

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2433 - L2 Version 5  
Chandra X-Ray Center

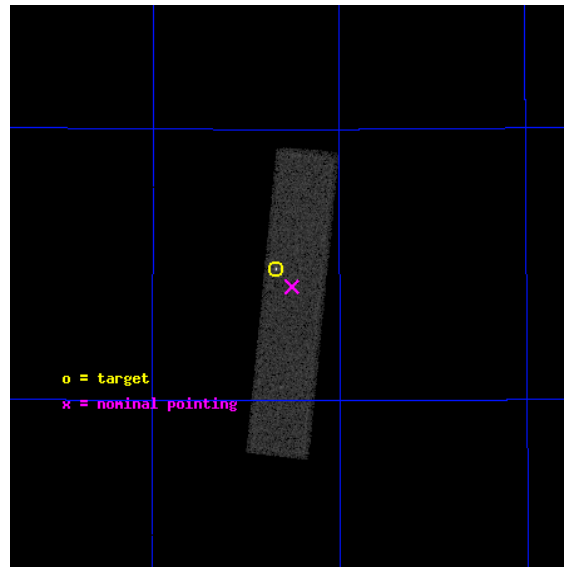
L2 Processing Date : Sep 18 2012

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# 1 Front

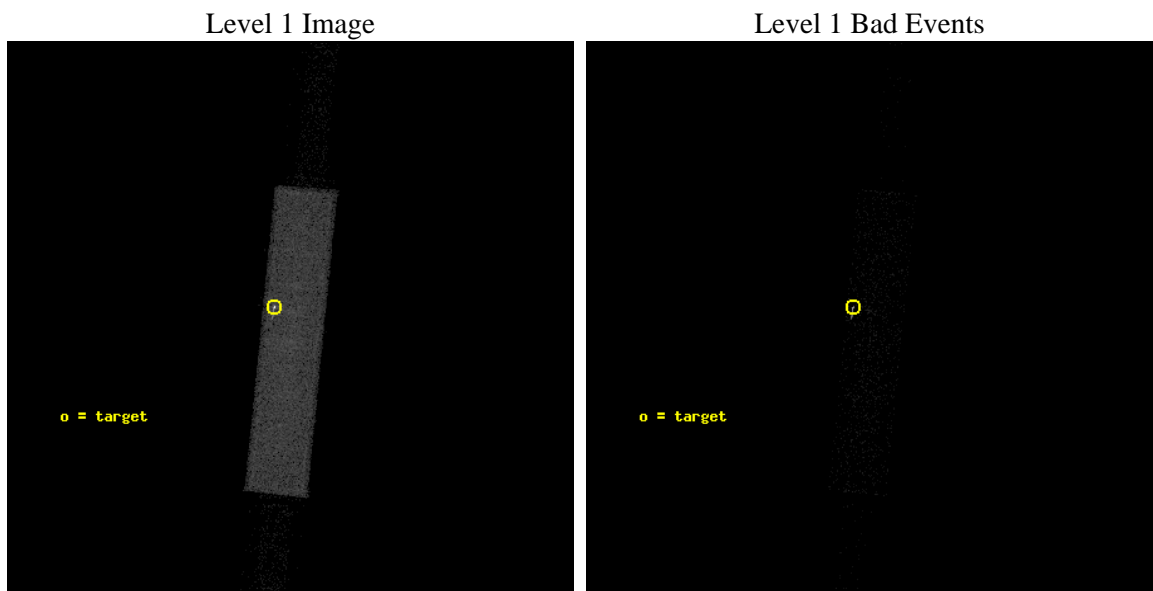
|          |   |                                       |
|----------|---|---------------------------------------|
| seq_num  | 290078                                  | Sequence number                       |
| obs_id   | 2433                                    | Observation id                        |
| title    | HRC-I CALIBRATION OBSERVATIONS OF ARLAC | Proposal title                        |
| observer | Dr. CXC Calibration                     | Principal investigator                |
| object   | ARLAC                                   | Source name                           |
| ra_targ  | 332.17                                  | Observer's specified target RA [deg]  |
| dec_targ | 45.742306                               | Observer's specified target Dec [deg] |
| ra_nom   | 332.12743080879                         | Nominal RA [deg]                      |
| dec_nom  | 45.70961815539                          | Nominal Dec [deg]                     |
| roll_nom | 95.661472075485                         | Nominal Roll [deg]                    |
| revision | 5                                       | Processing version of data            |
| ontime   | 1375.8063034564                         | [s]                                   |
| livetime | 1368.5092854456                         | Ontime multiplied by DTCOR            |
| l2events | 50618                                   | 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 | 1234.000000     | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 1375.8063034564 | [s]                                     |
| caldbver | 4.5.1.1             | &#160                          | l1events       | 80189           | Number of level 1 events                |
| date     | 2012-09-18T22:54:12 | Date and time of file creation |                |                 |   |
| revision | 4                   | Processing version of data     |                |                 |   |

### 2.1.3 Events

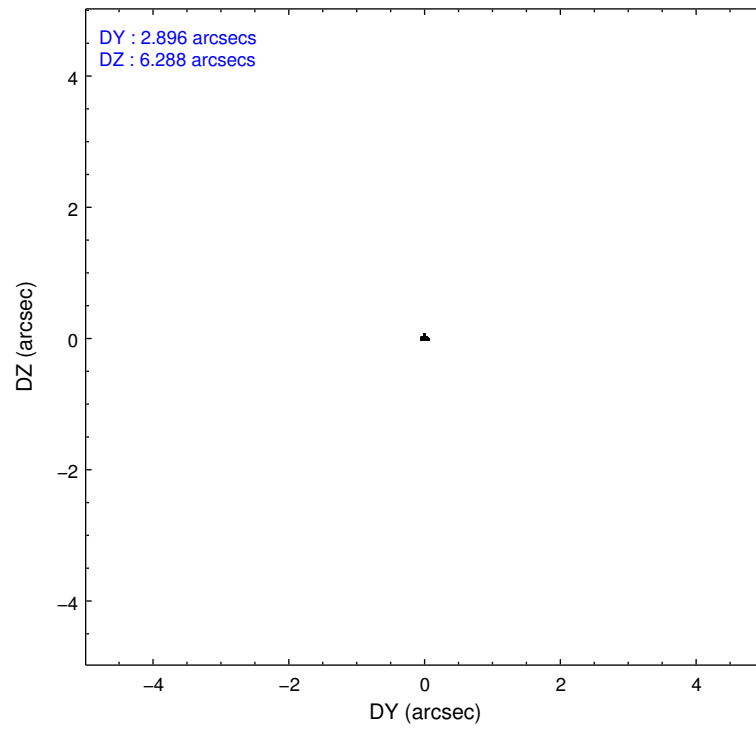
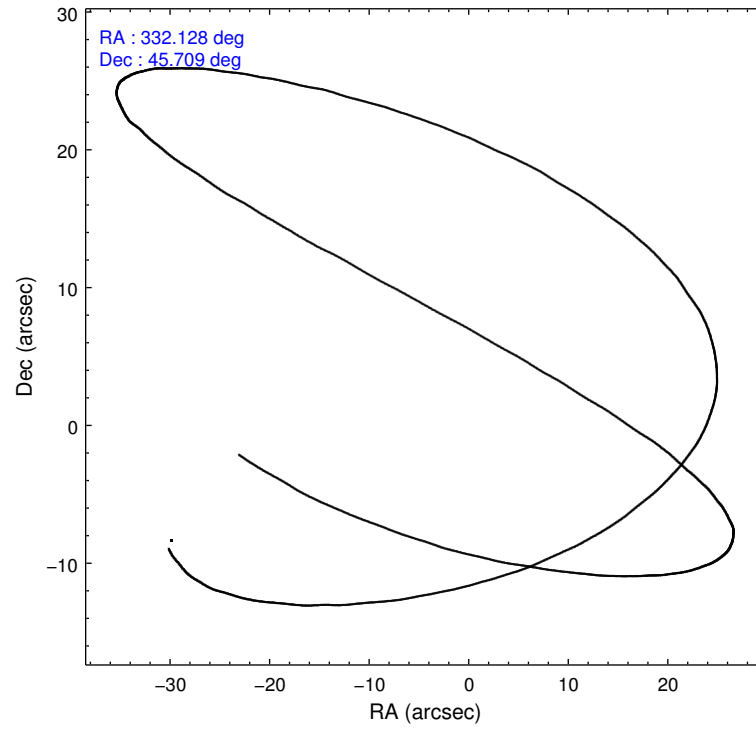
Level 1 Events

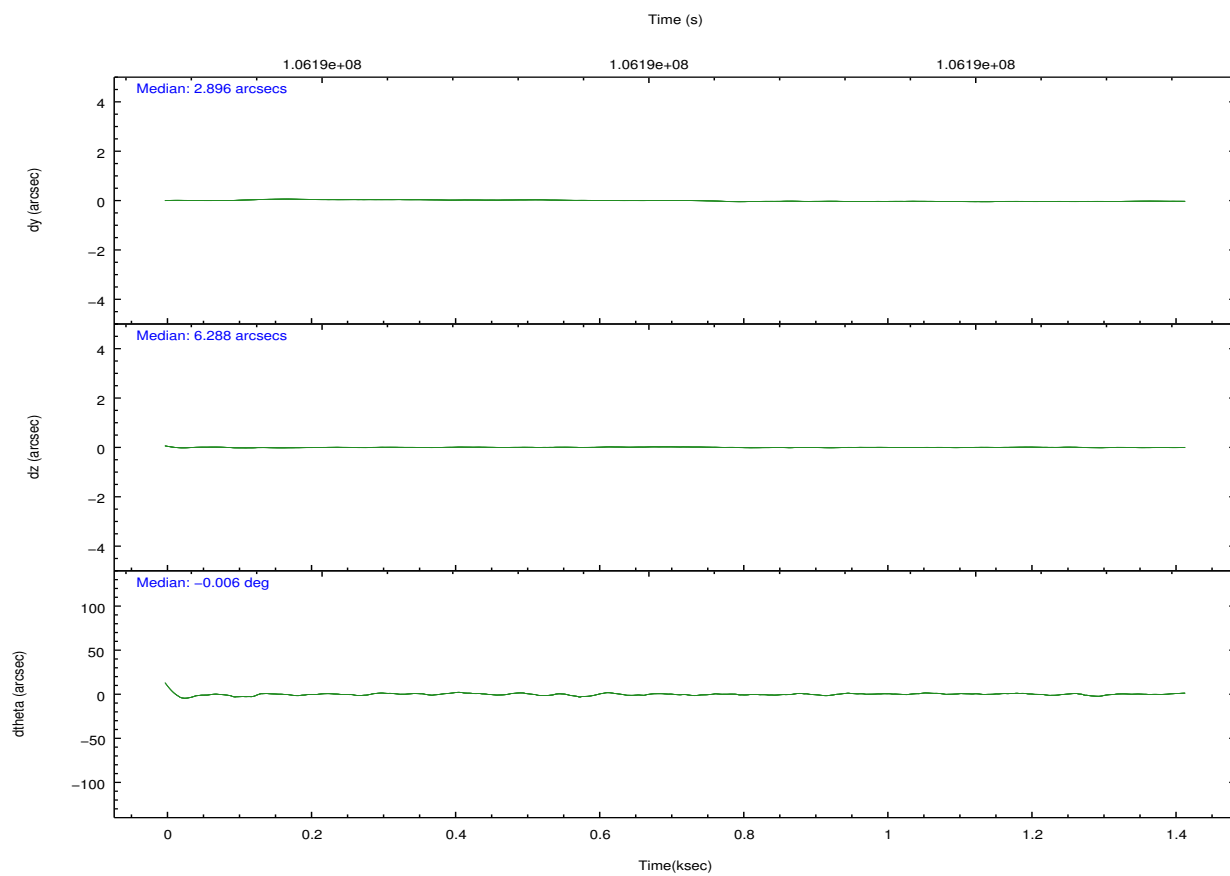
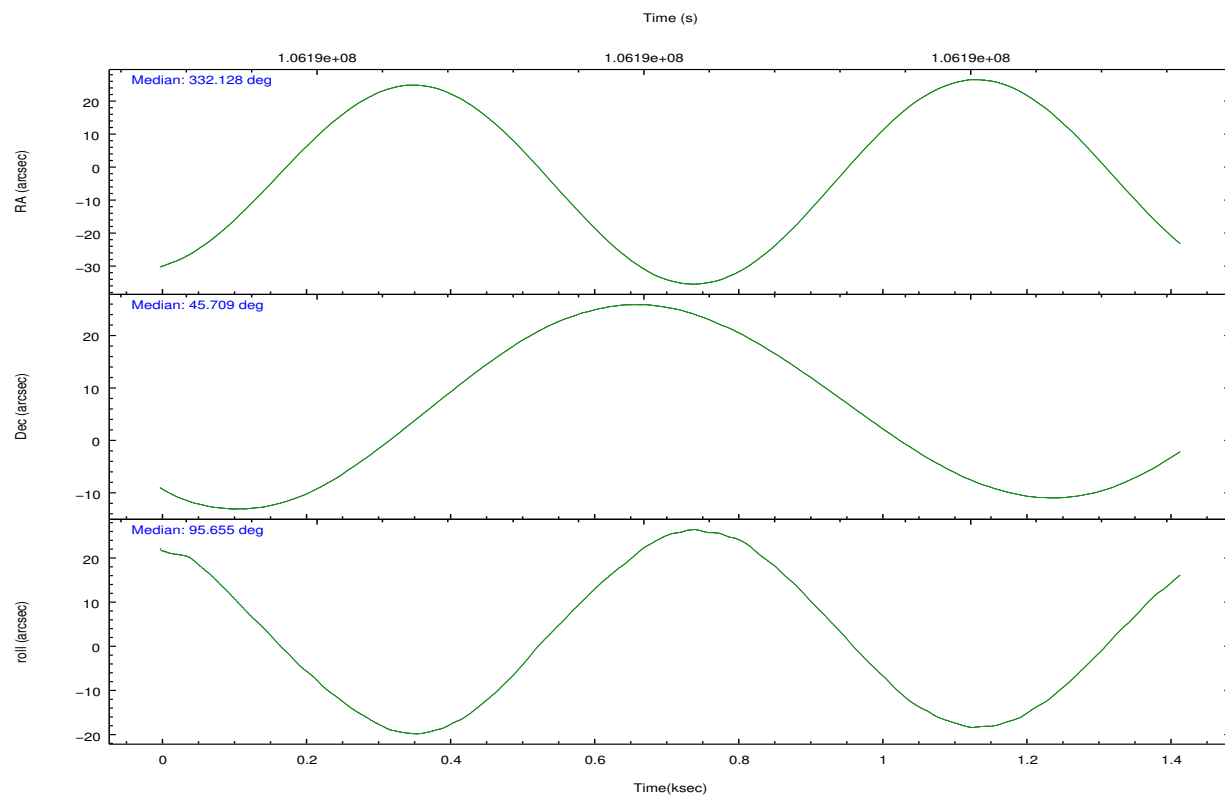
|                 | segment<br>1 | segment<br>2 | segment<br>3 |
|-----------------|--------------|--------------|--------------|
| level 1 events  | 1314         | 77682        | 1193         |
| rejected events | 1314         | 15051        | 1193         |
| rejected %      | 100%         | 19%          | 100%         |

## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual               | Parameter                    | Planned   | Actual  |
|-----------------------------------|---------------------|----------------------|------------------------------|-----------|---------|
| Instrument                        | HRC                 | HRC                  | Obspar format version number | 7         | 7       |
| 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             |                              |           |         |
| [deg] Pointing RA                 | 332.152141          | 332.1274308087883    |                              |           |         |
| [deg] Pointing Dec                | 45.688168           | 45.70961815539041    |                              |           |         |
| [deg] Pointing Roll               | 95.576464           | 95.66147207548516    |                              |           |         |
| [mm] SIM focus pos                | -1.429586           | -1.428180813131781   |                              |           |         |
| [mm] SIM defocus                  | 0.1037507710433287  | 0.1051558262725154   |                              |           |         |
| [mm] SIM translation stage pos    | 250.455976          | 250.466033080201     |                              |           |         |
| [mm] SIM translation stage offset | 0                   | -0.01005468664627074 |                              |           |         |
| [s] Observation start time (MET)  | 106190011.184000    | 106189634.72025      |                              |           |         |
| Observation start date            | 2001-05-14T01:12:27 | 2001-05-14T01:07:14  |                              |           |         |
| [s] Observation end time (MET)    | 106191245.184000    | 106191378.75782      |                              |           |         |
| Observation end date              | 2001-05-14T01:33:01 | 2001-05-14T01:36:18  |                              |           |         |

## 2.3 Aspect





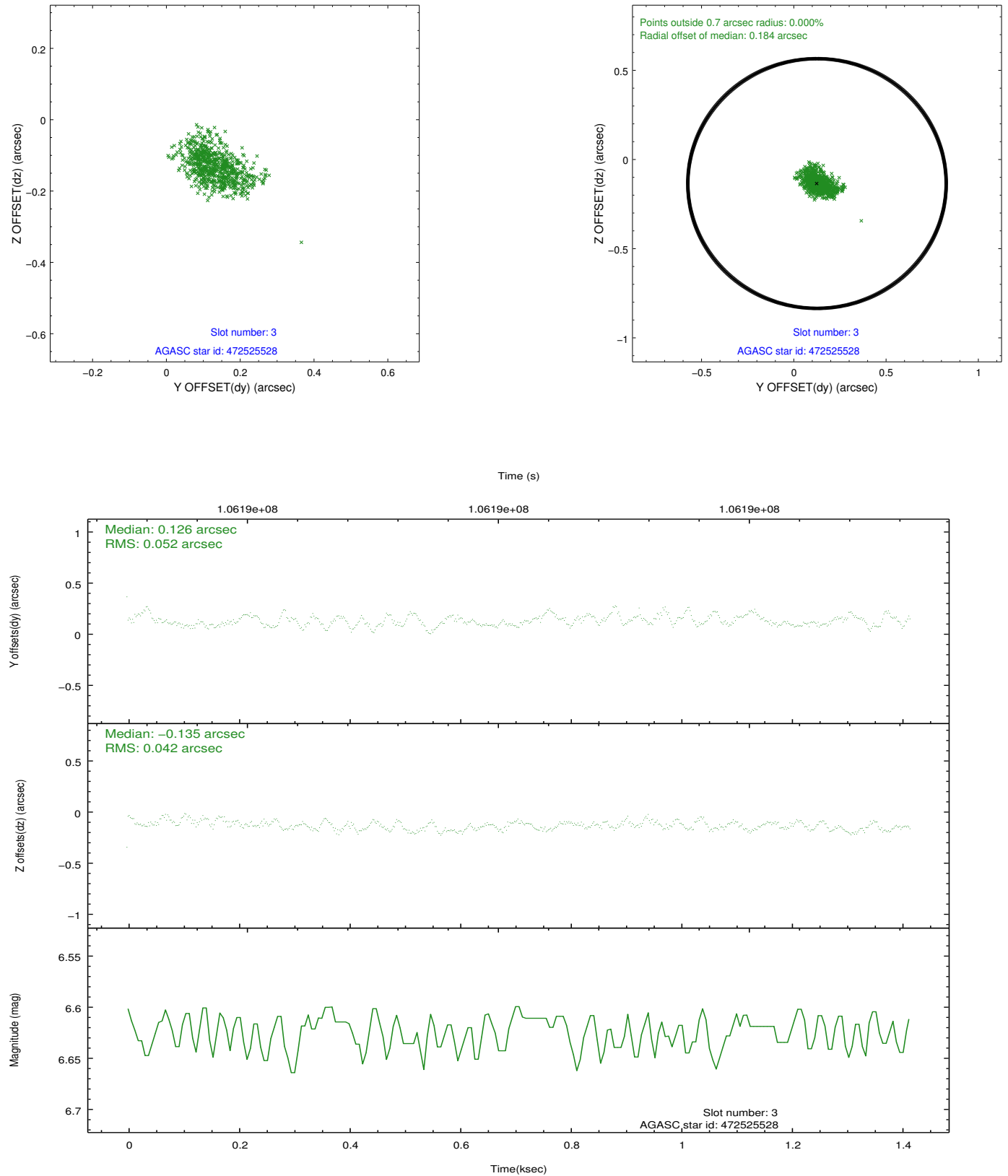
### Slot Statistics

| 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 | 346   | 0.110  | -0.117 | 0.005 | 0.010 | 0.000000   | 0.000000  | -1156.94 | -454.85  |
| 1    | FID    | HRC-S-3   | 7.00 | 346   | 0.145  | -0.089 | 0.007 | 0.012 | 0.000000   | 0.000000  | -1163.00 | 573.39   |
| 2    | FID    | HRC-S-4   | 6.93 | 346   | 0.133  | -0.091 | 0.004 | 0.008 | 0.000000   | 0.000000  | 1237.95  | 579.01   |
| 3    | GUIDE  | 472525528 | 6.62 | 692   | 0.126  | -0.135 | 0.069 | 0.114 | 331.551102 | 45.248694 | -1417.50 | 1670.01  |
| 4    | GUIDE  | 472527720 | 7.00 | 692   | 0.175  | -0.093 | 0.078 | 0.121 | 331.460205 | 45.112509 | -1882.86 | 1953.38  |
| 5    | GUIDE  | 472535576 | 7.85 | 692   | -0.222 | -0.066 | 0.045 | 0.075 | 331.438373 | 46.291802 | 2343.66  | 1559.25  |
| 6    | GUIDE  | 472523760 | 8.23 | 692   | 0.068  | 0.042  | 0.051 | 0.083 | 331.645363 | 45.403260 | -885.53  | 1377.32  |
| 7    | GUIDE  | 472665256 | 9.01 | 688   | -0.159 | 0.254  | 0.076 | 0.131 | 332.808125 | 46.195041 | 1666.24  | -1801.47 |

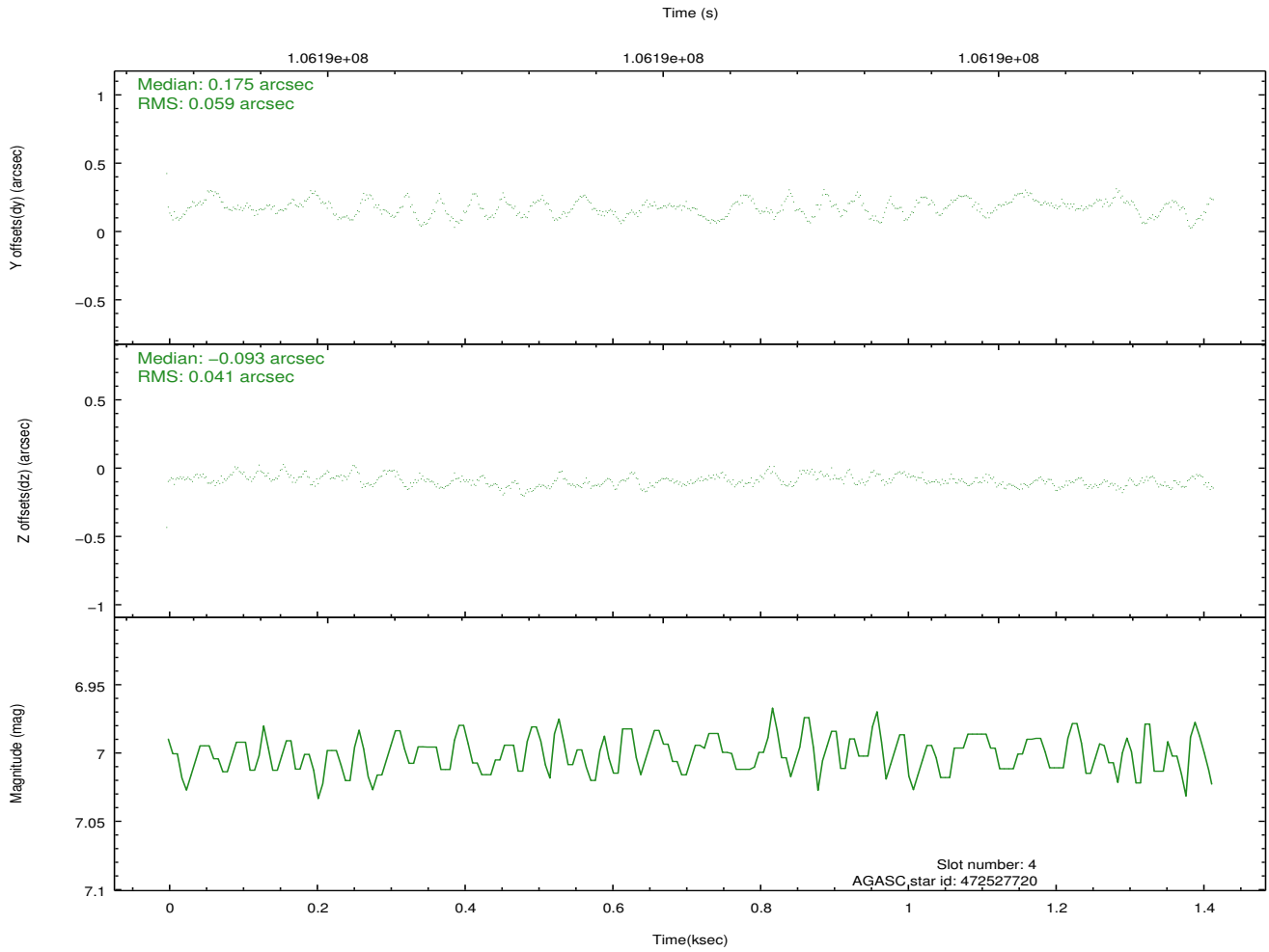
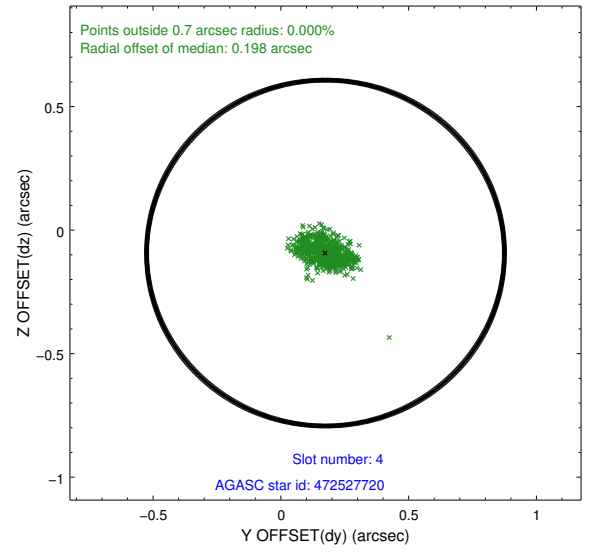
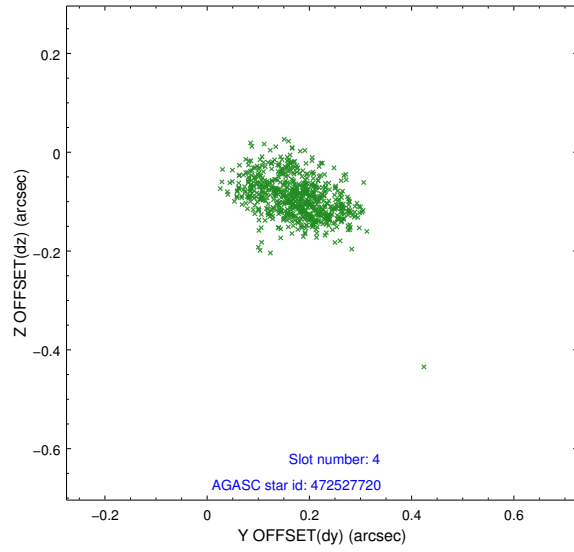


## 2.4 Star Slots

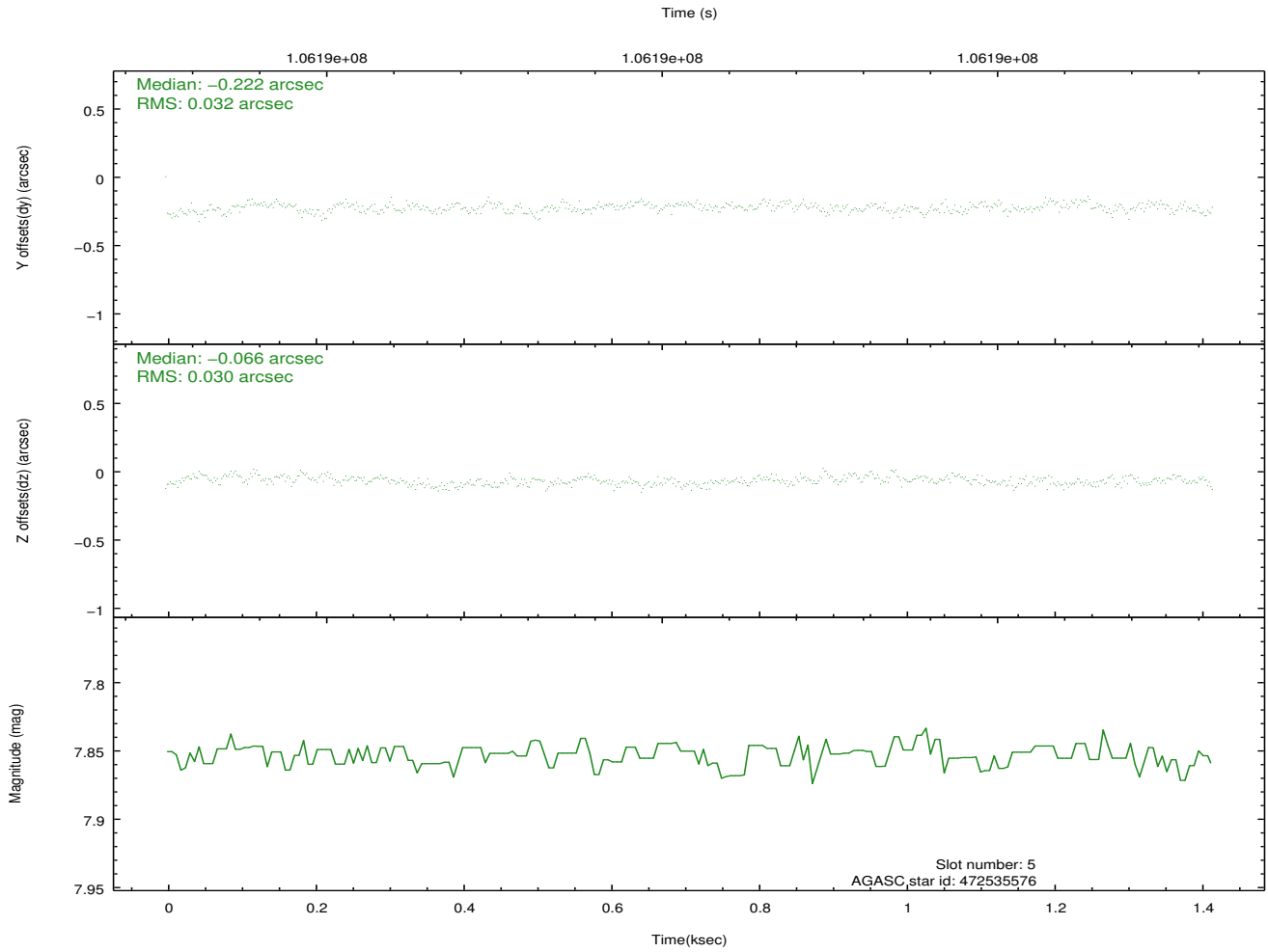
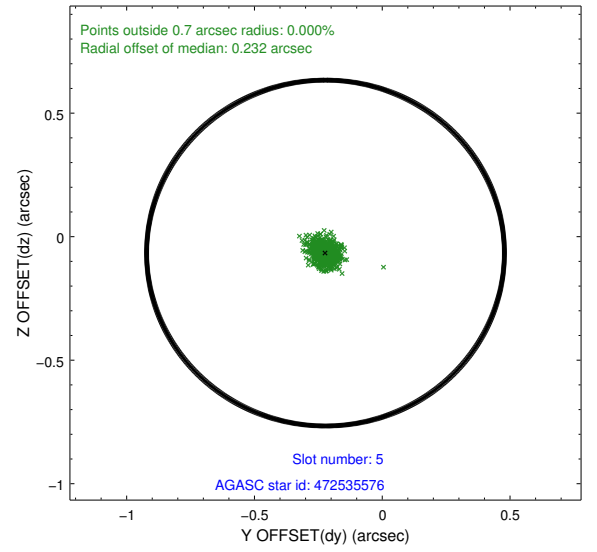
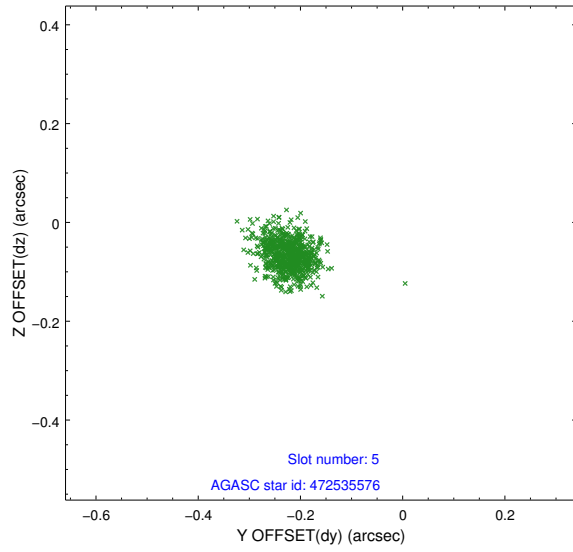
### 2.4.1 Slot 3



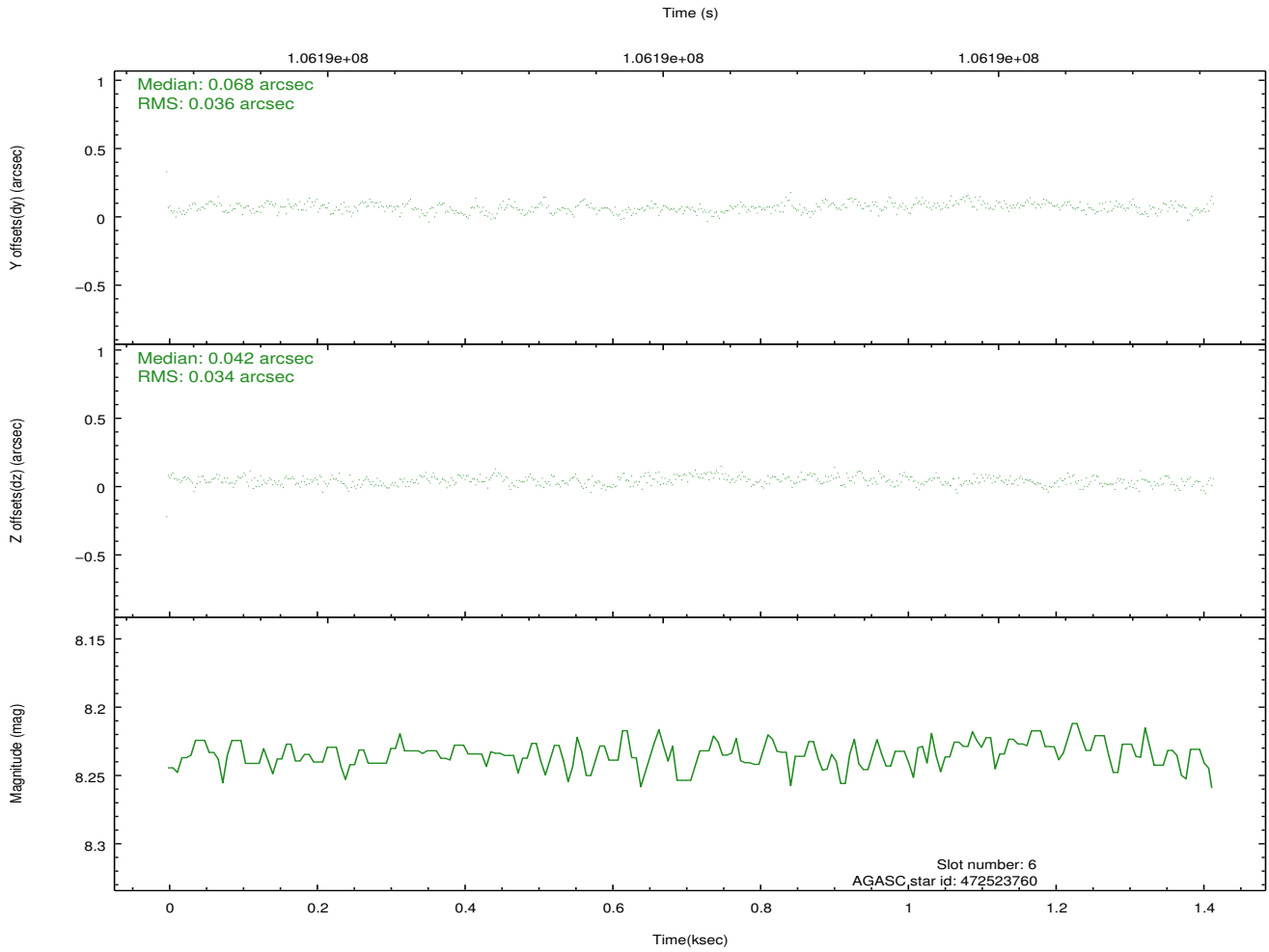
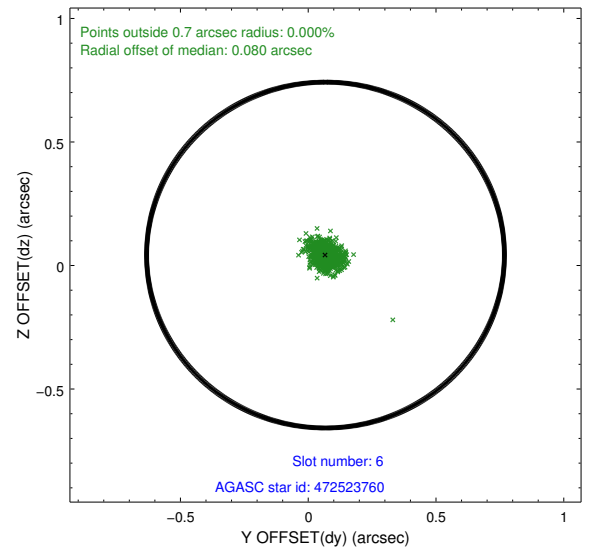
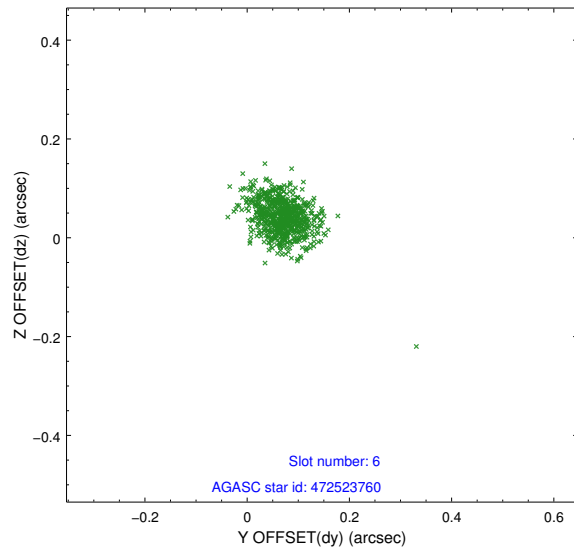
## 2.4.2 Slot 4



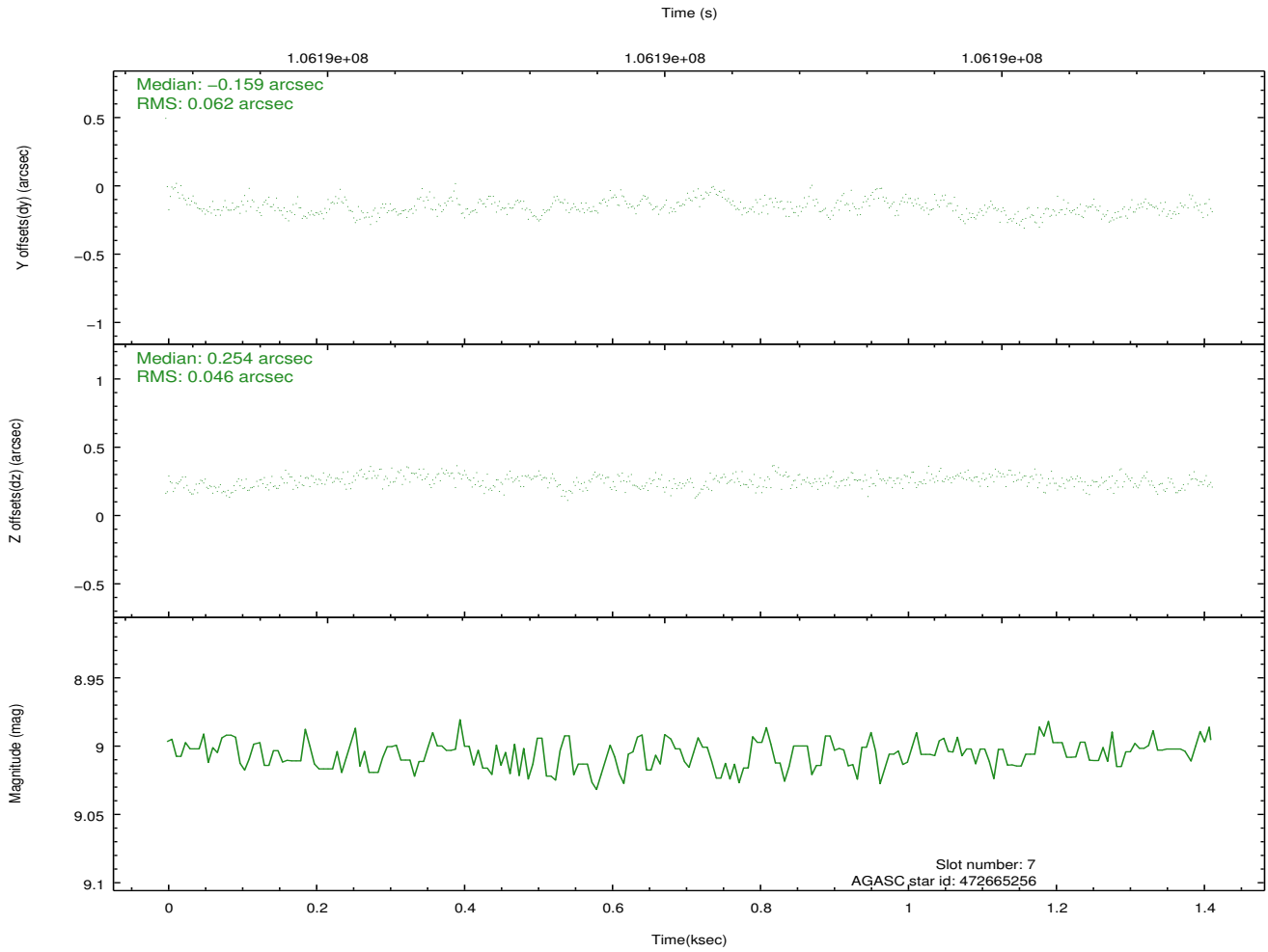
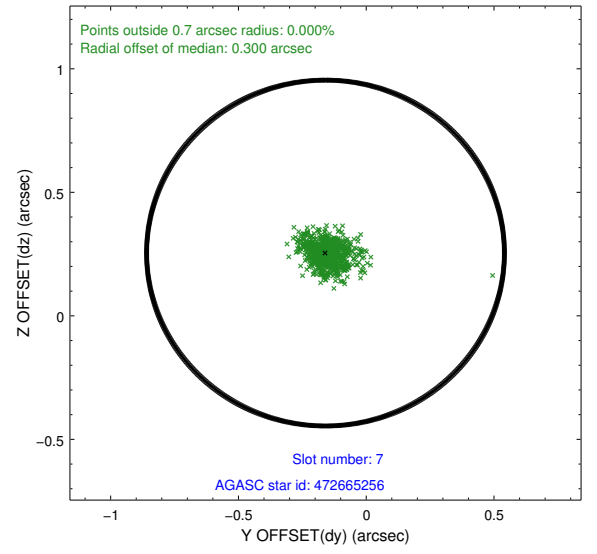
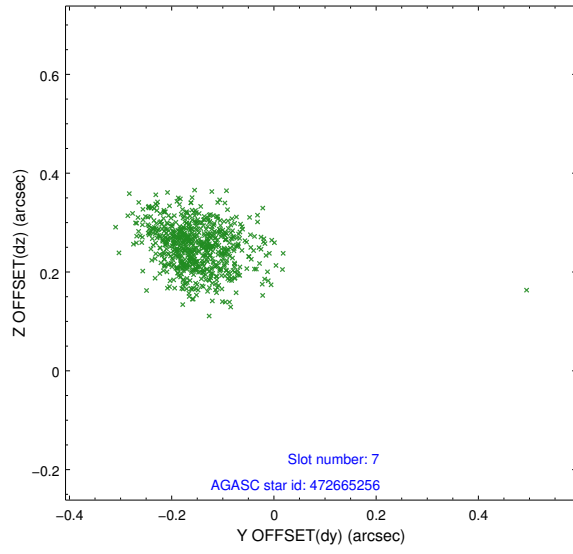
### 2.4.3 Slot 5



## 2.4.4 Slot 6

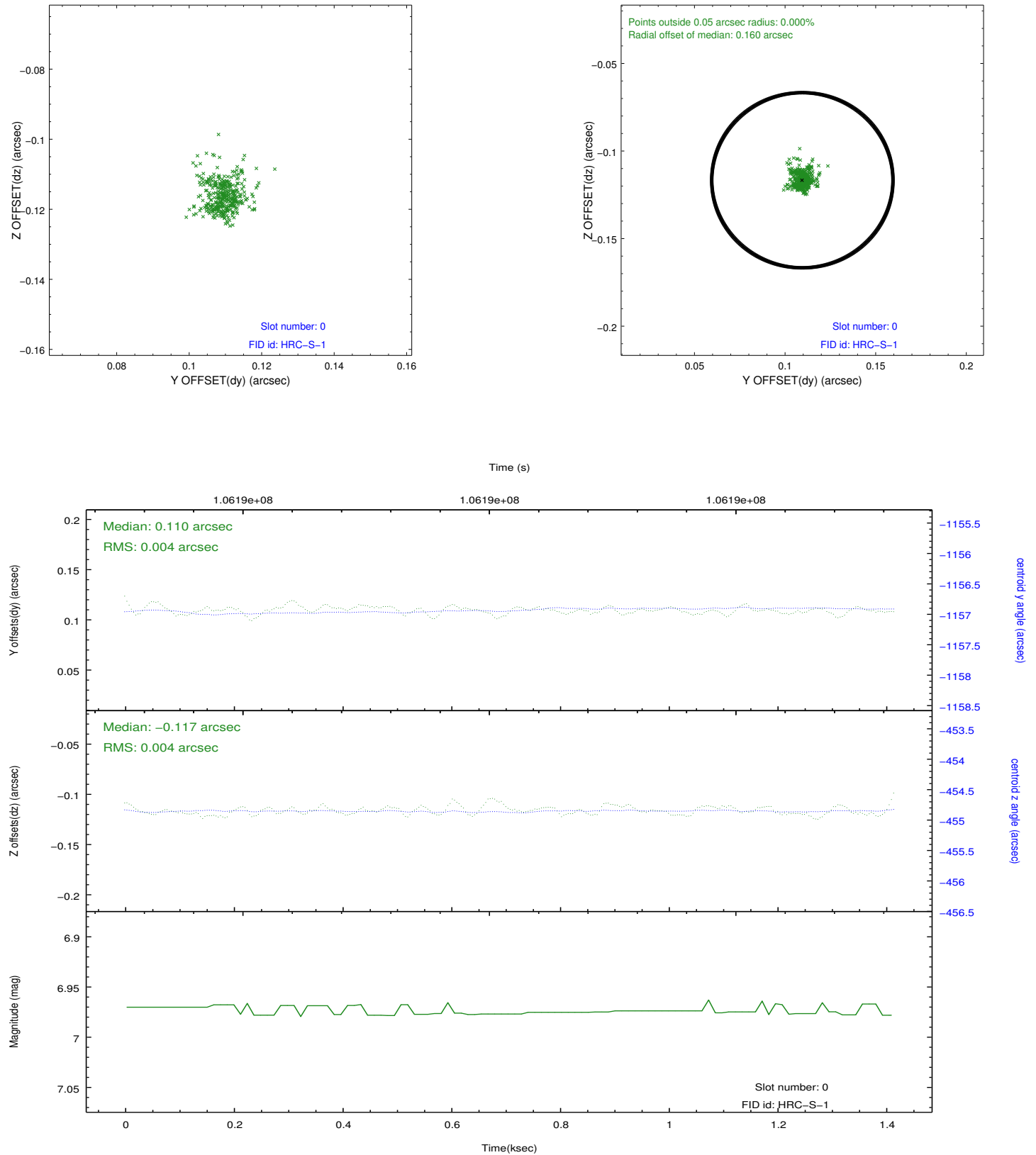


### 2.4.5 Slot 7

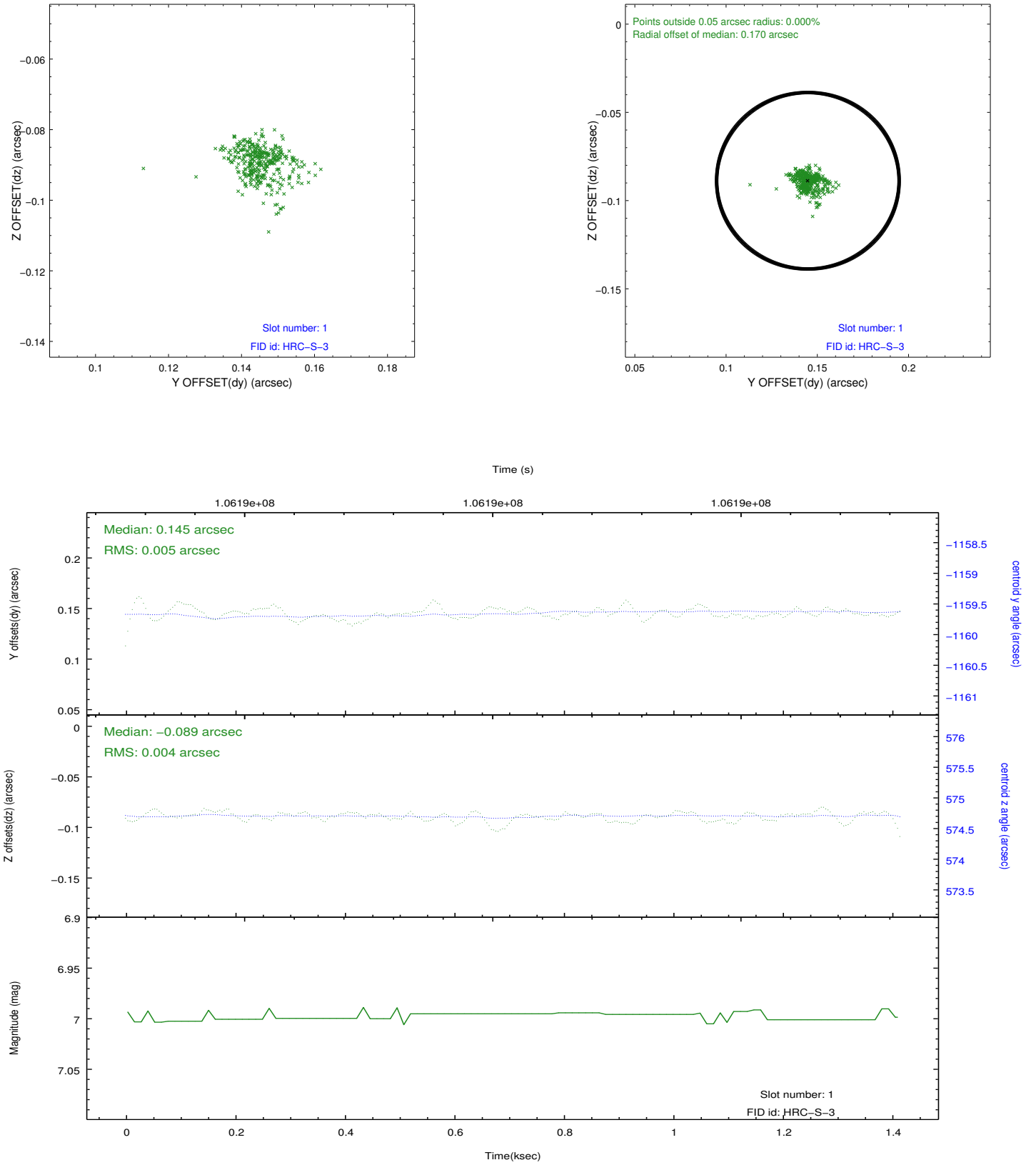


## 2.5 FID Slots

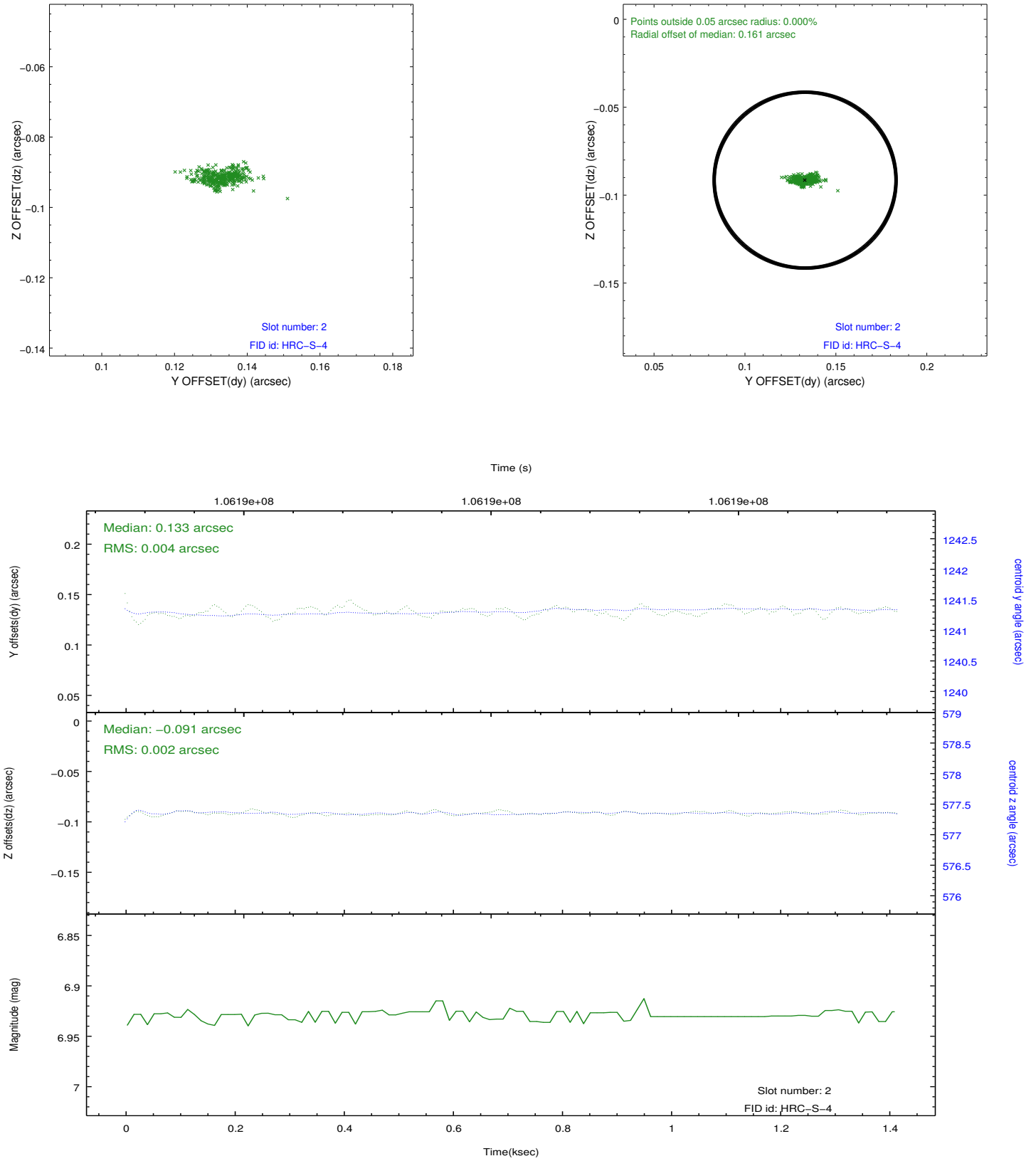
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





## A Summary

### A.1 Status

|                            |               |
|----------------------------|---------------|
| V&V Scientist              | Beth Sundheim |
| V&V Date (YYYY-MM-DD)      | 2012.09.20    |
| V&V Edition                | 1             |
| V&V Disposition and Status | OK            |
| V&V Charge Time            | 1.415         |

### A.2 Comments

Charge time for this observation remains at previous value of 1.415 ksec.