

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 4411 - L2 Version 6
Chandra X-Ray Center

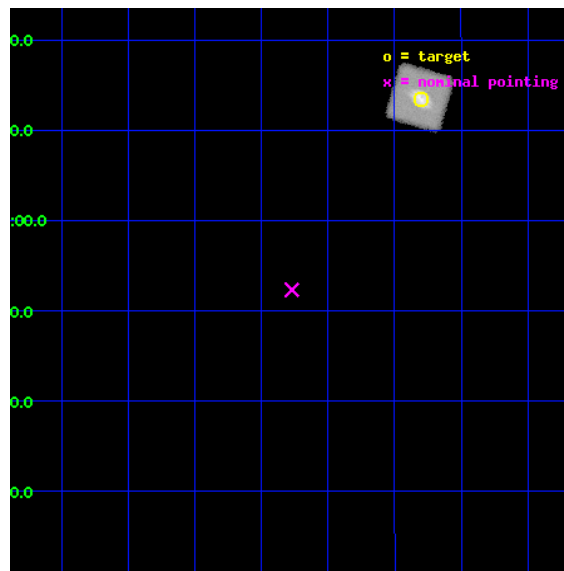
L2 Processing Date : Nov 8 2012

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Parameters | 4 |
| 2.1.3 | Events | 4 |
| 2.2 | Compared Parameters | 5 |
| 2.3 | Aspect | 6 |
| 2.4 | Star Slots | 9 |
| 2.4.1 | Slot 3 | 9 |
| 2.4.2 | Slot 4 | 10 |
| 2.4.3 | Slot 5 | 11 |
| 2.4.4 | Slot 6 | 12 |
| 2.4.5 | Slot 7 | 13 |
| 2.5 | FID Slots | 14 |
| 2.5.1 | Slot 0 | 14 |
| 2.5.2 | Slot 1 | 15 |
| A | Summary | 16 |
| A.1 | Status | 16 |
| A.2 | Comments | 16 |

1 Front

| | | |
|-----------|---|---------------------------------------|
| seq_num | 990004 | Sequence number |
| obs_id | 4411 | Observation id |
| title | AO4 CALIBRATION OBSERVATION TO MEASURE THE ACIS CHARGED PARTICLE BACKGROUND | Proposal title |
| observer | DR. CXC CALIBRATION | Principal investigator |
| object | ACIS BACKGROUND | Source name |
| ra_targ | 114.824708 | Observer's specified target RA [deg] |
| dec_targ | 5.223861 | Observer's specified target Dec [deg] |
| ra_nom | 115.06772796697 | Nominal RA [deg] |
| dec_nom | 4.872400209914 | Nominal Dec [deg] |
| roll_nom | 61.384540949929 | Nominal Roll [deg] |
| revision | 6 | Processing version of data |
| ontime | 48025.608327121 | [s] |
| liveltime | 42402.557514984 | Ontime multiplied by DTCOR |
| l2events | 83380 | Number of level 2 events |



2 OBI

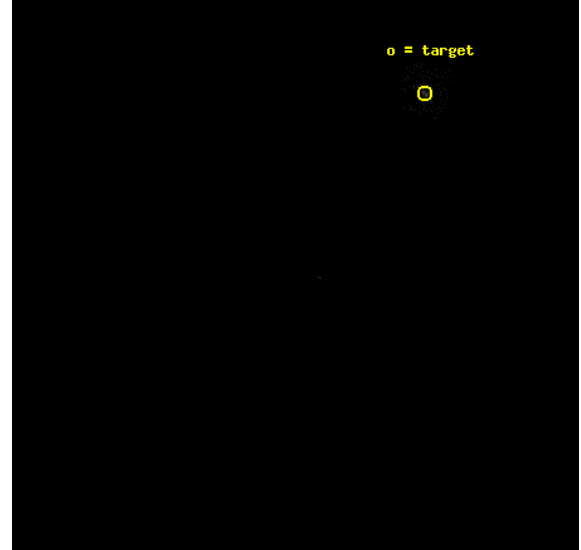
2.1 OBI

2.1.1 Images

Level 1 Image



Level 1 Bad Events



2.1.2 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|----------------|---|
| obi_num | 2 | Obi number | sched_exp_time | 48500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 48124.00833714 | [s] |
| caldbver | 4.5.2 | | l1events | 99521 | Number of level 1 events |
| date | 2012-11-08T09:54:00 | Date and time of file creation | | | |
| revision | 6 | Processing version of data | | | |

2.1.3 Events

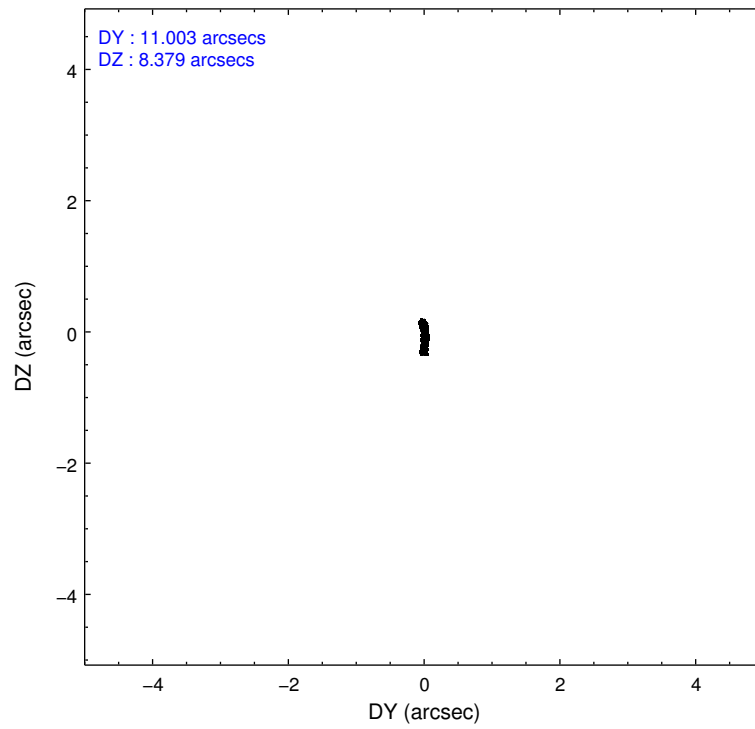
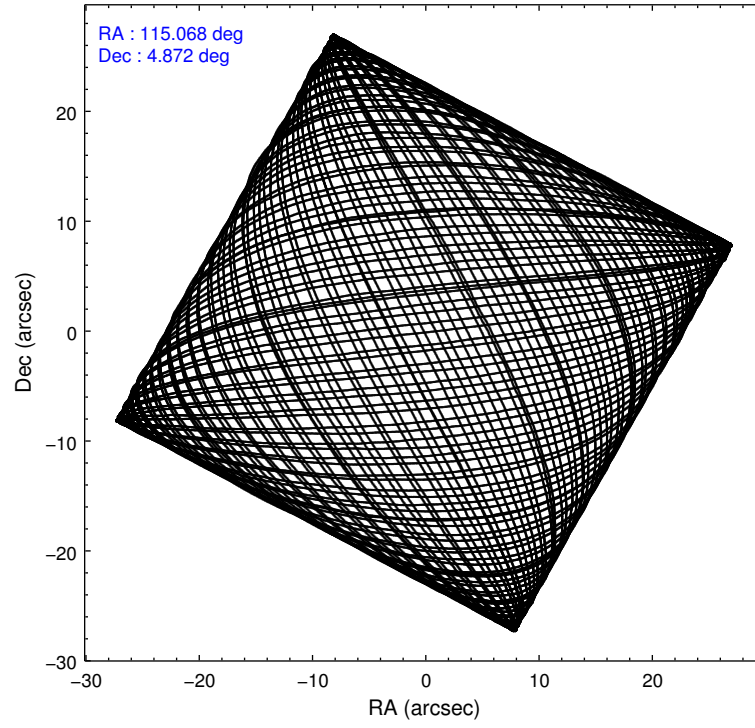
Level 1 Events

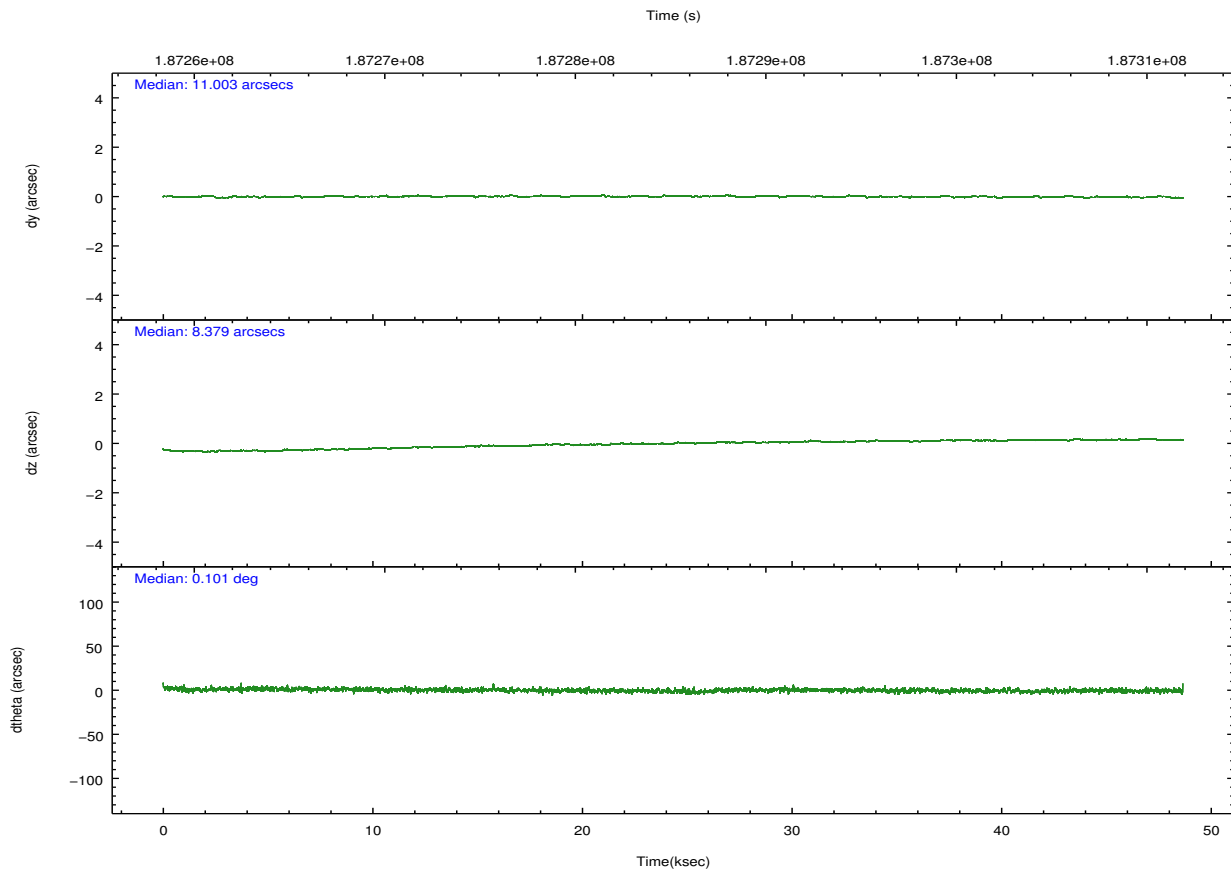
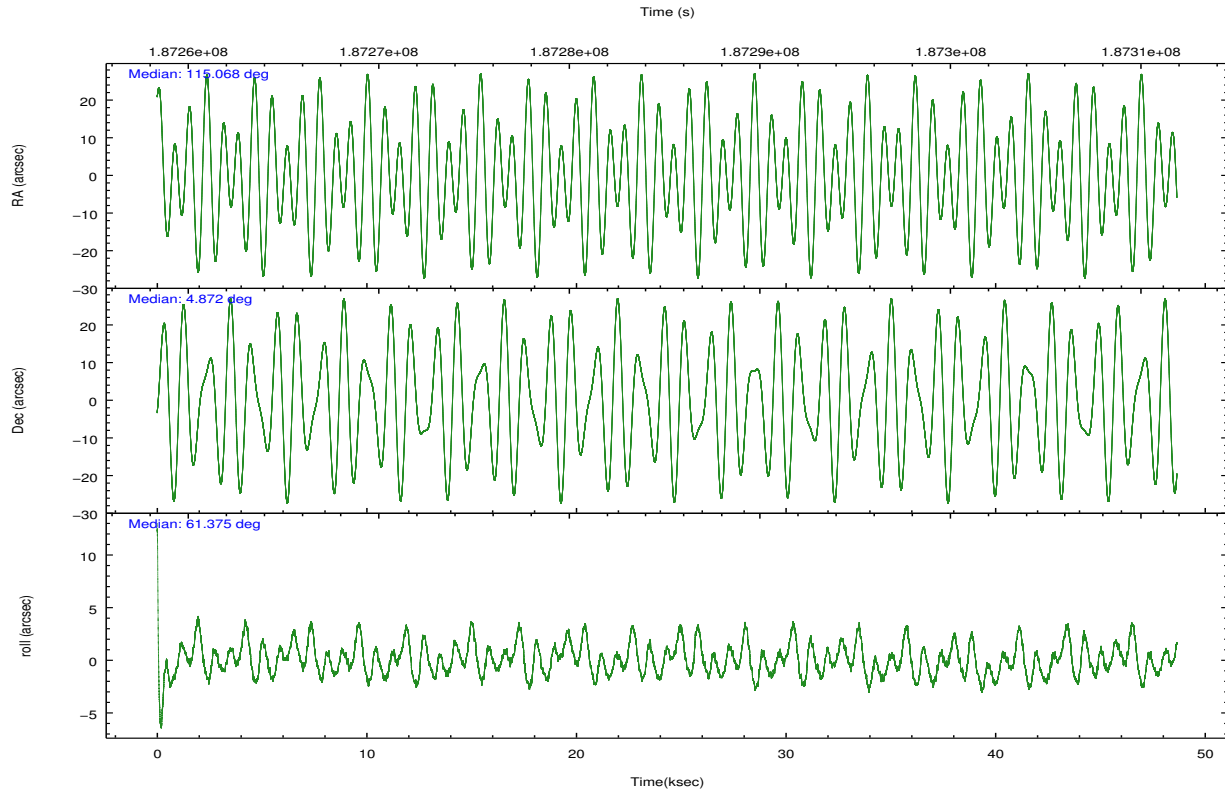
| | |
|-----------------|----------------------|
| | segment 0 |
| level 1 events | 99521 |
| rejected events | 908 |
| rejected % | 0% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|---------------------|------------------------------|-----------|----------|
| Instrument | HRC | HRC | Obspar format version number | 7 | 7 |
| Detector | HRC-I | HRC-I | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | OVERRIDE | OVERRIDE |
| Data mode | NEXT_IN_LINE | NEXT_IN_LINE | | | |
| Observation mode | POINTING | POINTING | | | |
| [deg] Pointing RA | 115.0677146520172 | 115.0677279669722 | | | |
| [deg] Pointing Dec | 4.87237580365084 | 4.872400209914019 | | | |
| [deg] Pointing Roll | 61.38454207367667 | 61.38454094992878 | | | |
| [s] Window start time (MET) | 181396864.184000 | 181396864.184000 | | | |
| [s] Window stop time (MET) | 189259264.184000 | 189259264.184000 | | | |
| [mm] SIM focus pos | -1.0388663562 | -1.0388663562 | | | |
| [mm] SIM defocus | 0.00142623215544524 | 0.00142623215544524 | | | |
| [mm] SIM translation stage pos | 51.9960404363 | 51.9960404363 | | | |
| [mm] SIM translation stage offset | 74.98945386898779 | 74.98945386898779 | | | |
| [s] Observation start time (MET) | 187260214.69645 | 187260214.69645 | | | |
| Observation start date | 2003-12-08T08:54:44 | 2003-12-08T08:43:34 | | | |
| [s] Observation end time (MET) | 187309628.92359 | 187309628.92359 | | | |
| Observation end date | 2003-12-08T22:23:04 | 2003-12-08T22:27:08 | | | |

2.3 Aspect



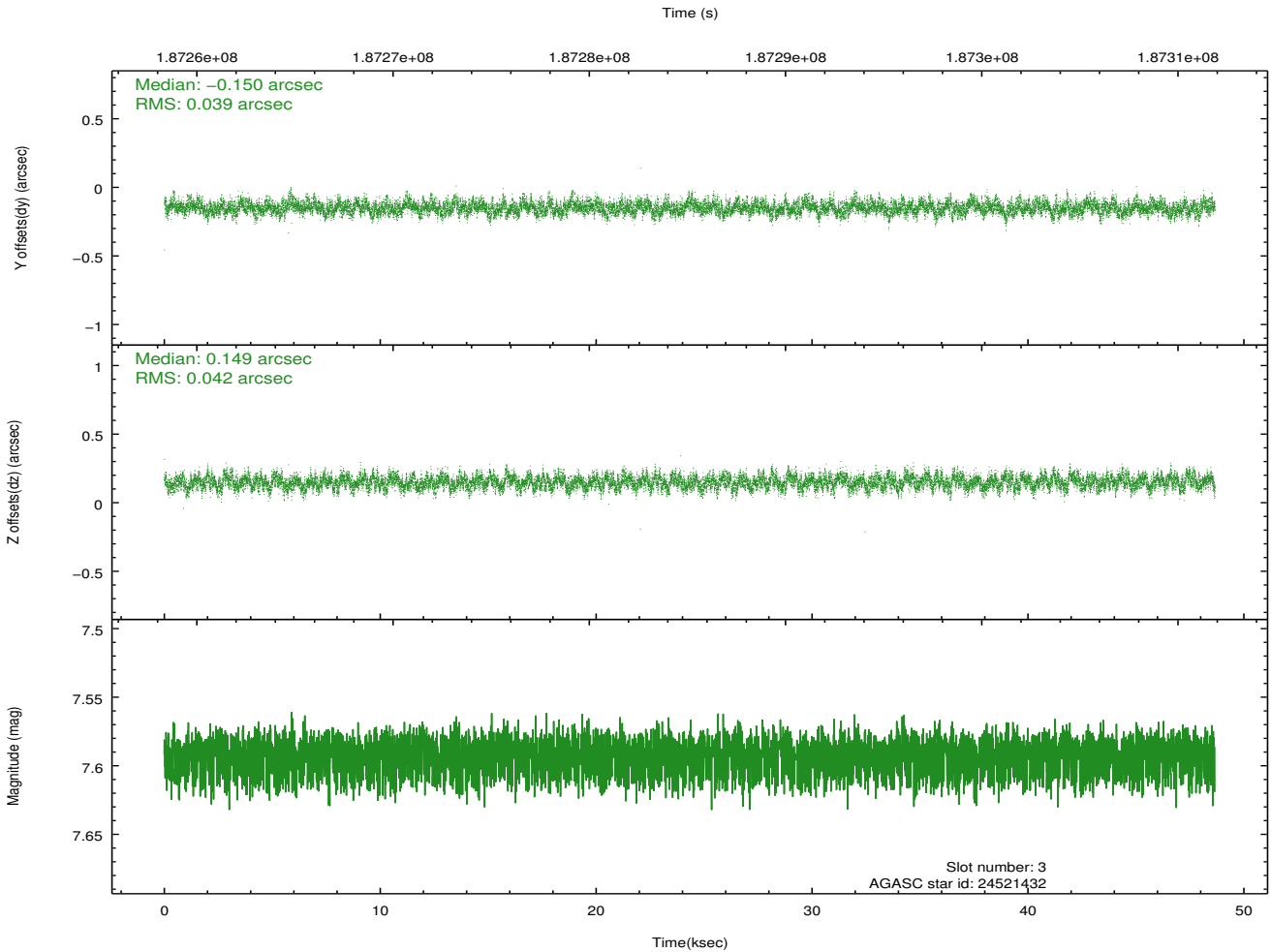
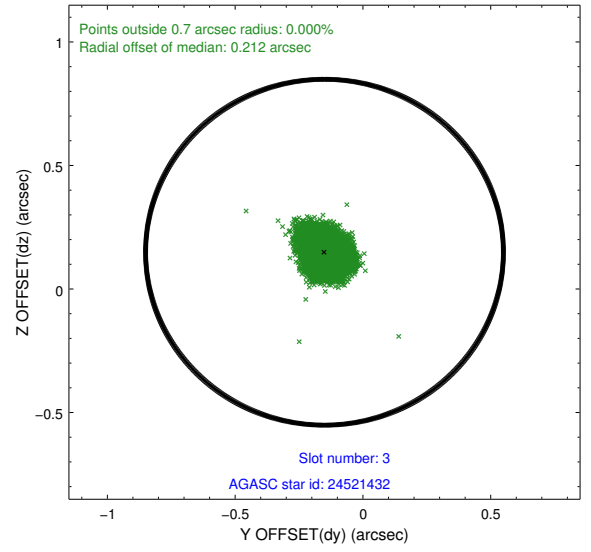
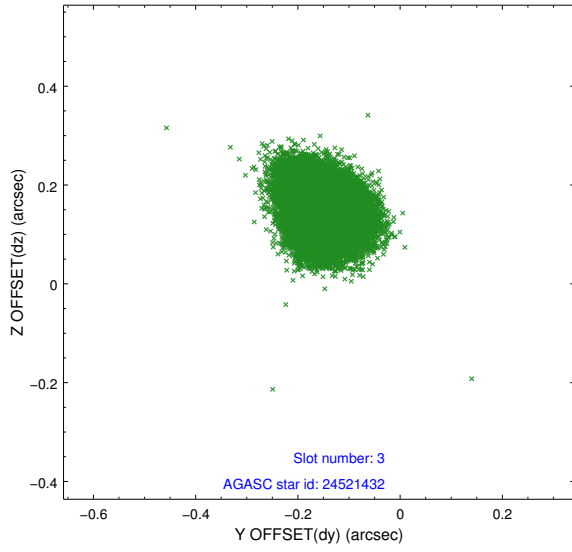


Slot Statistics

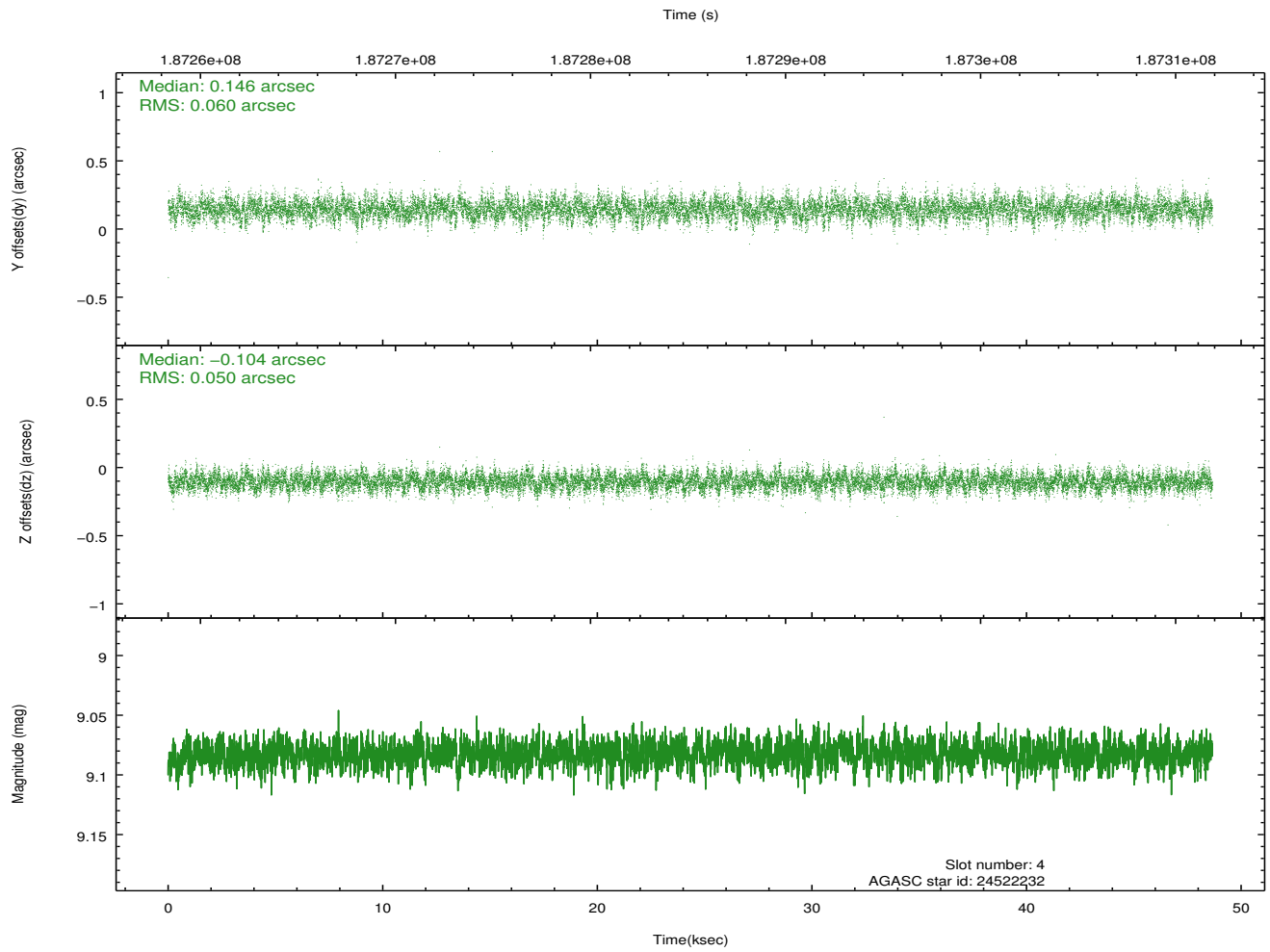
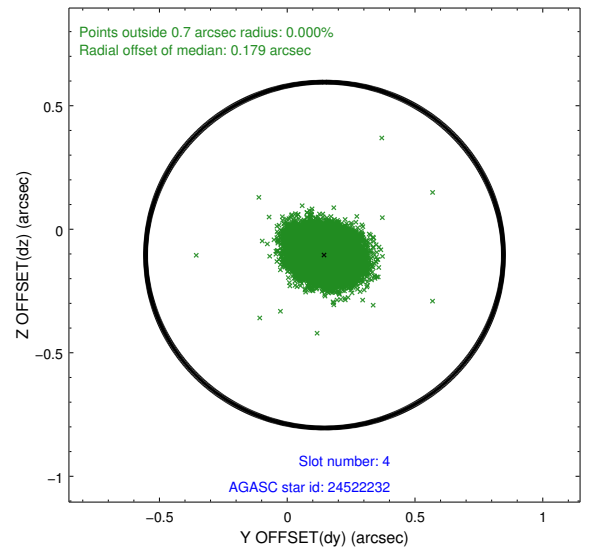
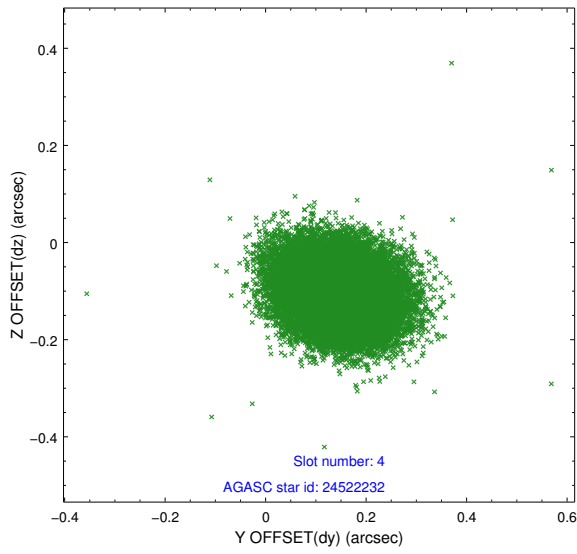
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|----------|------|-------|--------|--------|-------|-------|------------|----------|----------|----------|
| 0 | FID | HRC-I-1 | 6.88 | 11862 | -0.621 | -0.028 | 0.005 | 0.009 | 0.000000 | 0.000000 | -765.37 | 241.65 |
| 1 | FID | HRC-I-2 | 7.03 | 11861 | 0.700 | -0.026 | 0.005 | 0.009 | 0.000000 | 0.000000 | 845.44 | 242.65 |
| 2 | UNUSED | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |
| 3 | GUIDE | 24521432 | 7.59 | 23720 | -0.150 | 0.149 | 0.061 | 0.099 | 115.643922 | 4.823397 | 916.54 | -1848.92 |
| 4 | GUIDE | 24522232 | 9.08 | 23714 | 0.146 | -0.104 | 0.083 | 0.136 | 114.545065 | 4.637165 | -1555.26 | 1294.17 |
| 5 | GUIDE | 24522960 | 7.83 | 23718 | -0.063 | 0.123 | 0.056 | 0.091 | 115.195385 | 5.000625 | 707.82 | -130.81 |
| 6 | GUIDE | 24524152 | 8.90 | 23716 | 0.104 | -0.044 | 0.075 | 0.122 | 114.664080 | 4.647473 | -1318.97 | 936.66 |
| 7 | GUIDE | 24525600 | 8.30 | 23716 | -0.036 | -0.124 | 0.076 | 0.121 | 114.573999 | 4.942945 | -538.48 | 1728.06 |

2.4 Star Slots

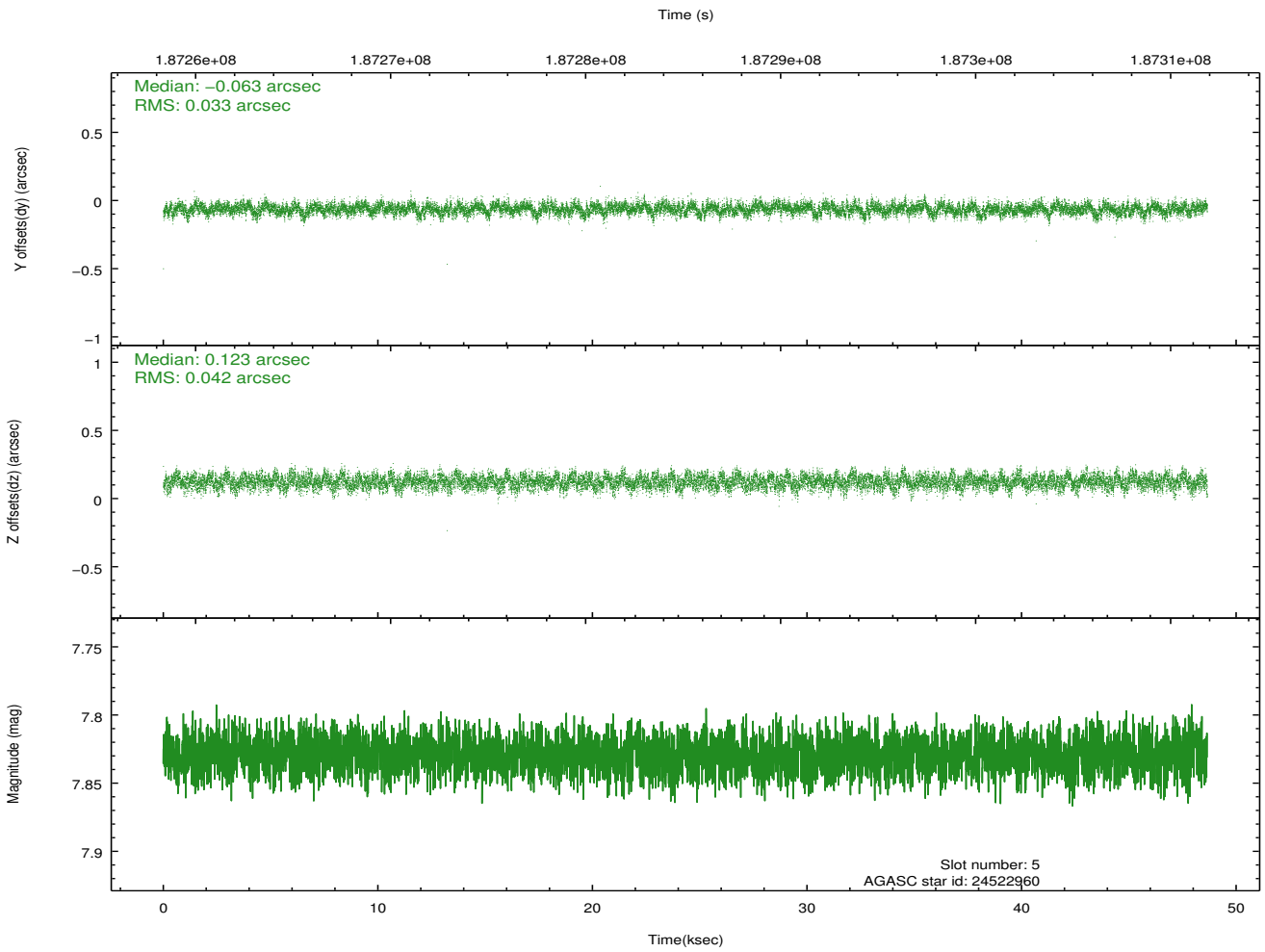
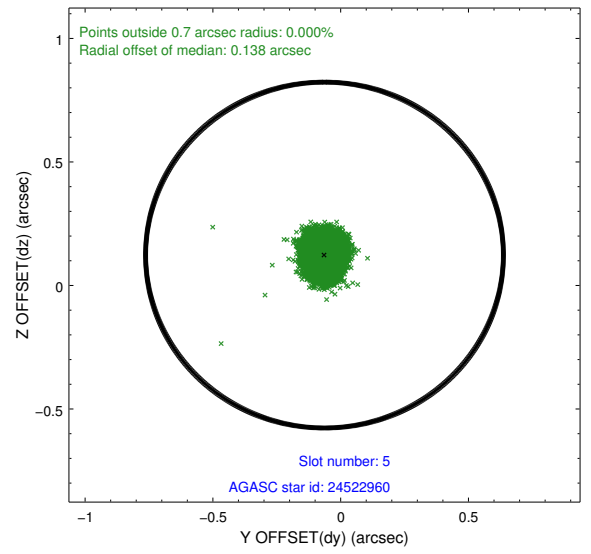
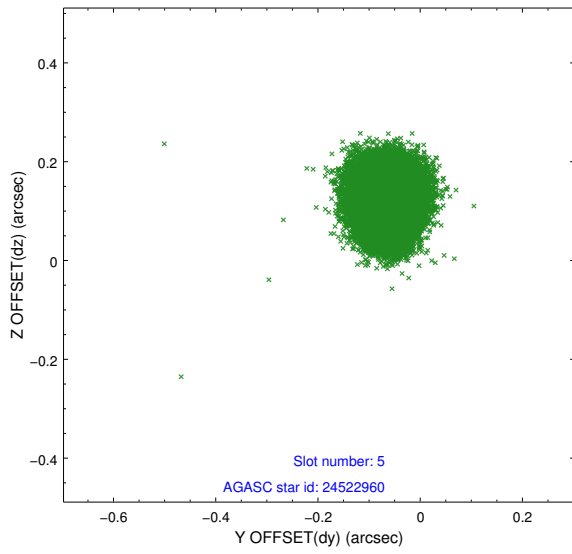
2.4.1 Slot 3



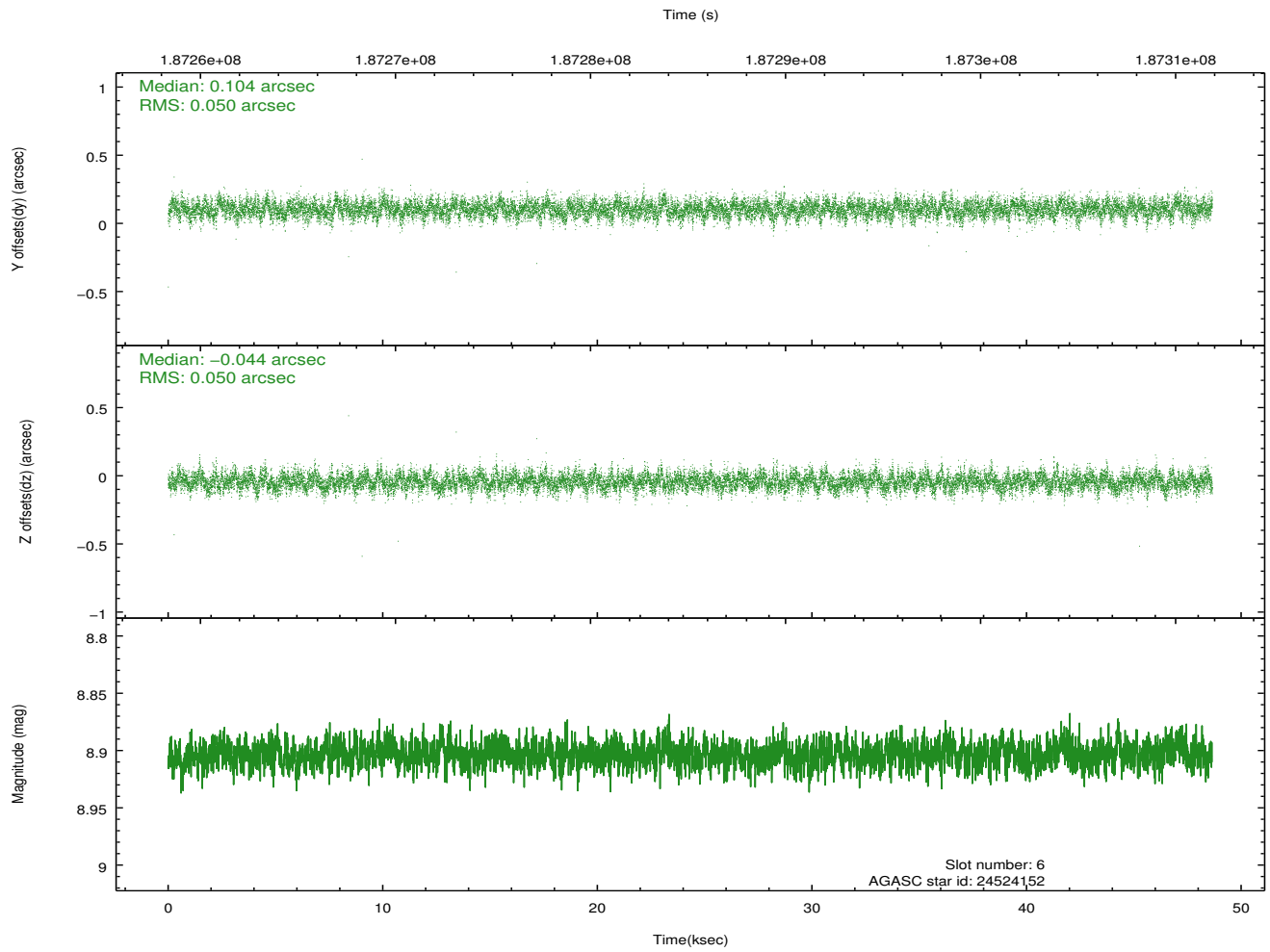
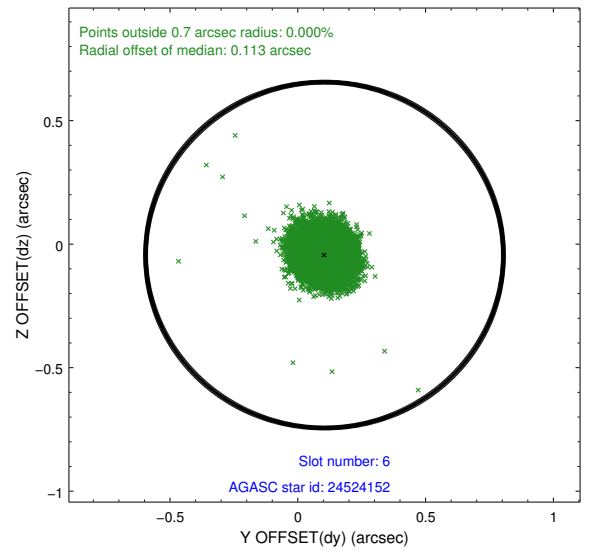
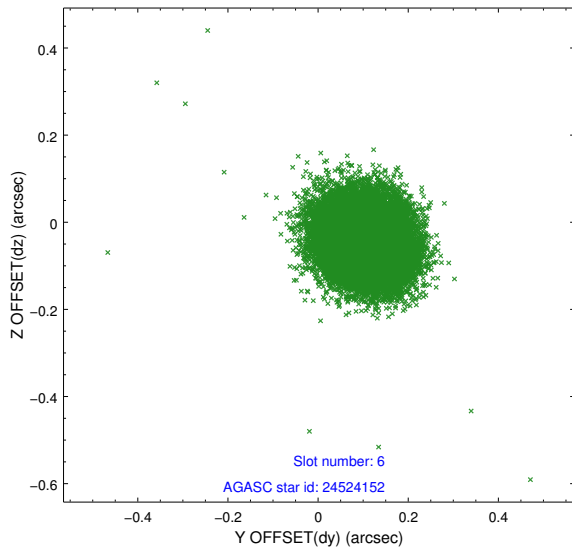
2.4.2 Slot 4



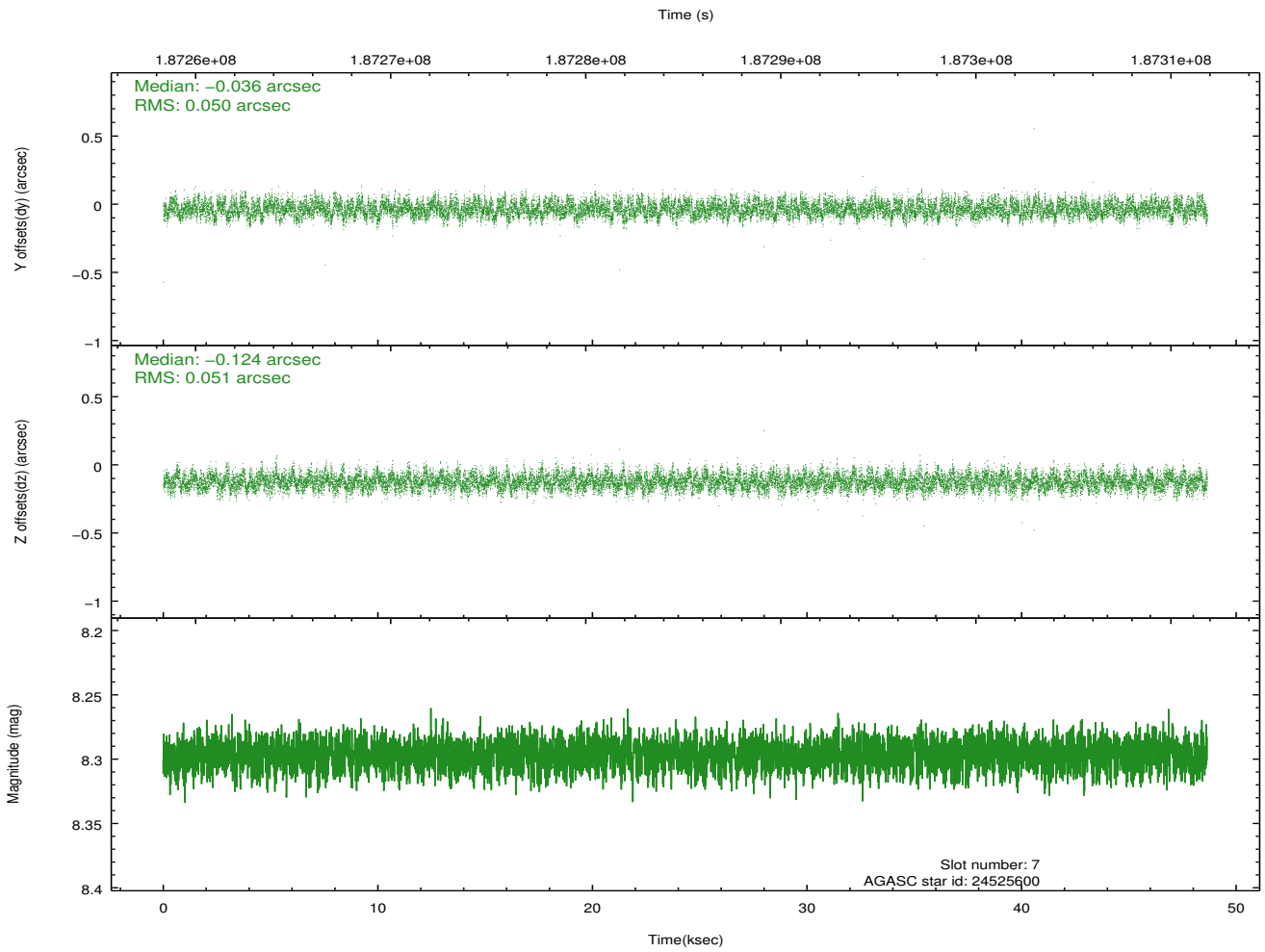
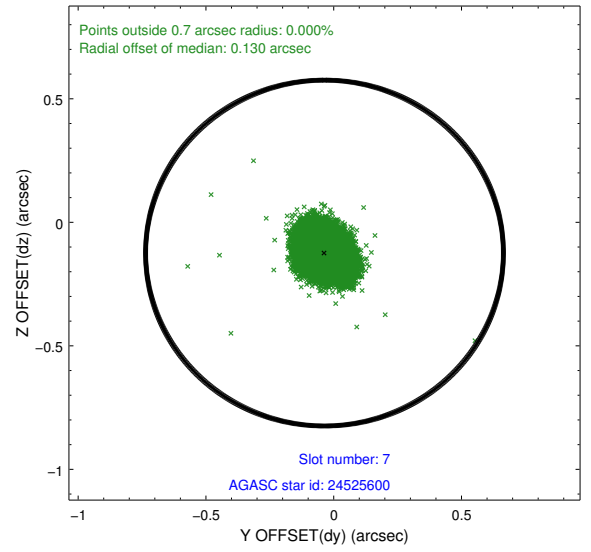
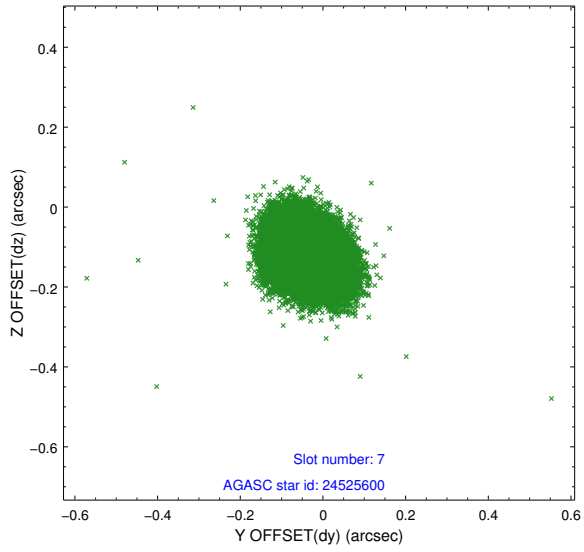
2.4.3 Slot 5



2.4.4 Slot 6

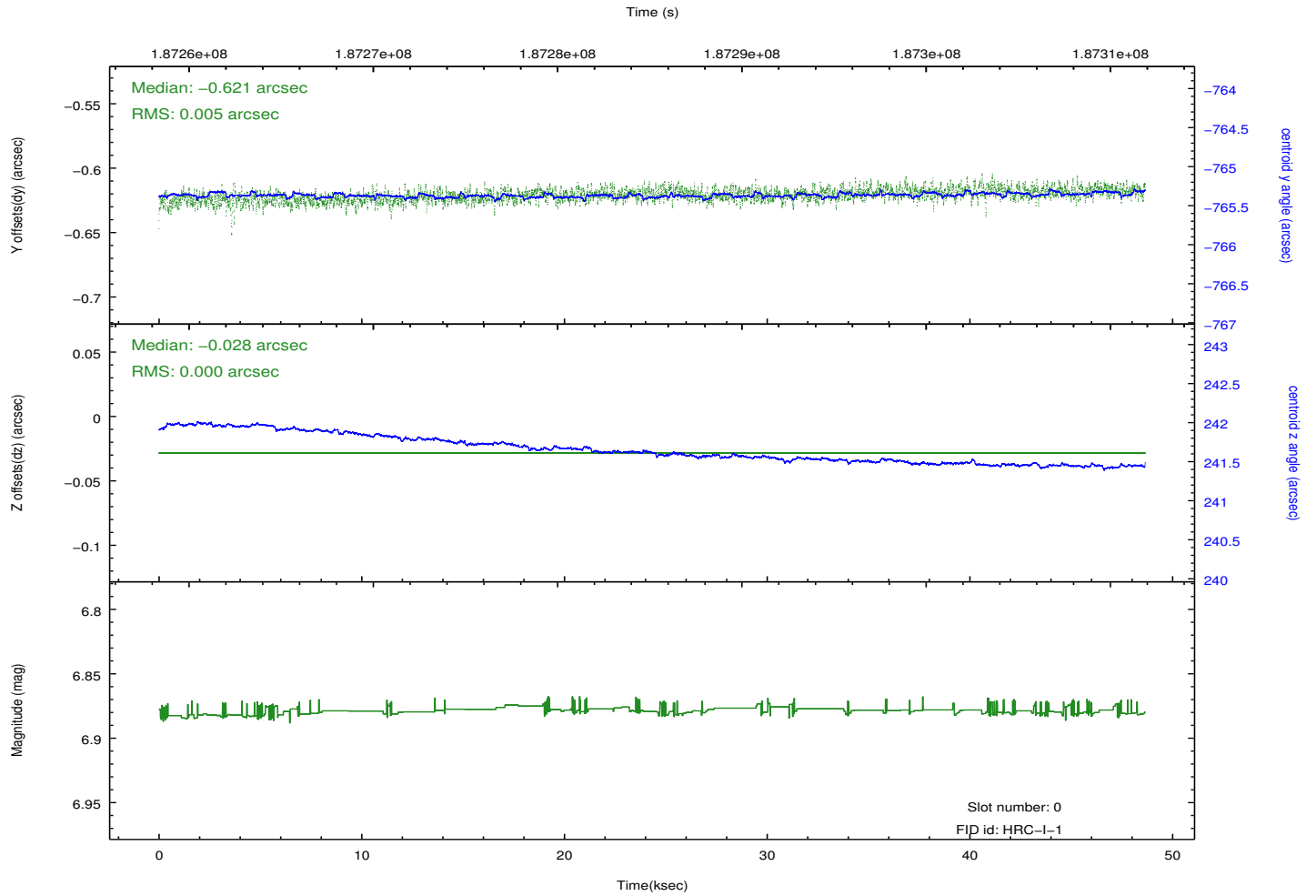
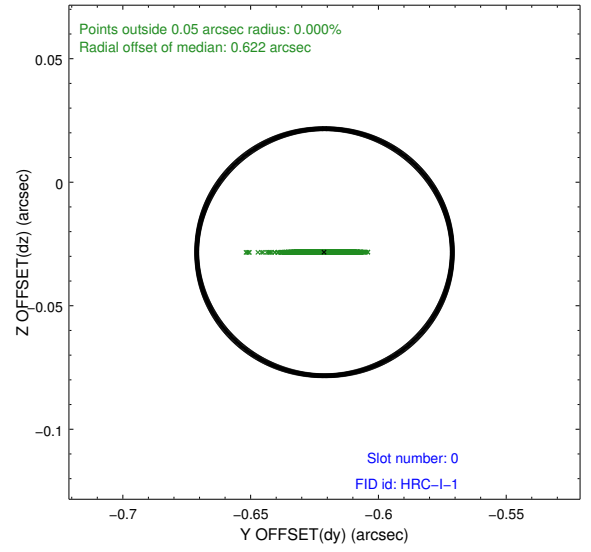
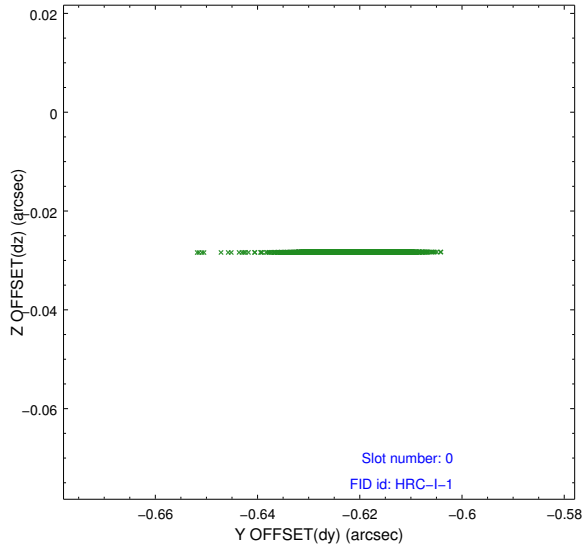


2.4.5 Slot 7

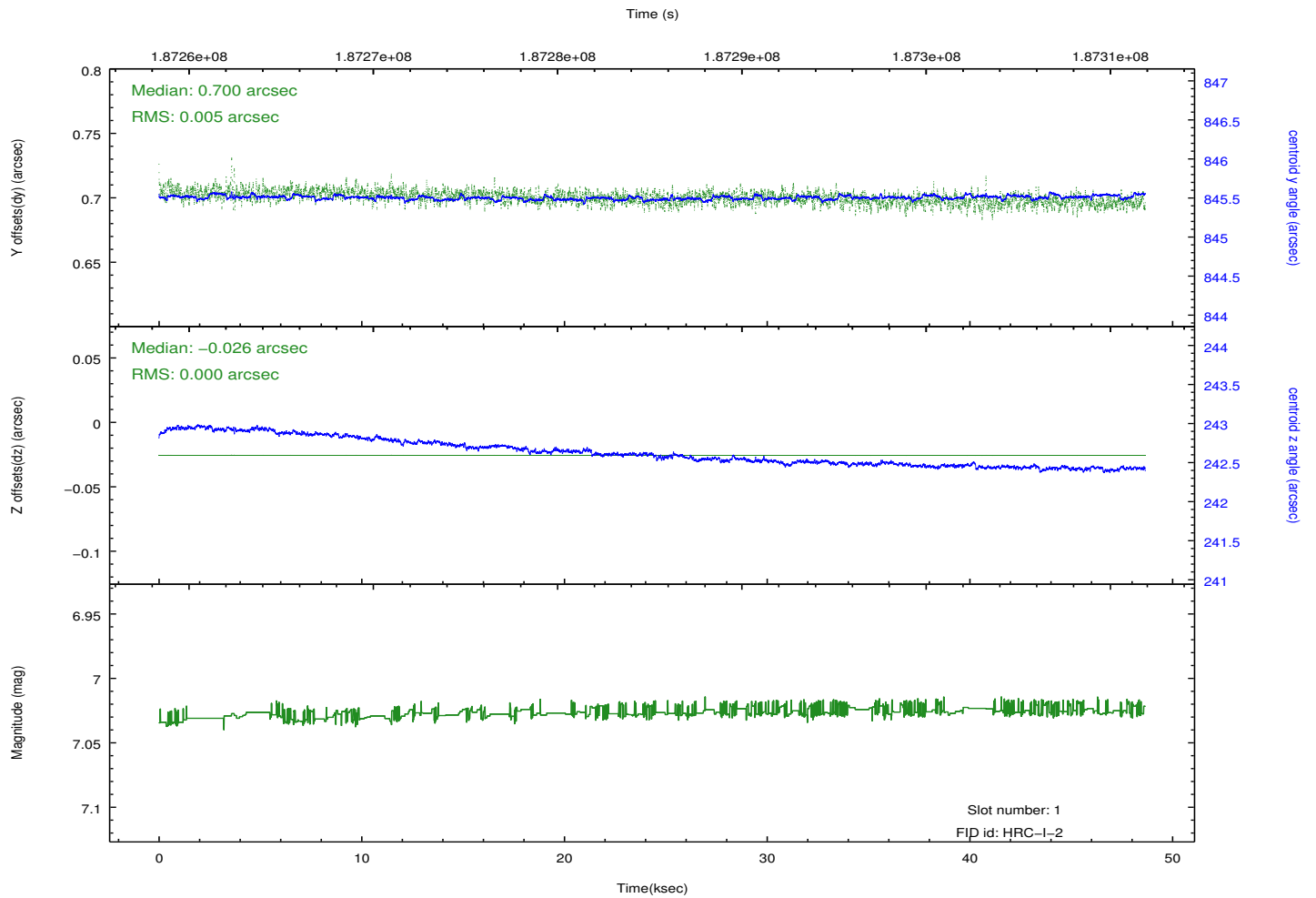
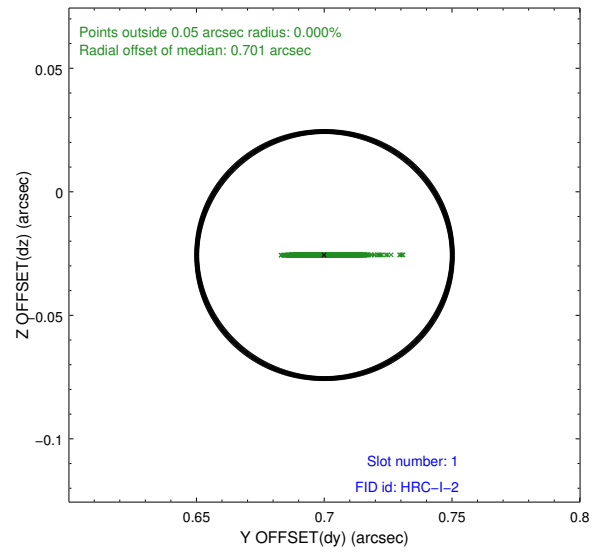
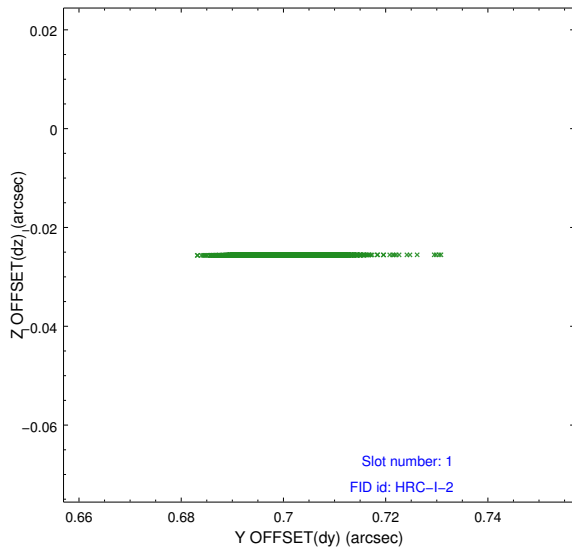


2.5 FID Slots

2.5.1 Slot 0



2.5.2 Slot 1



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.12.20 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 48.018 |

A.2 Comments

Fids are have large radial offsets due to the large offset of the chip. Fid 2 was too far from the center of the field to be detected, and is unused. Because the chip and target are far off-axis, the source is extended and asymmetric. `img_roll_rms` and `img_diam_rms` spike at about 14 ksec. This spike is reflected in the GTI values. Window constraint met. Observation was taken in `next_in_line` mode.