

# V&V Reference Report

## L2 ASCDS Version : 8.1.2

Observation 1159 - L2 Version 6

Chandra X-Ray Center

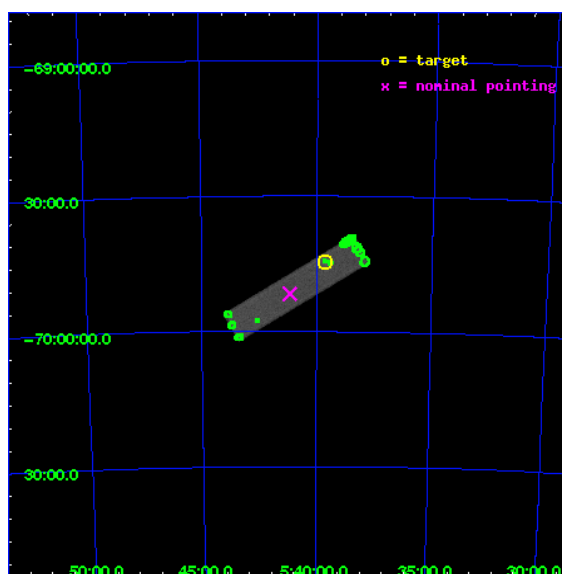
L2 Processing Date : Dec 2 2009

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# 1 Front

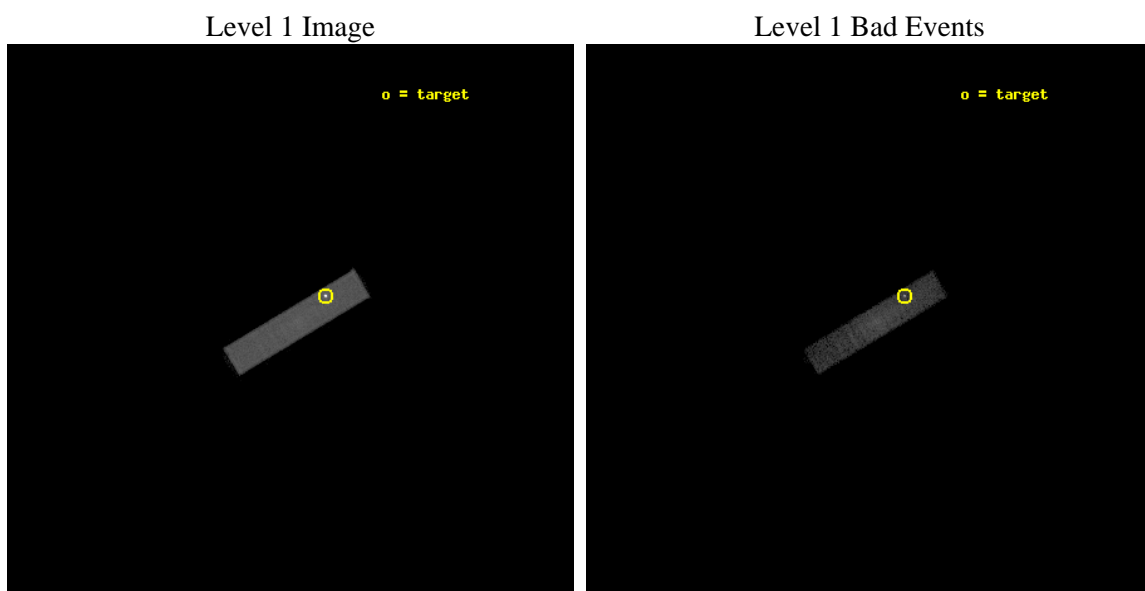
|          |                     |                                 |
|----------|---------------------|---------------------------------|
| seq_num  | 480109              | Sequence number                 |
| obs_id   | 1159                | Observation id                  |
| title    | &#160               | 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   | 85.290686130894     | Nominal RA                      |
| dec_nom  | -69.861728475943    | Nominal Dec                     |
| roll_nom | 329.06775770532     | Nominal Roll                    |
| revision | 6                   | Processing version of data      |
| ontime   | 2204.0063300729     | [s]                             |
| livetime | 2188.4238883218     | Ontime multiplied by DTCOR      |
| l2events | 110271              | Number of level 2 events        |



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



2.1.2 Parameters

|          |                     |                                |                |                 |                                     |
|----------|---------------------|--------------------------------|----------------|-----------------|-------------------------------------|
| obi_num  | 1                   | Obi number                     | sched_exp_time | 2000.000000     | Scheduled observation exposure time |
| ascdsver | 8.1.2               | Processing system revision     | ontime         | 2204.0063300729 | [s]                                 |
| caldbver | 4.1.4               | &#160                          | l1events       | 143362          | Number of level 1 events            |
| date     | 2009-12-02T17:59:20 | Date and time of file creation |                |                 |                                     |
| revision | 5                   | Processing version of data     |                |                 |                                     |

2.1.3 Events

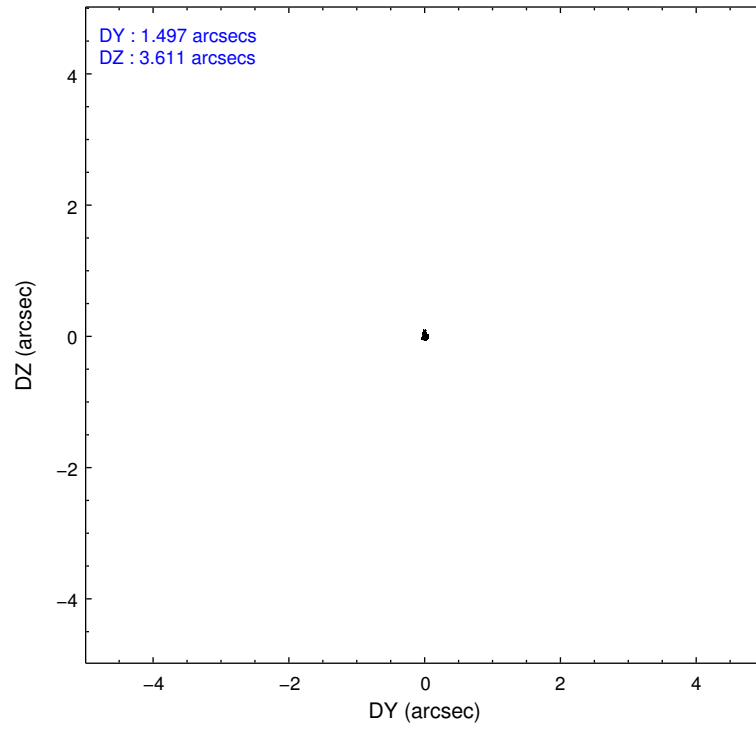
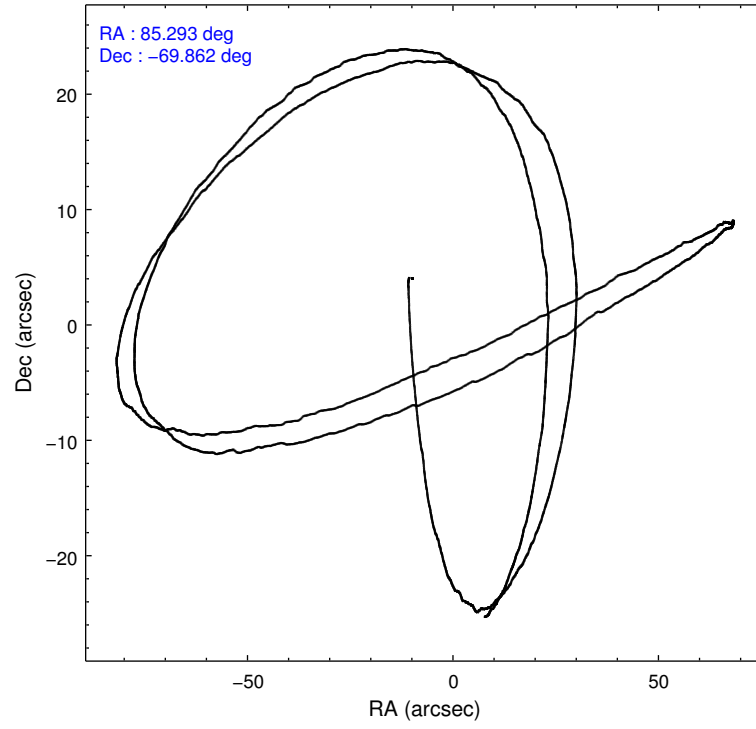
Level 1 Events

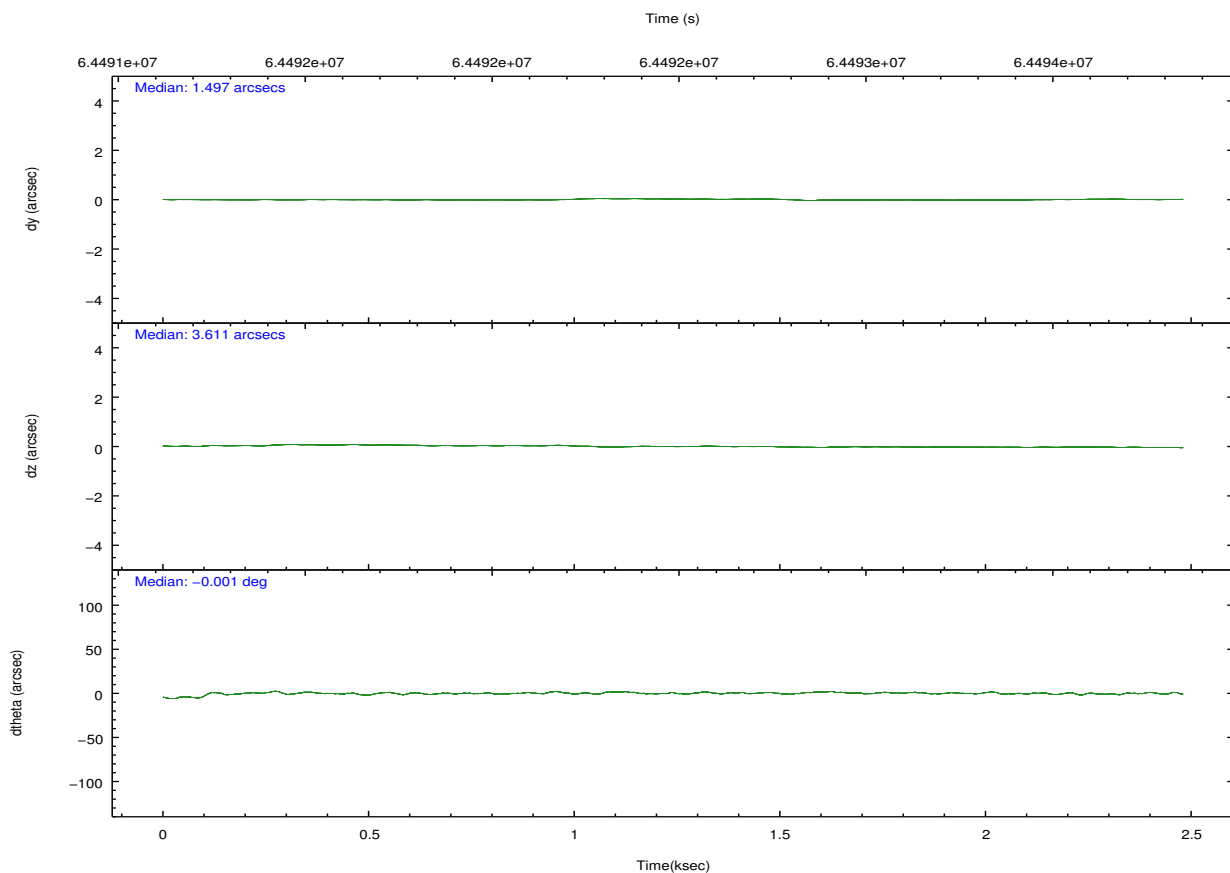
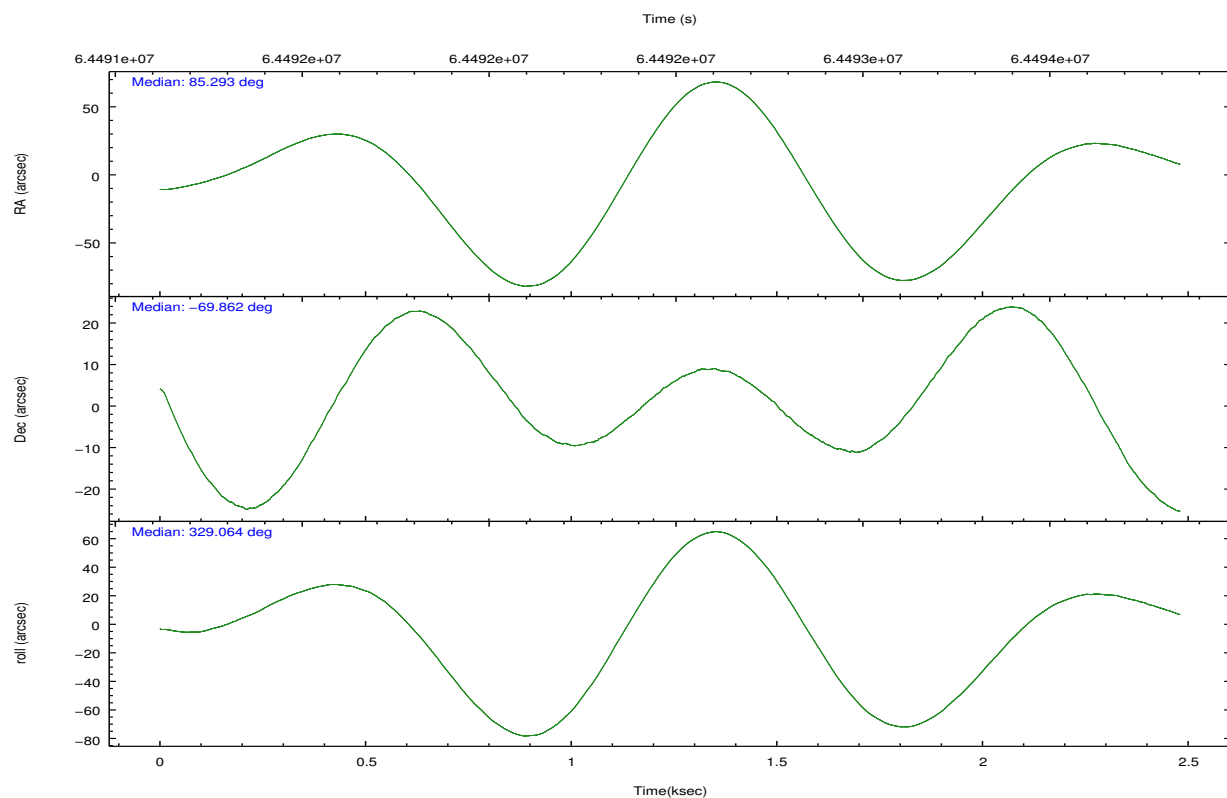
|                 | segment<br>1 | segment<br>2 | segment<br>3 |
|-----------------|--------------|--------------|--------------|
| level 1 events  | 0            | 143362       | 0            |
| rejected events | 0            | 27386        | 0            |
| rejected %      | 0%           | 19%          | 0%           |

## 2.2 Compared Parameters

| Parameter                         | Planned              | Actual               | Parameter                    | Planned   | Actual  |
|-----------------------------------|----------------------|----------------------|------------------------------|-----------|---------|
| Instrument                        | HRC                  | HRC                  | Obspar format version number | 6         | 6       |
| Detector                          | HRC-S                | HRC-S                | Obspar file type             | PREDICTED | ACTUAL  |
| Grating                           | NONE                 | NONE                 | Obspar update status         | NONE      | UPDATED |
| Data mode                         | OBSERVING            | OBSERVING            |                              |           |         |
| Observation mode                  | POINTING             | POINTING             |                              |           |         |
| Pointing RA                       | 85.205992            | 85.29068613089396    |                              |           |         |
| Pointing Dec                      | -69.861873           | -69.86172847594264   |                              |           |         |
| Pointing Roll                     | 328.920876           | 329.0677577053246    |                              |           |         |
| SIM focus pos (mm)                | -1.528523            | -1.428180813131781   |                              |           |         |
| SIM defocus (mm)                  | 0.004813771043328752 | 0.1051558262725154   |                              |           |         |
| SIM translation stage pos (mm)    | 250.455976           | 250.466033080201     |                              |           |         |
| SIM translation stage offset (mm) | 0                    | -0.01005468664627074 |                              |           |         |
| Observation start time            | 64491724.184000      | 64491058.186896      |                              |           |         |
| Observation start date            | 2000-01-17T10:21:00  | 2000-01-17T10:10:58  |                              |           |         |
| Observation end time              | 64493724.184000      | 64493857.974497      |                              |           |         |
| Observation end date              | 2000-01-17T10:54:20  | 2000-01-17T10:57:37  |                              |           |         |

## 2.3 Aspect





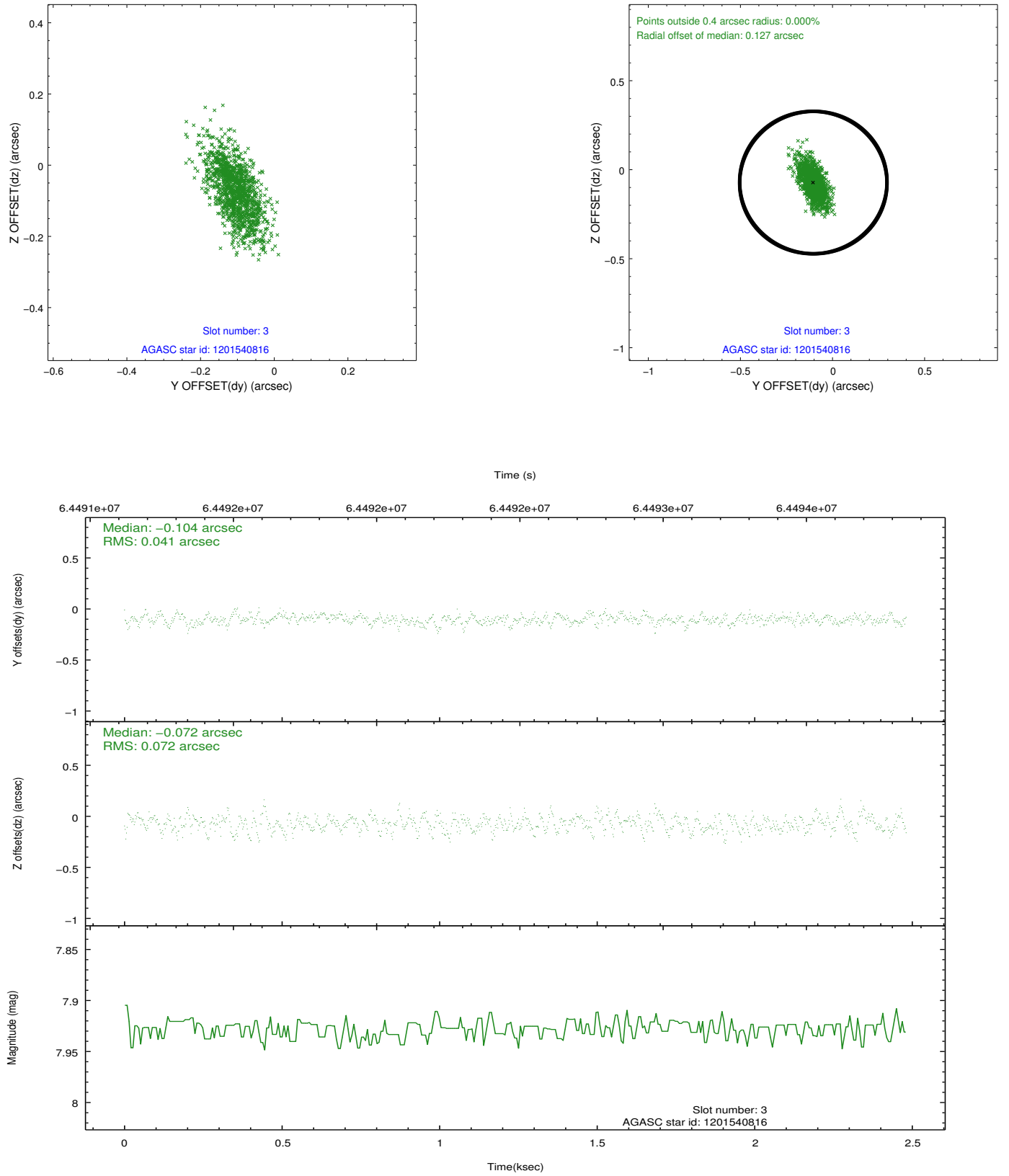
Slot Statistics

| slot | status | id         | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra        | dec        | mean_y   | mean_z   |
|------|--------|------------|------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0    | FID    | HRC-S-1    | 6.97 | 605   | 0.126  | -0.067 | 0.009 | 0.020 | 0.000000  | 0.000000   | -1155.54 | -451.97  |
| 1    | FID    | HRC-S-3    | 6.99 | 605   | 0.145  | -0.131 | 0.011 | 0.025 | 0.000000  | 0.000000   | -1160.11 | 576.75   |
| 2    | FID    | HRC-S-4    | 6.94 | 605   | 0.117  | -0.099 | 0.006 | 0.011 | 0.000000  | 0.000000   | 1240.83  | 580.96   |
| 3    | GUIDE  | 1201540816 | 7.93 | 1211  | -0.104 | -0.072 | 0.084 | 0.155 | 86.998494 | -69.749817 | 1719.61  | 1470.38  |
| 4    | GUIDE  | 1201540944 | 8.20 | 1211  | 0.023  | -0.033 | 0.089 | 0.160 | 87.496877 | -69.685010 | 2150.56  | 1978.52  |
| 5    | GUIDE  | 1201542672 | 8.19 | 1211  | 0.070  | 0.000  | 0.095 | 0.167 | 84.492488 | -69.957531 | -573.06  | -752.18  |
| 6    | GUIDE  | 1201540760 | 8.55 | 1211  | -0.039 | 0.104  | 0.099 | 0.175 | 84.403691 | -70.419249 | 208.35   | -2224.14 |
| 7    | GUIDE  | 1201407840 | 7.97 | 1210  | 0.047  | 0.000  | 0.097 | 0.177 | 83.696303 | -70.172201 | -991.29  | -1929.87 |

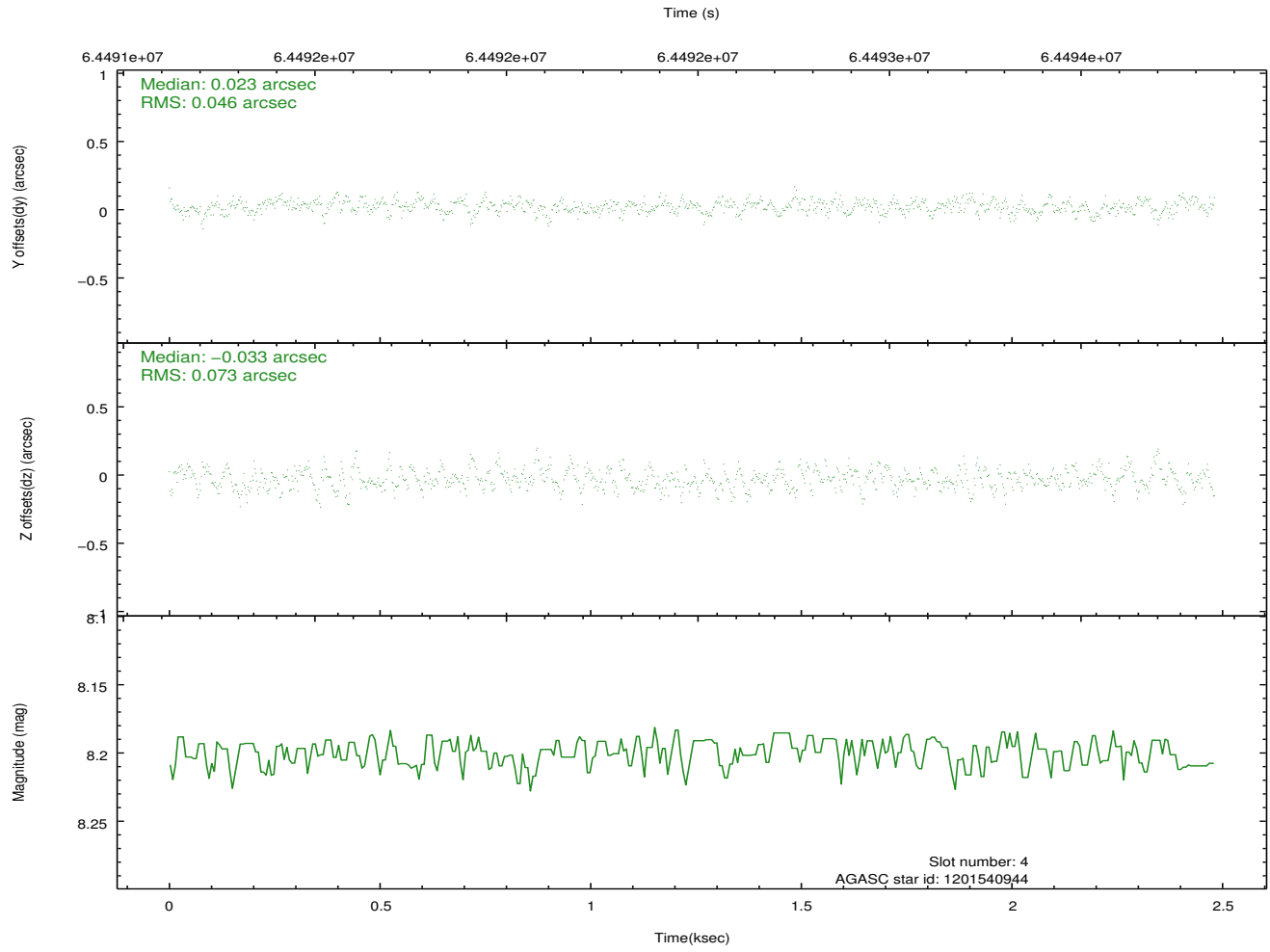
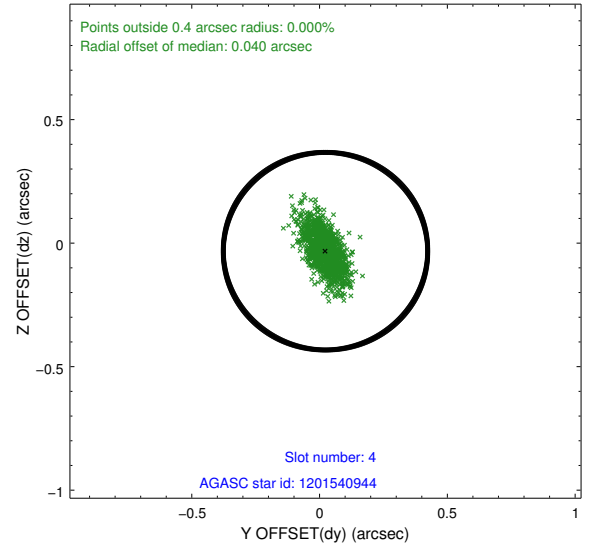
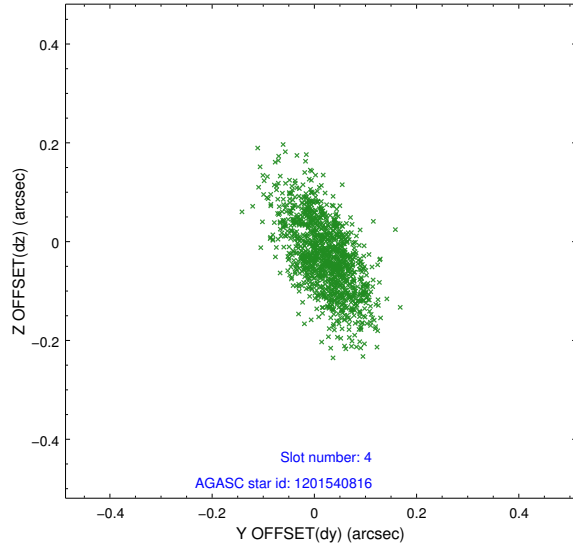


## 2.4 Star Slots

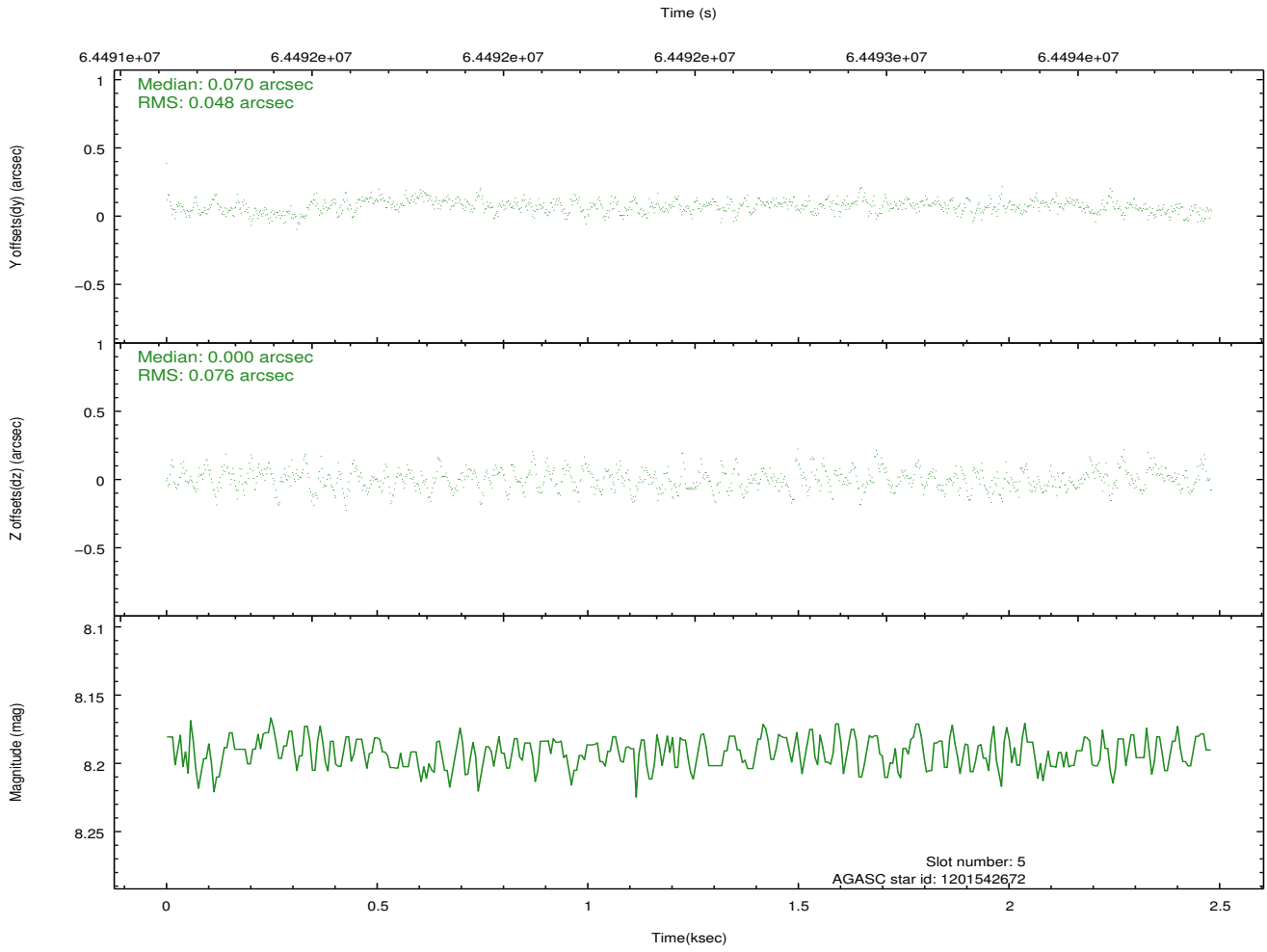
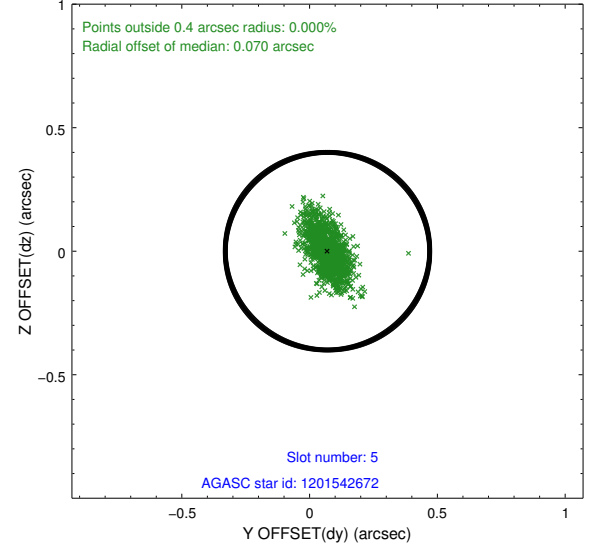
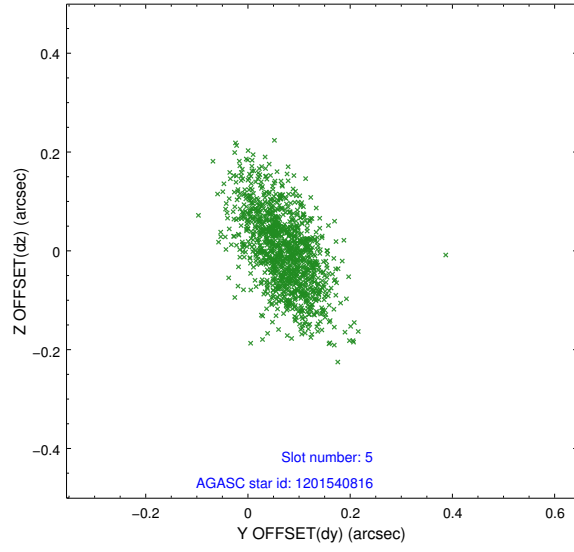
### 2.4.1 Slot 3



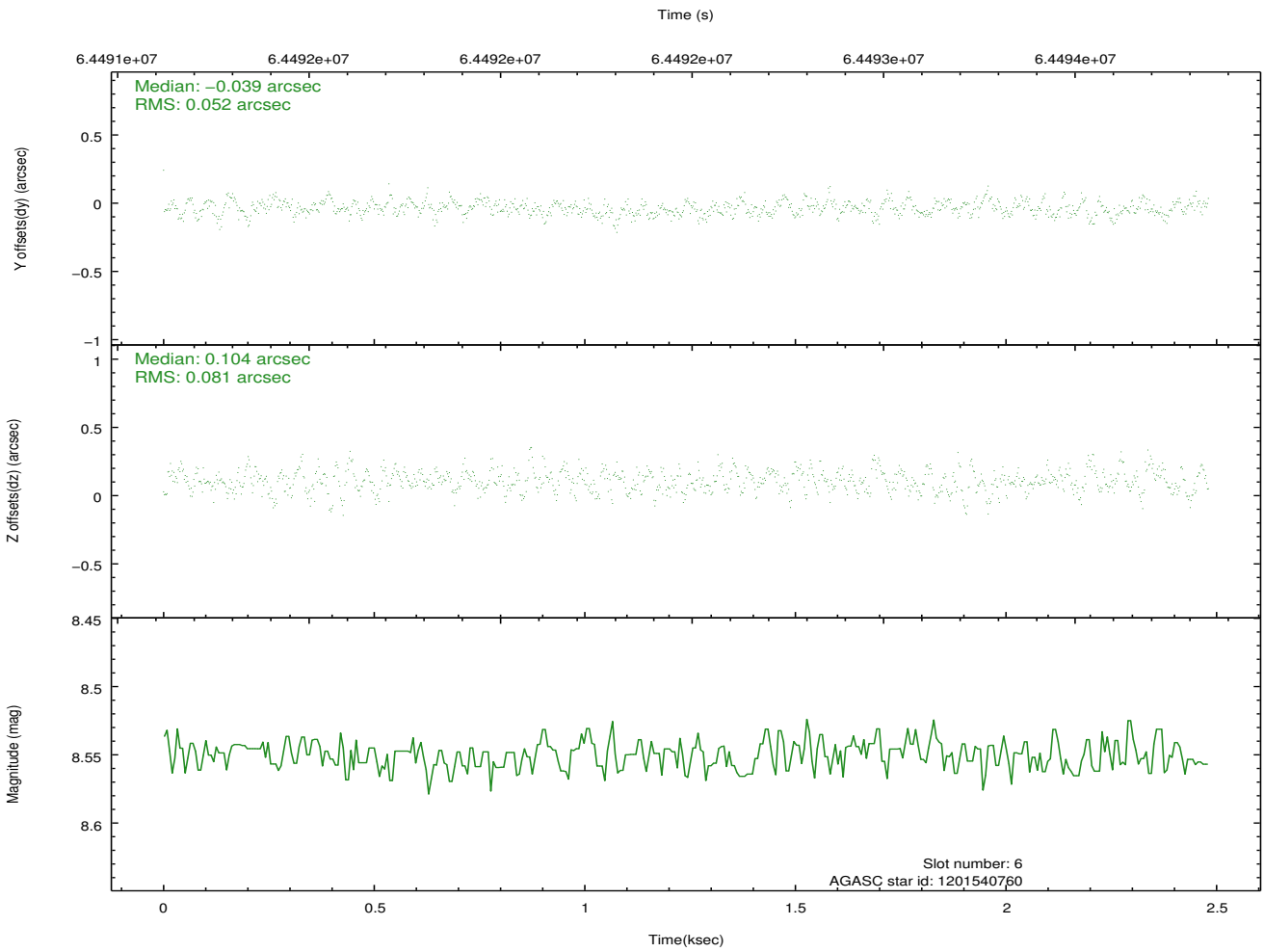
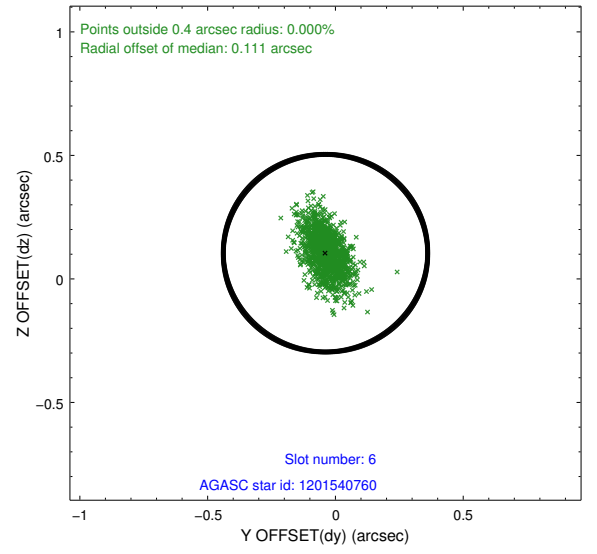
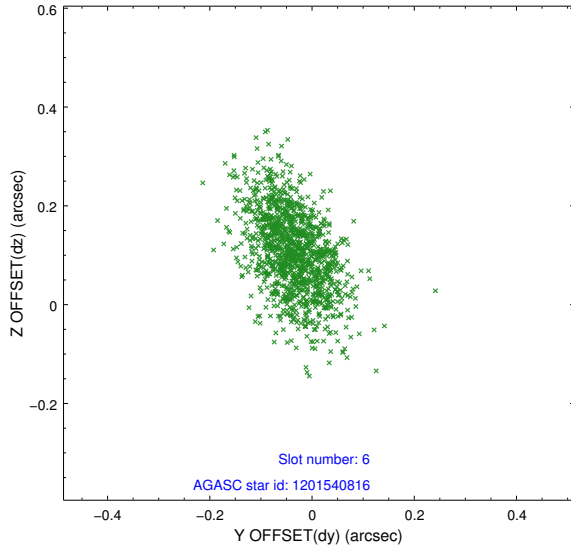
## 2.4.2 Slot 4



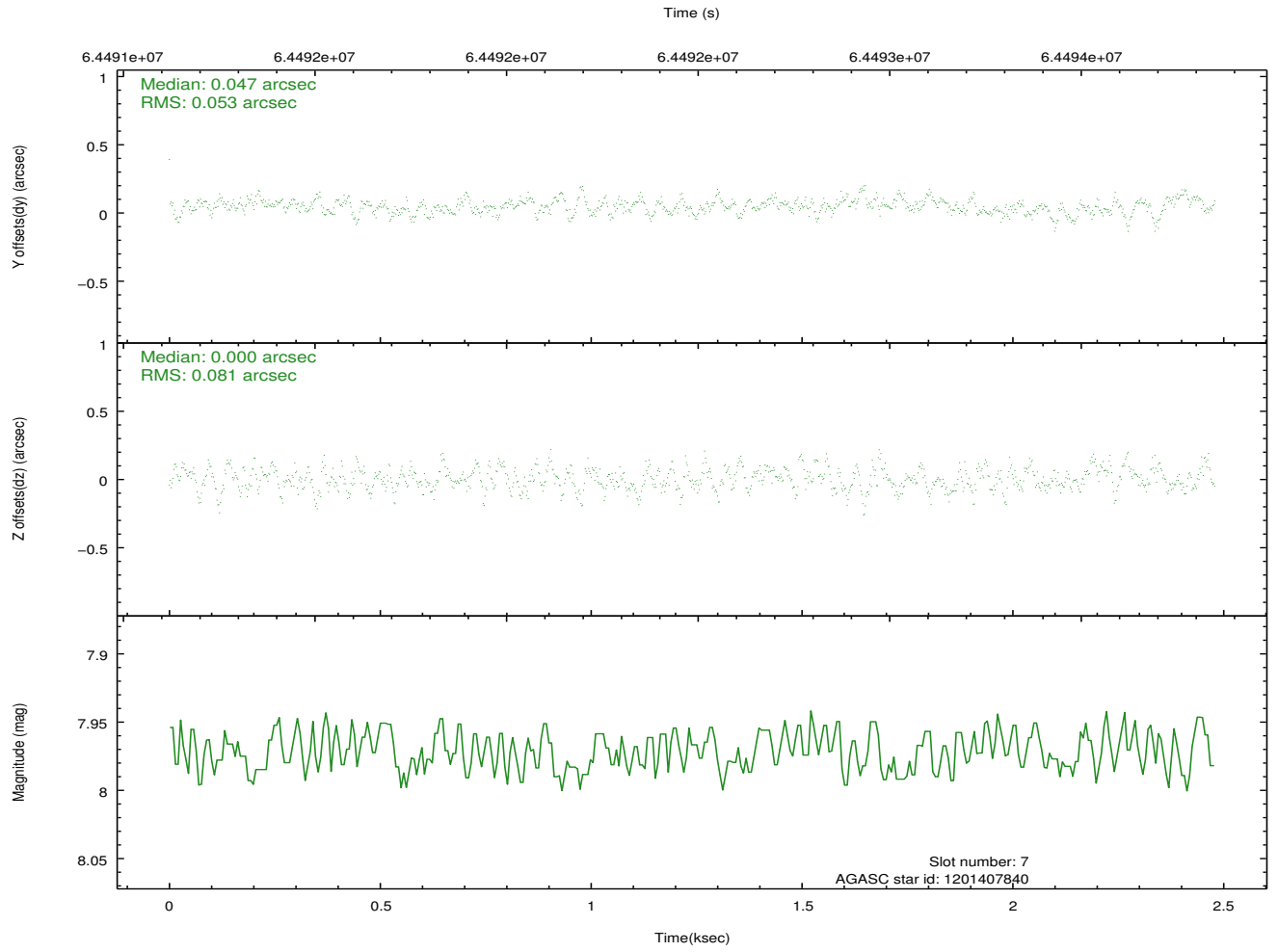
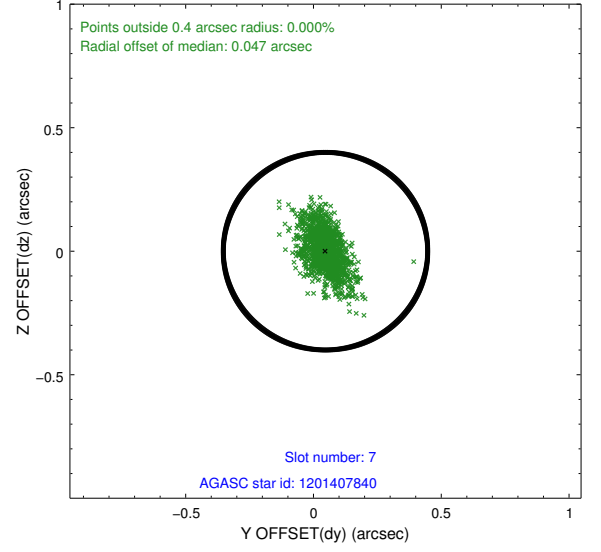
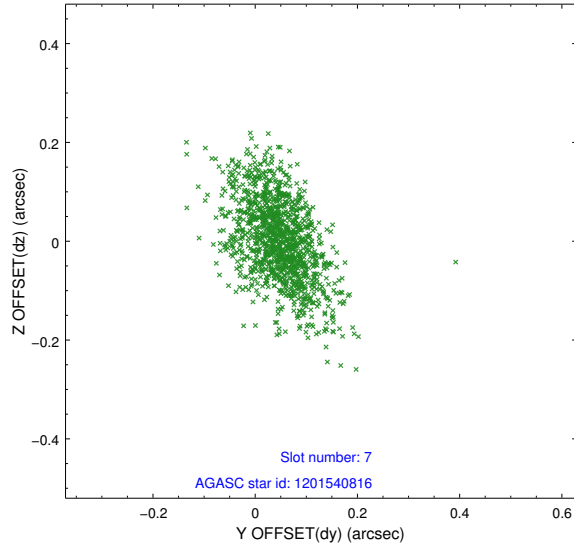
### 2.4.3 Slot 5



## 2.4.4 Slot 6

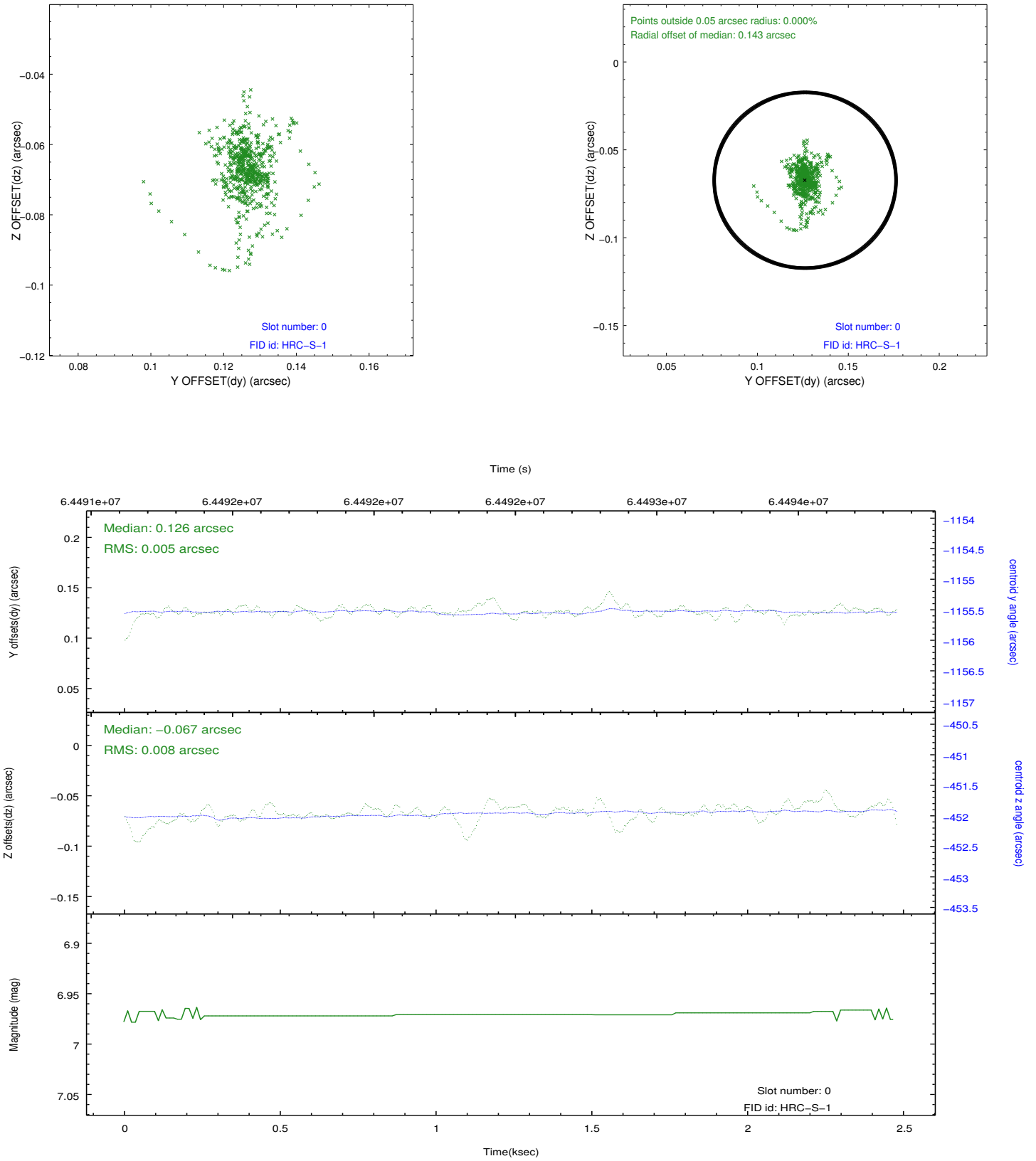


## 2.4.5 Slot 7

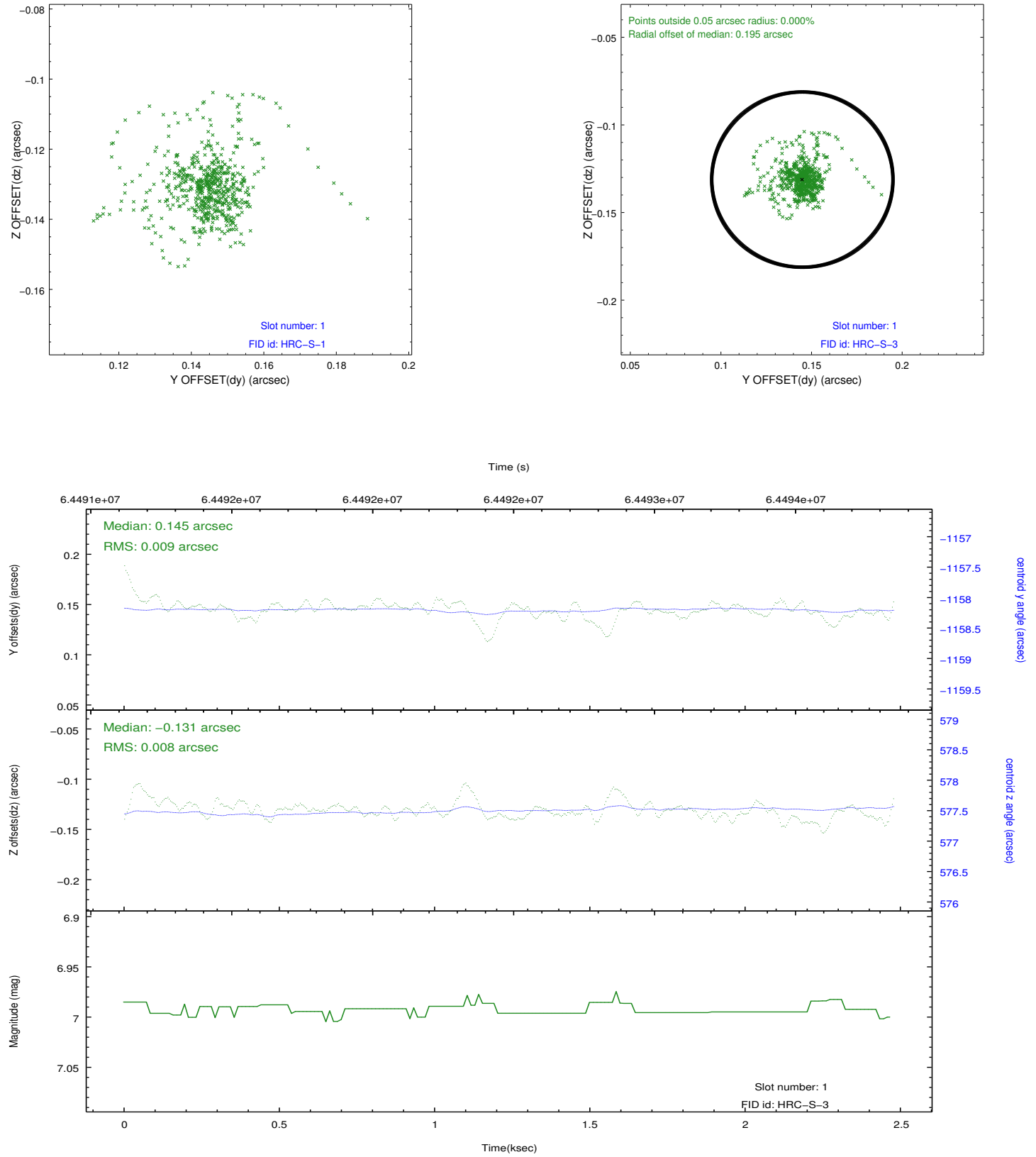


## 2.5 FID Slots

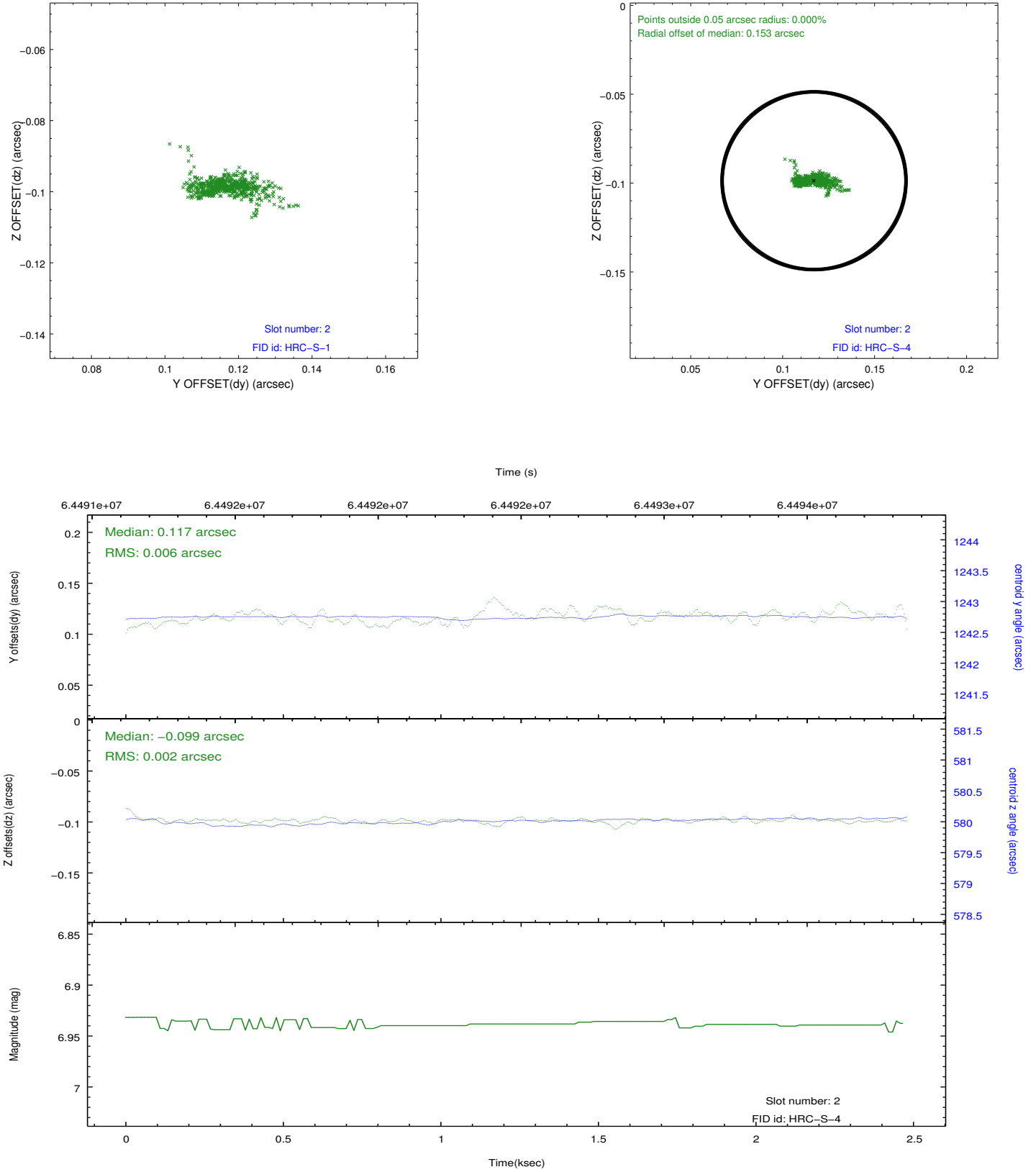
### 2.5.1 Slot 0



## 2.5.2 Slot 1

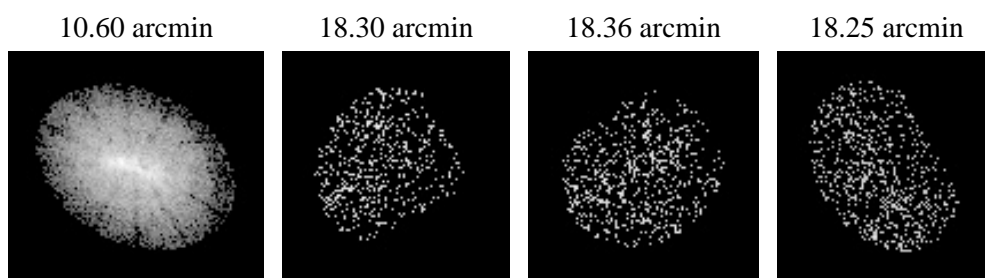


### 2.5.3 Slot 2





### 3 Point Sources



# A Summary

## A.1 Status

|                            |             |
|----------------------------|-------------|
| V&V Scientist              | Joy Nichols |
| V&V Date (YYYY-MM-DD)      | 2009.12.03  |
| V&V Edition                | 1           |
| V&V Disposition and Status | OK          |
| V&V Charge Time            | 2.297       |

## A.2 Comments

Charge time:

Charge time for this ObsId remains at previous value of 2.297 ks.