

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 3785 - L2 Version 001  
Chandra X-Ray Center

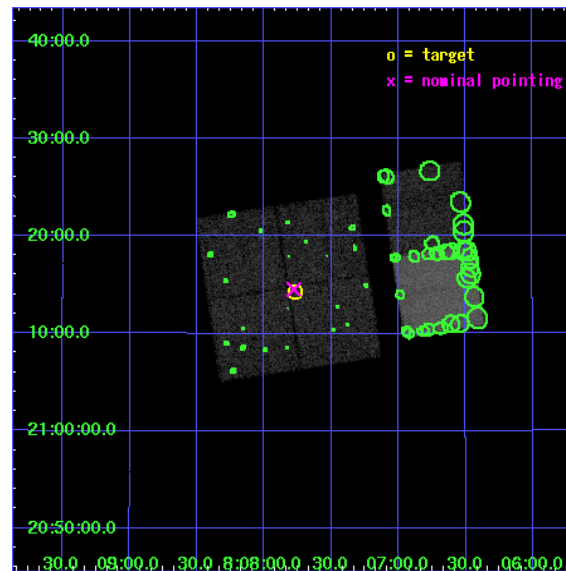
L2 Processing Date : Oct 18 2006

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# 1 Front

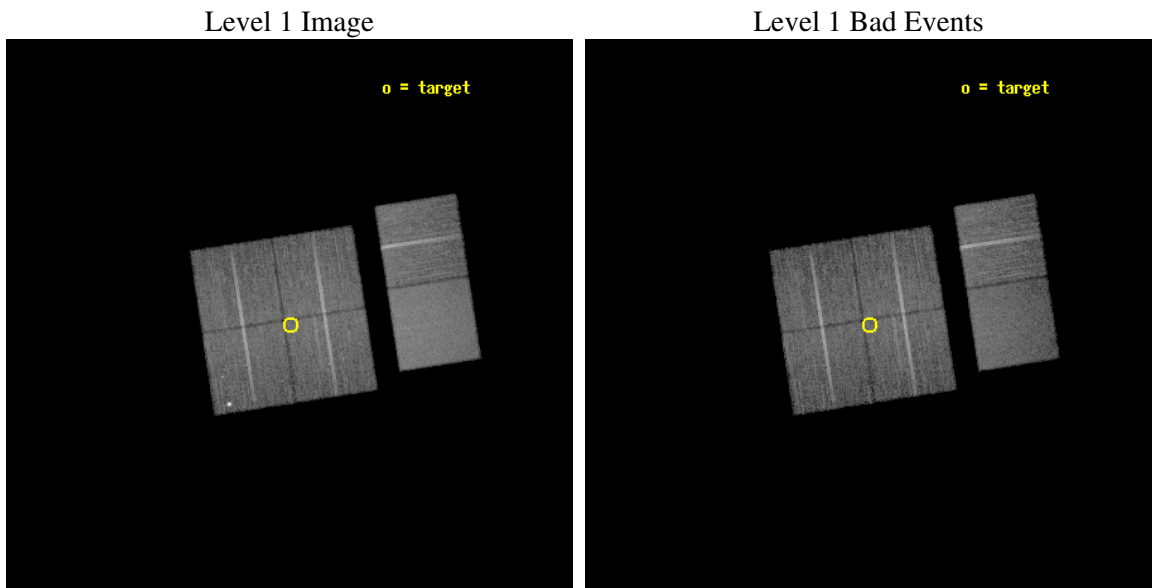
|          |  |
|----------|--|
| seq_num  | 400272                                     |
| obs_id   | 3785                                       |
| title    | REOLVING THE SHORT GAMMA-RAY BURST MYSTERY |
| observer | Dr. Kevin Hurley                           |
| object   | GRB021201                                  |
| dtcycle  | 0  |
| cycle    | P  |
| ra_targ  | 121.942083                                 |
| dec_targ | 21.238306                                  |
| ra_nom   | 121.94467949283                            |
| dec_nom  | 21.242205339736                            |
| roll_nom | 81.209006631611                            |
| revision | 3  |
| ontime   | 19964.799925625                            |
| livetime | 19711.993607608                            |
| ontime0  | 19964.799925625                            |
| ontime1  | 19964.799925625                            |
| ontime2  | 19964.799925625                            |
| ontime3  | 19964.799925625                            |
| ontime6  | 19964.799925625                            |
| ontime7  | 19964.799925625                            |
| l2events | 128313                                     |



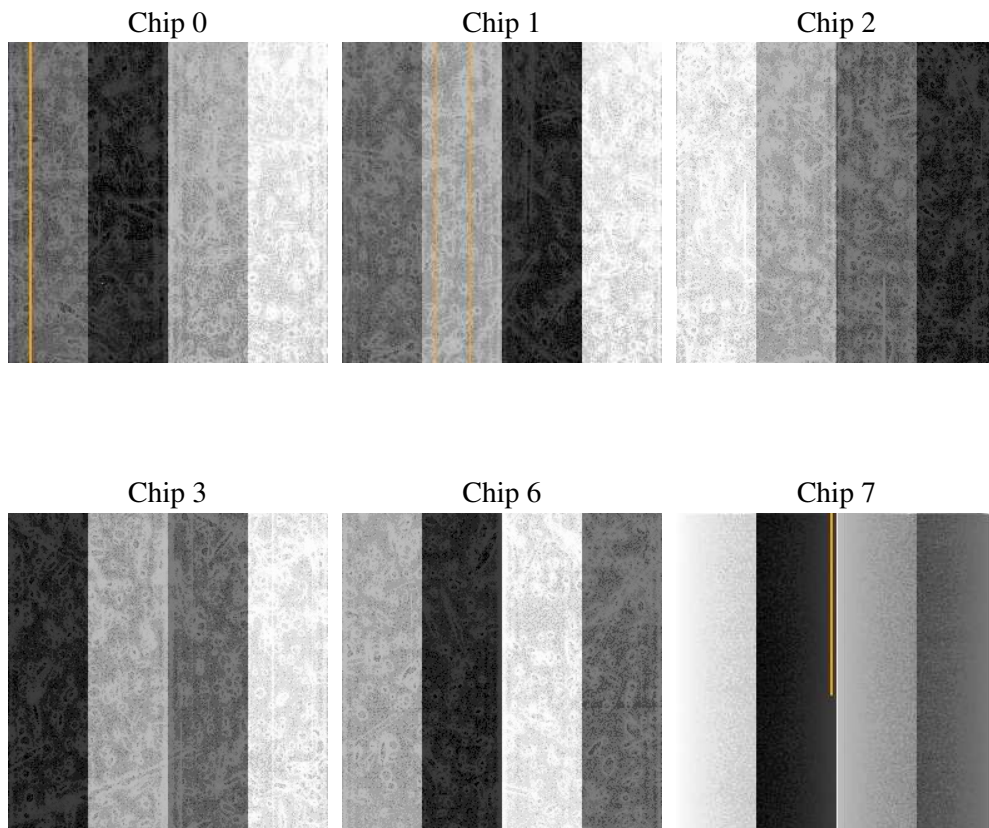
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

|          |                     |
|----------|---------------------|
| obi_num  | 1                   |
| ascdsver | 7.6.9               |
| caldsver | 3.2.3               |
| date     | 2006-10-18T18:12:57 |
| revision | 3                   |

|                |                 |
|----------------|-----------------|
| sched_exp_time | 20000.000000    |
| ontime         | 19967.840644807 |
| ontime0        | 19967.840644807 |
| ontime1        | 19967.840644807 |
| ontime2        | 19967.840644807 |
| ontime3        | 19967.840644807 |
| ontime6        | 19967.840644807 |
| ontime7        | 19967.840664715 |
| l1events       | 769169          |

### 2.1.4 Events

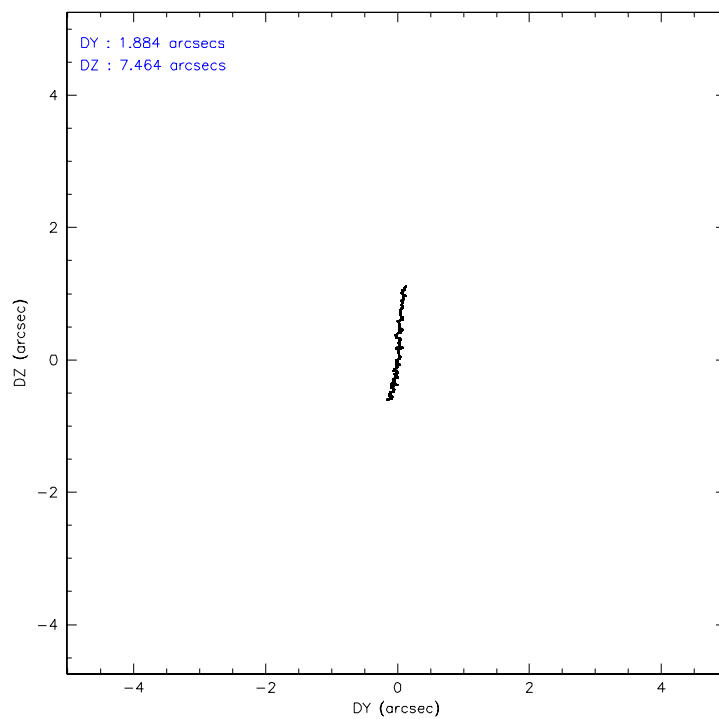
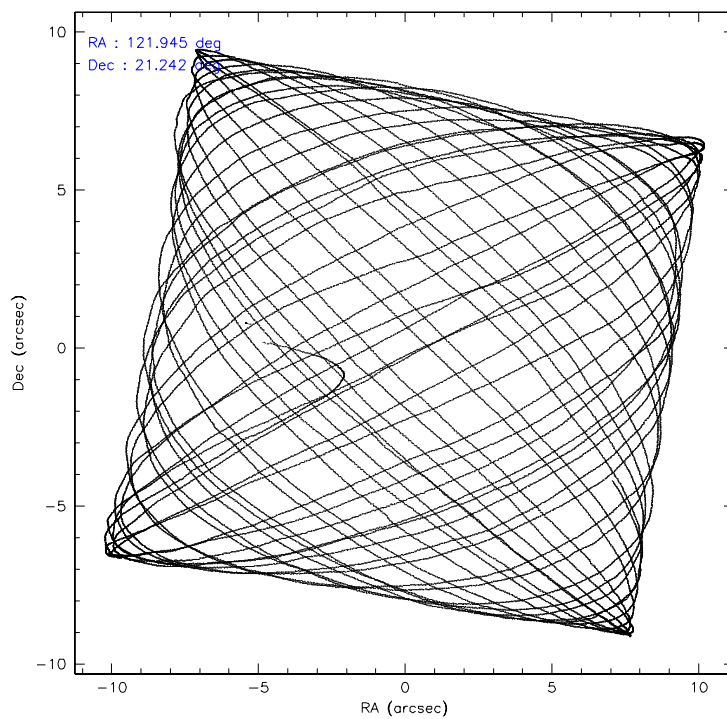
|                 | ccd 0  | ccd 1  | ccd 2  | ccd 3  | ccd 6  | ccd 7  |
|-----------------|--------|--------|--------|--------|--------|--------|
| level 1 events  | 112974 | 119650 | 121198 | 122027 | 129182 | 164138 |
| rejected events | 98259  | 99297  | 107027 | 107647 | 114863 | 101852 |
| rejected %      | 86%    | 82%    | 88%    | 88%    | 88%    | 62%    |

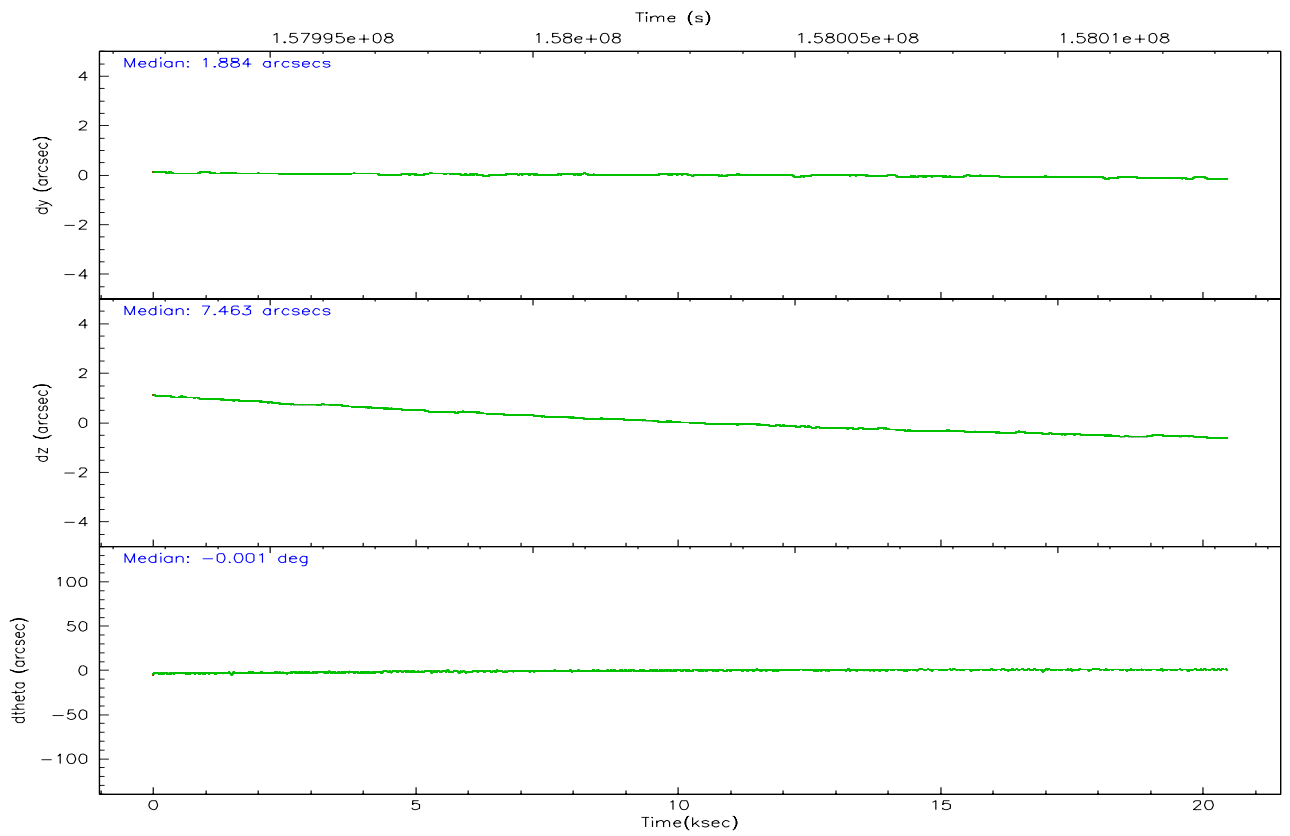
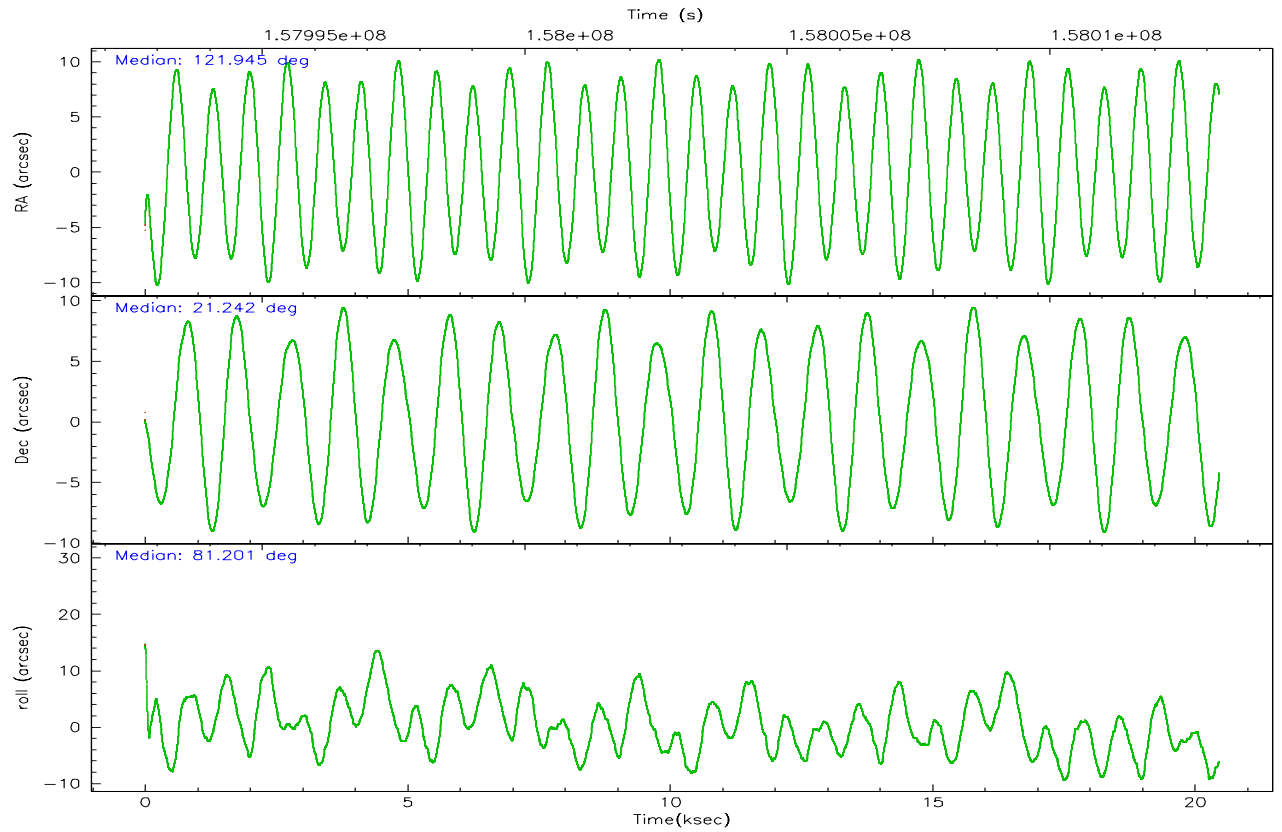
|                | ccd 0 | ccd 1 | ccd 2  | ccd 3  | ccd 6  | ccd 7 |
|----------------|-------|-------|--------|--------|--------|-------|
| grade 0 events | 6284  | 10556 | 6292   | 6401   | 5567   | 3589  |
|                | 5%    | 8%    | 5%     | 5%     | 4%     | 2%    |
| grade 1 events | 58    | 72    | 79     | 79     | 58     | 95    |
|                | 0%    | 0%    | 0%     | 0%     | 0%     | 0%    |
| grade 2 events | 3017  | 3454  | 2762   | 2768   | 2893   | 15292 |
|                | 2%    | 2%    | 2%     | 2%     | 2%     | 9%    |
| grade 3 events | 1521  | 1651  | 1335   | 1349   | 1406   | 3181  |
|                | 1%    | 1%    | 1%     | 1%     | 1%     | 1%    |
| grade 4 events | 1358  | 1633  | 1411   | 1449   | 1418   | 3165  |
|                | 1%    | 1%    | 1%     | 1%     | 1%     | 1%    |
| grade 5 events | 4779  | 5105  | 4697   | 5408   | 5650   | 10889 |
|                | 4%    | 4%    | 3%     | 4%     | 4%     | 6%    |
| grade 6 events | 2539  | 3061  | 2372   | 2416   | 3038   | 37071 |
|                | 2%    | 2%    | 1%     | 1%     | 2%     | 22%   |
| grade 7 events | 93418 | 94118 | 102250 | 102157 | 109152 | 90856 |
|                | 82%   | 78%   | 84%    | 83%    | 84%    | 55%   |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual                | Parameter                             | Planned   | Actual  |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument                        | ACIS                | ACIS                  | Obspar format version number          | 6         | 6       |
| Detector                          | ACIS-012367         | ACIS-012367           | 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                       | 121.955436          | 121.9446794928271     | Subarray requested                    | NONE      | NONE    |
| Pointing Dec                      | 21.216764           | 21.2422053397358      | Alternating exposures requested       | N         | N       |
| Pointing Roll                     | 80.996418           | 81.20900663161125     | Primary exposure time                 | 0.000000  | 3.2     |
| SIM focus pos (mm)                | -0.782348           | -0.7809083437167272   |                                       |           |         |
| SIM defocus (mm)                  | 0                   | 0.001439871863259334  |                                       |           |         |
| SIM translation stage pos (mm)    | -233.592463         | -233.5874344608287    |                                       |           |         |
| SIM translation stage offset (mm) | 0                   | -0.005018542100998502 |                                       |           |         |
| Observation start time            | 157993228.184000    | 157992117.45172       |                                       |           |         |
| Observation start date            | 2003-01-03T14:59:24 | 2003-01-03T14:41:57   |                                       |           |         |
| Observation end time              | 158013228.184000    | 158013632.20262       |                                       |           |         |
| Observation end date              | 2003-01-03T20:32:44 | 2003-01-03T20:40:32   |                                       |           |         |
| Read mode                         | TIMED               | TIMED                 |                                       |           |         |

## 2.3 Aspect



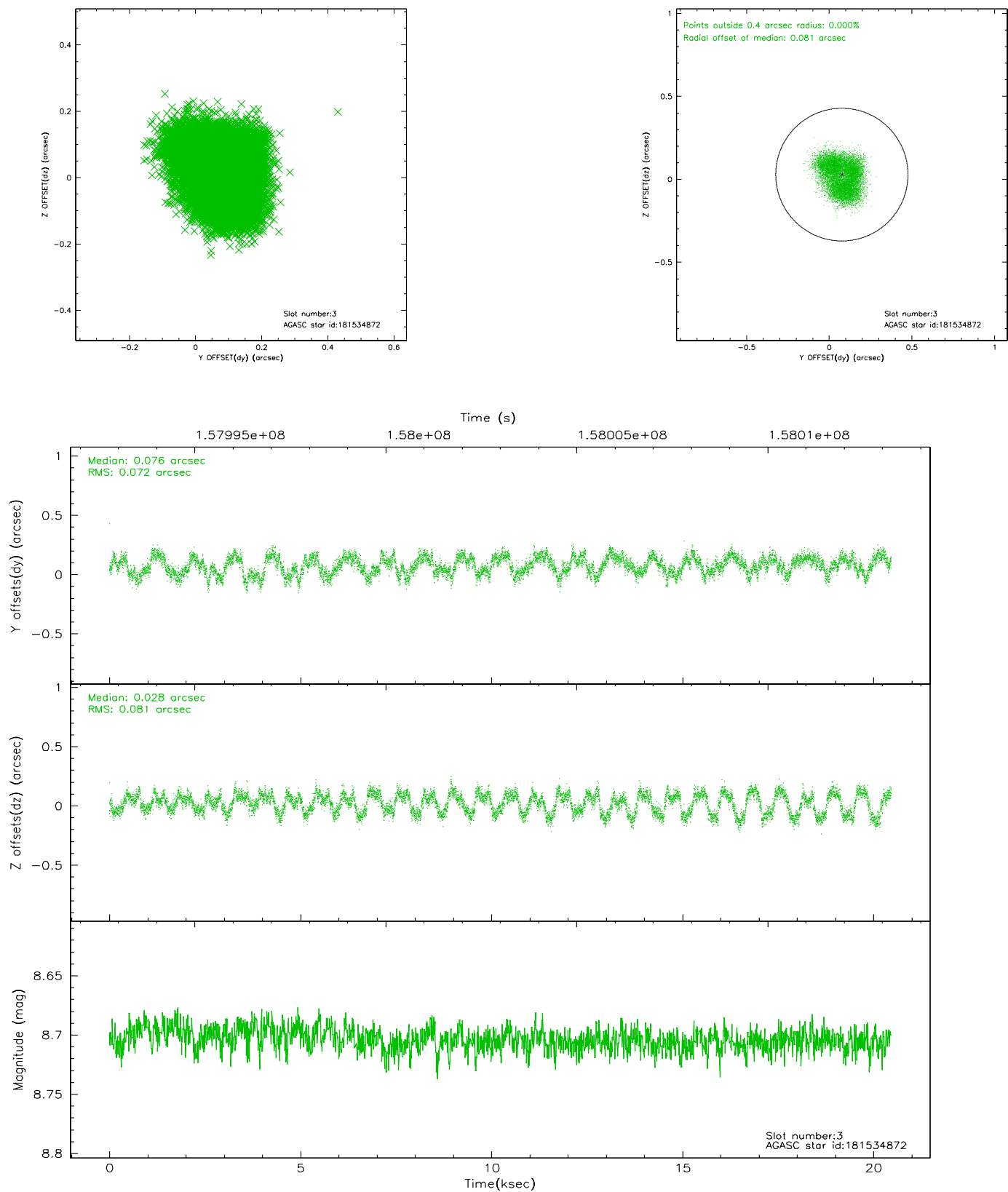


### Slot Statistics

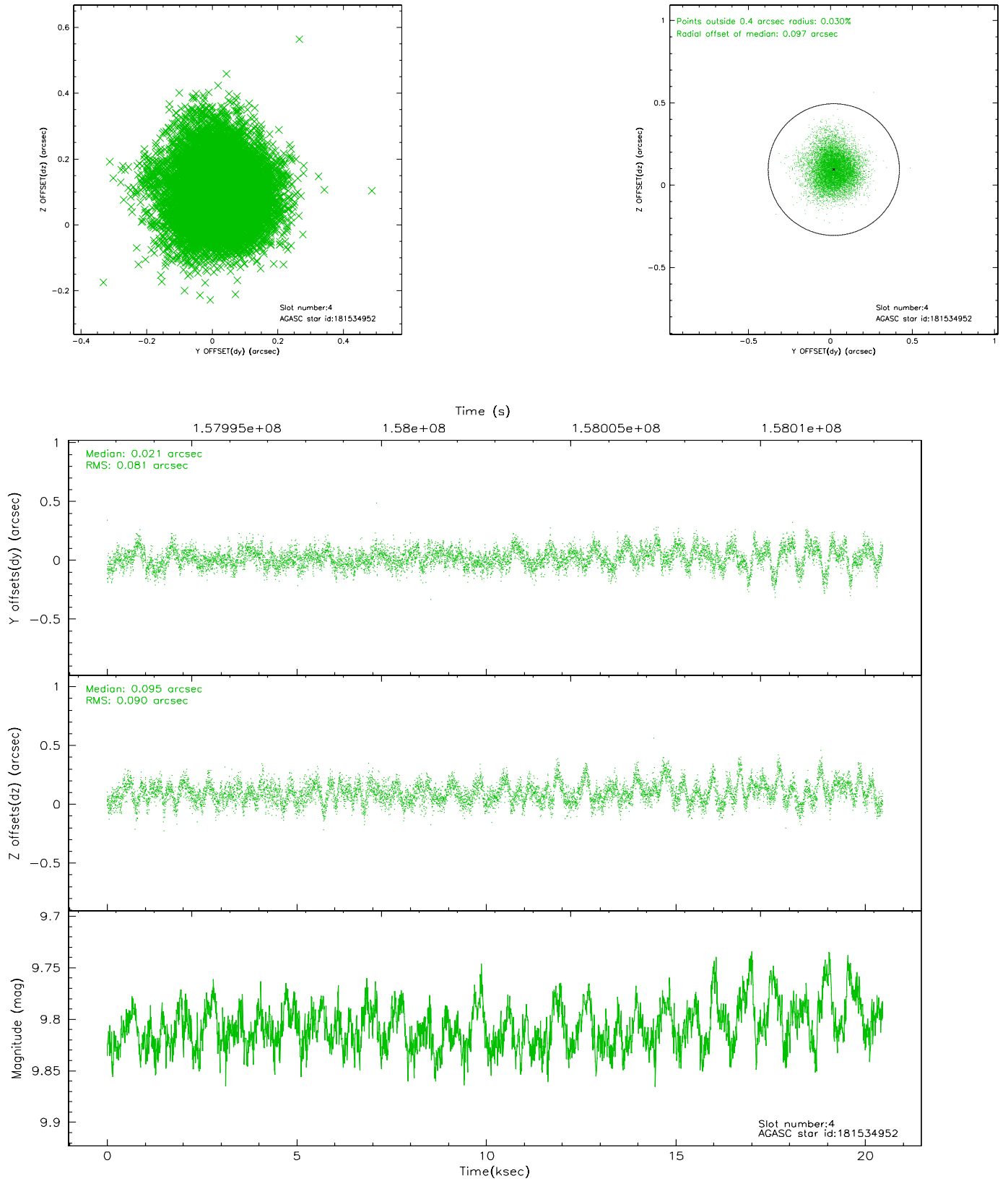
| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0    | FID    | ACIS-I-1  | 7.25 | 4993  | -0.027 | 0.065  | 0.023 | 0.050 | 0.000000   | 0.000000  | 937.90   | -830.91  |
| 1    | FID    | ACIS-I-5  | 7.24 | 4992  | -0.022 | 0.039  | 0.011 | 0.024 | 0.000000   | 0.000000  | -1810.07 | 1066.49  |
| 2    | FID    | ACIS-I-6  | 7.26 | 4993  | -0.040 | -0.035 | 0.017 | 0.027 | 0.000000   | 0.000000  | 403.28   | 1711.10  |
| 3    | GUIDE  | 181534872 | 8.70 | 9928  | 0.076  | 0.028  | 0.119 | 0.173 | 122.048586 | 20.562714 | -2276.01 | -678.75  |
| 4    | GUIDE  | 181534952 | 9.81 | 9980  | 0.021  | 0.095  | 0.128 | 0.208 | 122.257601 | 20.539153 | -2248.84 | -1387.92 |
| 5    | GUIDE  | 182061696 | 9.74 | 9973  | -0.004 | -0.034 | 0.118 | 0.194 | 122.373049 | 21.367790 | 758.05   | -1297.35 |
| 6    | GUIDE  | 181942008 | 9.33 | 9977  | 0.041  | -0.148 | 0.098 | 0.160 | 121.454983 | 20.803759 | -1729.26 | 1430.82  |
| 7    | GUIDE  | 182062104 | 9.69 | 9971  | -0.144 | 0.076  | 0.206 | 0.329 | 122.204442 | 21.589629 | 1456.83  | -612.55  |

## 2.4 Star Slots

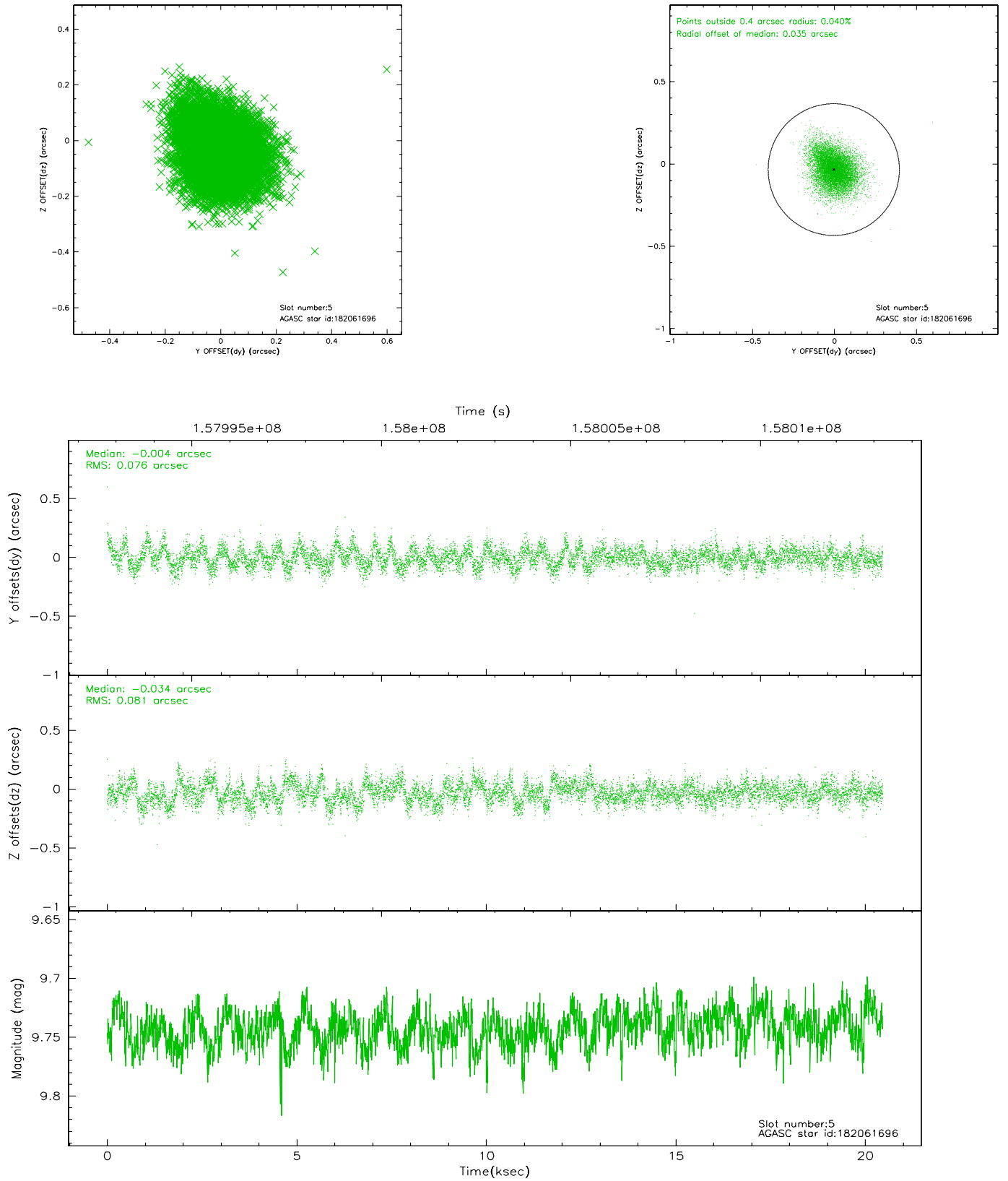
### 2.4.1 Slot 3



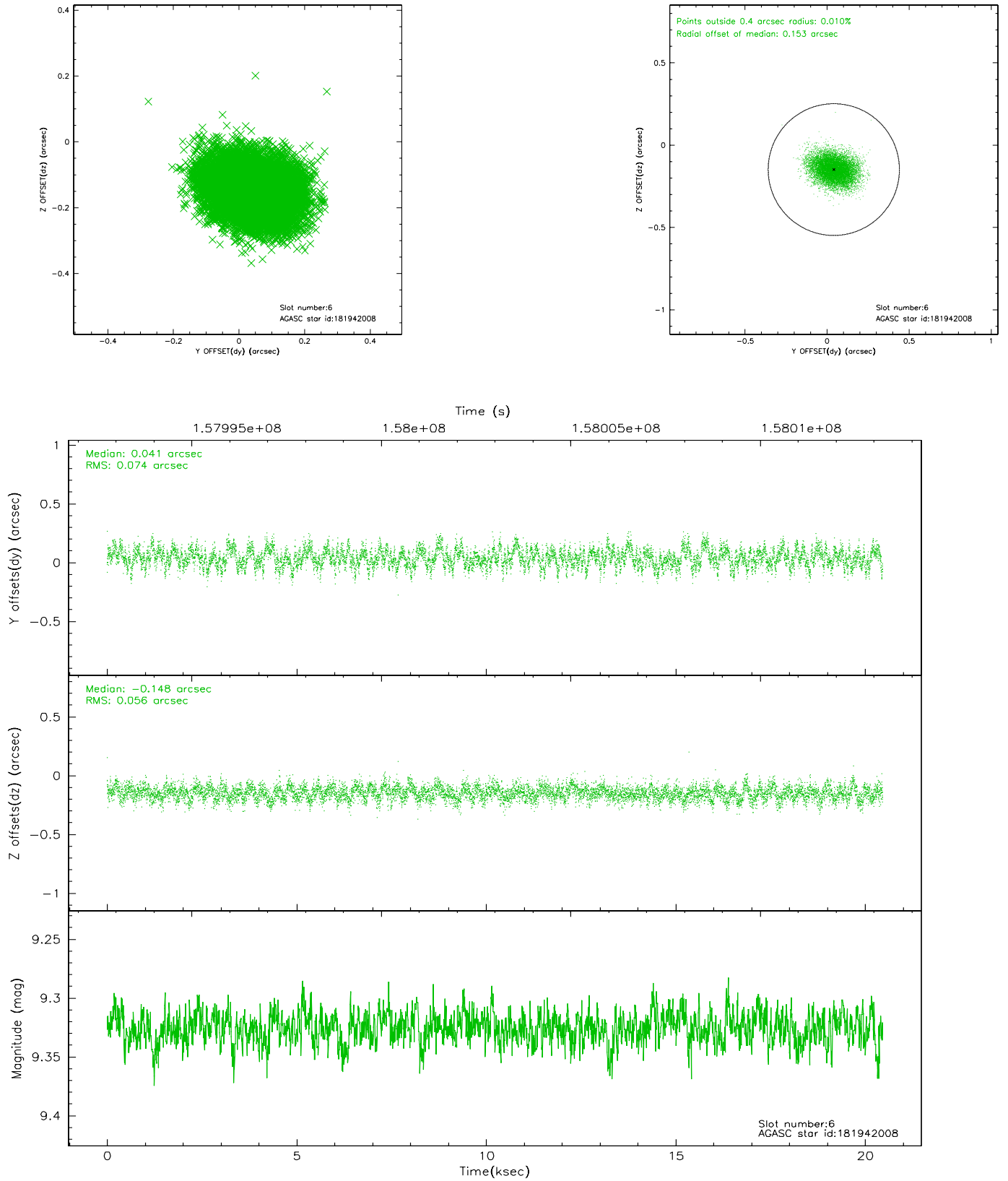
## 2.4.2 Slot 4



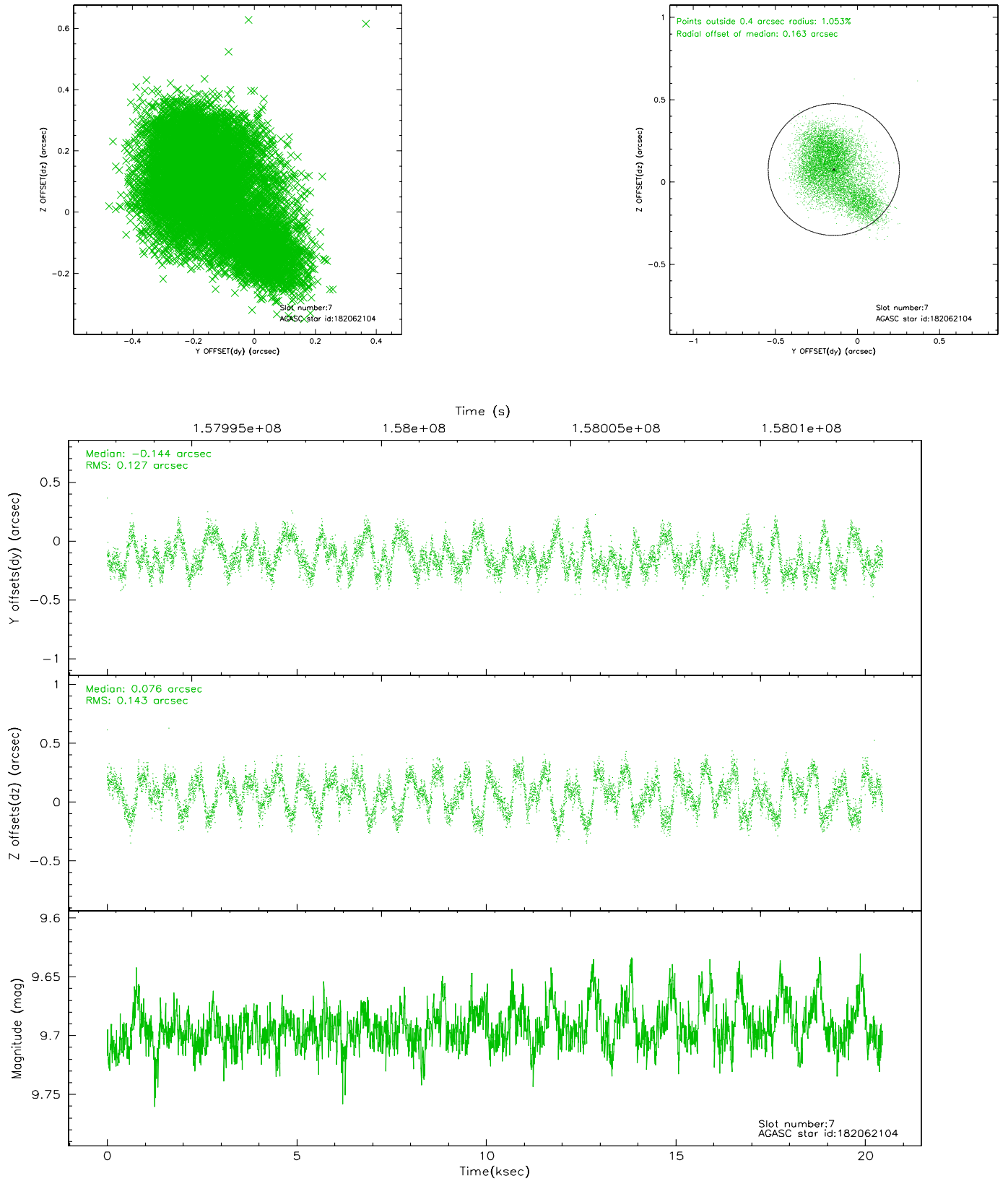
### 2.4.3 Slot 5



## 2.4.4 Slot 6

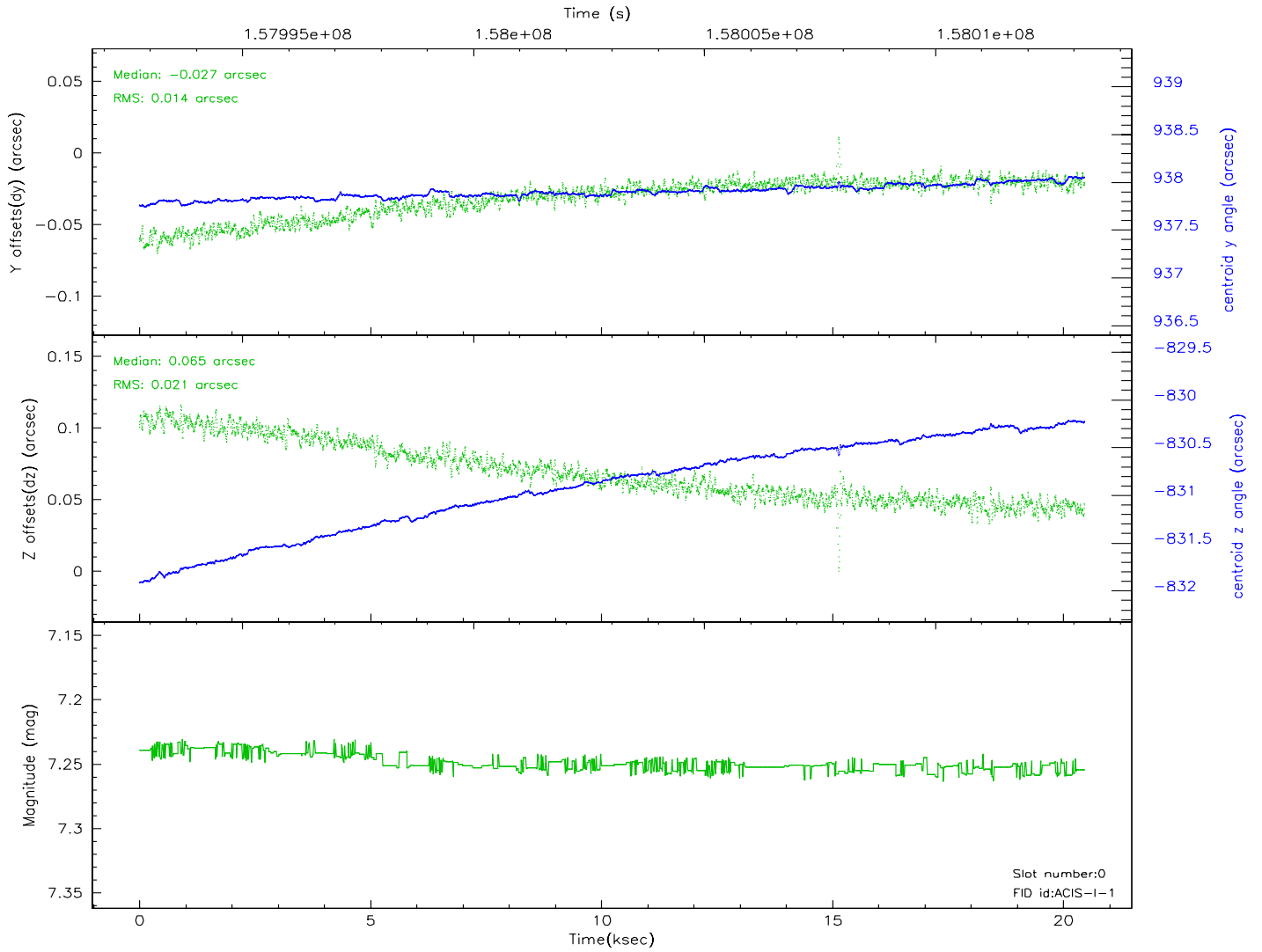
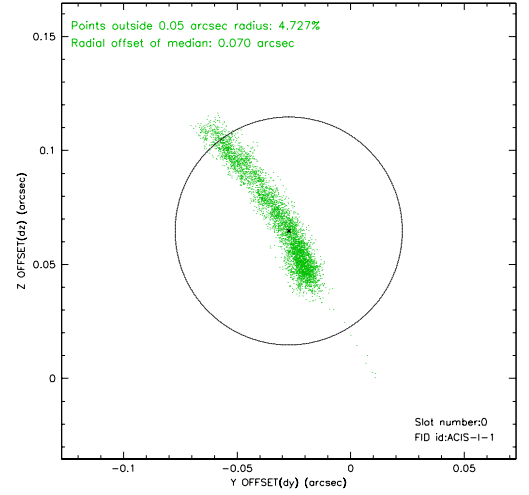
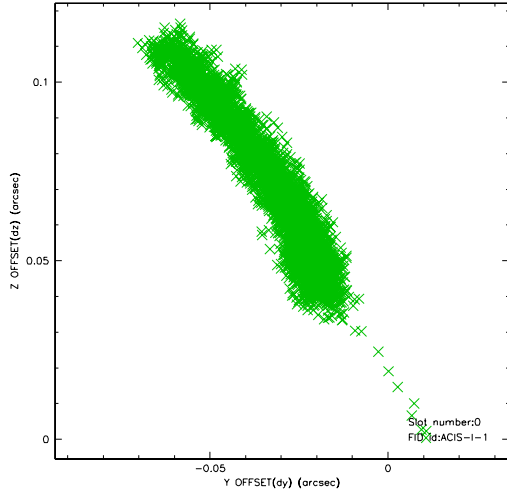


## 2.4.5 Slot 7

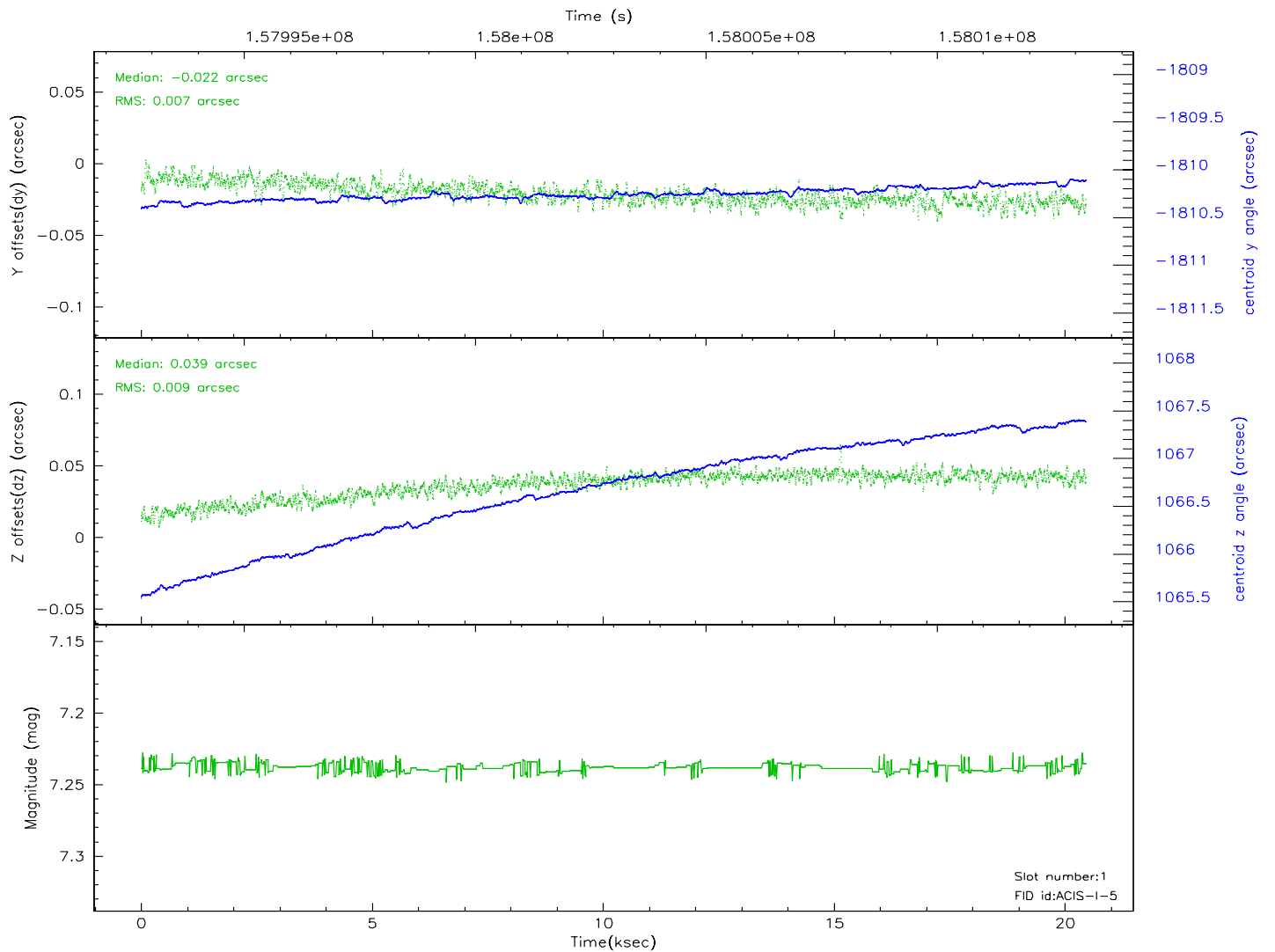
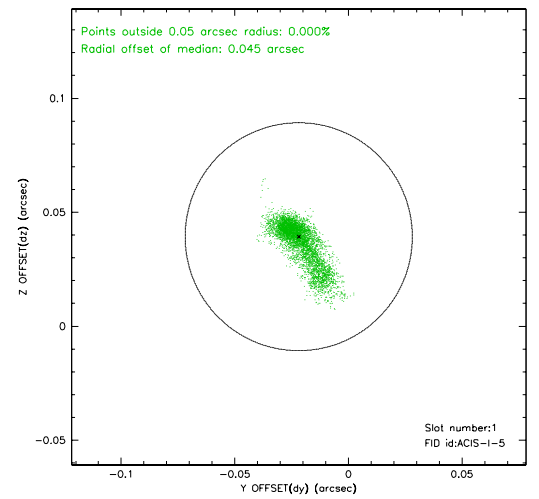
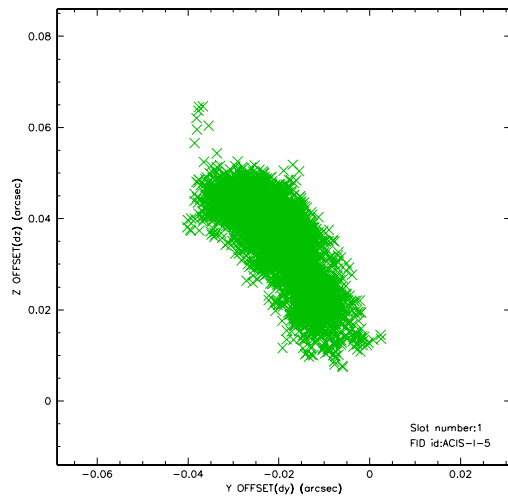


## 2.5 FID Slots

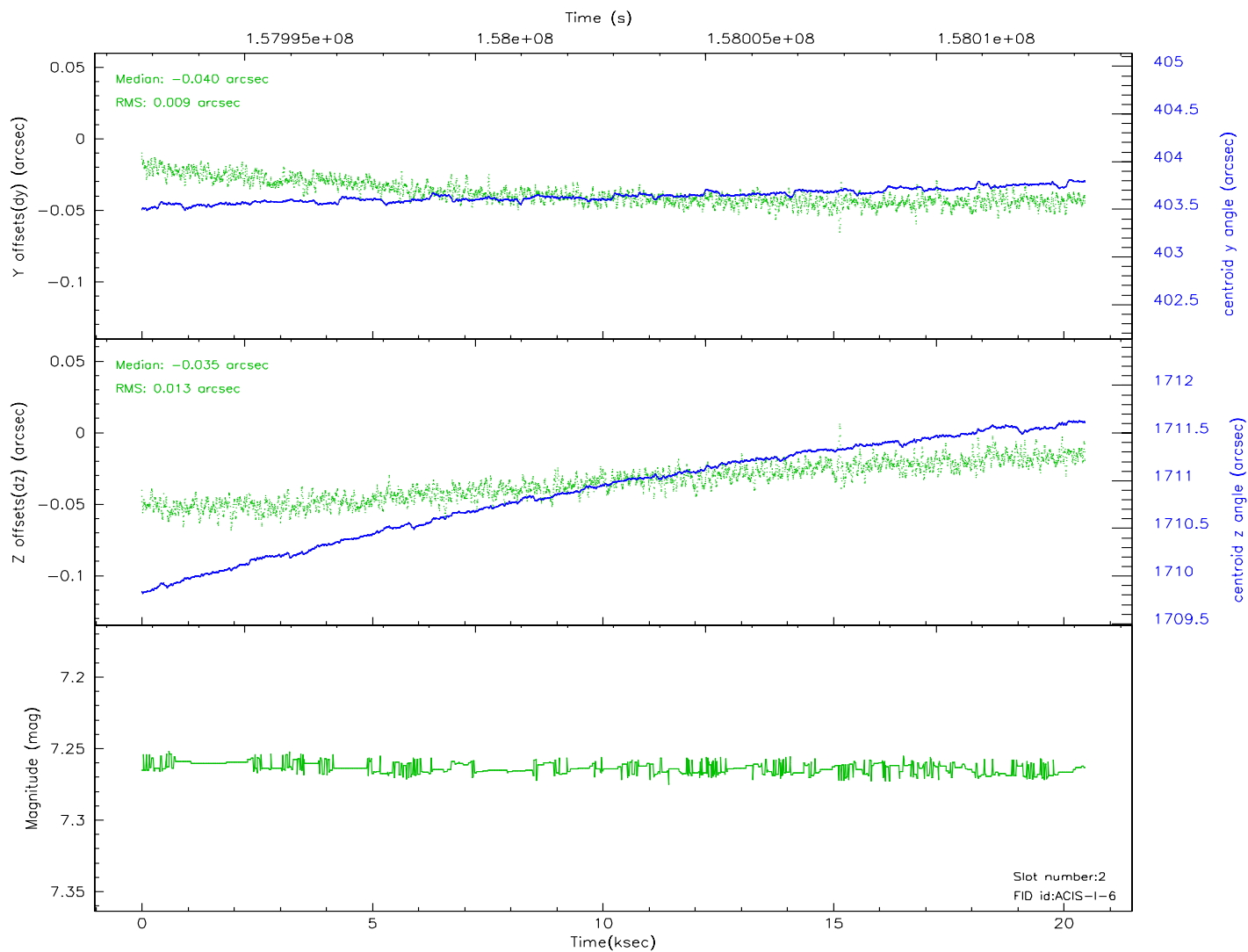
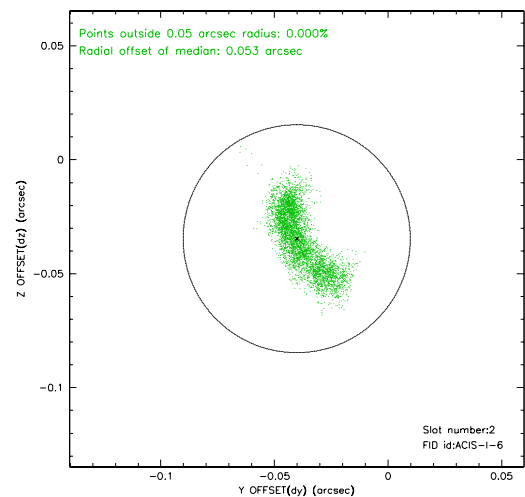
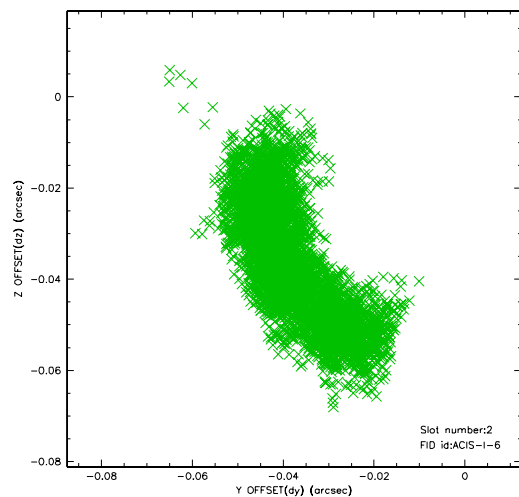
### 2.5.1 Slot 0



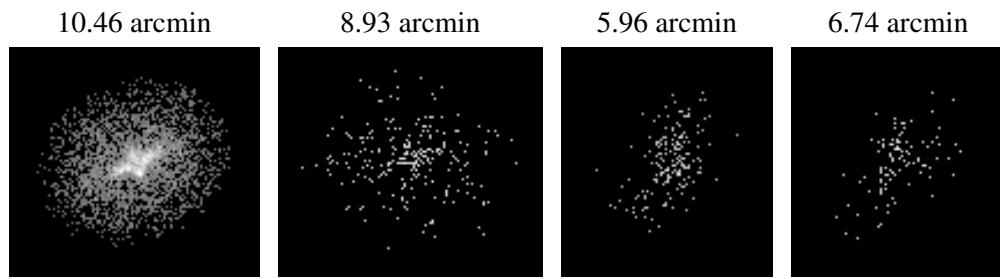
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



## A Summary

### A.1 Status

|                            |            |
|----------------------------|------------|
| V&V Scientist              | Jen Lauer  |
| V&V Date (YYYY-MM-DD)      | 2006.10.19 |
| V&V Edition                | 1          |
| V&V Disposition and Status | OK         |
| V&V Charge Time            | 19.964     |

### A.2 Comments

Monitor constraint met.