

# V&V Reference Report

## L2 ASCDS Version : 7.6.7.1

Observation 6310 - L2 Version 002  
Chandra X-Ray Center

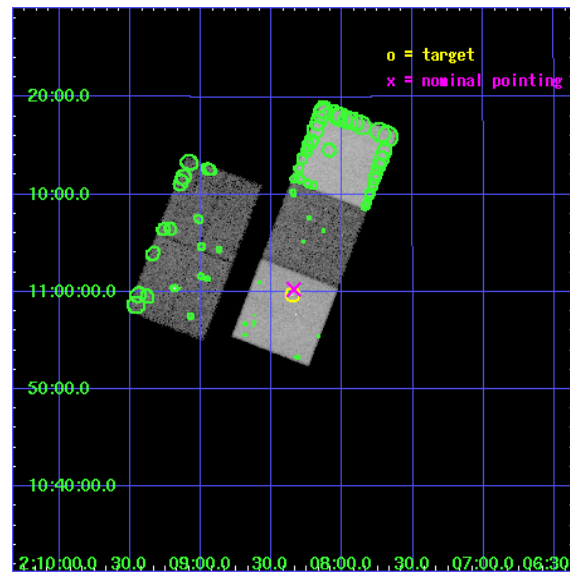
L2 Processing Date : Mar 10 2006

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# 1 Front

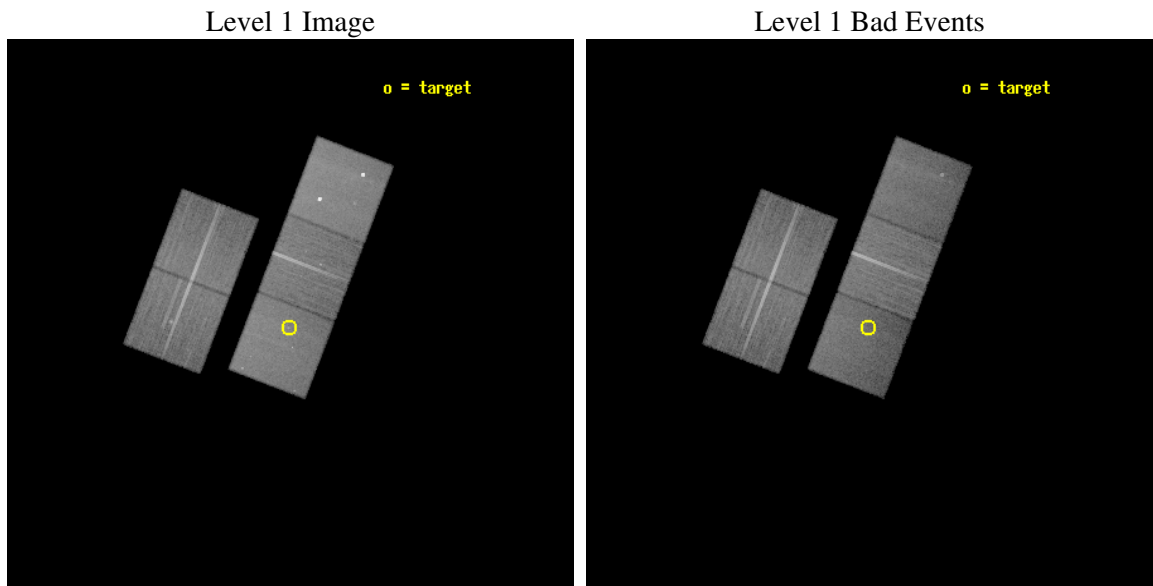
|          |   |
|----------|---|
| seq_num  | 701114  |
| obs_id   | 6310  |
| title    | The X-ray Jet of the X-ray faint supermassive nuclear black hole in NGC 821 |
| observer | Dr Giuseppina Fabbiano  |
| object   | NGC821  |
| dtcycle  | 0   |
| cycle    | P   |
| ra_targ  | 32.0875   |
| dec_targ | 10.99475  |
| ra_nom   | 32.08563373273  |
| dec_nom  | 11.004226347397   |
| roll_nom | 111.05699086564   |
| revision | 2   |
| ontime   | 32438.39993763  |
| livetime | 32014.568361642   |
| ontime2  | 32435.258977354   |
| ontime3  | 32435.258977354   |
| ontime5  | 32438.39993763  |
| ontime6  | 32438.39993763  |
| ontime7  | 32438.39993763  |
| l2events | 275216  |



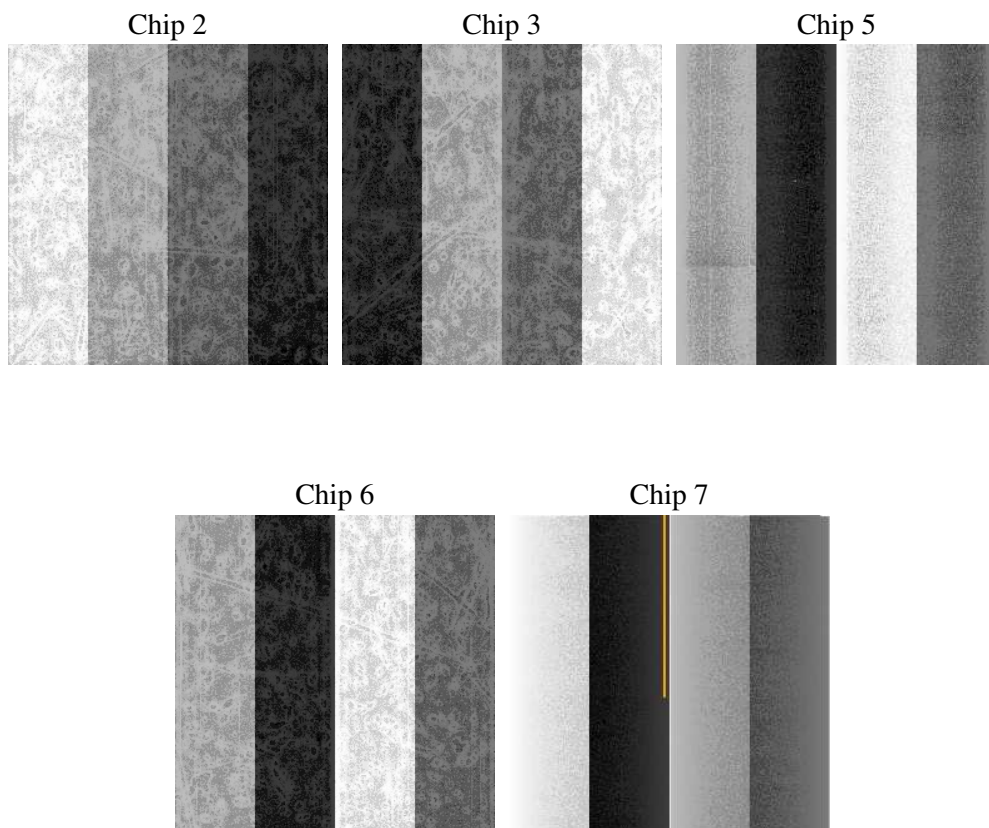
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |
|----------|---------------------|
| obi_num  | 0                   |
| ascdsver | 7.6.7.1             |
| caldbver | 3.2.1               |
| date     | 2006-03-10T18:29:12 |
| revision | 2                   |

|                |                 |
|----------------|-----------------|
| sched_exp_time | 32306.888000    |
| ontime         | 33181.542435646 |
| ontime2        | 33178.40147537  |
| ontime3        | 33178.40147537  |
| ontime5        | 33181.542435646 |
| ontime6        | 33181.542435646 |
| ontime7        | 33181.542435646 |
| l1events       | 1187329         |

### 2.1.4 Events

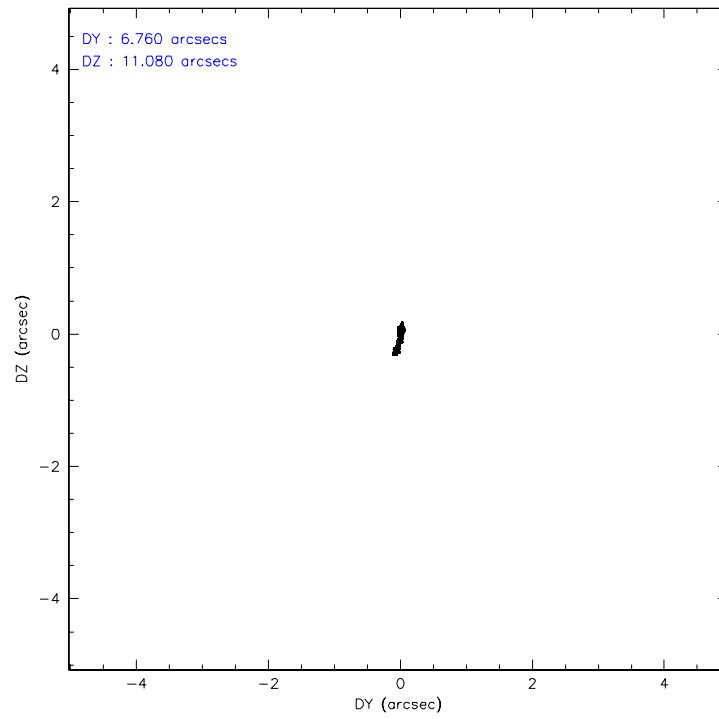
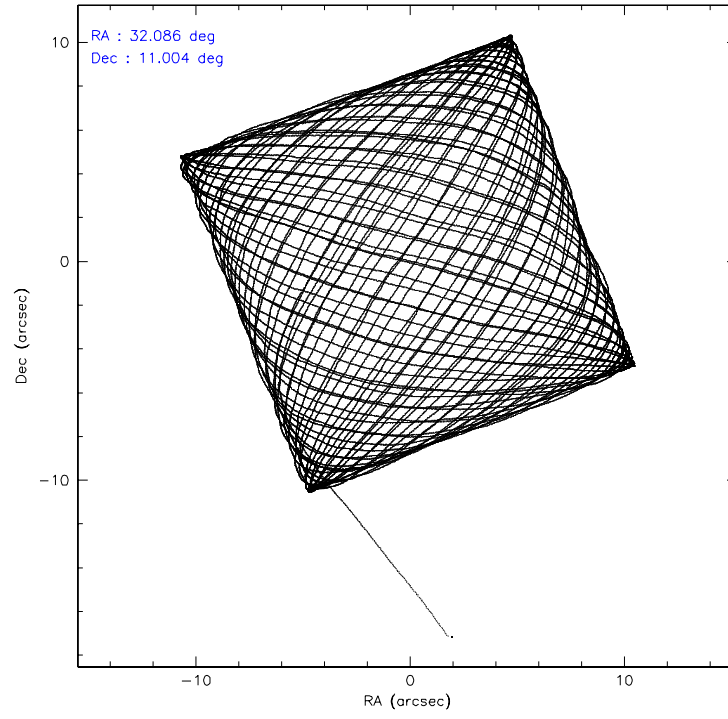
|                 | ccd 2  | ccd 3  | ccd 5  | ccd 6  | ccd 7  |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events  | 216252 | 207829 | 301642 | 221394 | 240212 |
| rejected events | 195931 | 187882 | 155309 | 199696 | 142057 |
| rejected %      | 90%    | 90%    | 51%    | 90%    | 59%    |

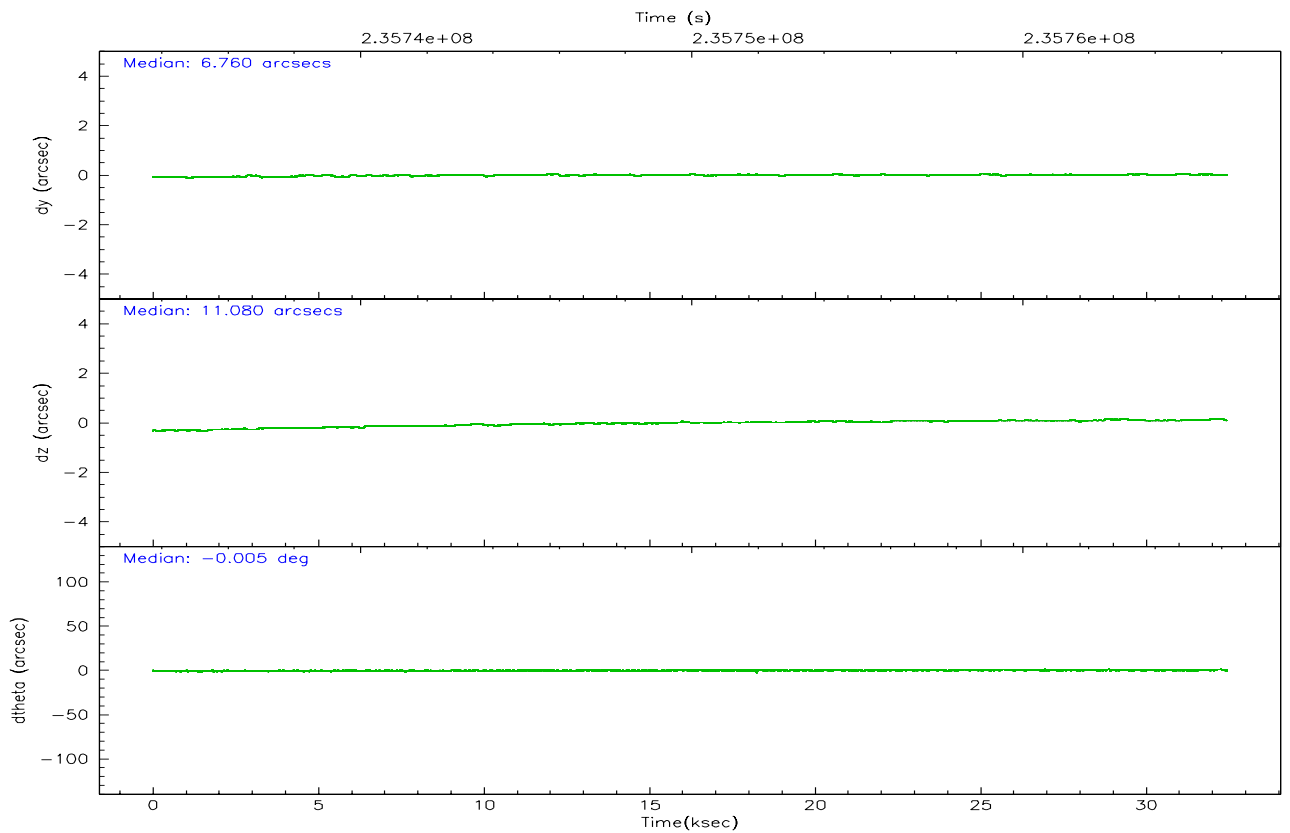
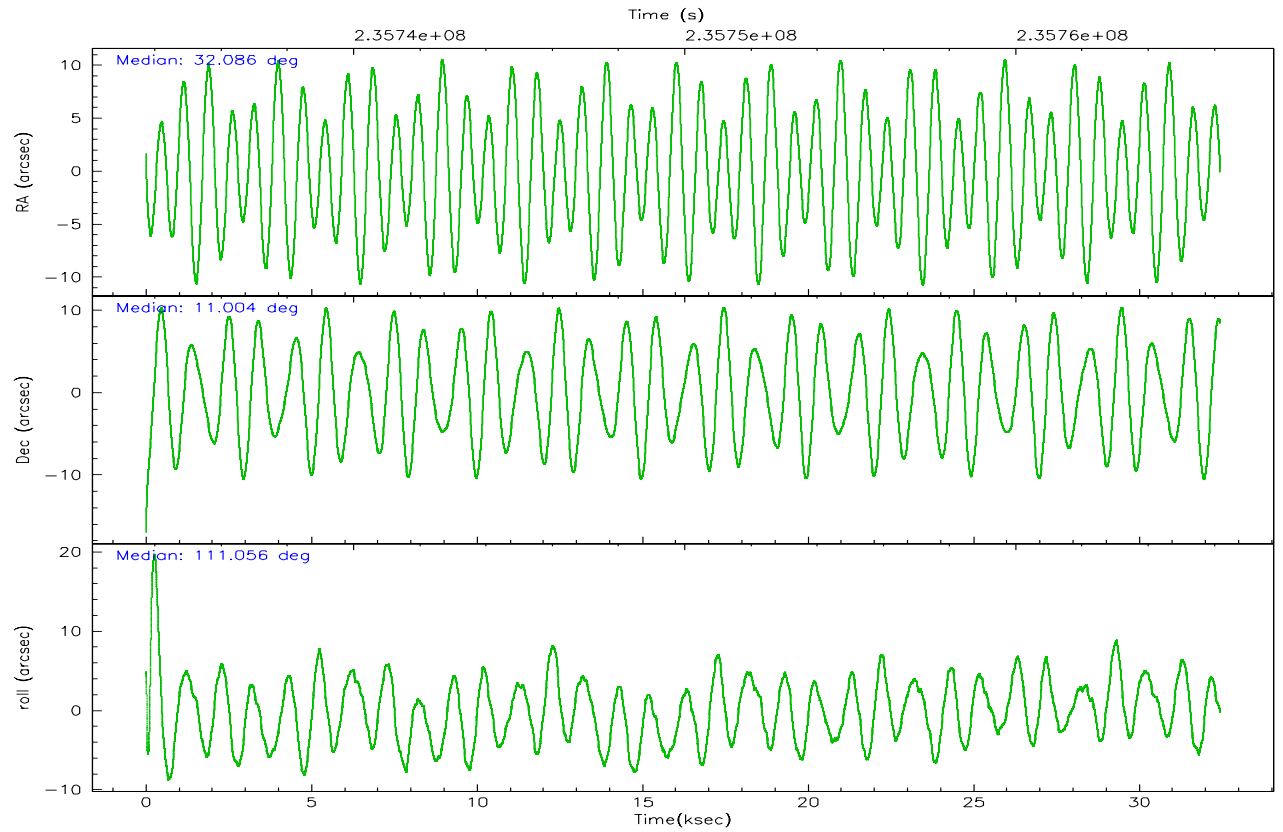
|                | ccd 2  | ccd 3  | ccd 5  | ccd 6  | ccd 7  |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 7593   | 7463   | 16506  | 7864   | 5945   |
|                | 3%     | 3%     | 5%     | 3%     | 2%     |
| grade 1 events | 100    | 111    | 800    | 109    | 122    |
|                | 0%     | 0%     | 0%     | 0%     | 0%     |
| grade 2 events | 4738   | 4356   | 47886  | 4740   | 25034  |
|                | 2%     | 2%     | 15%    | 2%     | 10%    |
| grade 3 events | 2247   | 2321   | 3593   | 2409   | 5801   |
|                | 1%     | 1%     | 1%     | 1%     | 2%     |
| grade 4 events | 2392   | 2287   | 3498   | 2492   | 5712   |
|                | 1%     | 1%     | 1%     | 1%     | 2%     |
| grade 5 events | 6812   | 8466   | 15546  | 8597   | 18382  |
|                | 3%     | 4%     | 5%     | 3%     | 7%     |
| grade 6 events | 3830   | 3978   | 78230  | 4669   | 57910  |
|                | 1%     | 1%     | 25%    | 2%     | 24%    |
| grade 7 events | 188540 | 178847 | 135583 | 190514 | 121306 |
|                | 87%    | 86%    | 44%    | 86%    | 50%    |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                       | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|---------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                 | Obspar format version number    | 6         | 6       |
| Detector                          | ACIS-23567          | ACIS-23567           | 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                       | 32.107433           | 32.08563373273027    | Alternating exposures requested | N         | N       |
| Pointing Dec                      | 10.987414           | 11.00422634739687    | Primary exposure time           | 0.000000  | 3.1     |
| Pointing Roll                     | 110.896198          | 111.0569908656437    |                                 |           |         |
| 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            | 235733865.184000    | 235732521.6965       |                                 |           |         |
| Observation start date            | 2005-06-21T09:36:41 | 2005-06-21T09:15:21  |                                 |           |         |
| Observation end time              | 235766172.184000    | 235766399.48555      |                                 |           |         |
| Observation end date              | 2005-06-21T18:35:08 | 2005-06-21T18:39:59  |                                 |           |         |
| Read mode                         | TIMED               | TIMED                |                                 |           |         |

## 2.3 Aspect





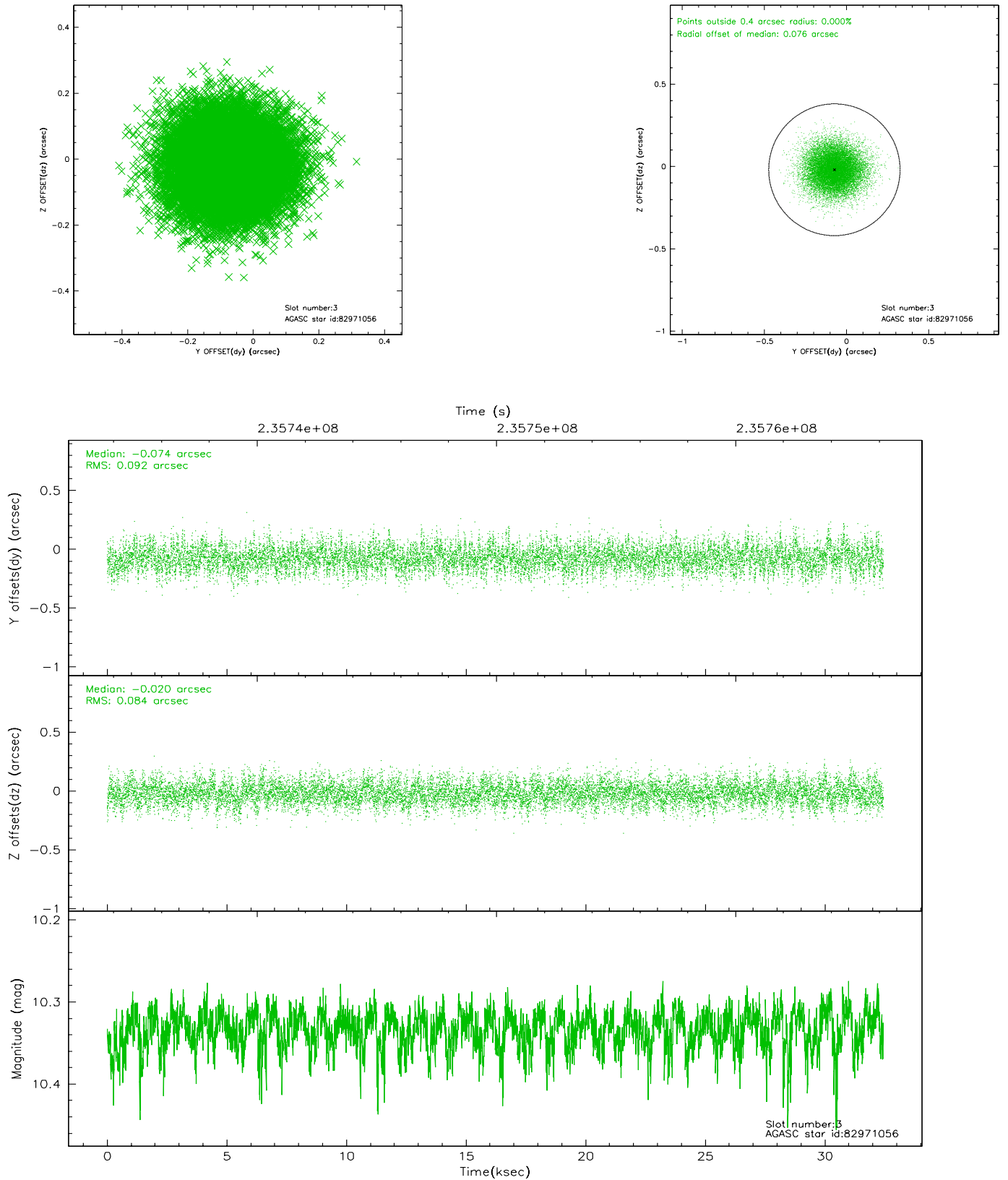
### Slot Statistics

| 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  | 7913  | -0.006 | -0.050 | 0.009 | 0.015 | 0.000000  | 0.000000  | 936.52   | -1728.01 |
| 1    | FID    | ACIS-S-4 | 7.20  | 7911  | 0.016  | 0.042  | 0.007 | 0.011 | 0.000000  | 0.000000  | 2153.98  | 176.19   |
| 2    | FID    | ACIS-S-5 | 7.23  | 7914  | -0.037 | 0.021  | 0.006 | 0.011 | 0.000000  | 0.000000  | -1812.31 | 169.82   |
| 3    | GUIDE  | 82971056 | 10.33 | 15797 | -0.074 | -0.020 | 0.133 | 0.215 | 31.381677 | 11.249277 | 1797.72  | 2056.75  |
| 4    | GUIDE  | 82972936 | 9.47  | 15819 | -0.026 | -0.163 | 0.108 | 0.170 | 31.880349 | 11.323150 | 1415.57  | 317.76   |
| 5    | GUIDE  | 82976088 | 10.28 | 15789 | 0.156  | -0.195 | 0.237 | 0.384 | 31.548572 | 10.635312 | -476.95  | 2298.33  |
| 6    | GUIDE  | 82976744 | 9.49  | 15815 | 0.171  | 0.098  | 0.109 | 0.173 | 32.095784 | 10.602457 | -1279.66 | 533.15   |
| 7    | GUIDE  | 82974960 | 9.84  | 15811 | -0.253 | 0.285  | 0.156 | 0.253 | 31.911636 | 11.621581 | 2379.07  | -168.94  |

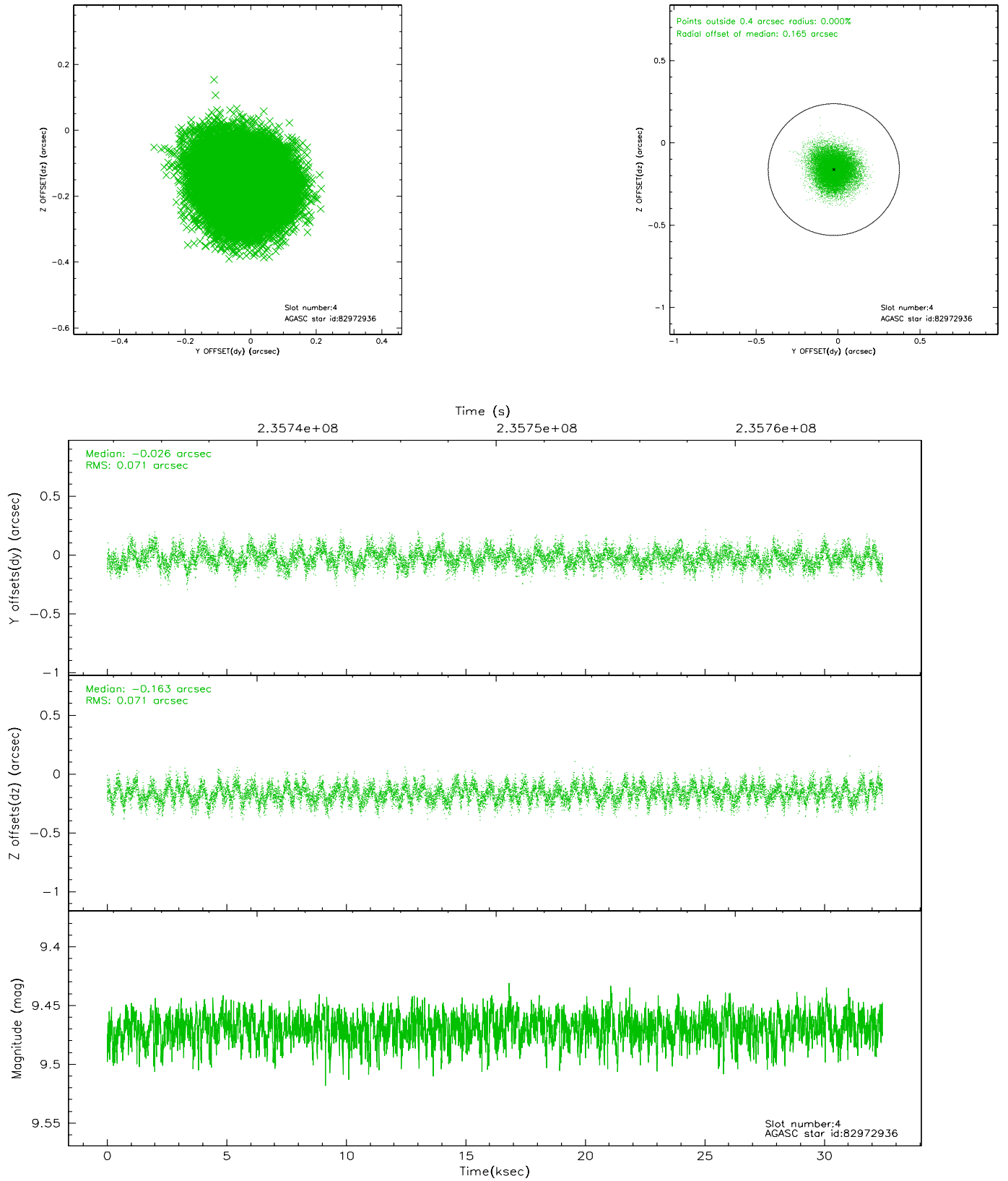


## 2.4 Star Slots

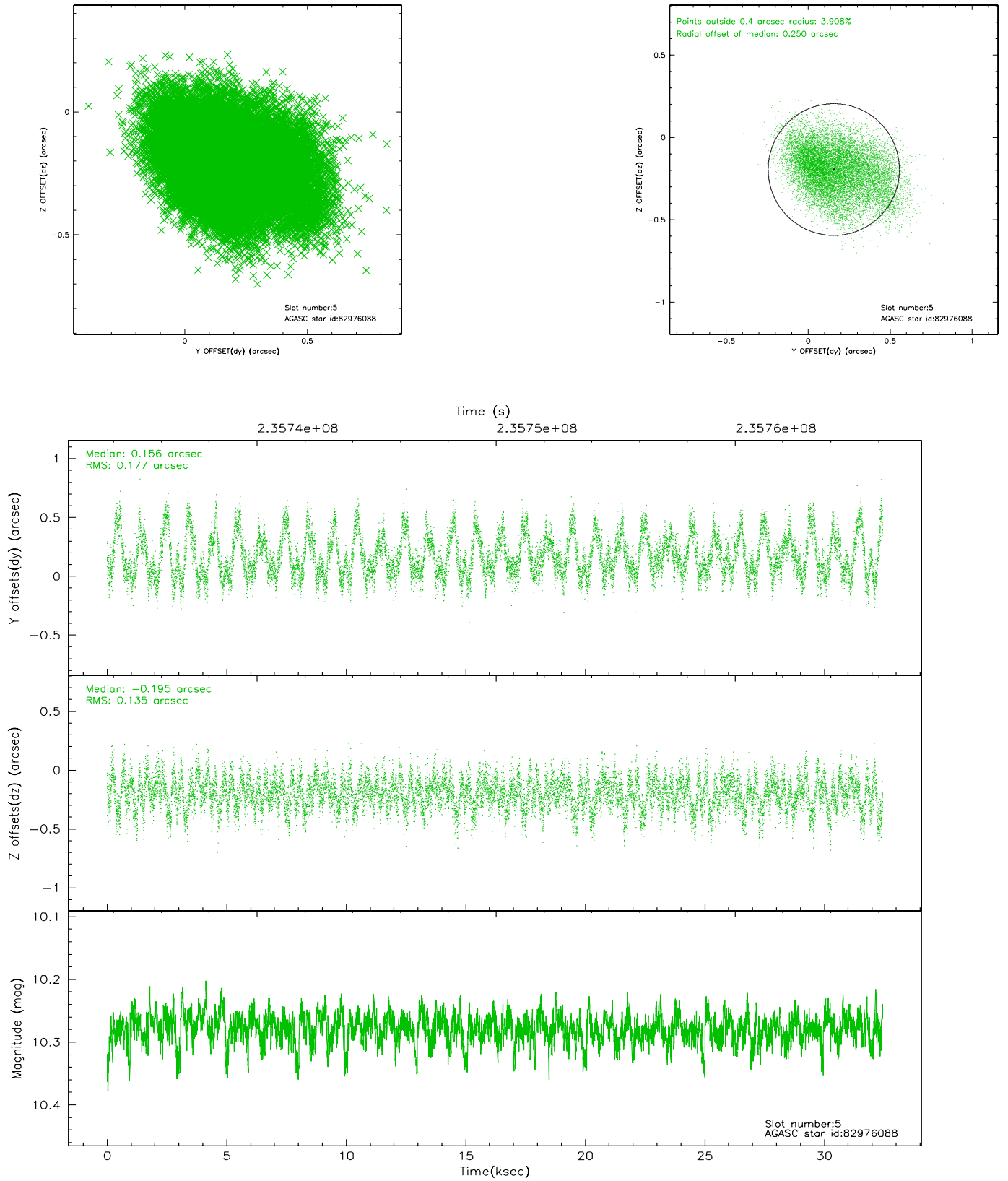
### 2.4.1 Slot 3



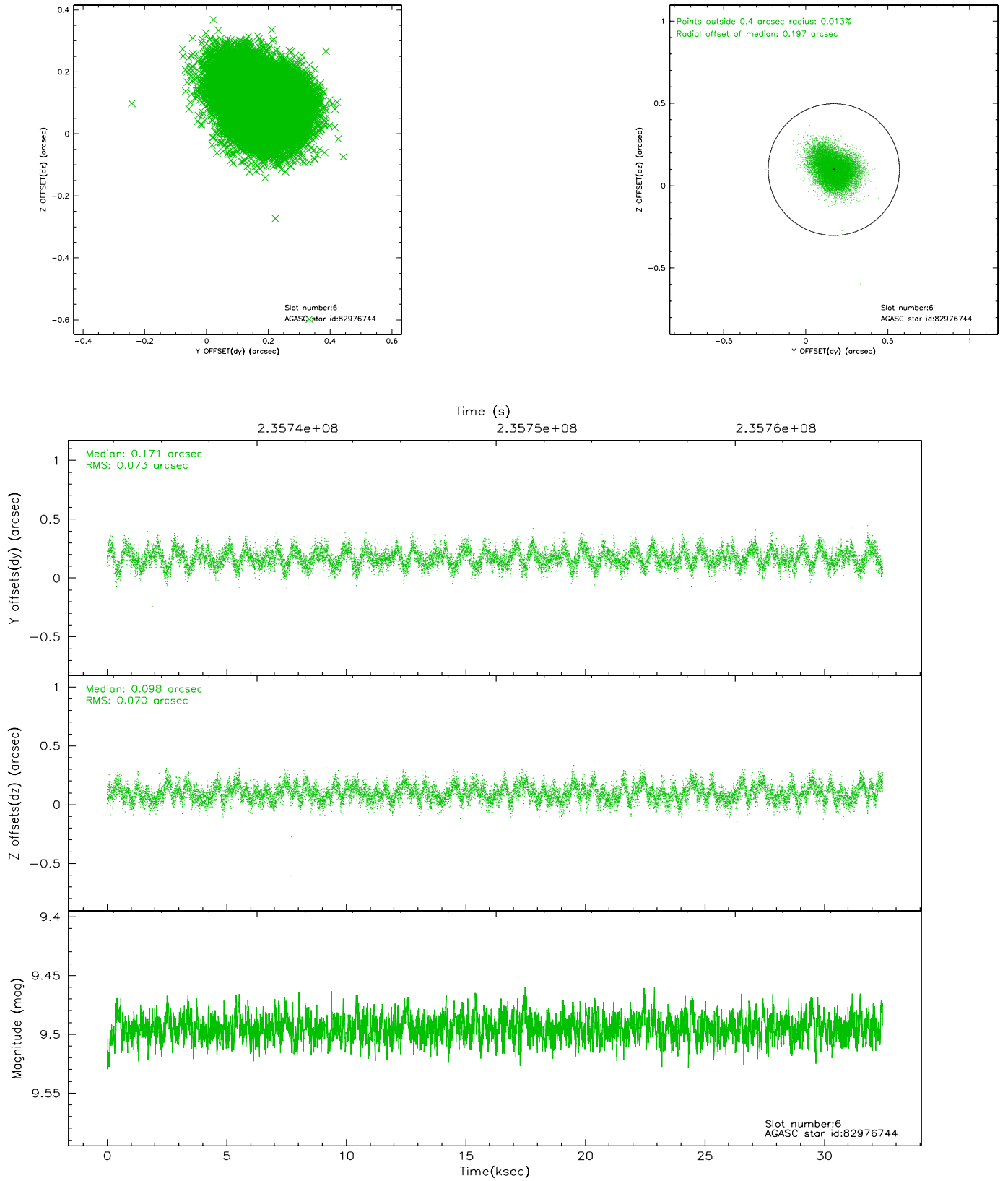
## 2.4.2 Slot 4



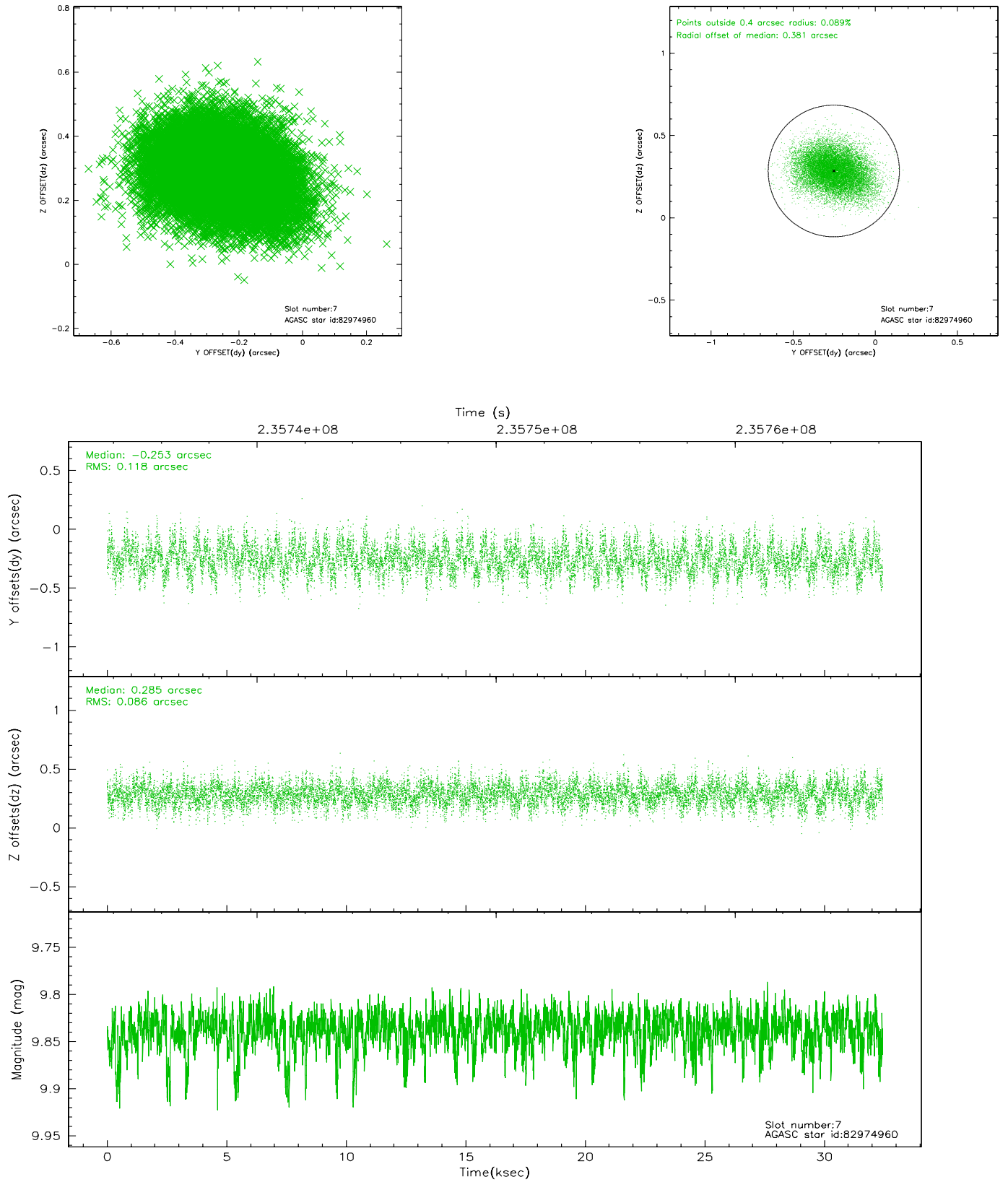
### 2.4.3 Slot 5



## 2.4.4 Slot 6

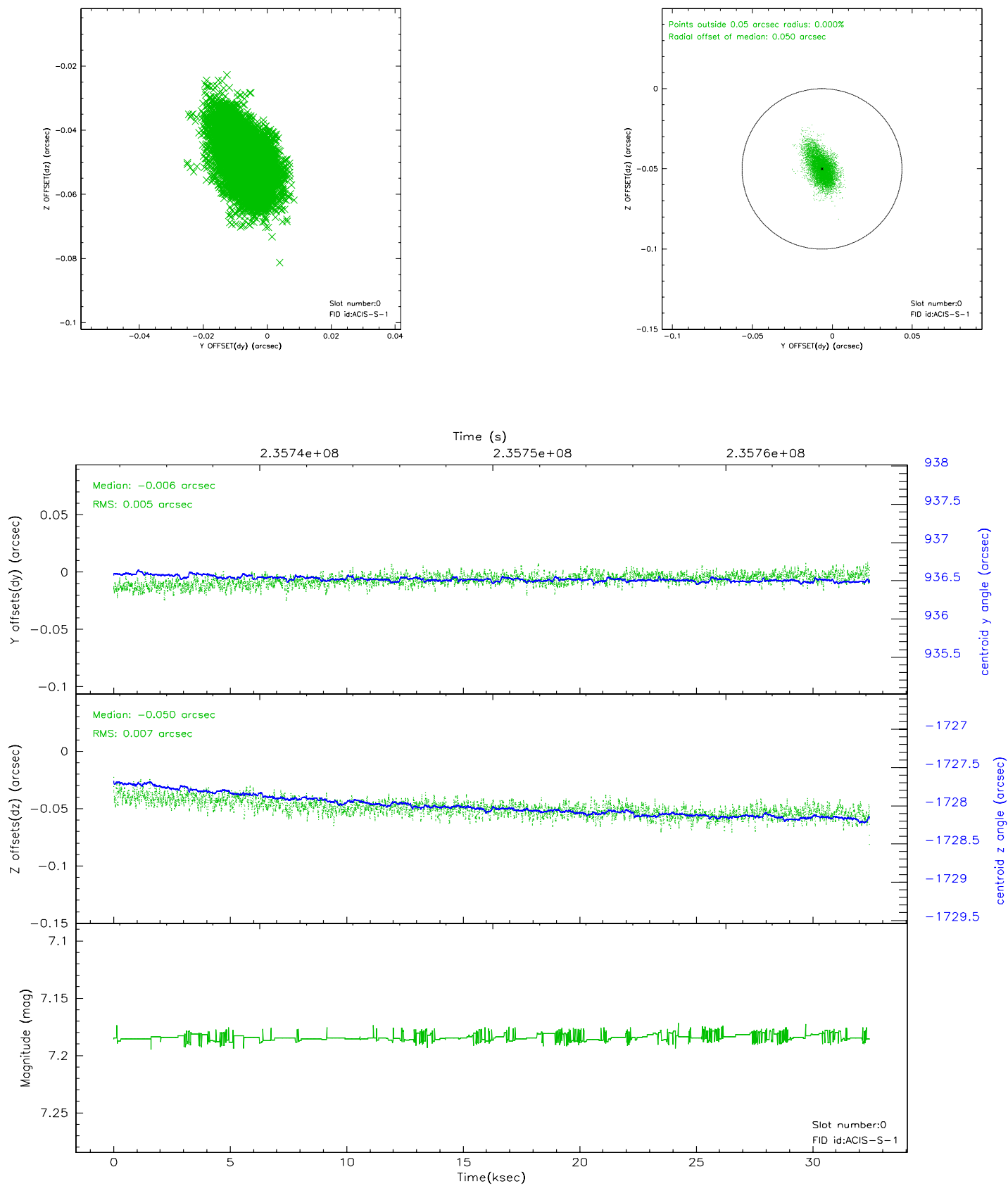


## 2.4.5 Slot 7

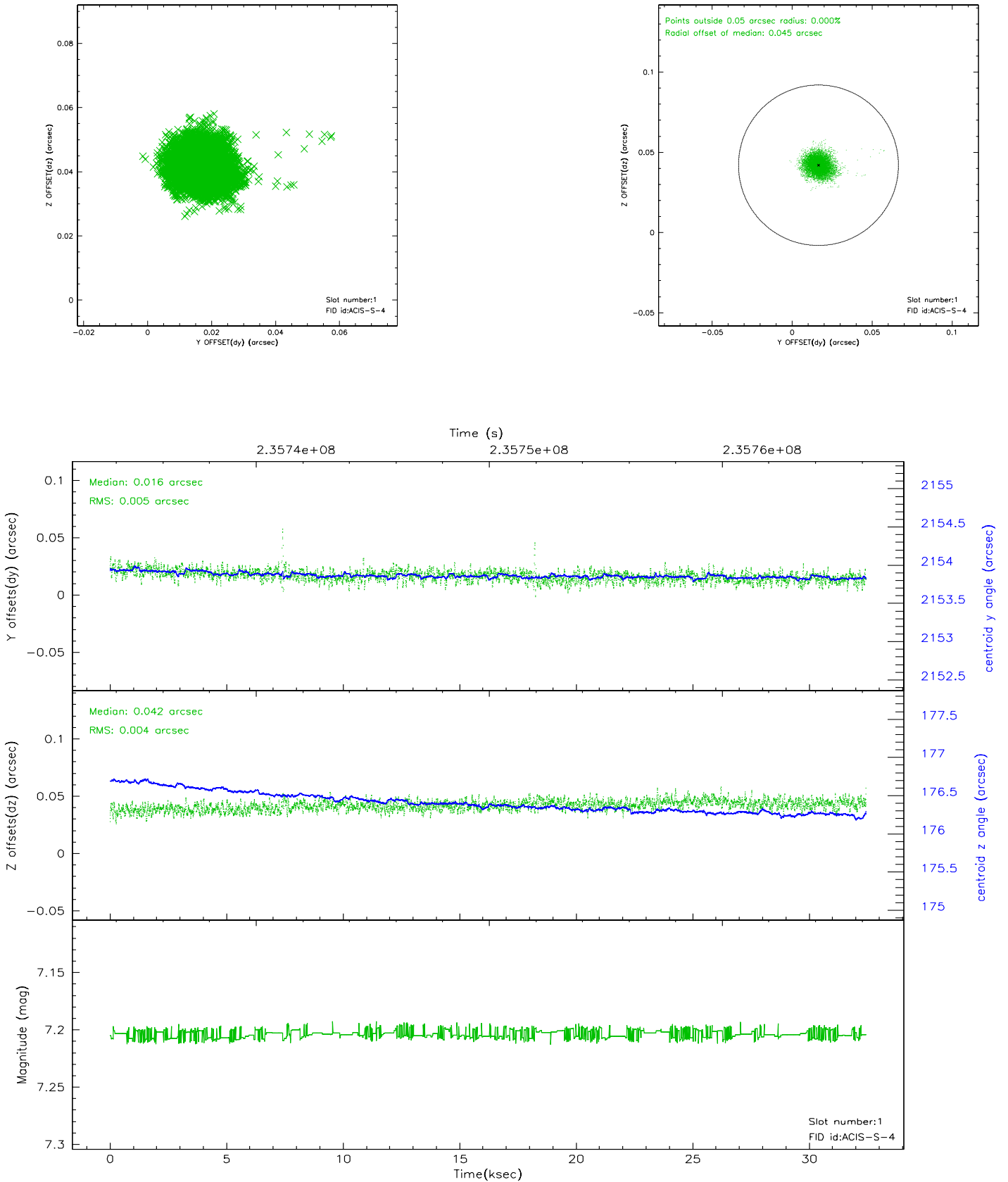


## 2.5 FID Slots

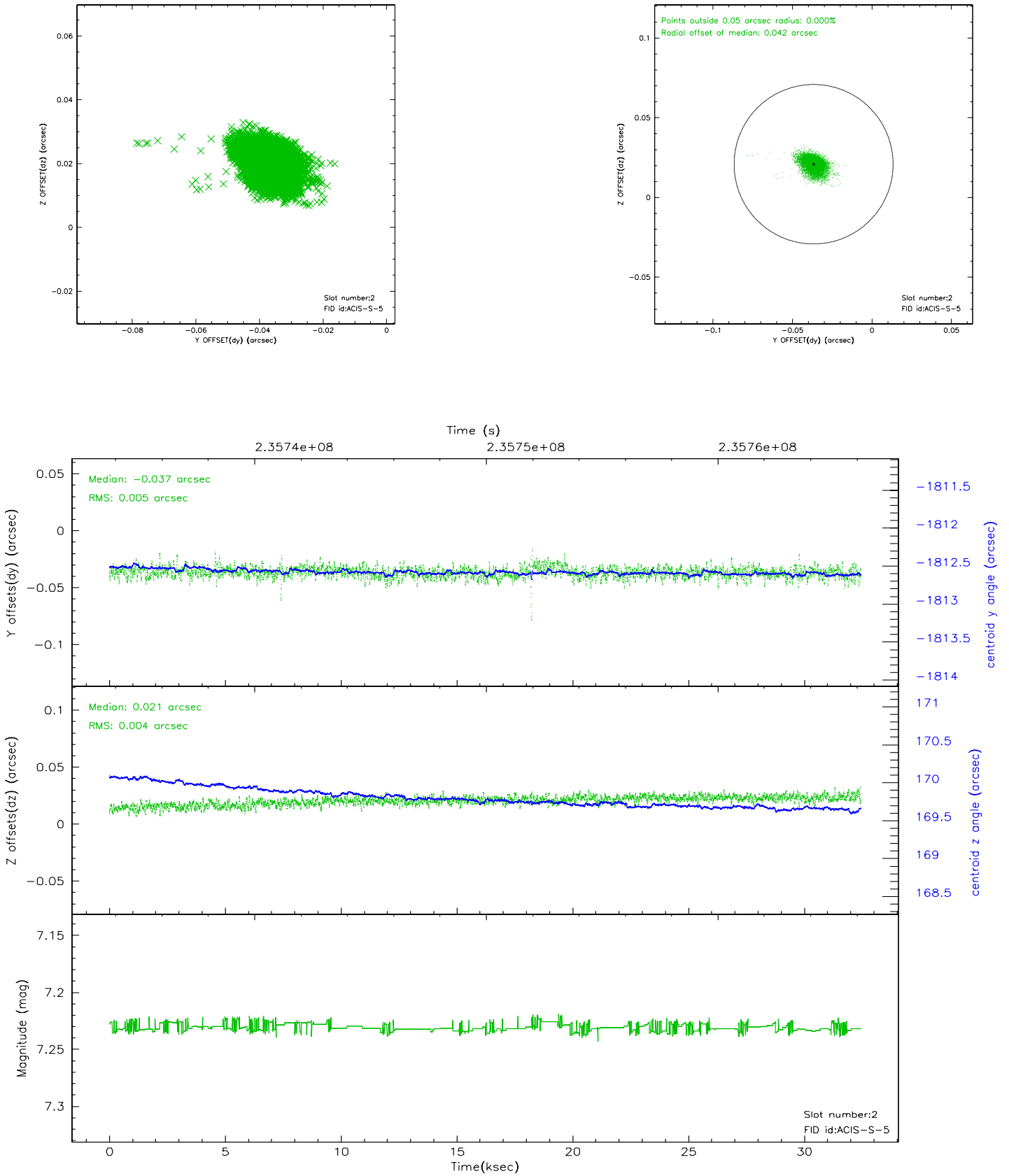
### 2.5.1 Slot 0



## 2.5.2 Slot 1

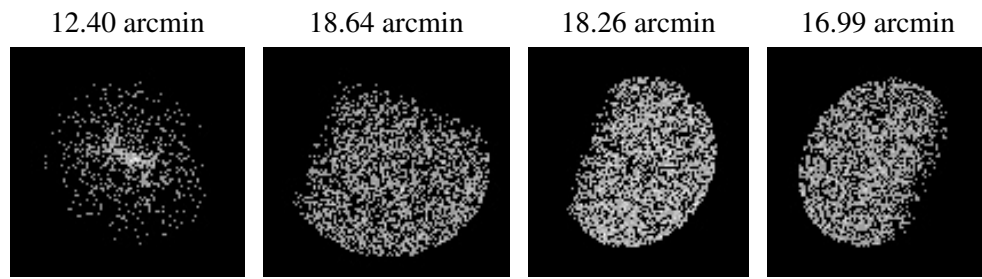


### 2.5.3 Slot 2





### 3 Point Sources



# A Summary

## A.1 Status

|                            |            |
|----------------------------|------------|
| V&V Scientist              | Jen Lauer  |
| V&V Date (YYYY-MM-DD)      | 2006.03.10 |
| V&V Edition                | 1          |
| V&V Disposition and Status | OK         |
| V&V Charge Time            | 32.43839   |

## A.2 Comments

This observation is about 7.5 ksec shorter than the 40 ksec that was originally entered into the long term plan. This is not an error; the actual load sent to the spacecraft was constructed for maximum efficiency and adherence to spacecraft constraints. At this time, no other observation in the series for this proposal is scheduled for less time than the long term schedule indicated.