

# V&V Reference Report

## L2 ASCDS Version : 8.2.1

Observation 1208 - L2 Version 2

Chandra X-Ray Center

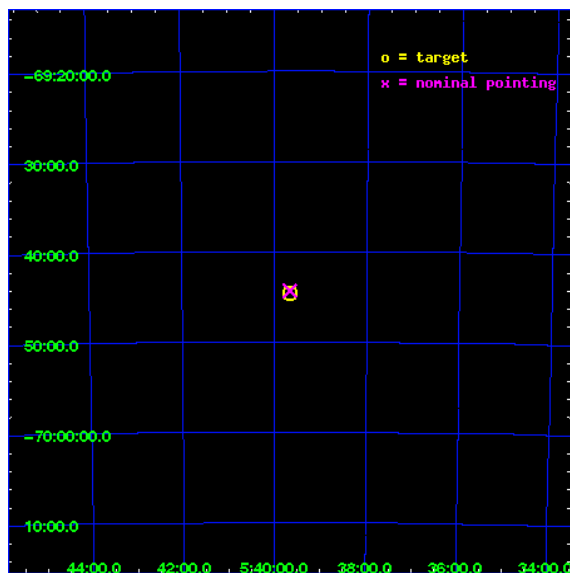
L2 Processing Date : Feb 1 2010

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# 1 Front

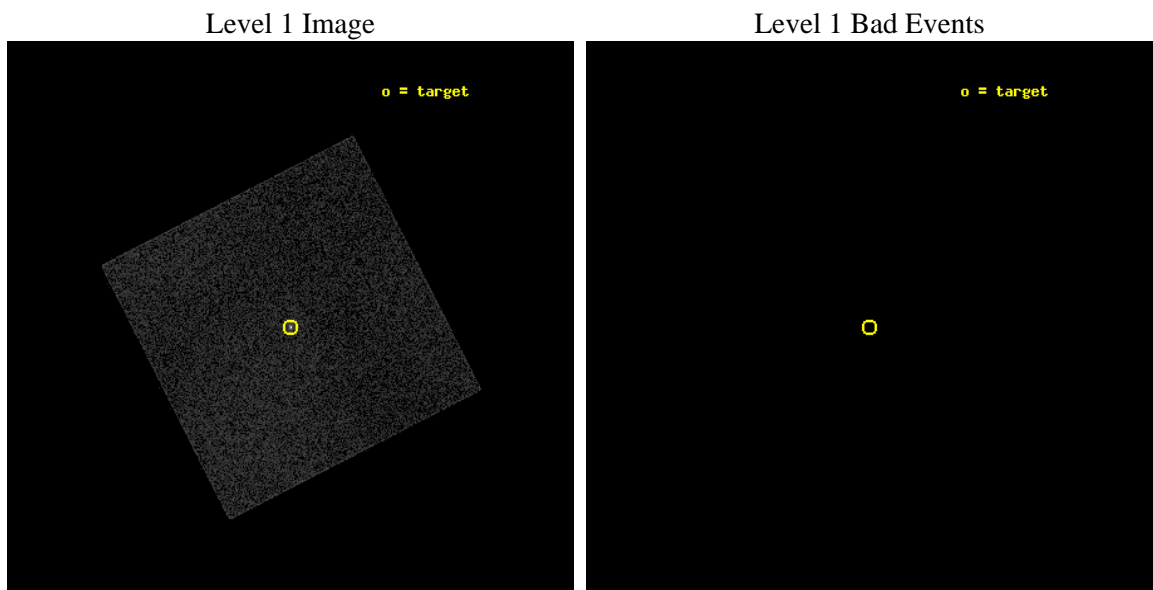
|          |                     |                                 |
|----------|---------------------|---------------------------------|
| seq_num  | 480158              | Sequence number                 |
| obs_id   | 1208                | Observation id                  |
| title    | &#160               | Proposal title                  |
| observer | Dr. CXC Calibration | Principal investigator          |
| object   | LMC X-1             | Source name                     |
| ra_targ  | 84.914583           | Observer's specified target RA  |
| dec_targ | -69.743611          | Observer's specified target Dec |
| ra_nom   | 84.916232838725     | Nominal RA                      |
| dec_nom  | -69.73883606919     | Nominal Dec                     |
| roll_nom | 107.98920761595     | Nominal Roll                    |
| revision | 2                   | Processing version of data      |
| ontime   | 0.0                 | [s]                             |
| livetime | 0.0                 | Ontime multiplied by DTCOR      |
| l2events | 0                   | Number of level 2 events        |



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

|          |                     |                                |                |             |                                     |
|----------|---------------------|--------------------------------|----------------|-------------|-------------------------------------|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 1800.000000 | Scheduled observation exposure time |
| ascdsver | 8.2.1               | Processing system revision     | ontime         | 0.0         | [s]                                 |
| caldbver | 4.1.5               | &#160                          | l1events       | 70983       | Number of level 1 events            |
| date     | 2010-02-02T02:22:05 | Date and time of file creation |                |             |                                     |
| revision | 3                   | Processing version of data     |                |             |                                     |

### 2.1.3 Events

#### Level 1 Events

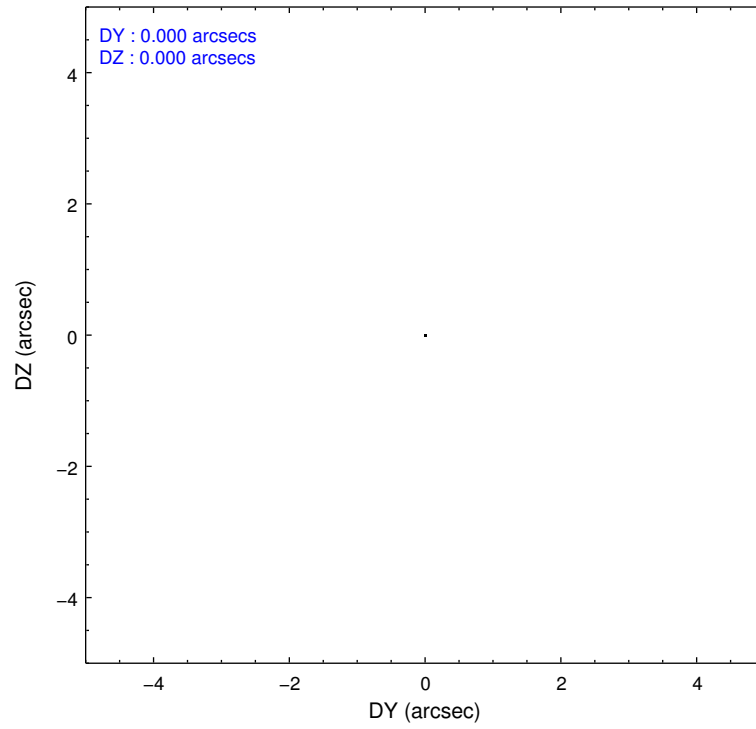
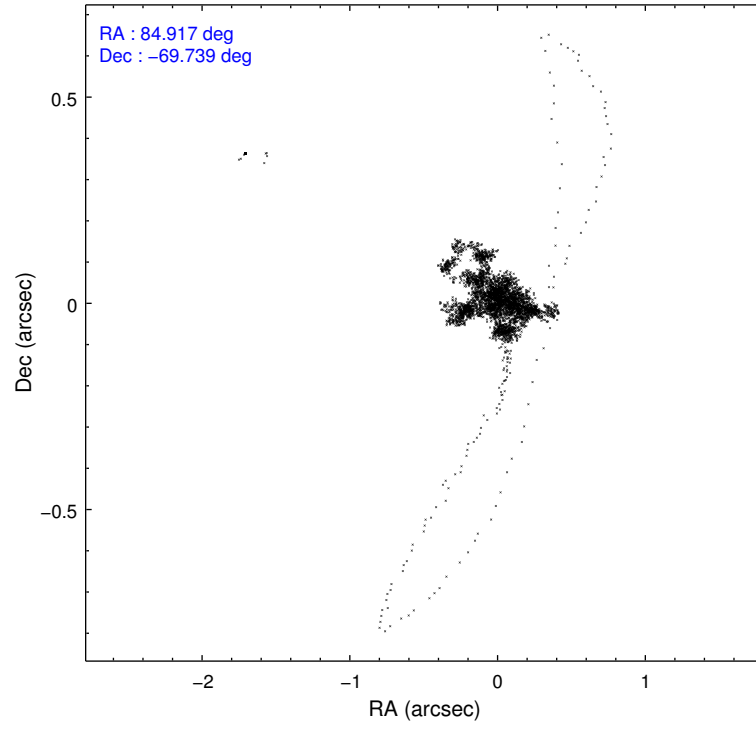
|                 |                      |
|-----------------|----------------------|
|                 | <b>segment<br/>0</b> |
| level 1 events  | 70983                |
| rejected events | 0                    |
| rejected %      | 0%                   |

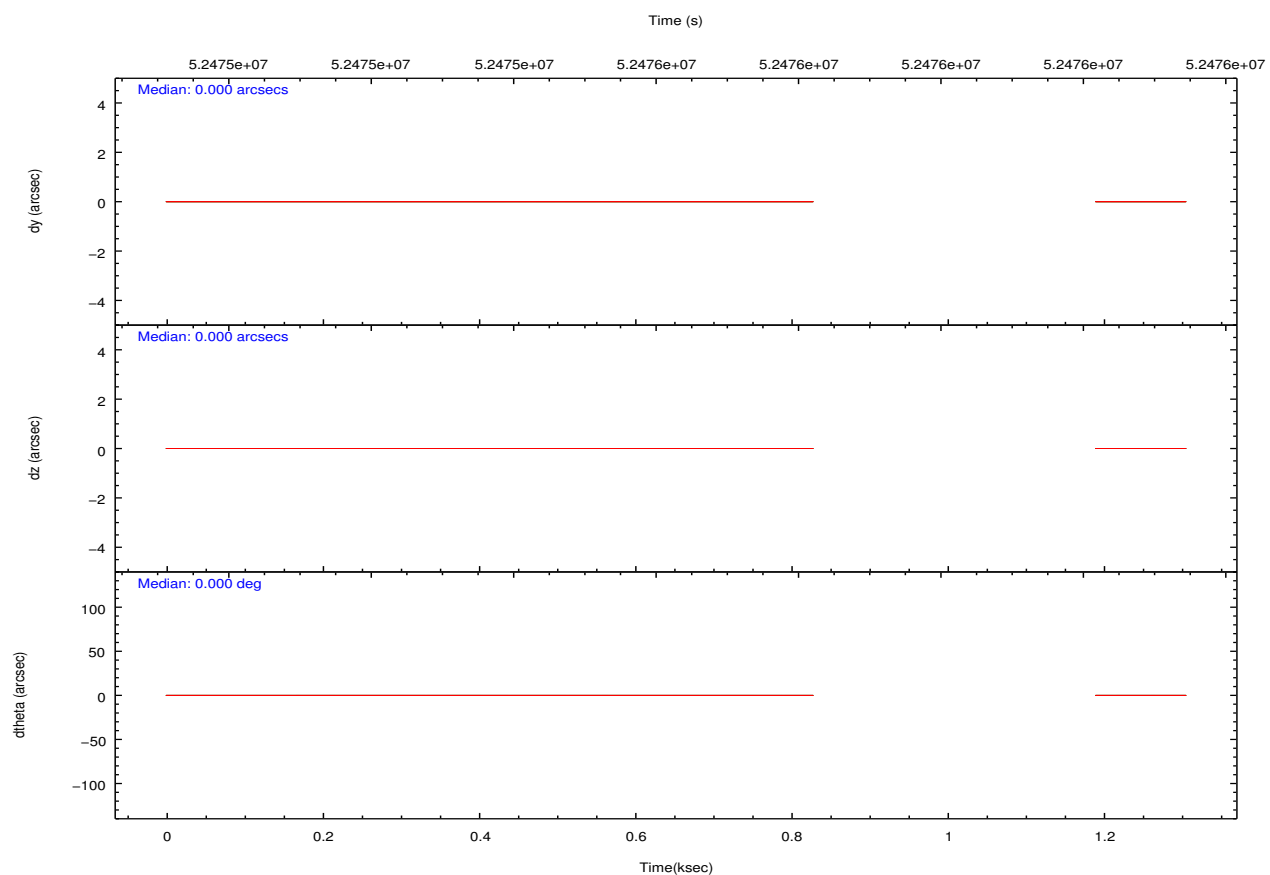
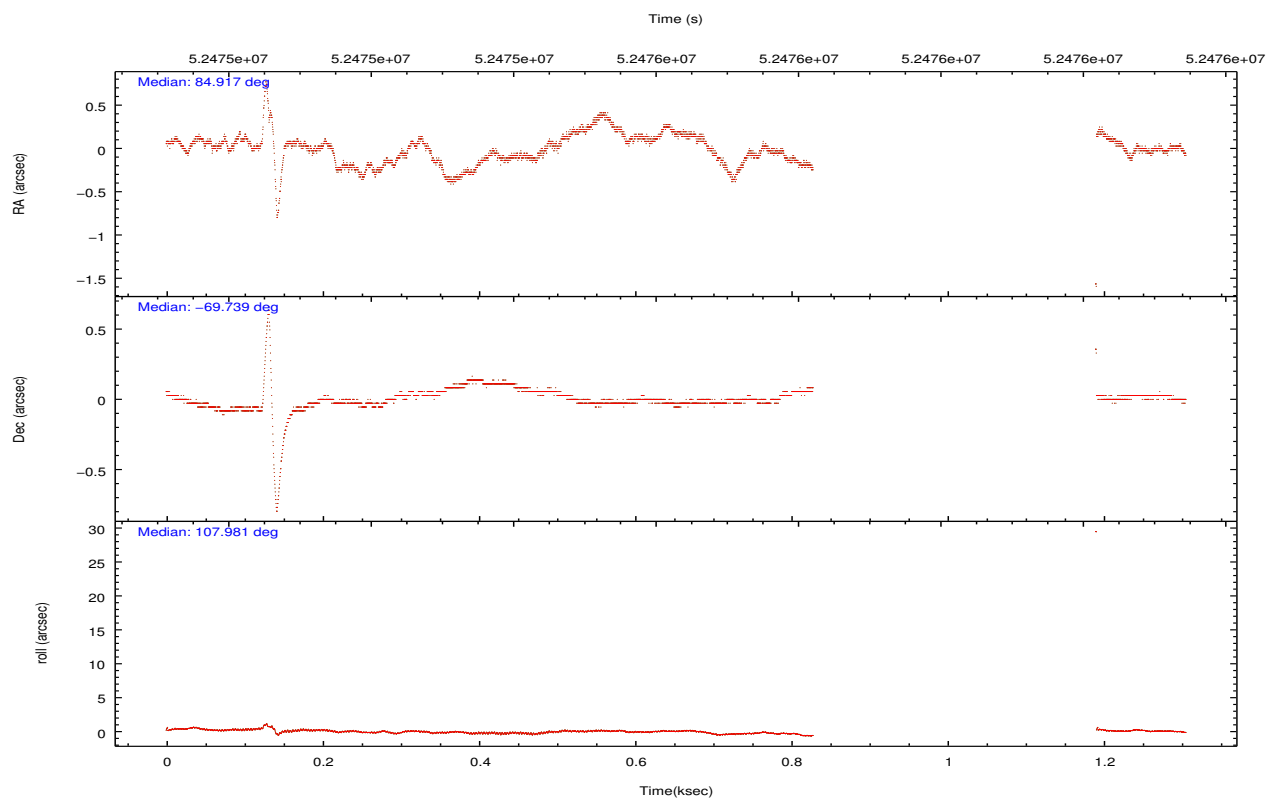
## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               |
|-----------------------------------|---------------------|----------------------|
| Instrument                        | HRC                 | HRC                  |
| Detector                          | HRC-I               | HRC-I                |
| Grating                           | NONE                | NONE                 |
| Data mode                         | OBSERVING           | OBSERVING            |
| Observation mode                  | POINTING            | POINTING             |
| Pointing RA                       | 84.974973           | 84.91623283872536    |
| Pointing Dec                      | -69.757107          | -69.73883606918983   |
| Pointing Roll                     | 108.139814          | 107.9892076159487    |
| SIM focus pos (mm)                | -0.040293           | 0.255451383487682    |
| SIM defocus (mm)                  | 1                   | 1.295744004146556    |
| SIM translation stage pos (mm)    | 126.985494          | 126.9829799899862    |
| SIM translation stage offset (mm) | 0                   | 0.002508901615314585 |
| Observation start time            | 52473664.184000     | 52474973.522808      |
| Observation start date            | 1999-08-31T08:00:00 | 1999-08-31T08:22:53  |
| Observation end time              | 52475464.184000     | 52476281.422855      |
| Observation end date              | 1999-08-31T08:30:00 | 1999-08-31T08:44:41  |

| Parameter                    | Planned   | Actual  |
|------------------------------|-----------|---------|
| Obspar format version number | 6         | 6       |
| Obspar file type             | PREDICTED | ACTUAL  |
| Obspar update status         | NONE      | UPDATED |

## 2.3 Aspect





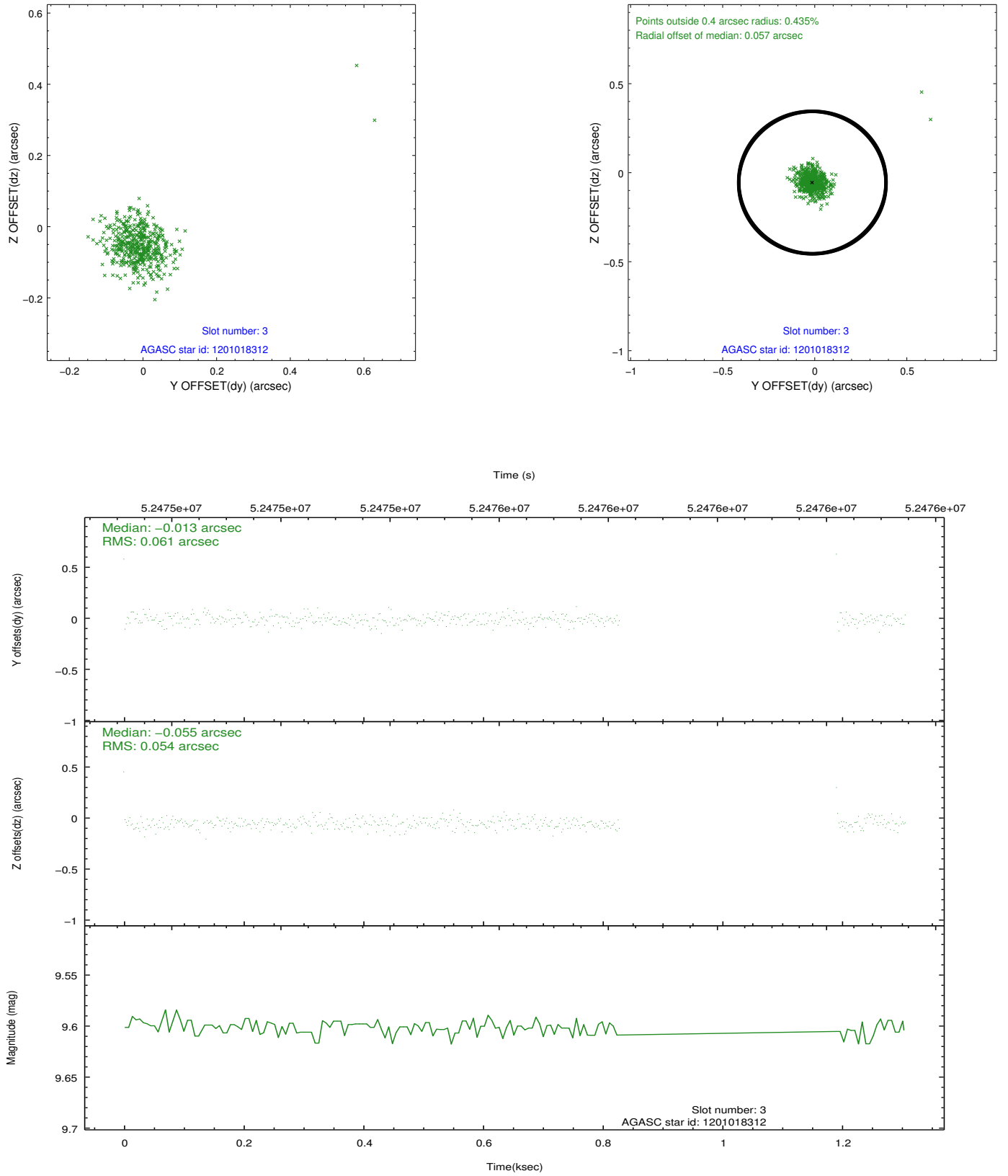
Slot Statistics

| slot | status | id         | mag   | n_pts | med_dy | med_dz | drl   | dr2   | ra        | dec        | mean_y   | mean_z   |
|------|--------|------------|-------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0    | UNUSED |            | 0.00  | 0     | 0.000  | 0.000  | 0.000 | 0.000 | 0.000000  | 0.000000   | 0.00     | 0.00     |
| 1    | UNUSED |            | 0.00  | 0     | 0.000  | 0.000  | 0.000 | 0.000 | 0.000000  | 0.000000   | 0.00     | 0.00     |
| 2    | UNUSED |            | 0.00  | 0     | 0.000  | 0.000  | 0.000 | 0.000 | 0.000000  | 0.000000   | 0.00     | 0.00     |
| 3    | GUIDE  | 1201018312 | 9.60  | 460   | -0.013 | -0.055 | 0.069 | 0.113 | 86.298231 | -69.115627 | 1649.35  | -2326.37 |
| 4    | GUIDE  | 1201407840 | 8.00  | 461   | -0.145 | 0.133  | 0.033 | 0.053 | 83.696303 | -70.172201 | -945.89  | 1949.42  |
| 5    | GUIDE  | 1201411368 | 10.05 | 458   | 0.149  | -0.168 | 0.090 | 0.159 | 83.629696 | -70.495613 | -2041.88 | 2374.11  |
| 6    | UNUSED |            | 0.00  | 0     | 0.000  | 0.000  | 0.000 | 0.000 | 0.000000  | 0.000000   | 0.00     | 0.00     |
| 7    | GUIDE  | 1201540776 | 9.60  | 460   | 0.013  | 0.087  | 0.065 | 0.111 | 85.107945 | -69.858480 | -402.19  | -37.34   |

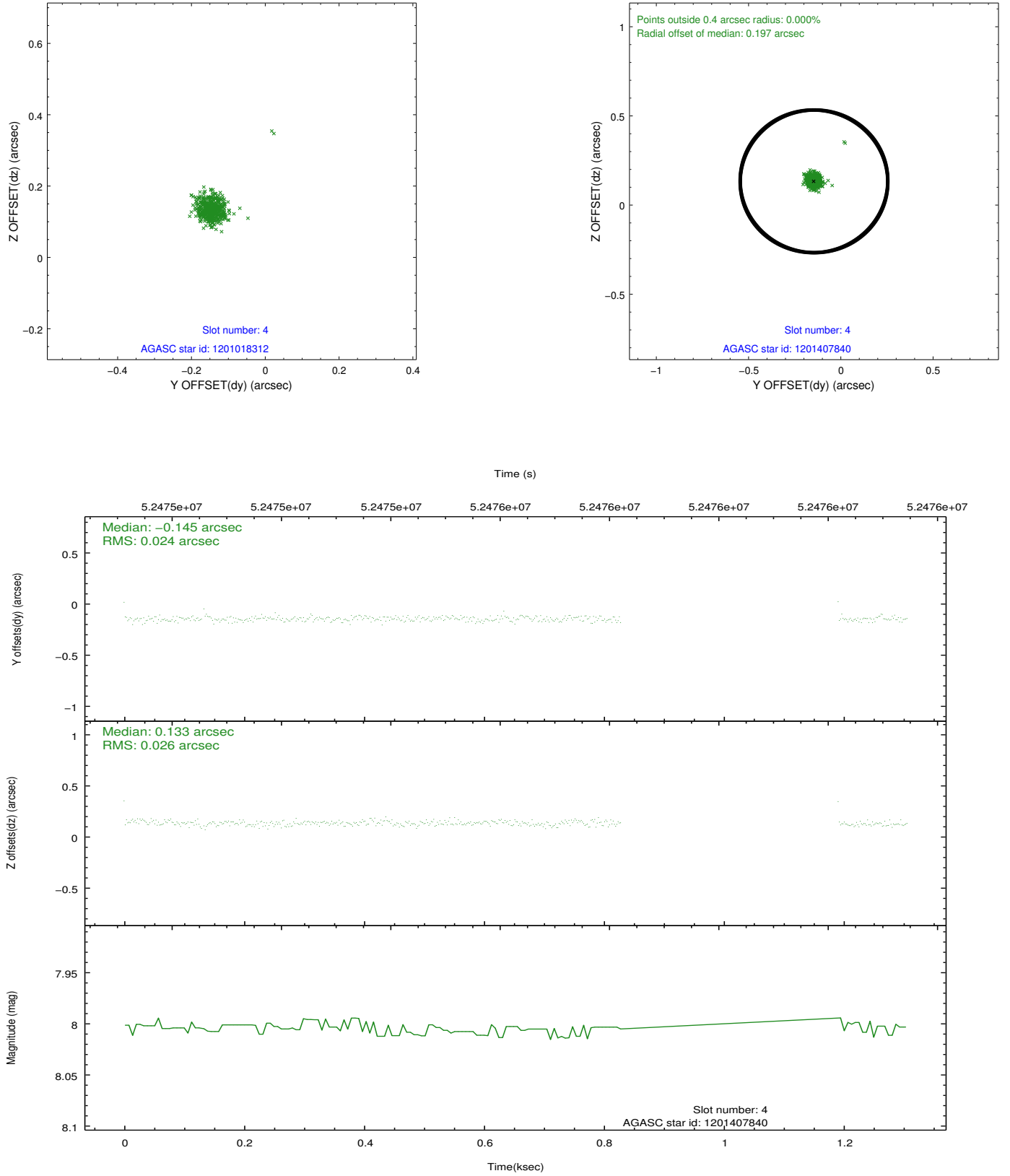


## 2.4 Star Slots

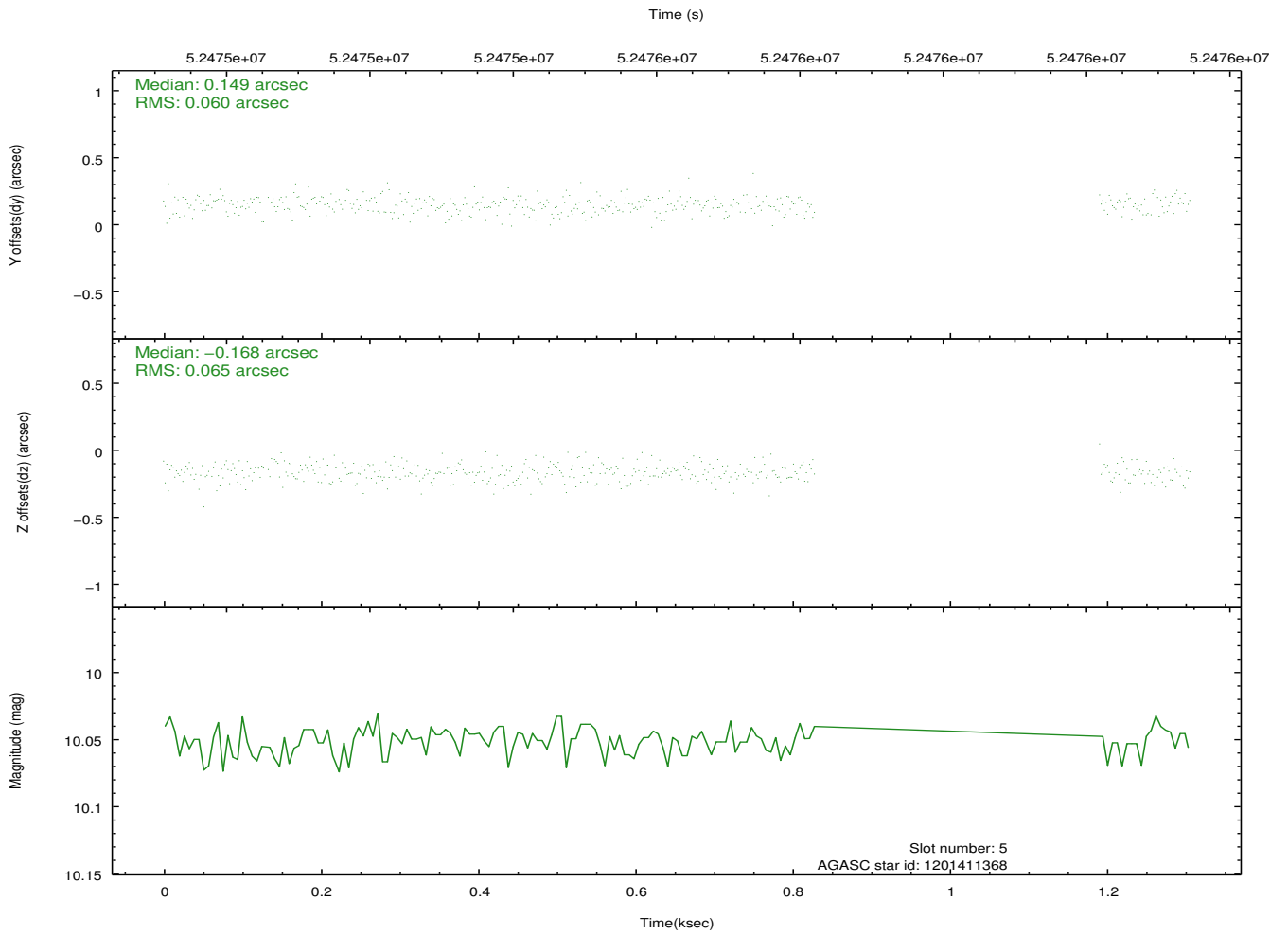
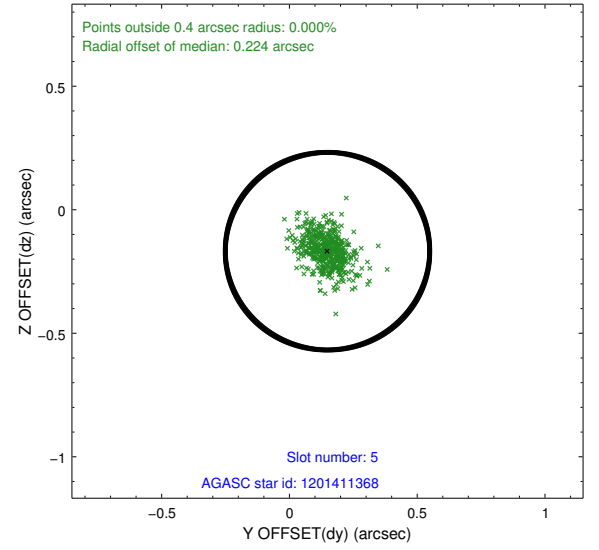
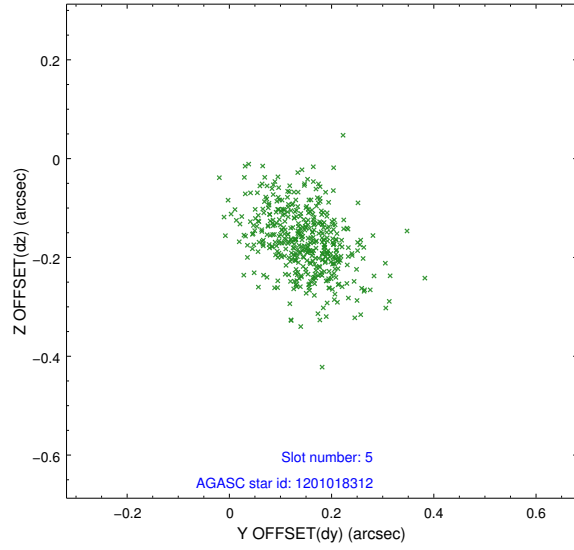
### 2.4.1 Slot 3



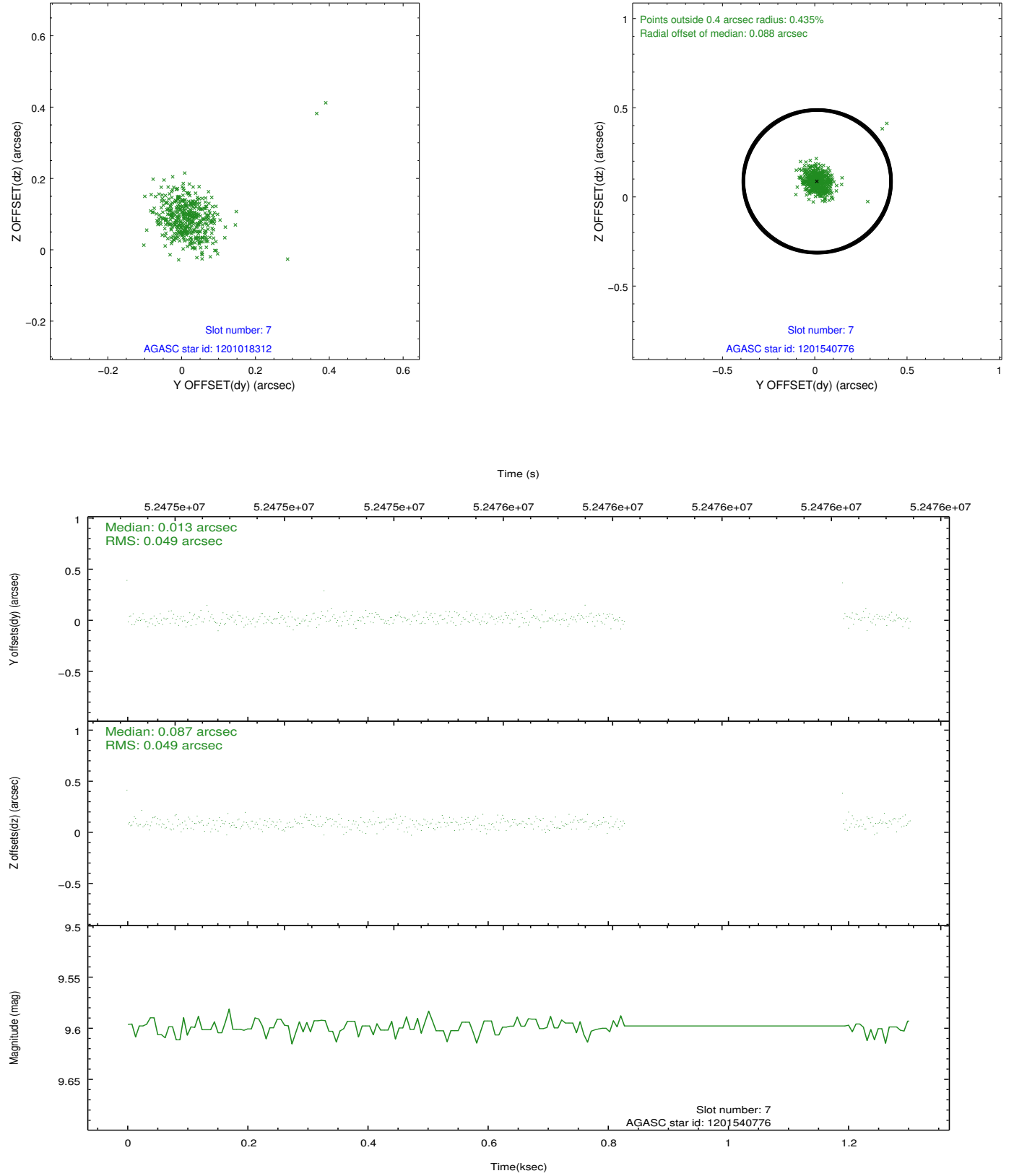
## 2.4.2 Slot 4



### 2.4.3 Slot 5



## 2.4.4 Slot 7



## 2.5 FID Slots

### 3 Point Sources

# A Summary

## A.1 Status

|                            |             |
|----------------------------|-------------|
| V&V Scientist              | Joy Nichols |
| V&V Date (YYYY-MM-DD)      | 2010.02.02  |
| V&V Edition                | 1           |
| V&V Disposition and Status | OK          |
| V&V Charge Time            | 1           |

## A.2 Comments

HRC shutter location and focus/tilt test. All fid lights blocked by HRC shutter. No fid lights were used during this observation, so there is no Good Time Interval. SIM offsets set to zero. As a result, there are no Level 2 events. However, the Level 1 event energy data are good. The aspect solution is compromised. Also, the guide star in slot 6 was removed from the aspect solution due to poor data quality.

====Data gap of about 0.4 ksec occurs about 0.8 ksec into the observation. This gap affects all data, including aspect data, event data, and housekeeping data.

===Jump in high voltage beginning 3.6 ksec into the observation and ending about 5 ksec into the observation. During this time there were no counts detected.No fids = no charge time (was 1.0 ksec)  
Something happened at ~0.8 ksec

Slots 0, 1, 2, and 6 were not utilized in this observation.