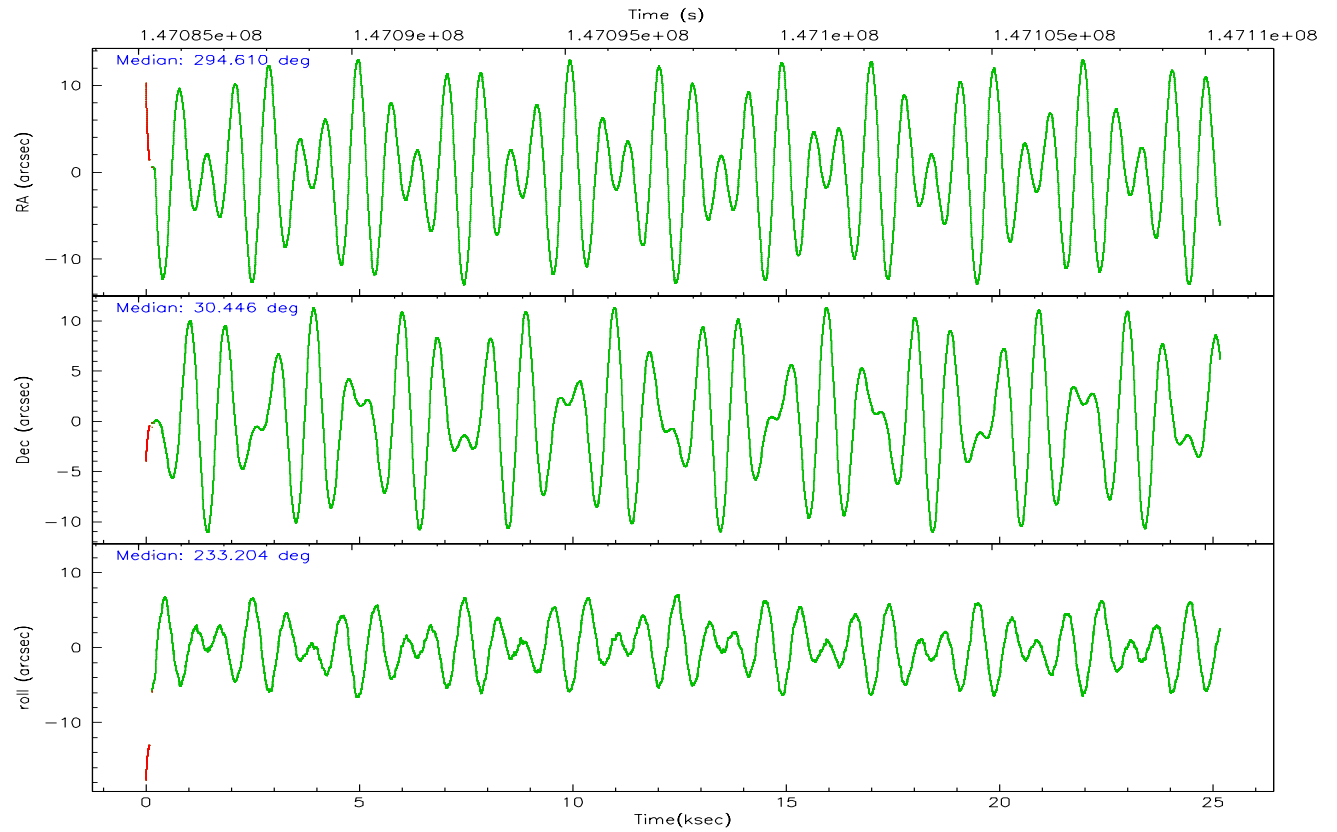
|                |              |
|----------------|--------------|
|                | <b>ccd 7</b> |
| grade 0 events | 3383         |
|                | 8%           |
| grade 1 events | 24           |
|                | 0%           |
| grade 2 events | 5454         |
|                | 13%          |
| grade 3 events | 2311         |
|                | 5%           |
| grade 4 events | 2188         |
|                | 5%           |
| grade 5 events | 1979         |
|                | 5%           |
| grade 6 events | 10561        |
|                | 26%          |
| grade 7 events | 13619        |
|                | 34%          |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number          | 6         | 6       |
| 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       |
| Pointing RA                       | 294.613704          | 294.6103740346505    | Subarray requested                    | 1/8       | 1/8     |
| Pointing Dec                      | 30.472722           | 30.44563641893811    | Subarray start row                    | 0         | 449     |
| Pointing Roll                     | 233.049132          | 233.207445678768     | Subarray row count                    | 1024      | 128     |
| Window start time                 | 147085351.184000    | 147085351.184000     | Alternating exposures requested       | N         | N       |
| Window stop time                  | 147114443.184000    | 147114443.184000     | Primary exposure time                 | 0.000000  | 0.4     |
| 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            | 147085356.184000    | 147084295.57352      |                                       |           |         |
| Observation start date            | 2002-08-30T09:01:32 | 2002-08-30T08:44:55  |                                       |           |         |
| Observation end time              | 147110356.184000    | 147111048.58713      |                                       |           |         |
| Observation end date              | 2002-08-30T15:58:12 | 2002-08-30T16:10:48  |                                       |           |         |
| Read mode                         | TIMED               | TIMED                |                                       |           |         |

## 2.3 Aspect





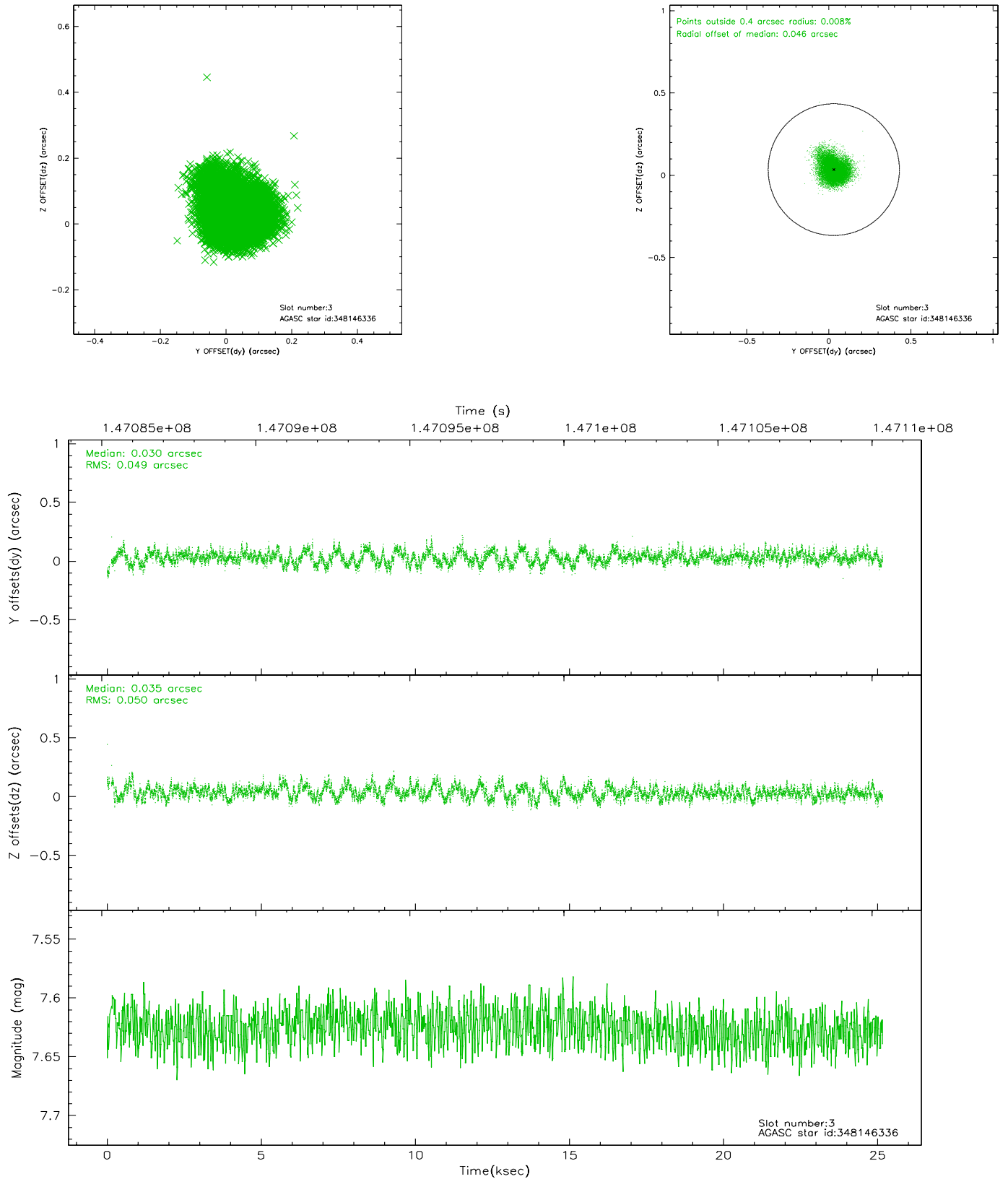
### Slot Statistics

| slot | status  | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z   |
|------|---------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0    | FID     | ACIS-S-2  | 7.11 | 6123  | -0.019 | 0.028  | 0.014 | 0.021 | 0.000000   | 0.000000  | -754.86  | -1728.09 |
| 1    | FID     | ACIS-S-4  | 7.20 | 6123  | -0.064 | 0.002  | 0.011 | 0.018 | 0.000000   | 0.000000  | 2158.31  | 180.26   |
| 2    | FID     | ACIS-S-5  | 7.24 | 6123  | 0.054  | -0.021 | 0.017 | 0.025 | 0.000000   | 0.000000  | -1807.49 | 174.03   |
| 3    | GUIDE   | 348146336 | 7.63 | 12244 | 0.030  | 0.035  | 0.075 | 0.120 | 294.874036 | 30.408269 | -300.85  | 785.79   |
| 4    | GUIDE   | 348022912 | 8.02 | 12245 | -0.102 | -0.074 | 0.062 | 0.095 | 294.661394 | 31.219227 | -2235.64 | -1497.47 |
| 5    | GUIDE   | 348024776 | 8.16 | 12244 | 0.000  | 0.045  | 0.057 | 0.093 | 293.903873 | 30.390500 | 1556.38  | -1586.86 |
| 6    | GUIDE   | 348009424 | 8.85 | 12242 | 0.071  | -0.006 | 0.085 | 0.131 | 294.512266 | 30.147769 | 1125.12  | 451.63   |
| 7    | MONITOR |           | 0.00 | 0     | 0.000  | 0.000  | 0.000 | 0.000 | 0.000000   | 0.000000  | 0.00     | 0.00     |

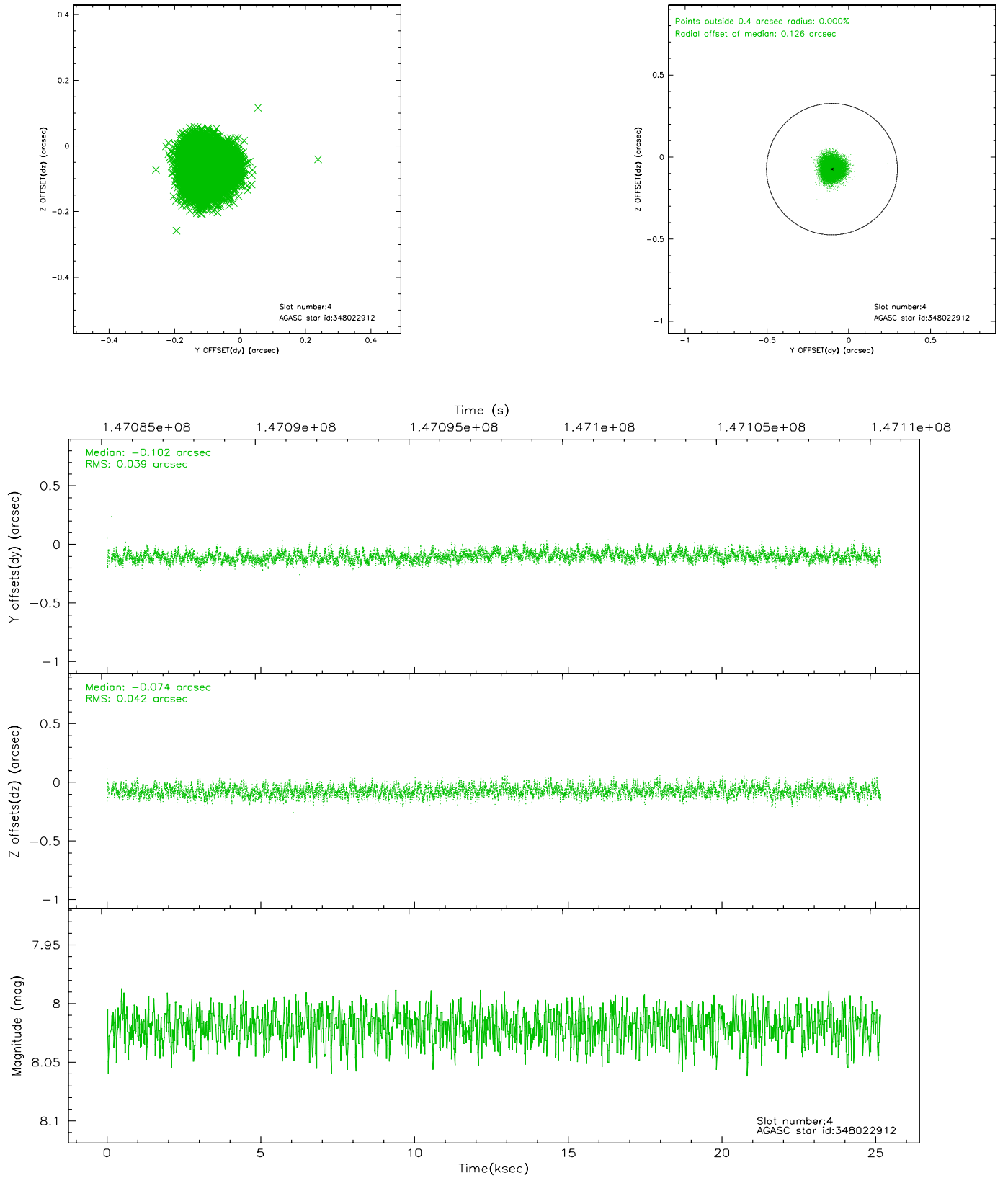


## 2.4 Star Slots

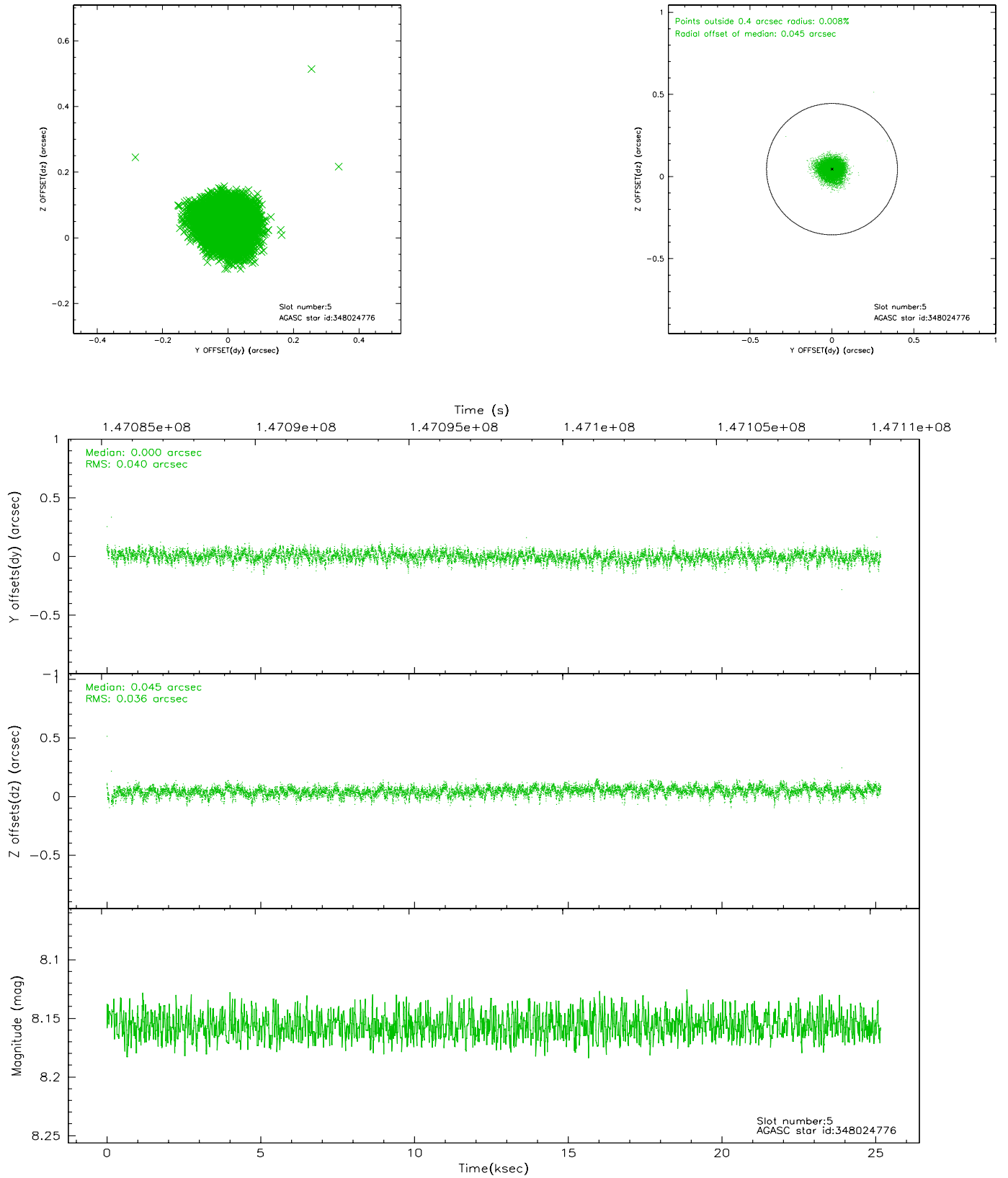
### 2.4.1 Slot 3



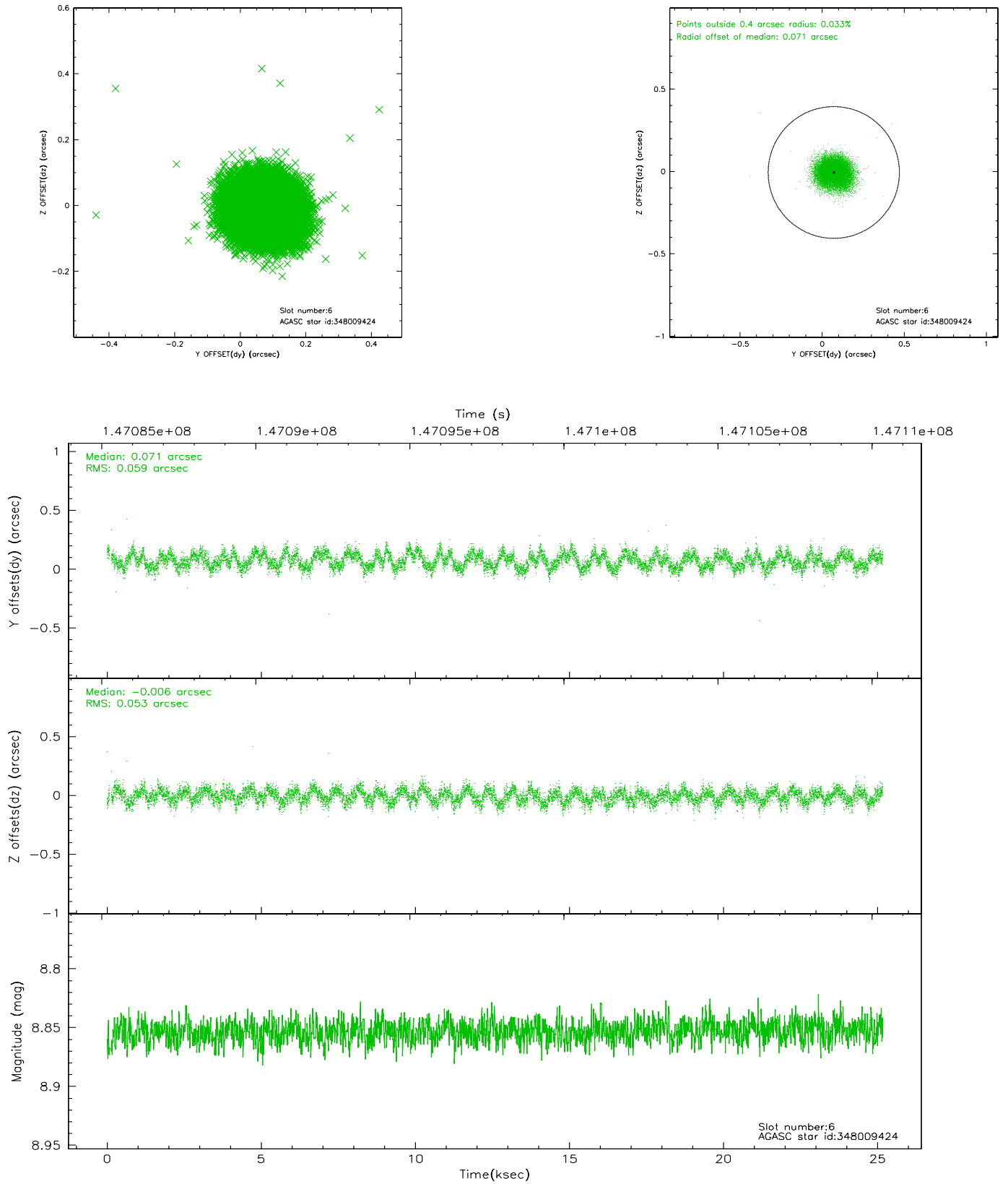
## 2.4.2 Slot 4



### 2.4.3 Slot 5

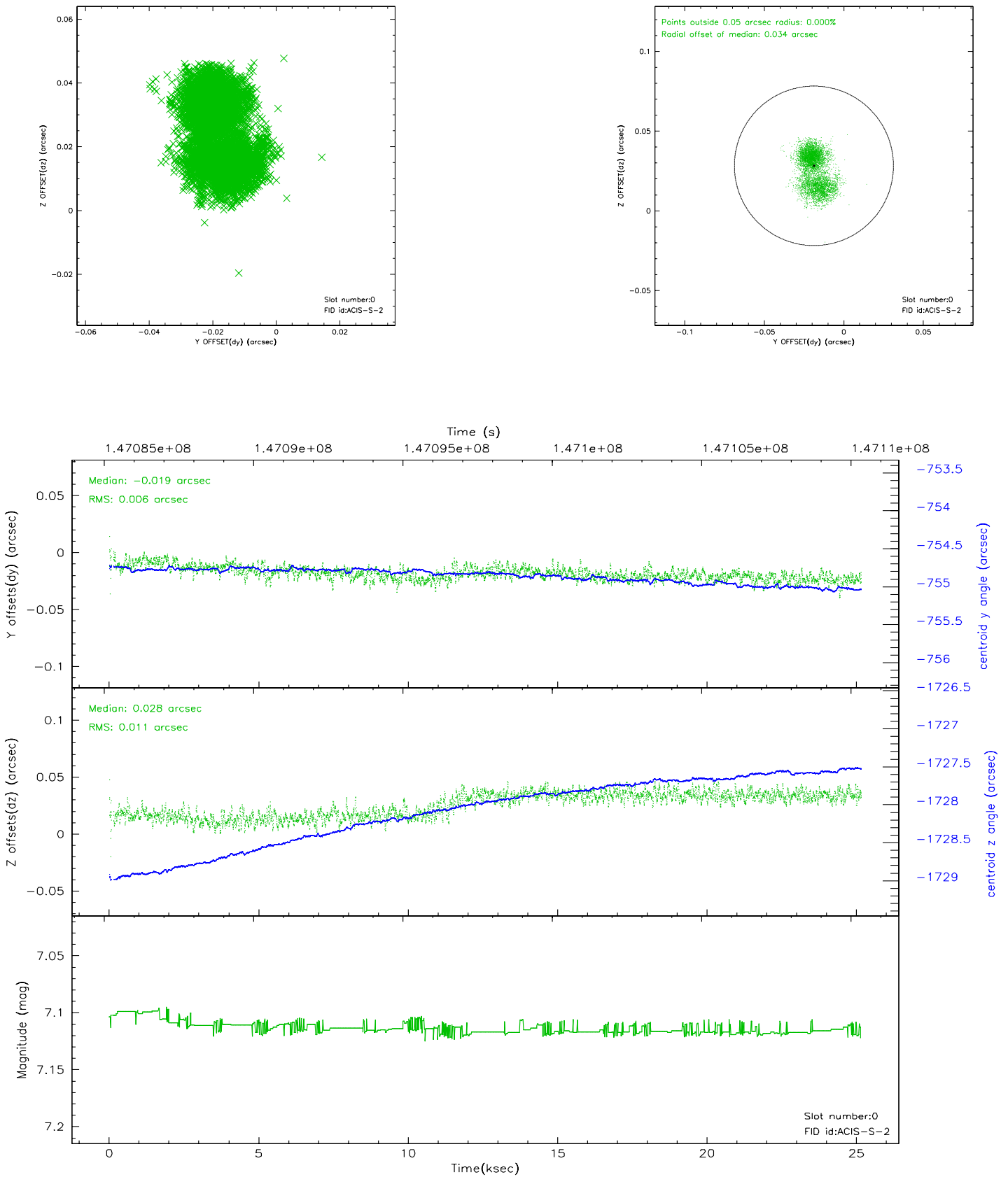


## 2.4.4 Slot 6

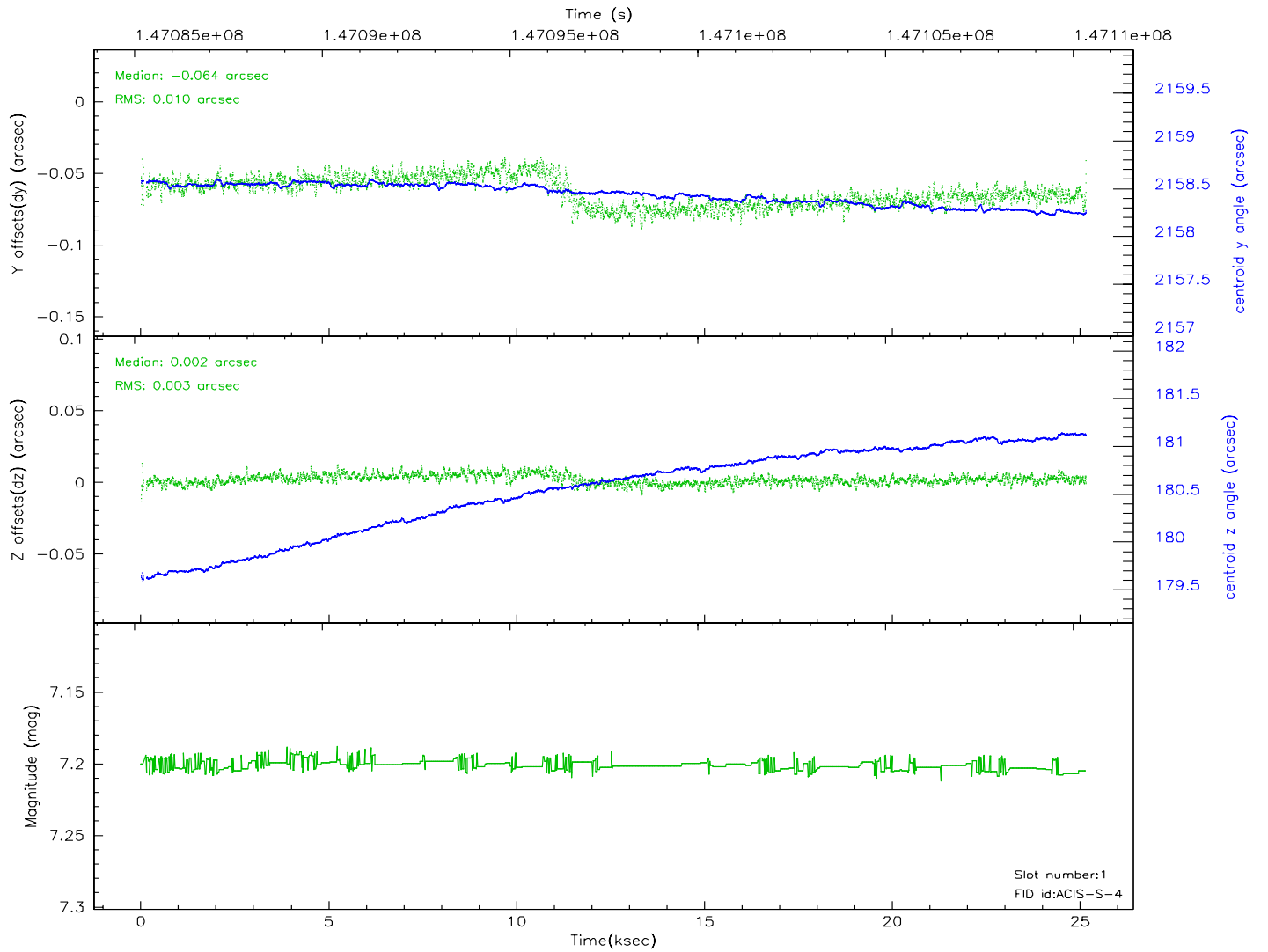
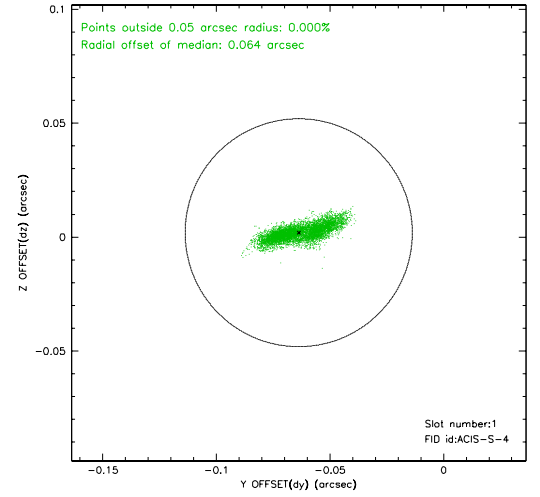
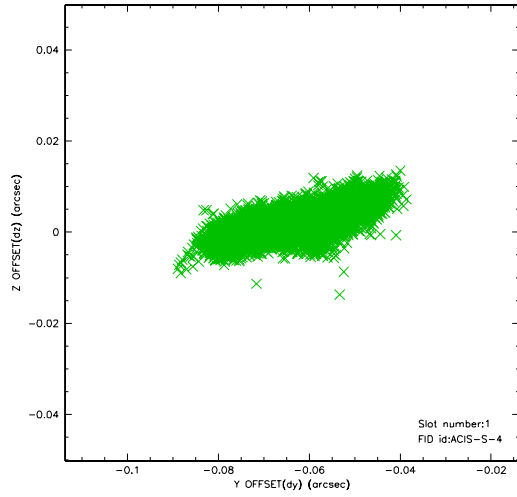


## 2.5 FID Slots

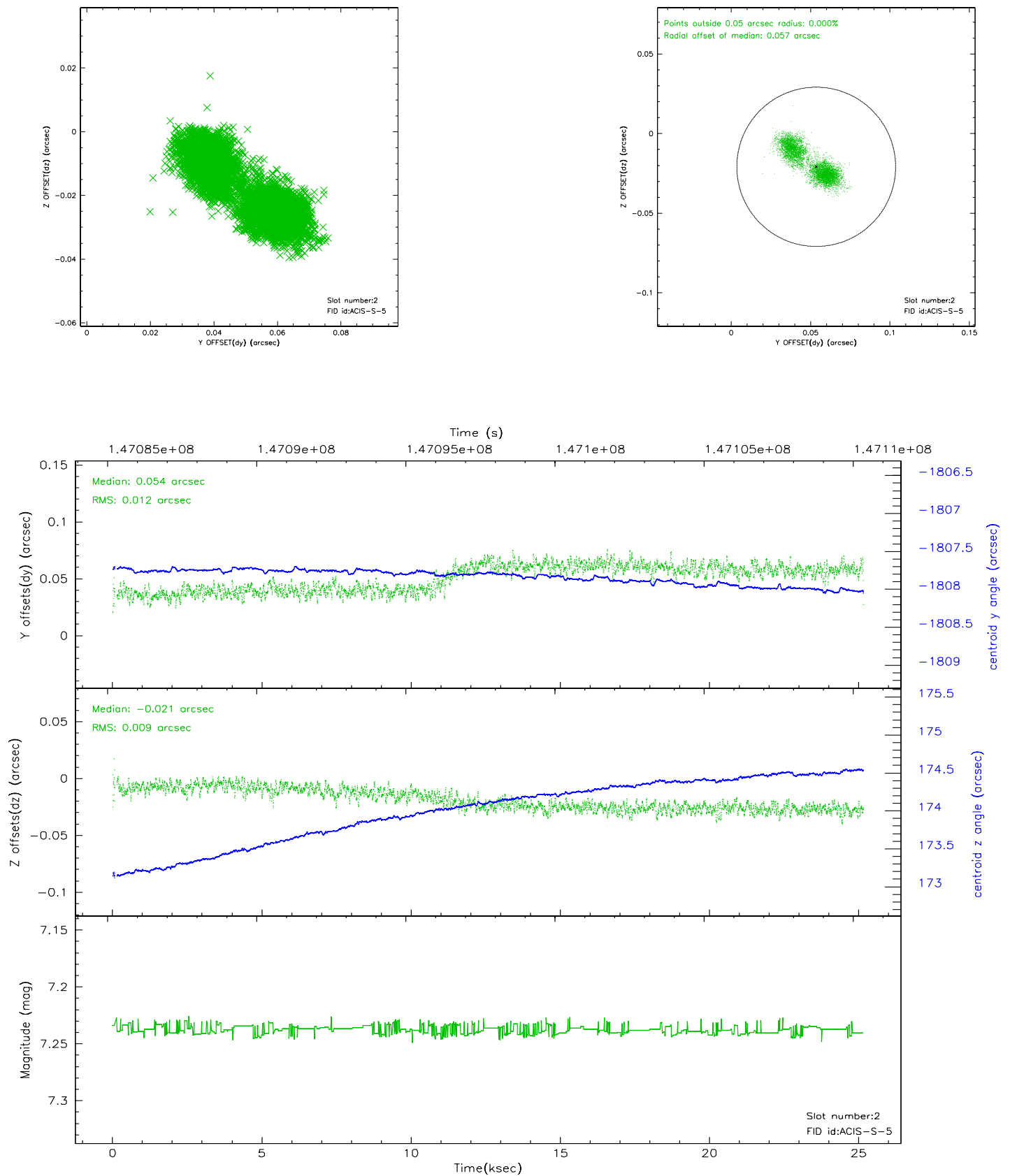
### 2.5.1 Slot 0



## 2.5.2 Slot 1

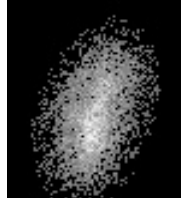


## 2.5.3 Slot 2



### 3 Point Sources

4.74 arcmin





## A Summary

### A.1 Status

|                            |            |
|----------------------------|------------|
| V&V Scientist              | Jen Lauer  |
| V&V Date (YYYY-MM-DD)      | 2006.10.03 |
| V&V Edition                | 1          |
| V&V Disposition and Status | OK         |
| V&V Charge Time            | 25.025     |

### A.2 Comments

Monitor constraint met.