

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 19821 - L2 Version 1
Chandra X-Ray Center

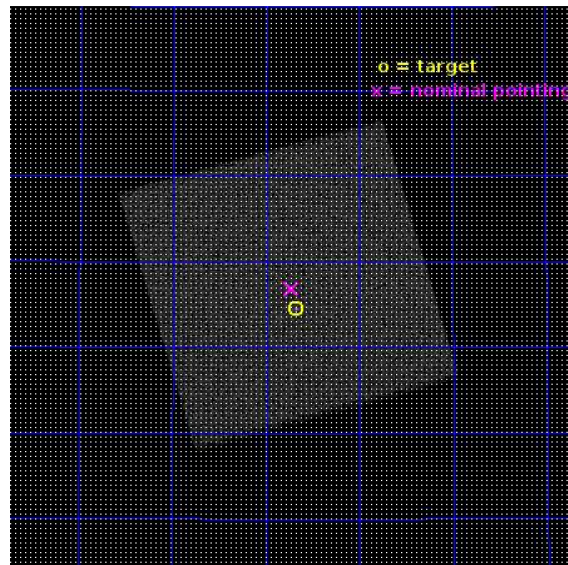
L2 Processing Date : Sep 17 2017

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 |
| 2.5.3 | Slot 2 | 16 |
| A | Summary | 17 |
| A.1 | Status | 17 |
| A.2 | Comments | 17 |

1 Front

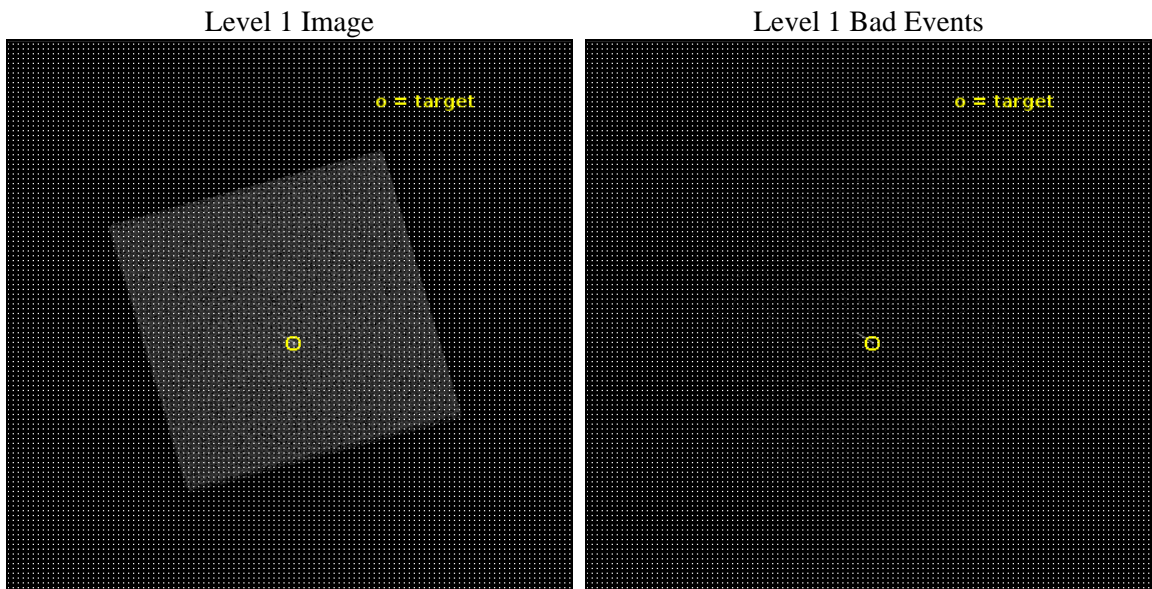
| | | |
|----------|--|---------------------------------------|
| seq_num | 291338 | Sequence number |
| obs_id | 19821 | Observation id |
| title | AO-18 Calibration Observations to Monitor the Spatial Variations in the HRC-I Gain | Proposal title |
| observer | CXC Calibration | Principal investigator |
| 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 | 332.18227634368 | Nominal RA [deg] |
| dec_nom | 45.78128192177 | Nominal Dec [deg] |
| roll_nom | 208.99295011026 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 1180.0313191414 | [s] |
| livetime | 1165.3829604927 | Ontime multiplied by DTCOR |
| l2events | 128573 | 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 | 1000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.6 | Processing system revision | ontime | 1180.0313191414 | [s] |
| caldbver | 4.7.6 | | l1events | 214301 | Number of level 1 events |
| date | 2017-09-17T15:28:51 | Date and time of file creation | | | |
| revision | 1 | Processing version of data | | | |

2.1.3 Events

Level 1 Events

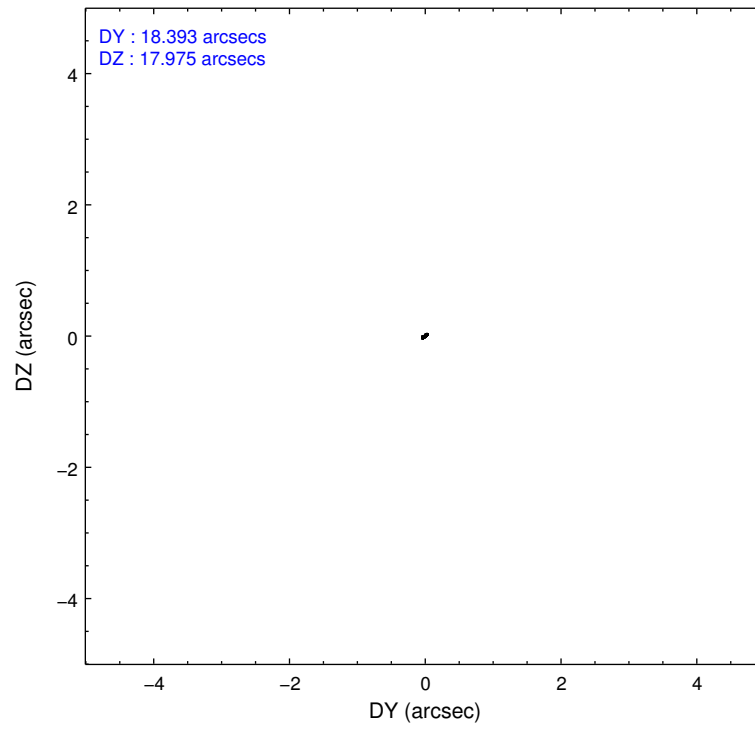
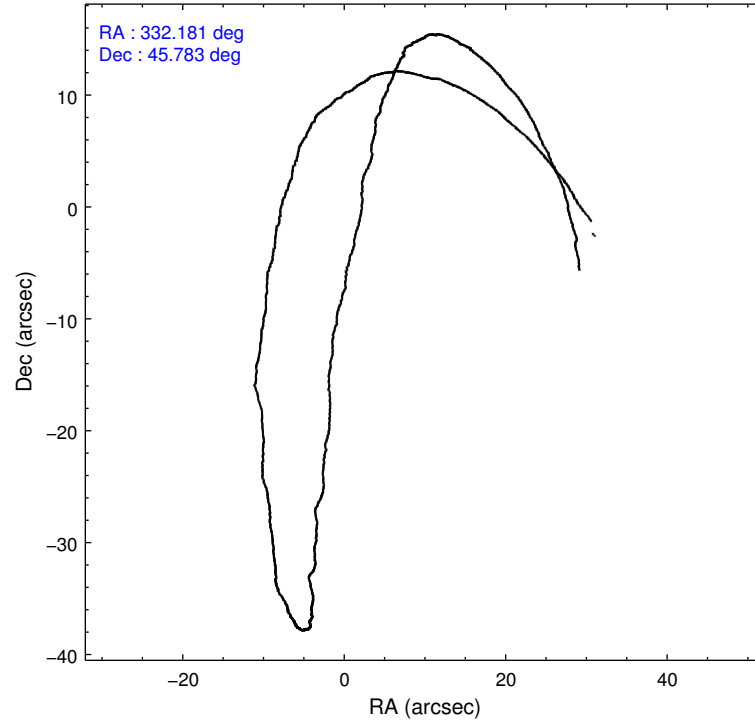
| | |
|-----------------|----------------------|
| | segment 0 |
| level 1 events | 214301 |
| rejected events | 46851 |
| rejected % | 21% |

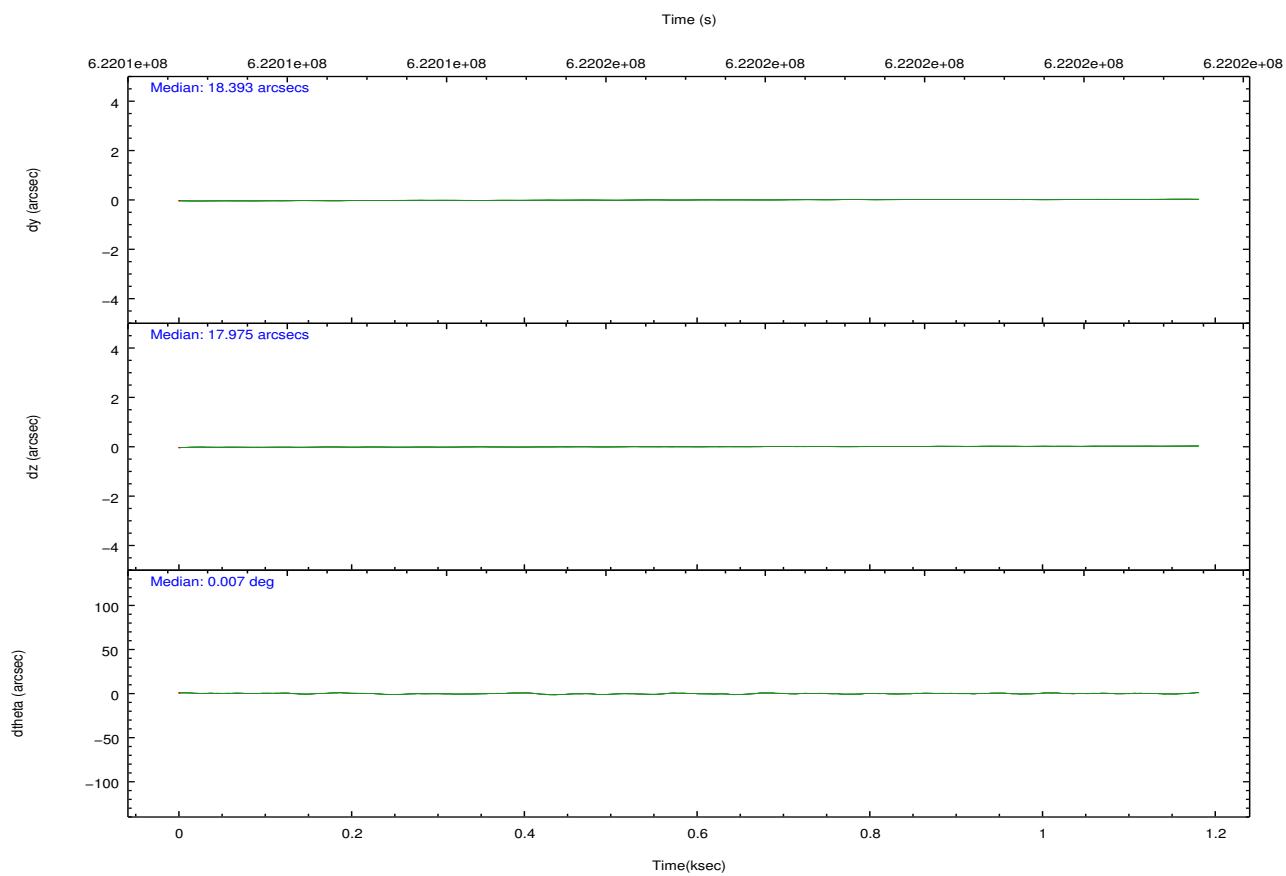
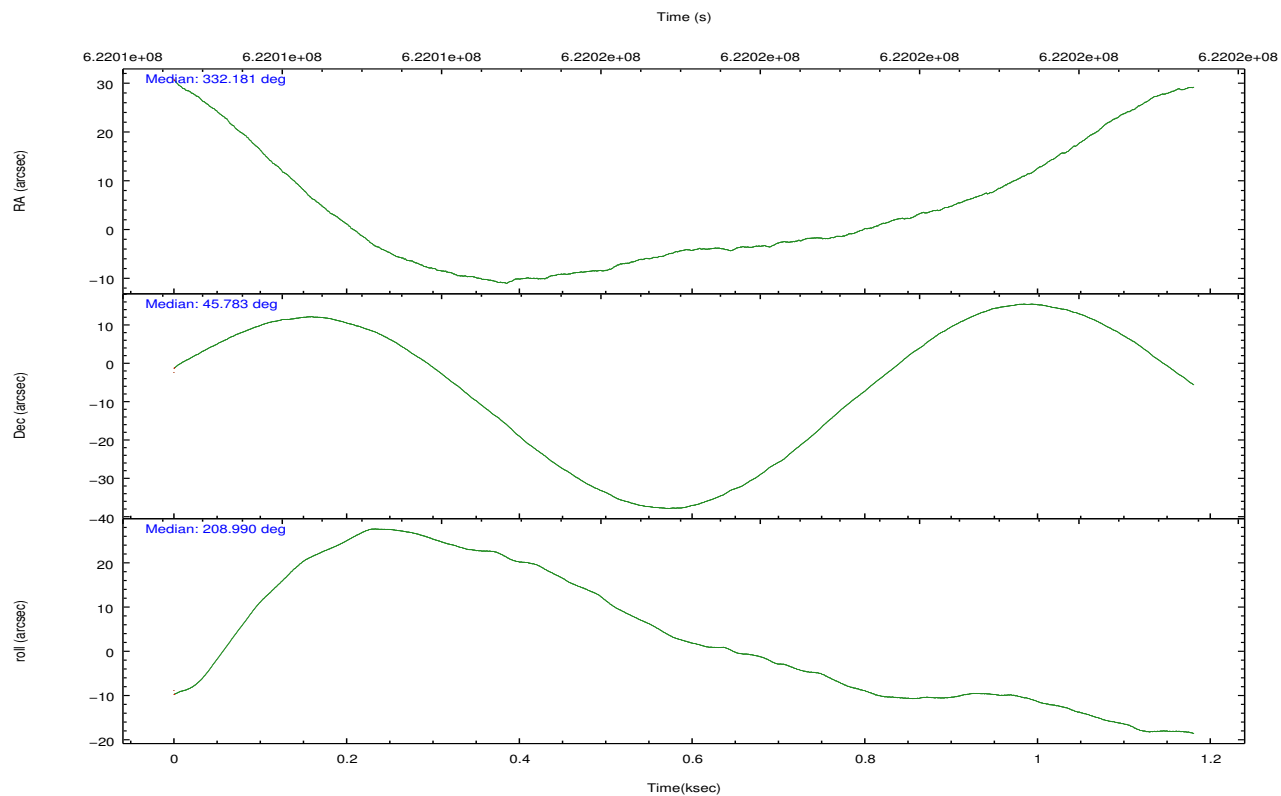
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|
| Instrument | HRC | HRC |
| Detector | HRC-I | HRC-I |
| Grating | NONE | NONE |
| Data mode | OBSERVING | OBSERVING |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 332.201916 | 332.1822763436838 |
| [deg] Pointing Dec | 45.803839 | 45.78128192176971 |
| [deg] Pointing Roll | 209.074307 | 208.9929501102628 |
| [mm] SIM focus pos | -1.040293 | -1.038866356238299 |
| [mm] SIM defocus | 0 | 0.001426264420575141 |
| [mm] SIM translation stage pos | 126.985494 | 126.9829799899862 |
| [mm] SIM translation stage offset | 0 | 0.002508901615314585 |
| [s] Observation start time (MET) | 622014678.184000 | 622014302.641 |
| Observation start date | 2017-09-17T05:50:09 | 2017-09-17T05:45:02 |
| [s] Observation end time (MET) | 622015678.184000 | 622015812.46609 |
| Observation end date | 2017-09-17T06:06:49 | 2017-09-17T06:10:12 |

| Parameter | Planned | Actual |
|------------------------------|-----------|---------|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |

2.3 Aspect



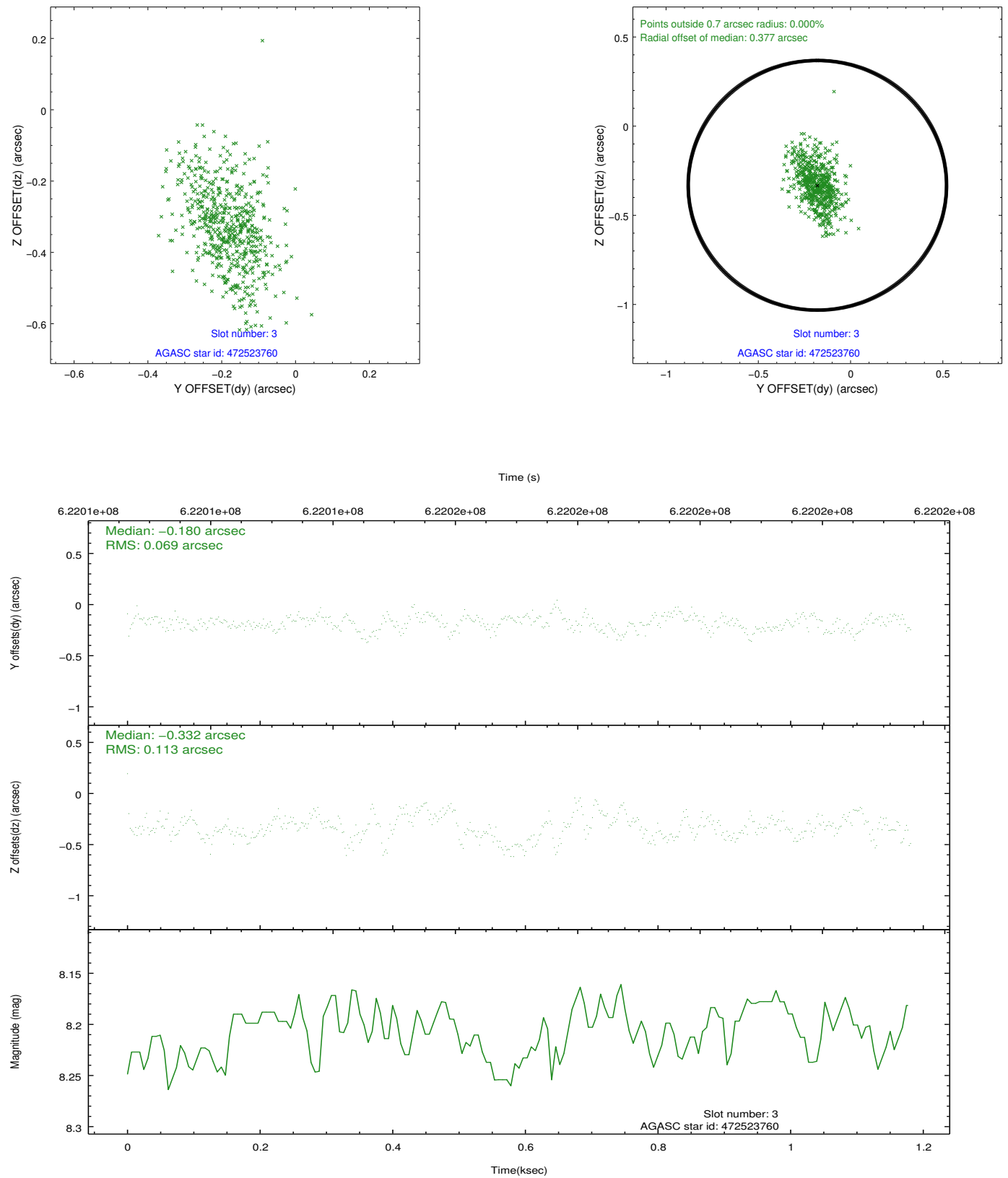


Slot Statistics

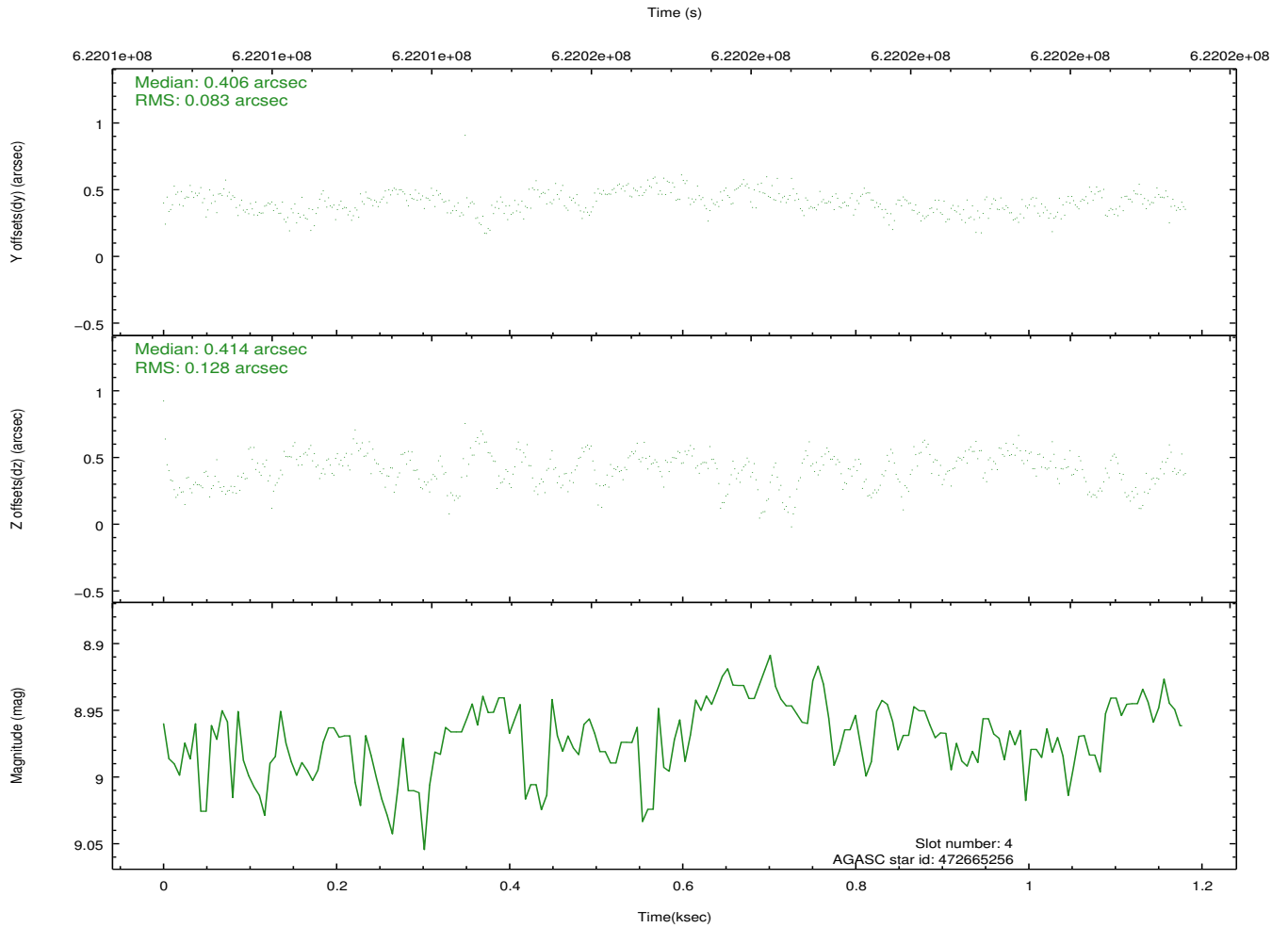
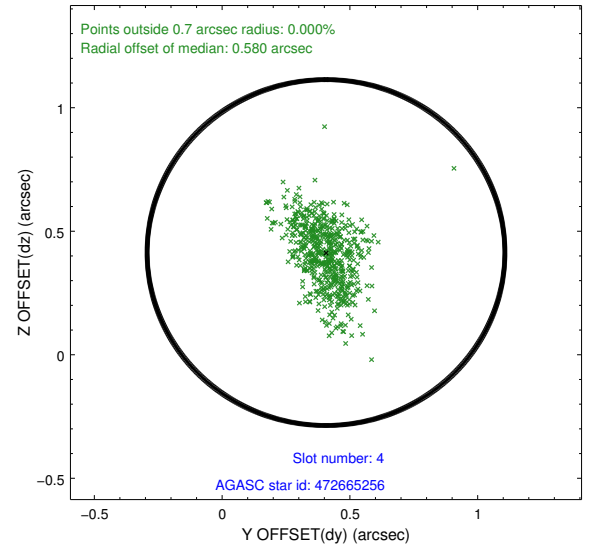
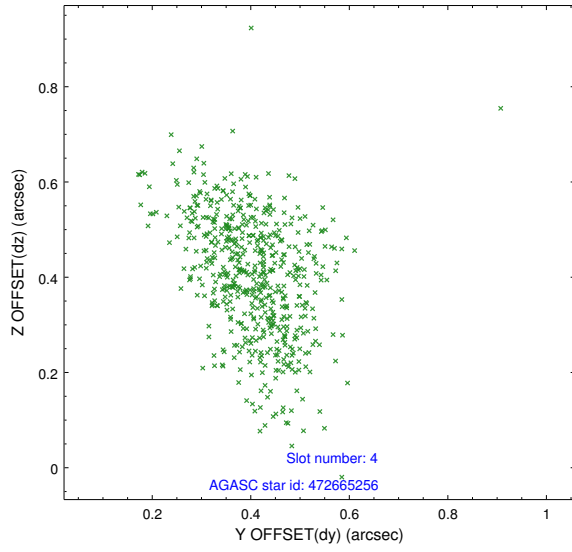
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | | HRC-I-1 | 7.03 | 288 | -0.190 | 0.009 | 0.006 | 0.010 | 0.000000 | 0.000000 | -774.43 | -1306.16 |
| 1 | FID | | HRC-I-2 | 7.05 | 289 | 0.376 | -0.161 | 0.006 | 0.011 | 0.000000 | 0.000000 | 836.09 | -1312.36 |
| 2 | FID | | HRC-I-3 | 7.11 | 288 | -0.068 | 0.061 | 0.005 | 0.011 | 0.000000 | 0.000000 | -1199.96 | 993.88 |
| 3 | GUIDE | used | 472523760 | 8.21 | 577 | -0.180 | -0.332 | 0.138 | 0.239 | 331.645363 | 45.403260 | 1929.74 | 576.43 |
| 4 | GUIDE | used | 472665256 | 8.97 | 577 | 0.406 | 0.414 | 0.158 | 0.280 | 332.808125 | 46.195041 | -2001.82 | -496.30 |
| 5 | GUIDE | used | 472533912 | 9.10 | 576 | 0.375 | 0.300 | 0.209 | 0.379 | 331.791136 | 46.368695 | -98.81 | -2271.83 |
| 6 | GUIDE | used | 472655152 | 9.40 | 576 | 0.185 | -0.156 | 0.227 | 0.374 | 332.504239 | 45.862991 | -764.70 | 181.25 |
| 7 | GUIDE | used | 472525528 | 6.64 | 576 | -0.780 | -0.212 | 0.130 | 0.239 | 331.551102 | 45.248694 | 2409.26 | 943.70 |

2.4 Star Slots

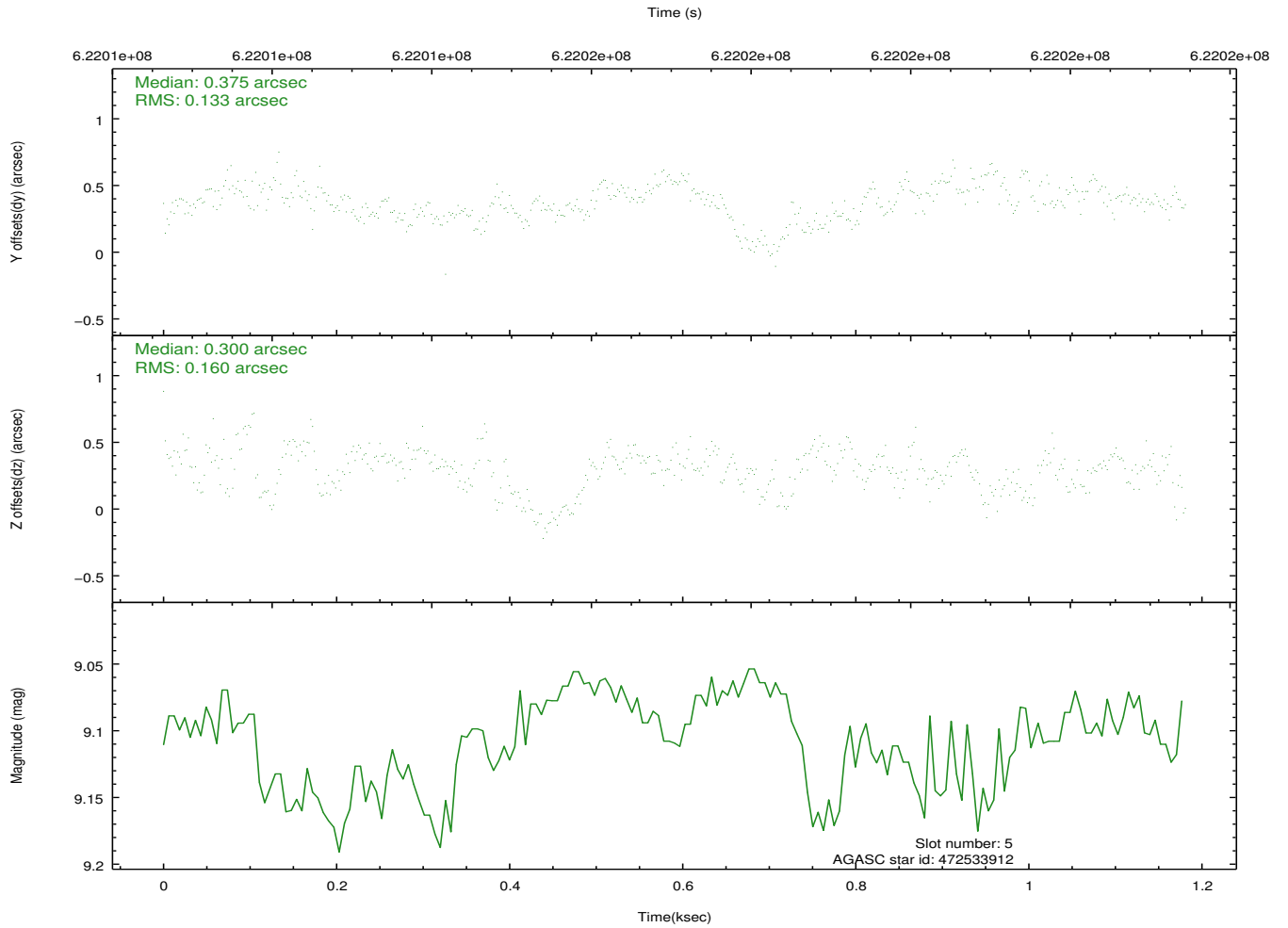
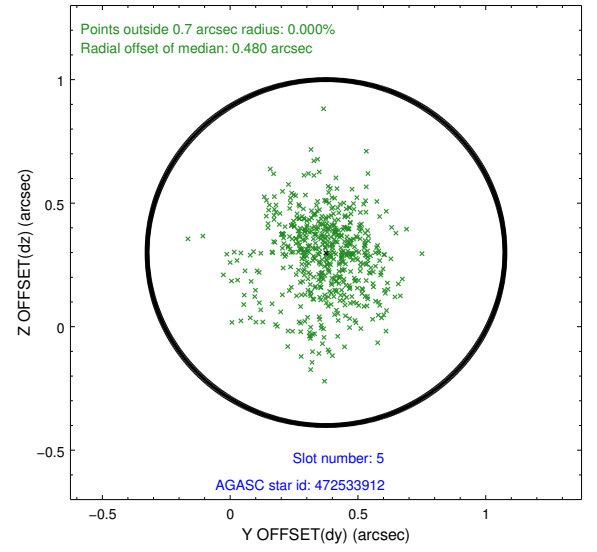
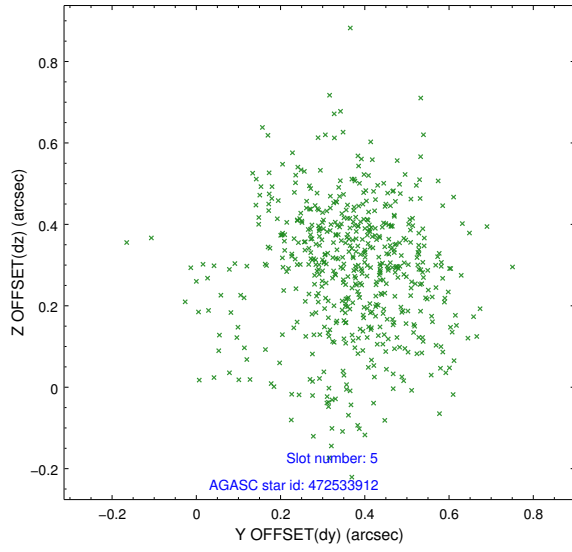
2.4.1 Slot 3



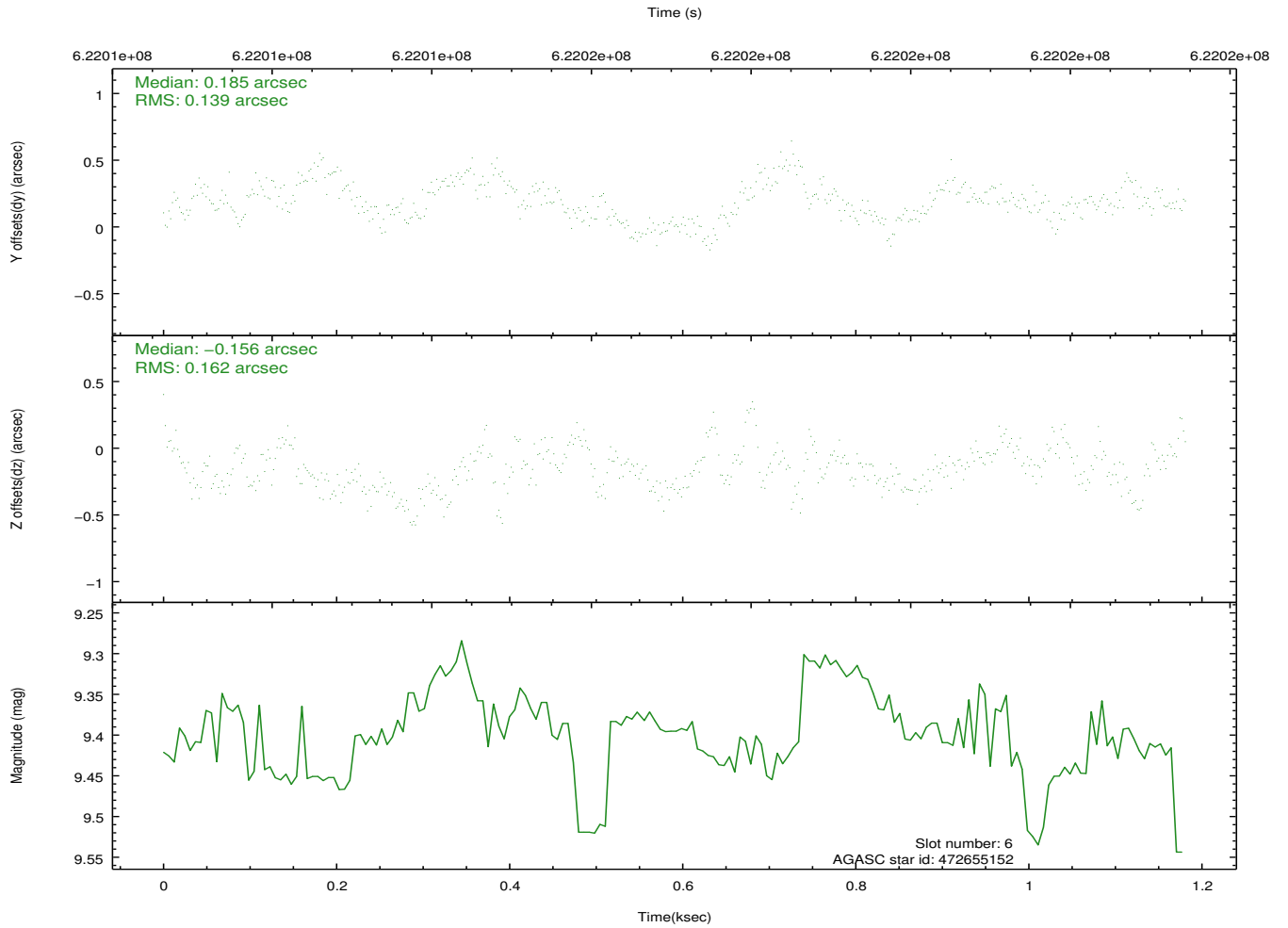
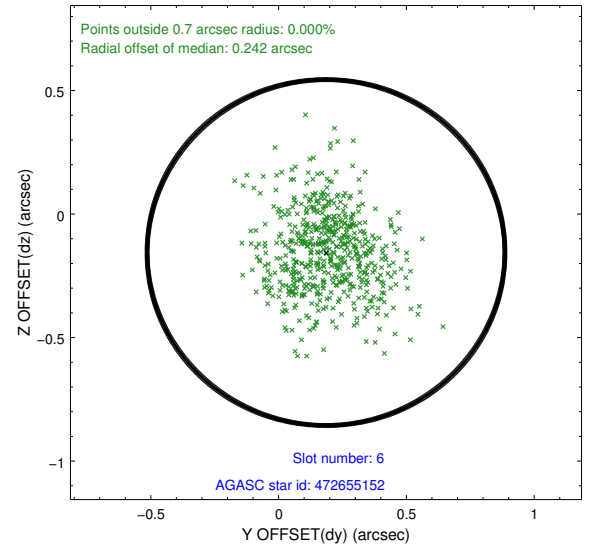
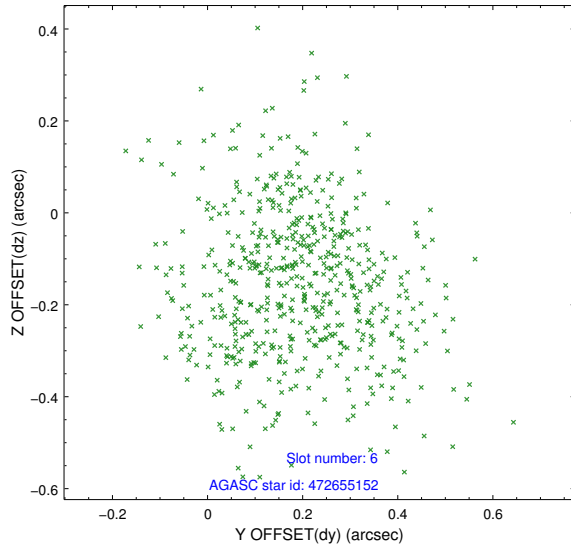
2.4.2 Slot 4



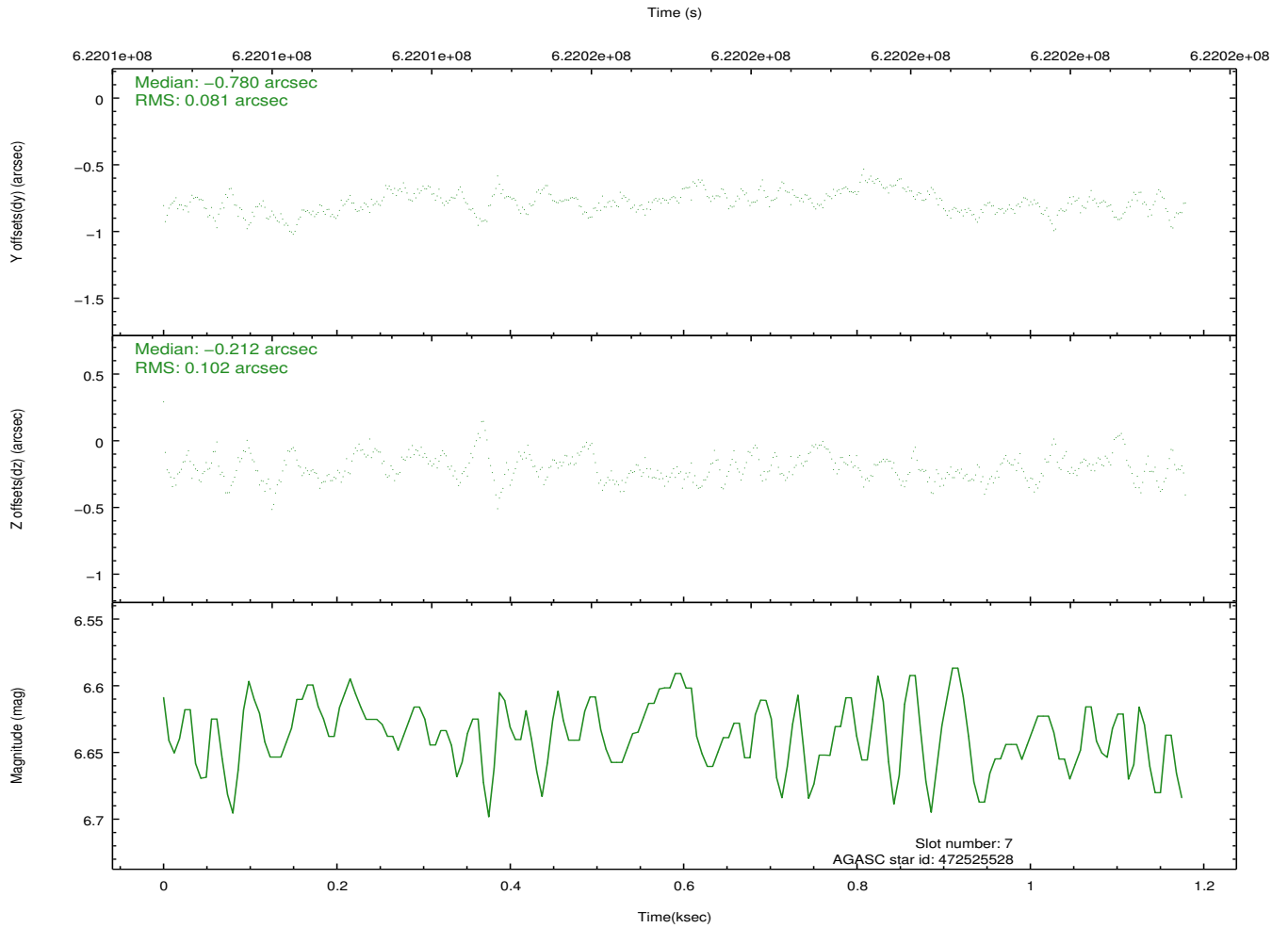
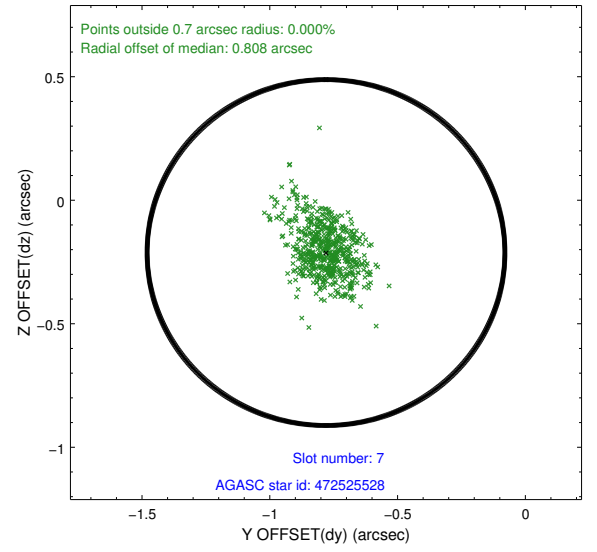
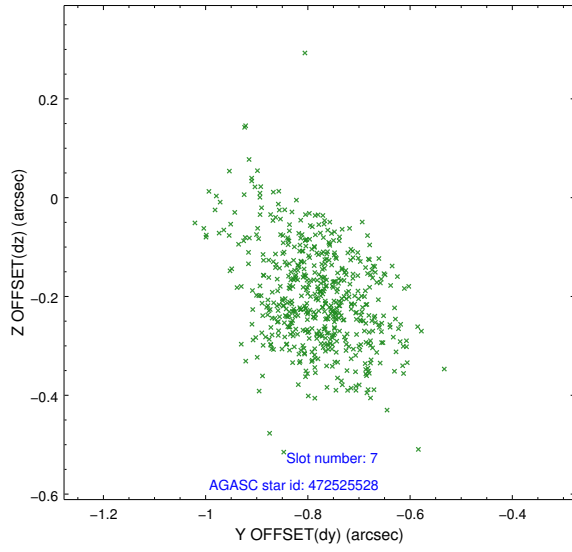
2.4.3 Slot 5



2.4.4 Slot 6

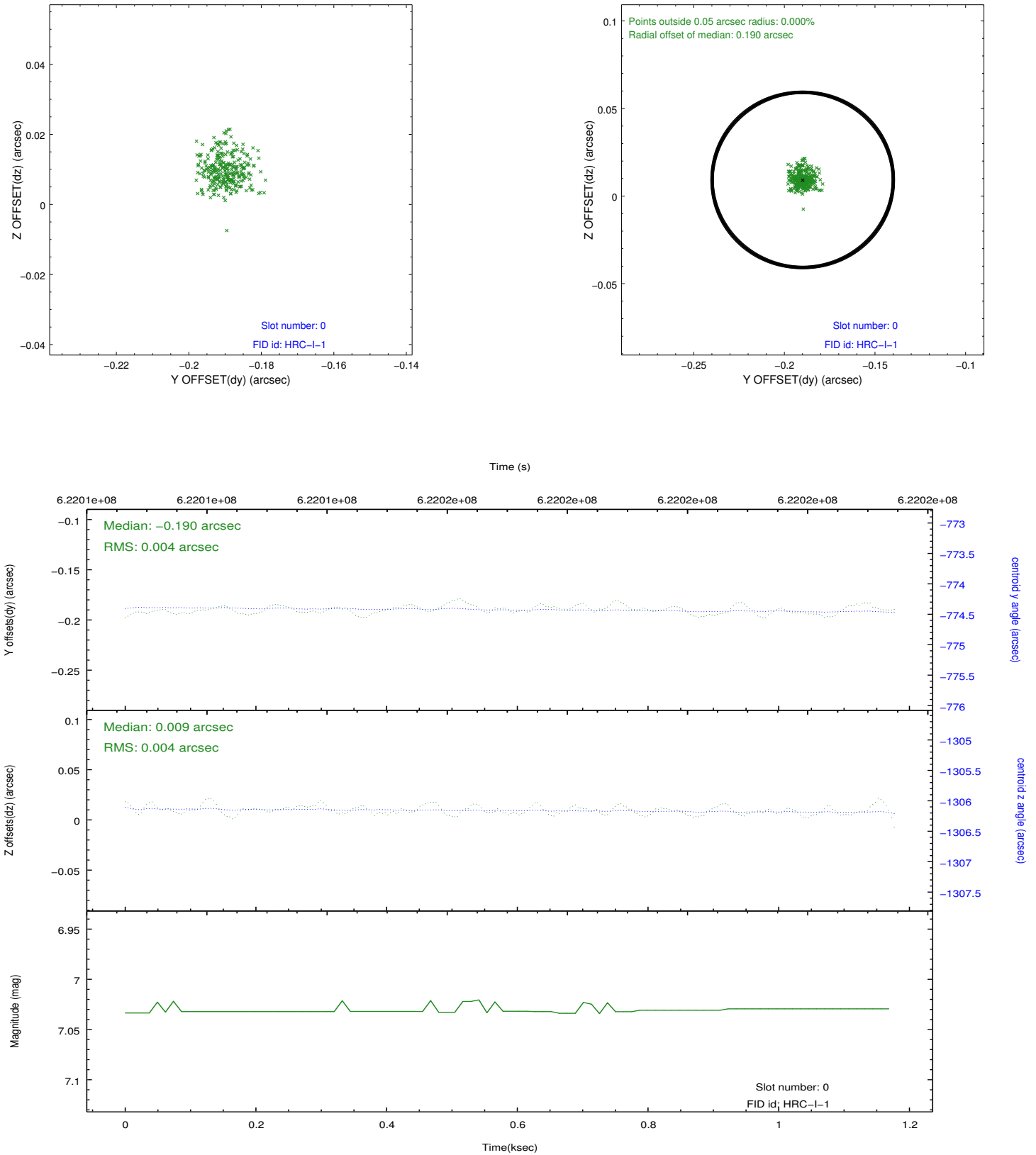


2.4.5 Slot 7

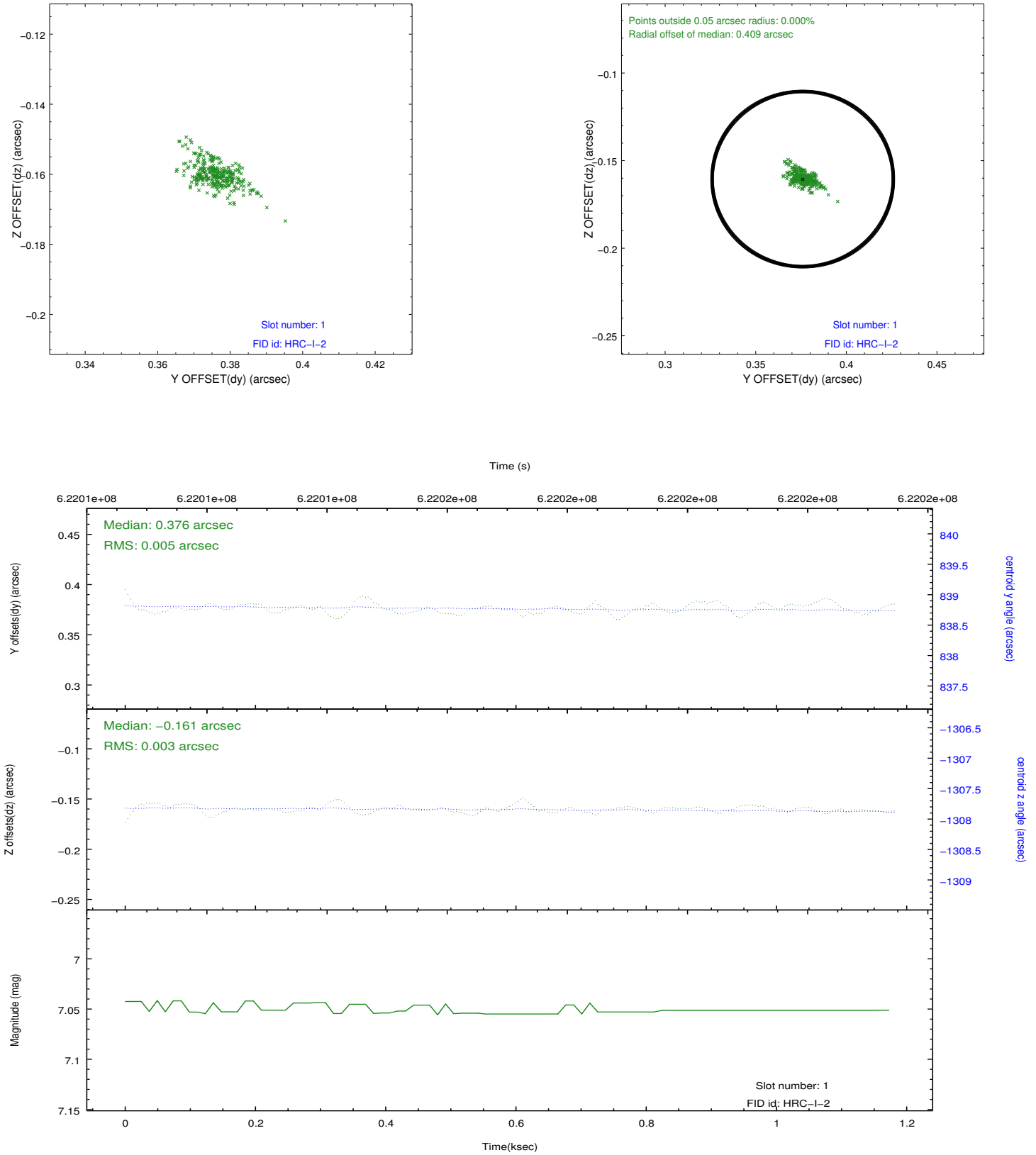


2.5 FID Slots

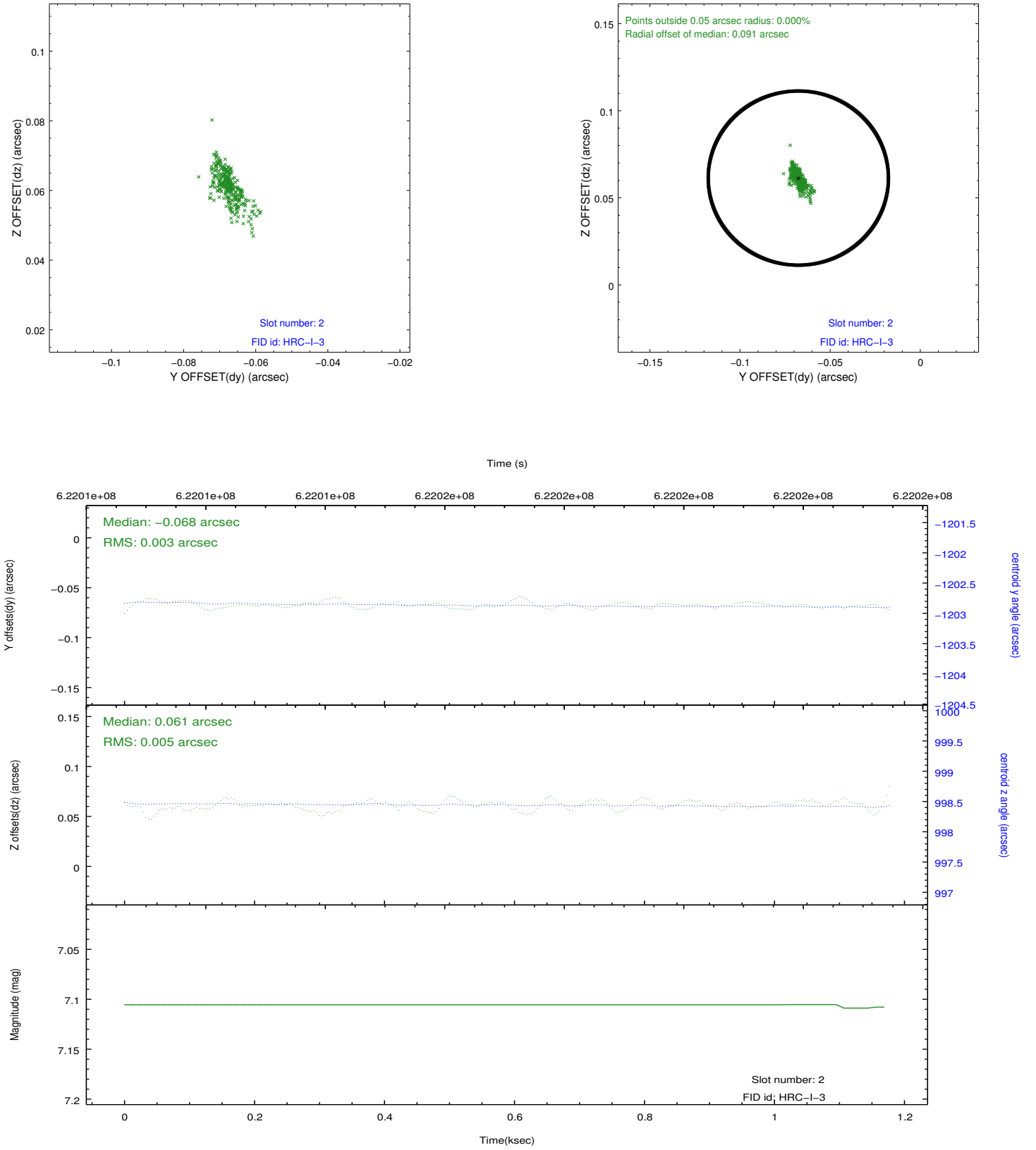
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2017.09.18 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 1.1800313191414 |

A.2 Comments