

V&V Reference Report

L2 ASCDS Version : 10.5.1.1

Observation 18382 - L2 Version 1
Chandra X-Ray Center

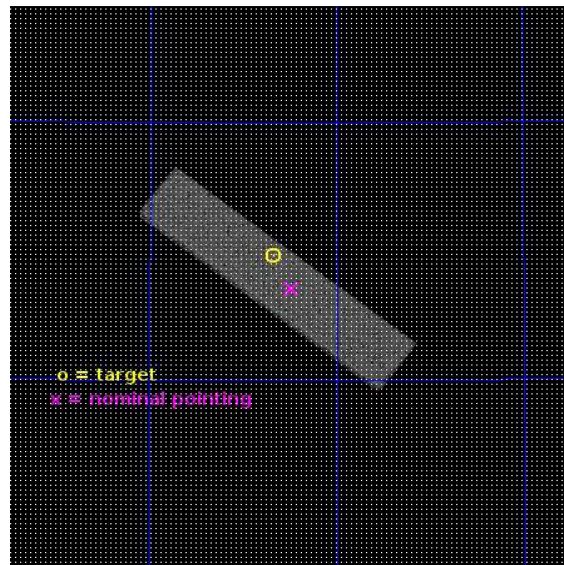
L2 Processing Date : Sep 23 2016

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

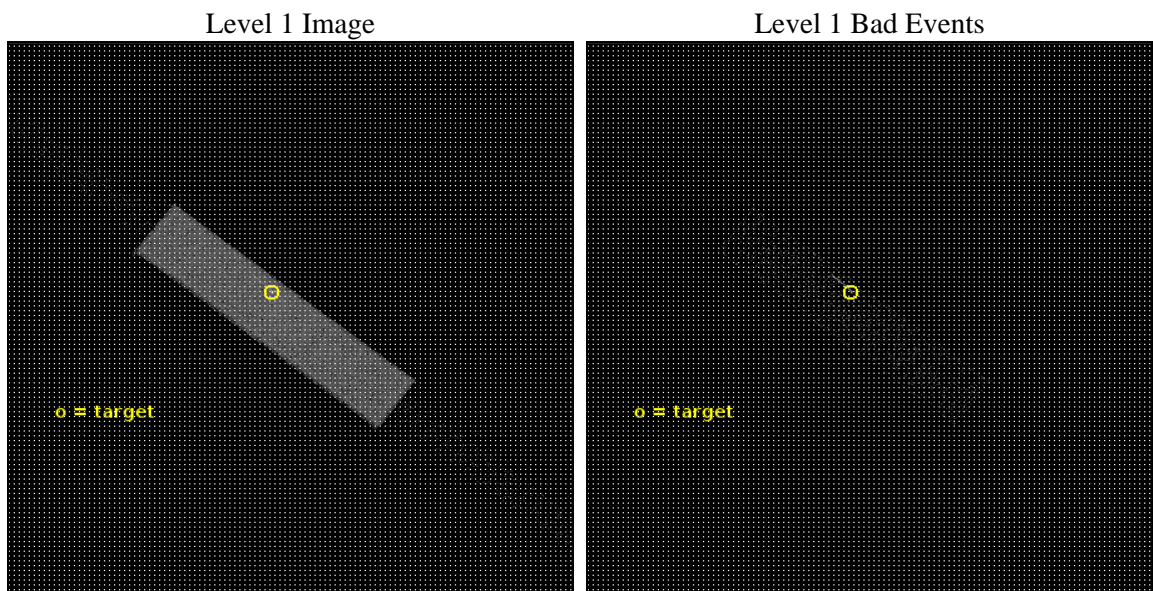
| | | |
|----------|--|---------------------------------------|
| seq_num | 291277 | Sequence number |
| obs_id | 18382 | Observation id |
| title | AO-17 Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain | Proposal title |
| observer | CXC Calibration | Principal investigator |
| 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 | 332.12067894807 | Nominal RA [deg] |
| dec_nom | 45.676844025241 | Nominal Dec [deg] |
| roll_nom | 217.25079567361 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 1182.08131814 | [s] |
| livetime | 1173.4255007802 | Ontime multiplied by DTCOR |
| l2events | 66730 | 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 | 1000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.5.1.1 | Processing system revision | ontime | 1182.08131814 | [s] |
| caldbver | 4.7.2 | | l1events | 99596 | Number of level 1 events |
| date | 2016-09-23T18:36:57 | Date and time of file creation | | | |
| revision | 1 | Processing version of data | | | |

2.1.3 Events

Level 1 Events

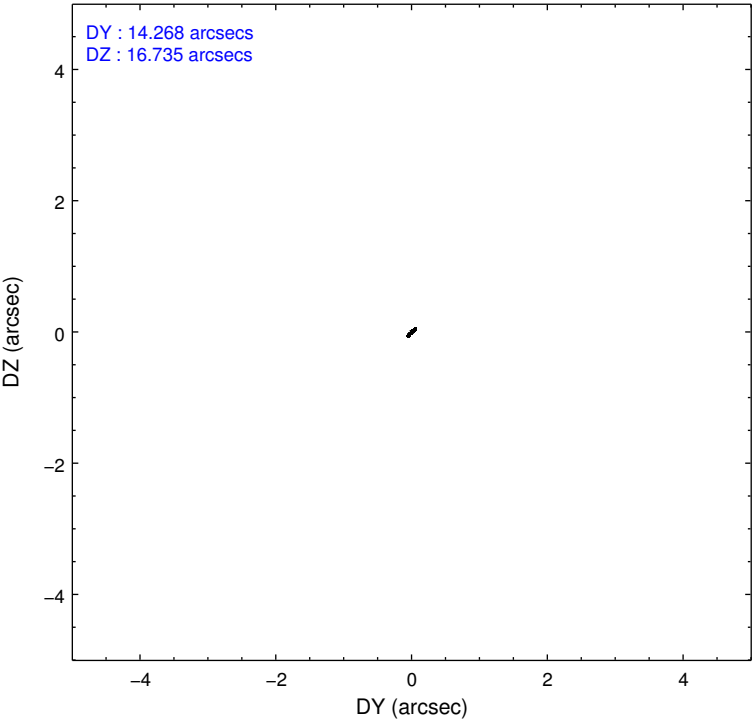
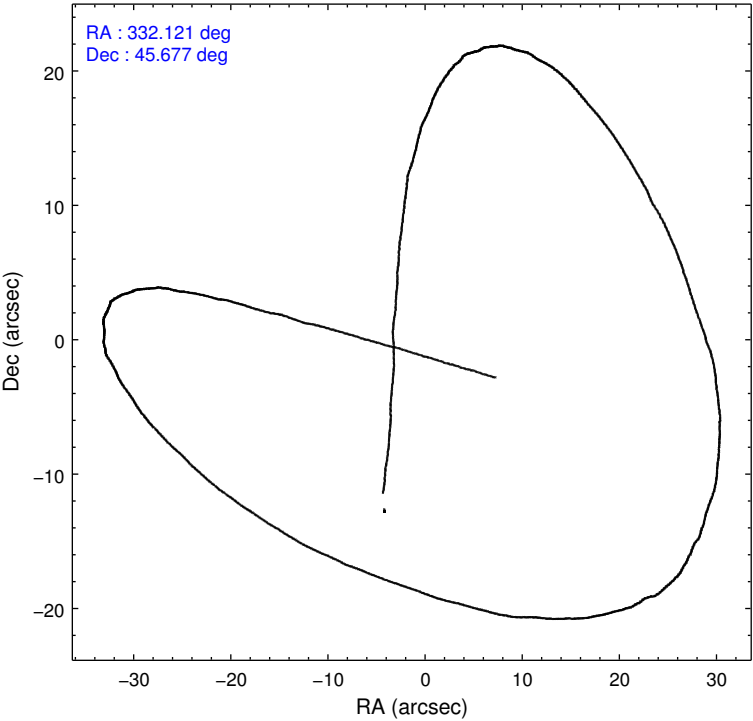
| | segment 1 | segment 2 | segment 3 |
|-----------------|----------------------|----------------------|----------------------|
| level 1 events | 800 | 97959 | 837 |
| rejected events | 800 | 20556 | 837 |
| rejected % | 100% | 20% | 100% |

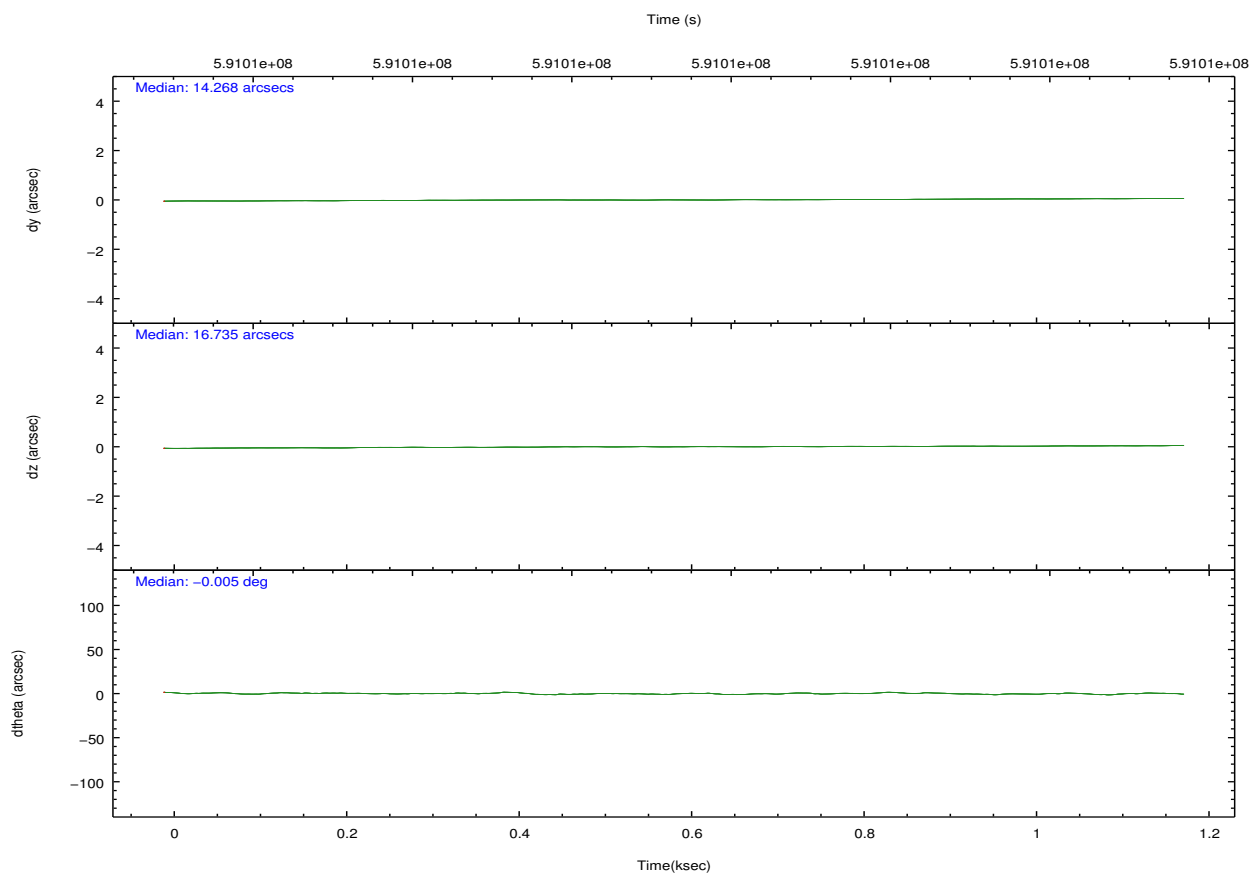
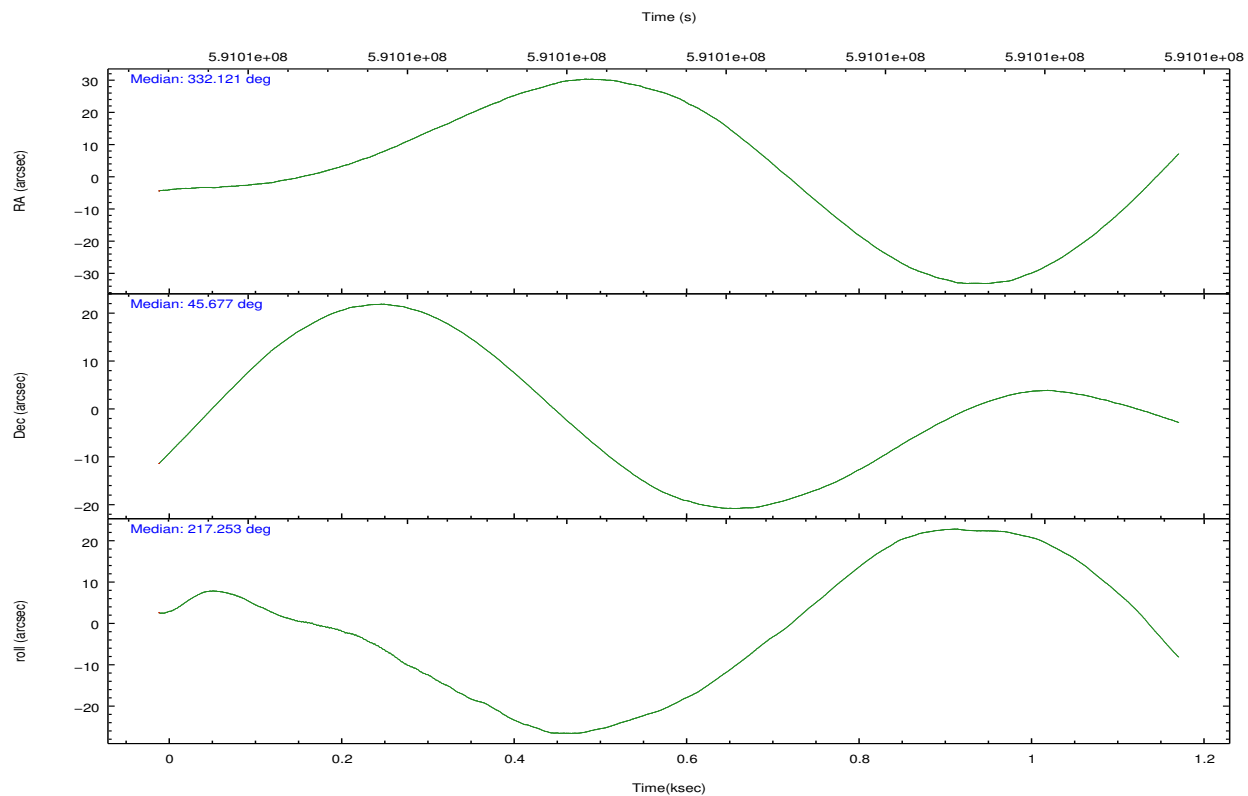
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|-----------------------|-----------------------|
| Instrument | HRC | HRC |
| Detector | HRC-S | HRC-S |
| Grating | NONE | NONE |
| Data mode | OBSERVING | OBSERVING |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 332.135848 | 332.1206789480692 |
| [deg] Pointing Dec | 45.703163 | 45.67684402524095 |
| [deg] Pointing Roll | 217.172618 | 217.2507956736146 |
| [mm] SIM focus pos | -1.533336 | -1.526339935833849 |
| [mm] SIM defocus | 7.710433287538843e-07 | 0.006996703570447904 |
| [mm] SIM translation stage pos | 250.455976 | 250.4635187648994 |
| [mm] SIM translation stage offset | 0 | -0.007540371344731511 |
| [s] Observation start time (MET) | 591009322.184000 | 591008946.1791101 |
| Observation start date | 2016-09-23T09:14:14 | 2016-09-23T09:09:06 |
| [s] Observation end time (MET) | 591010322.184000 | 591010456.51669 |
| Observation end date | 2016-09-23T09:30:54 | 2016-09-23T09:34:16 |

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

2.3 Aspect



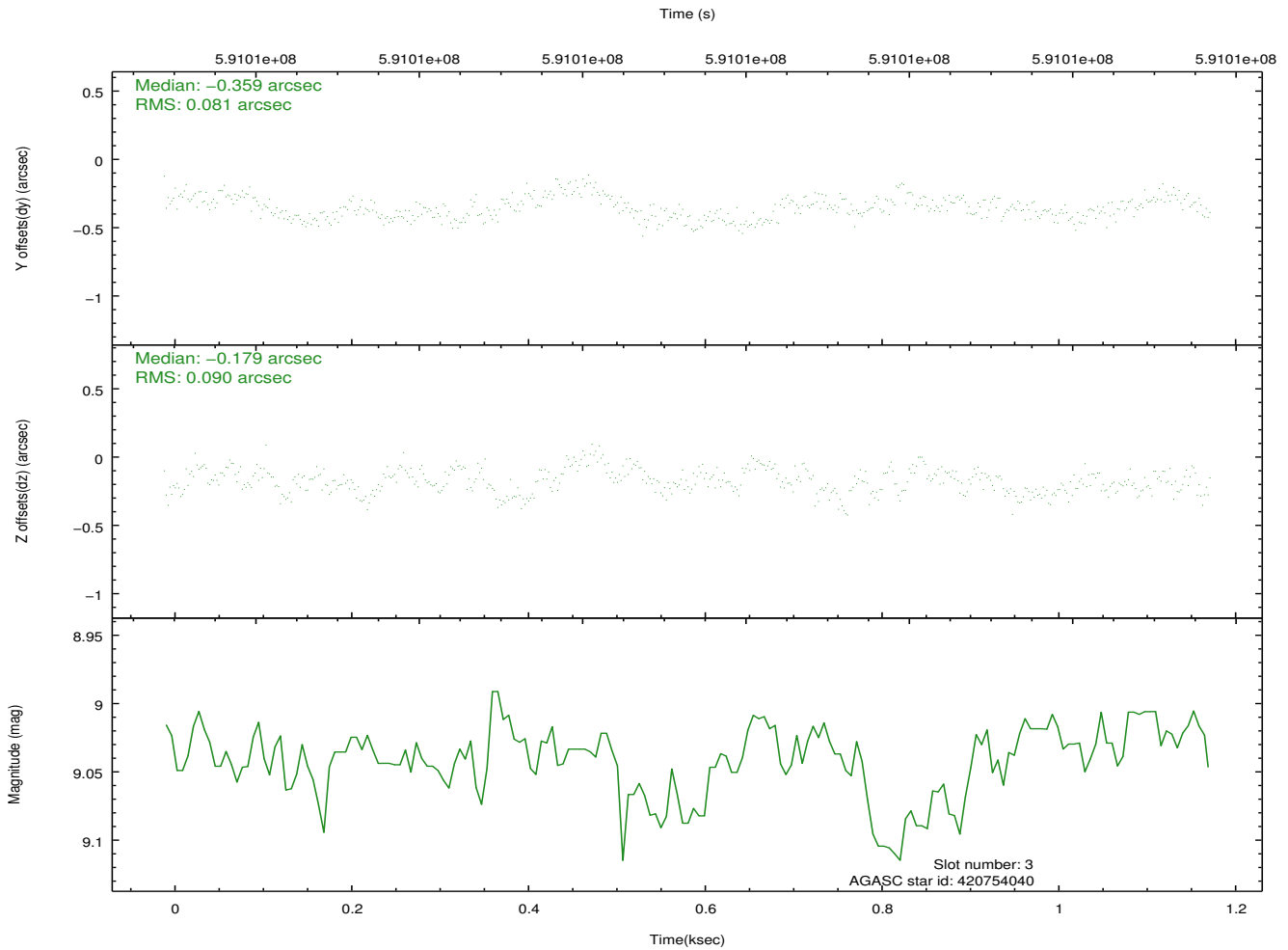
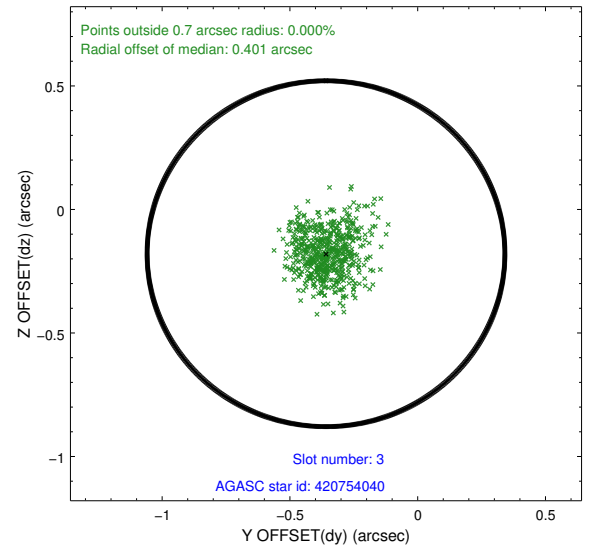
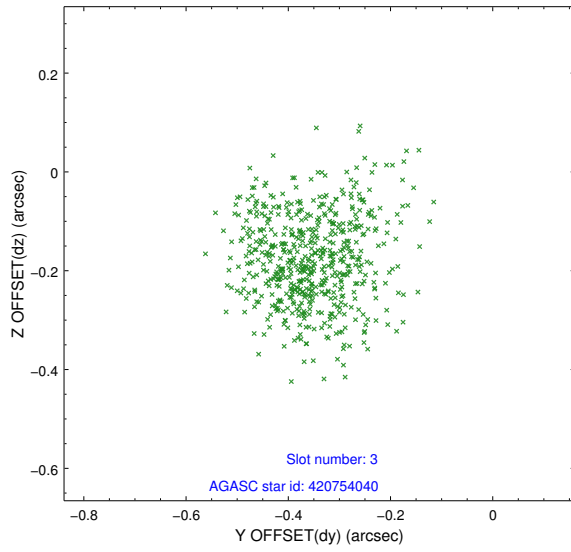


Slot Statistics

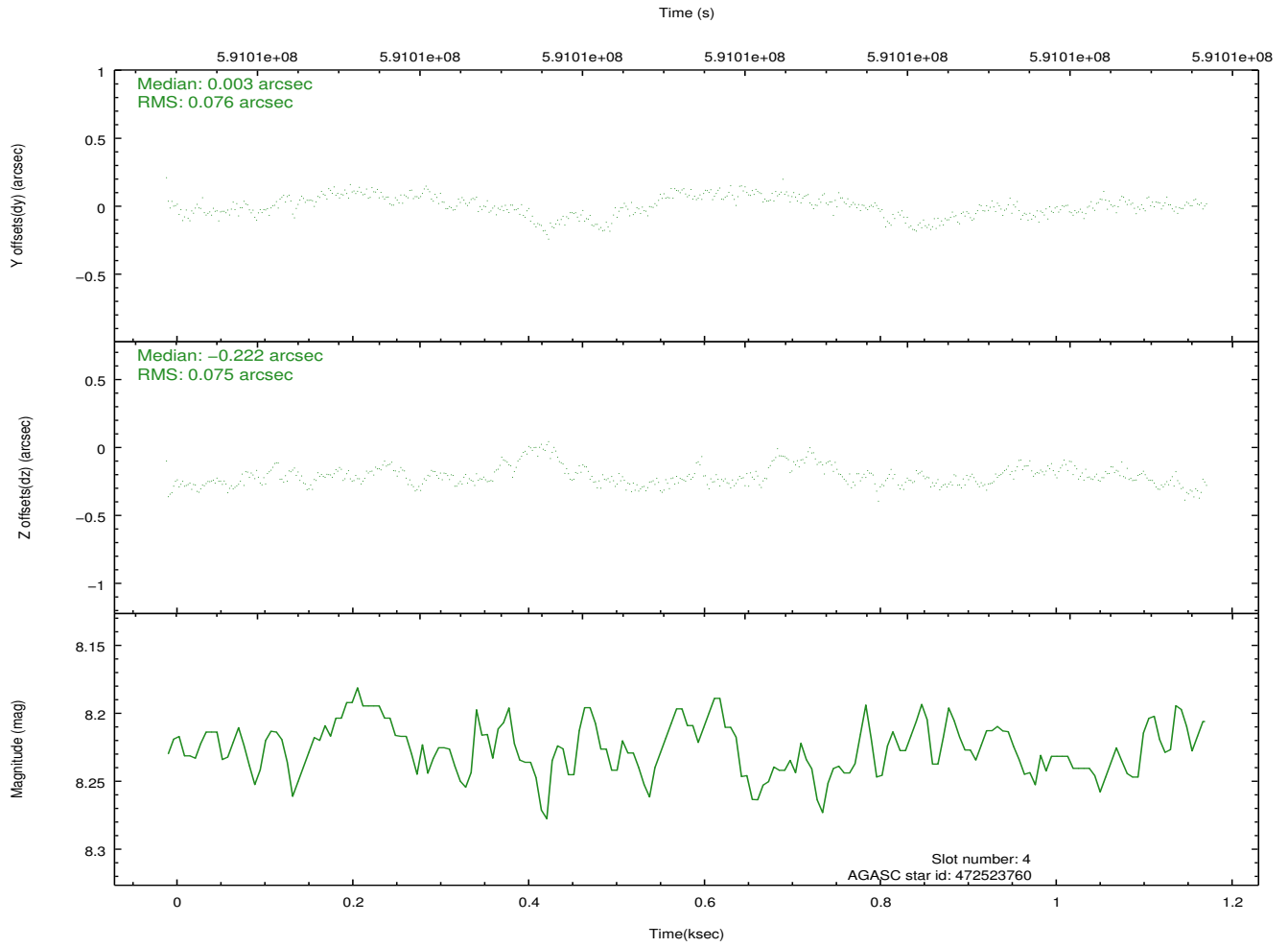
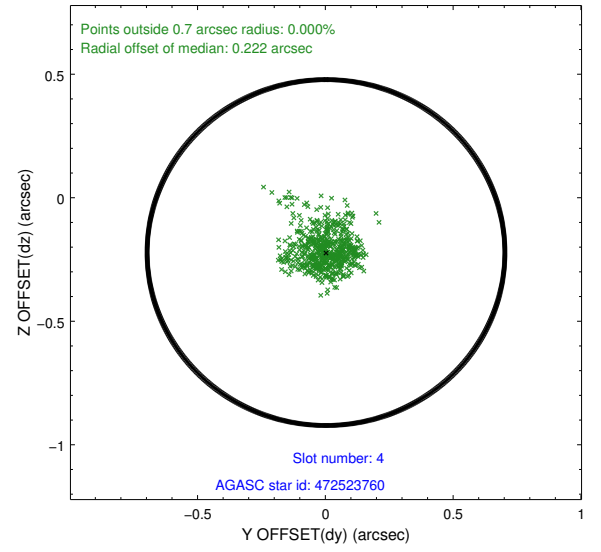
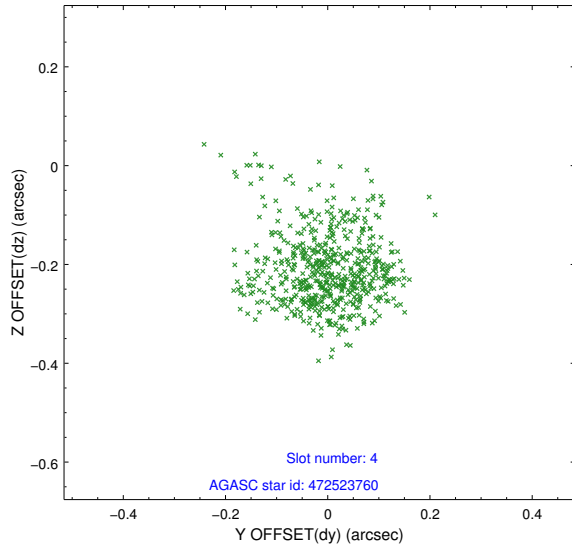
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | | HRC-S-2 | 7.06 | 289 | 0.206 | -0.196 | 0.008 | 0.014 | 0.000000 | 0.000000 | 1231.16 | -458.22 |
| 1 | FID | | HRC-S-3 | 7.05 | 289 | -0.089 | -0.068 | 0.004 | 0.008 | 0.000000 | 0.000000 | -1167.28 | 562.42 |
| 2 | FID | | HRC-S-4 | 7.03 | 289 | 0.288 | -0.032 | 0.007 | 0.013 | 0.000000 | 0.000000 | 1225.76 | 568.61 |
| 3 | GUIDE | used | 420754040 | 9.04 | 578 | -0.359 | -0.179 | 0.130 | 0.213 | 331.917939 | 44.882543 | 2225.53 | 2022.14 |
| 4 | GUIDE | used | 472523760 | 8.23 | 577 | 0.003 | -0.222 | 0.110 | 0.184 | 331.645363 | 45.403260 | 1642.18 | 115.53 |
| 5 | GUIDE | used | 472655152 | 9.40 | 574 | 0.054 | -0.236 | 0.166 | 0.296 | 332.504239 | 45.862991 | -1081.63 | 102.20 |
| 6 | GUIDE | used | 472533912 | 9.11 | 578 | 0.330 | 0.231 | 0.161 | 0.335 | 331.791136 | 46.368695 | -767.94 | -2423.44 |
| 7 | GUIDE | used | 472659832 | 9.42 | 577 | -0.041 | 0.394 | 0.138 | 0.223 | 332.780399 | 46.098139 | -2146.36 | -165.58 |

2.4 Star Slots

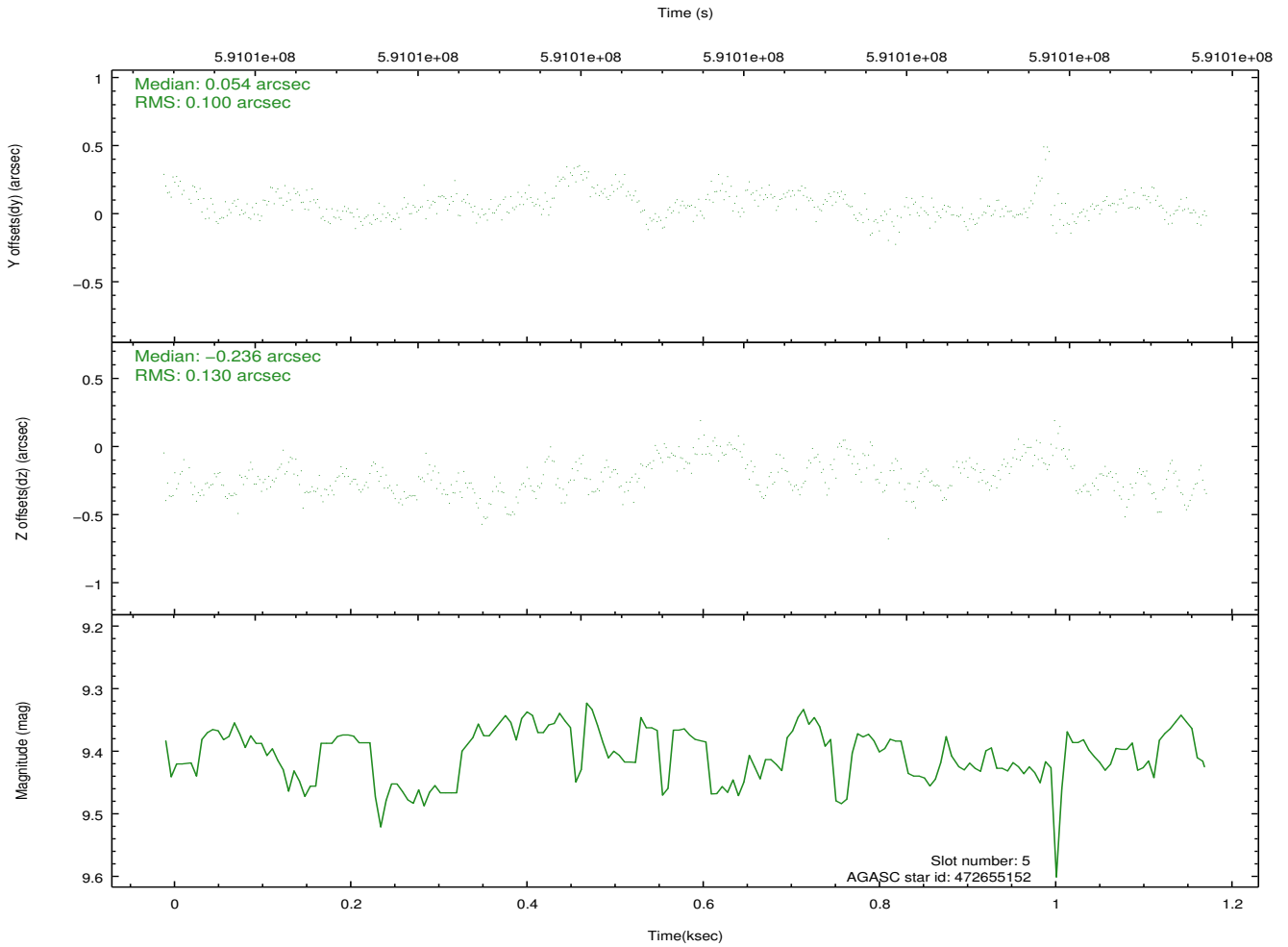
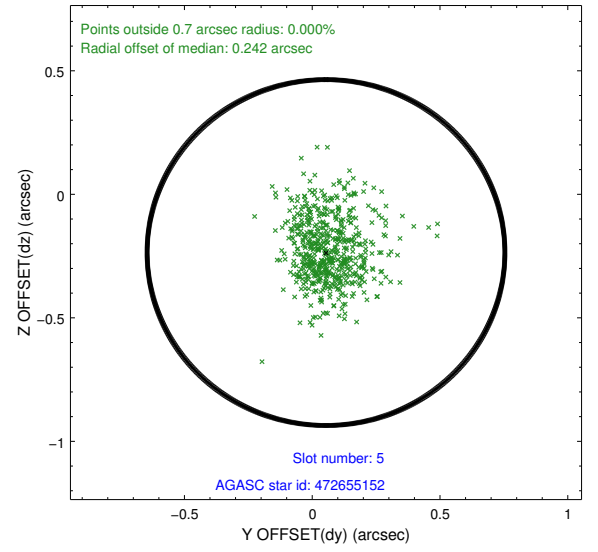
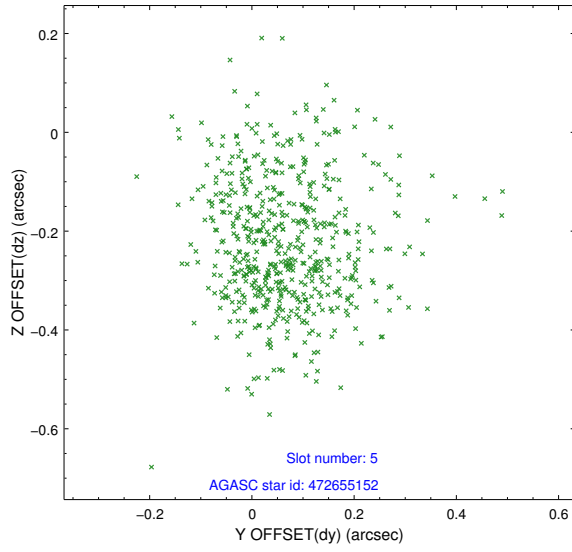
2.4.1 Slot 3



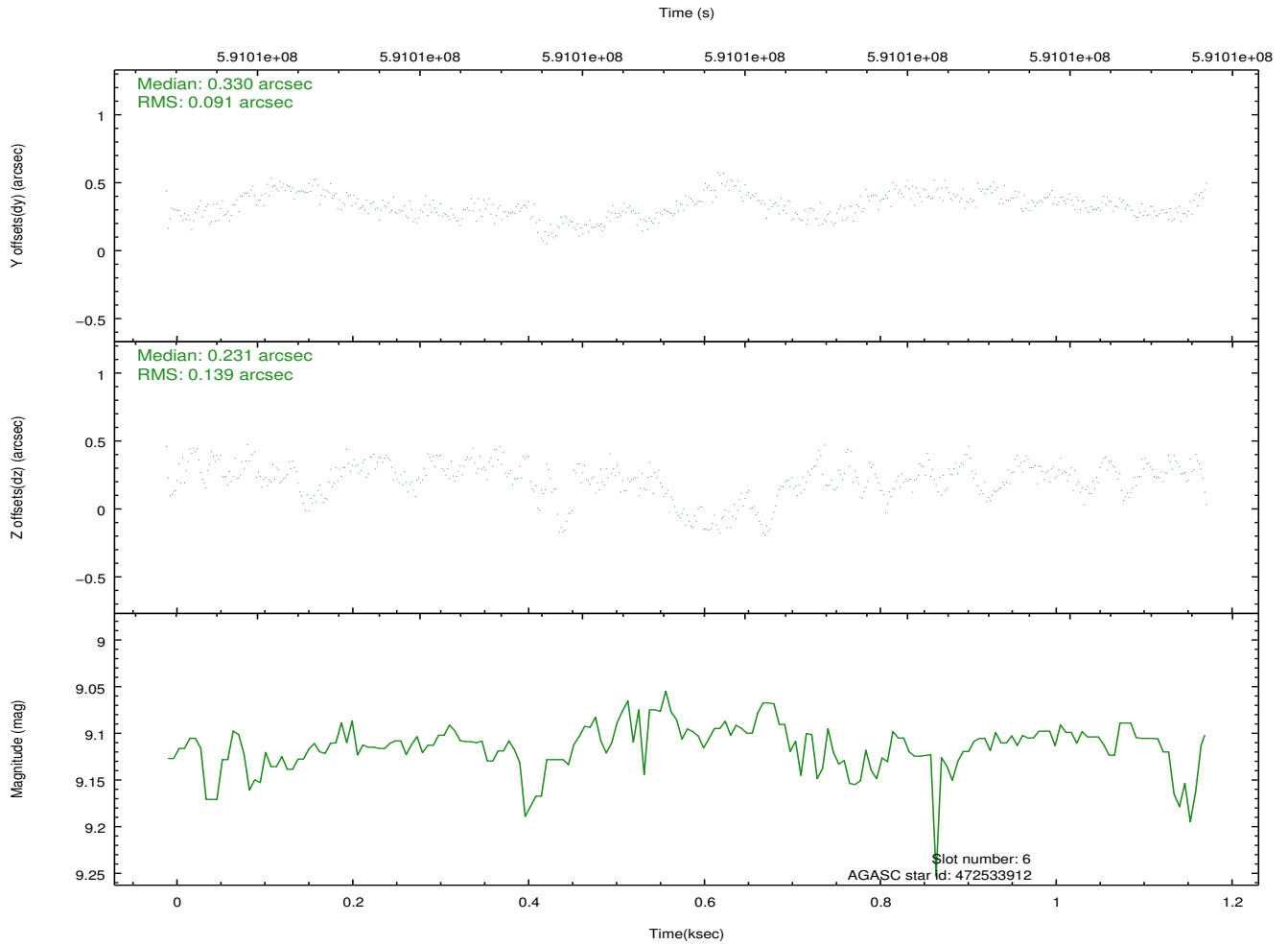
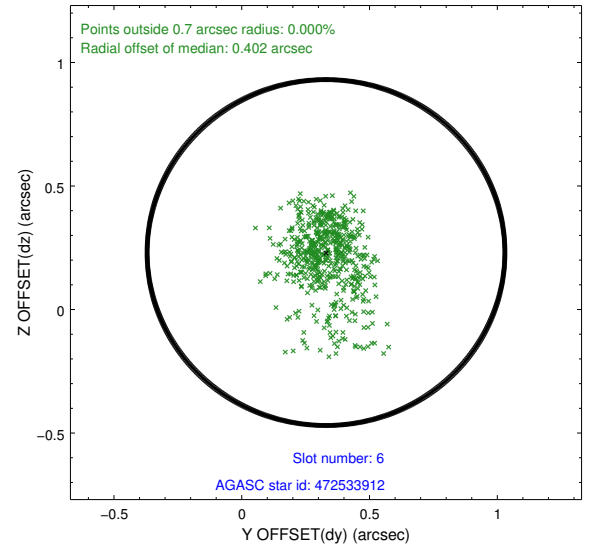
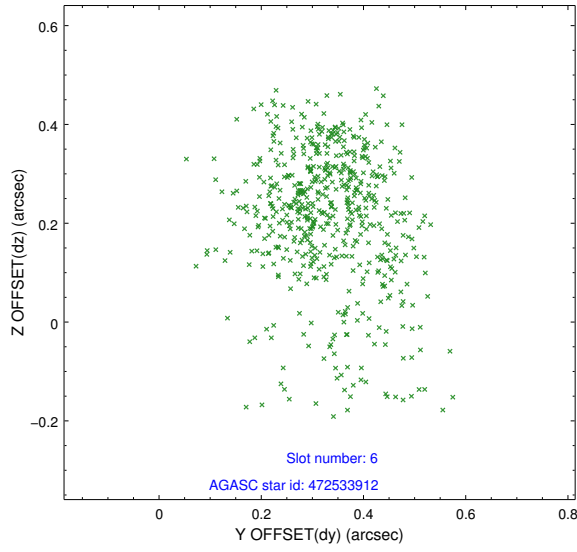
2.4.2 Slot 4



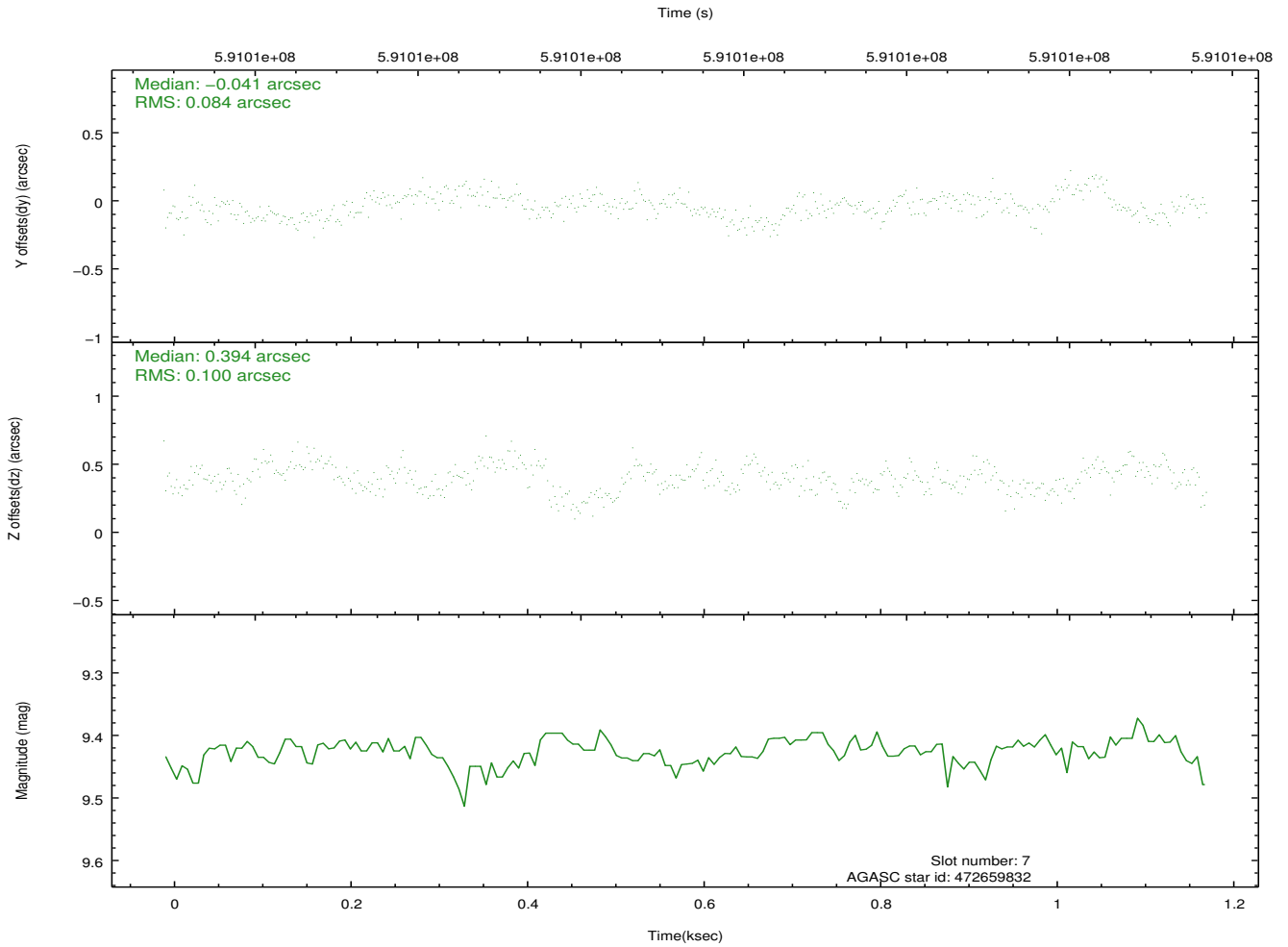
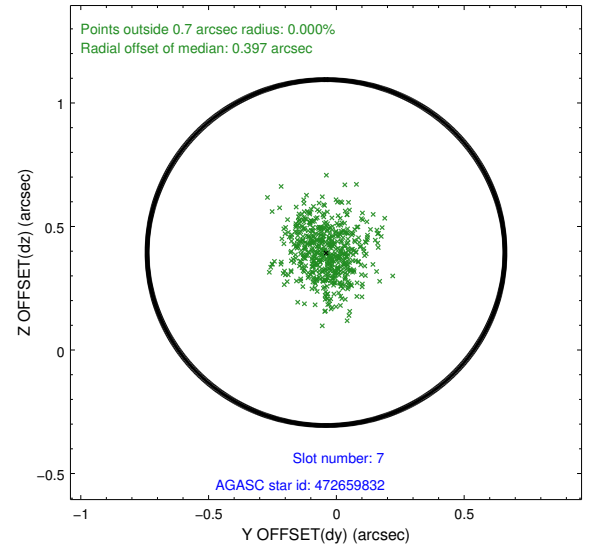
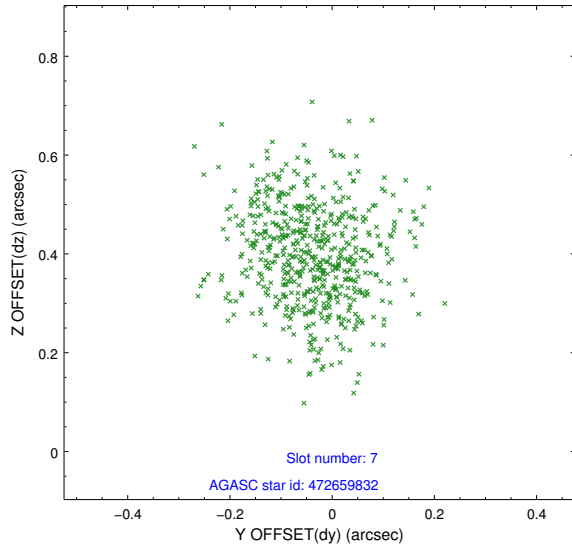
2.4.3 Slot 5



2.4.4 Slot 6

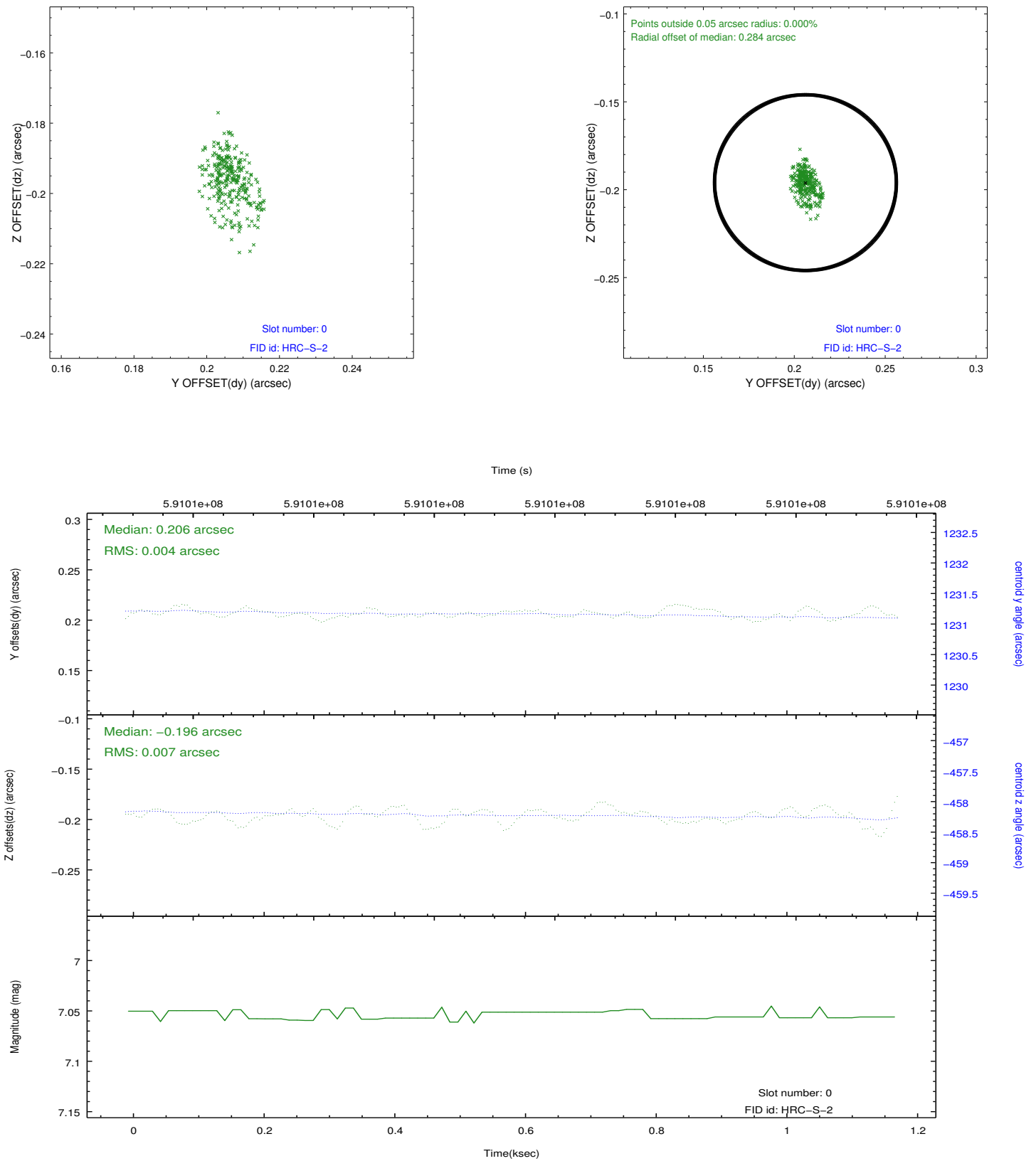


2.4.5 Slot 7

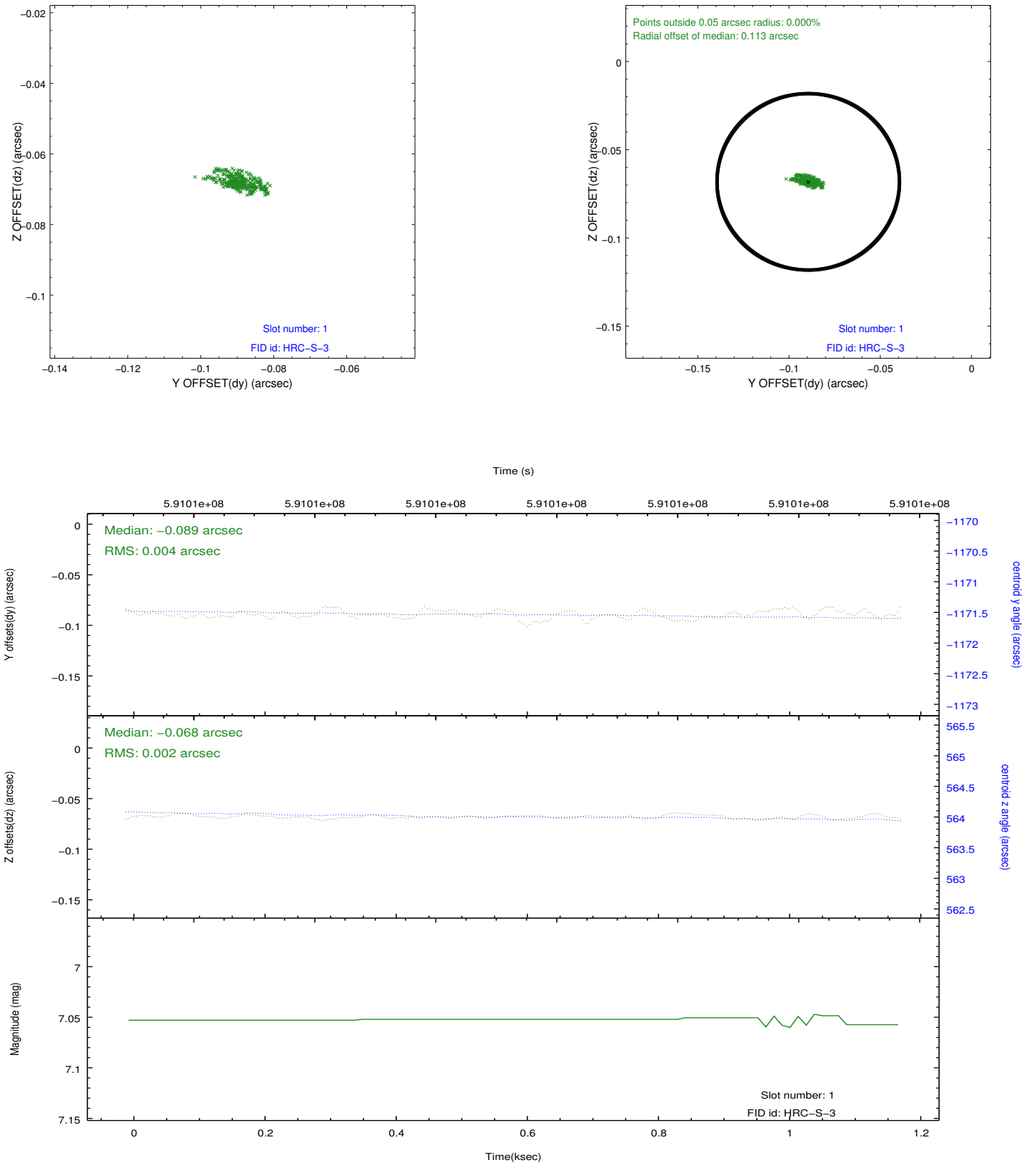


2.5 FID Slots

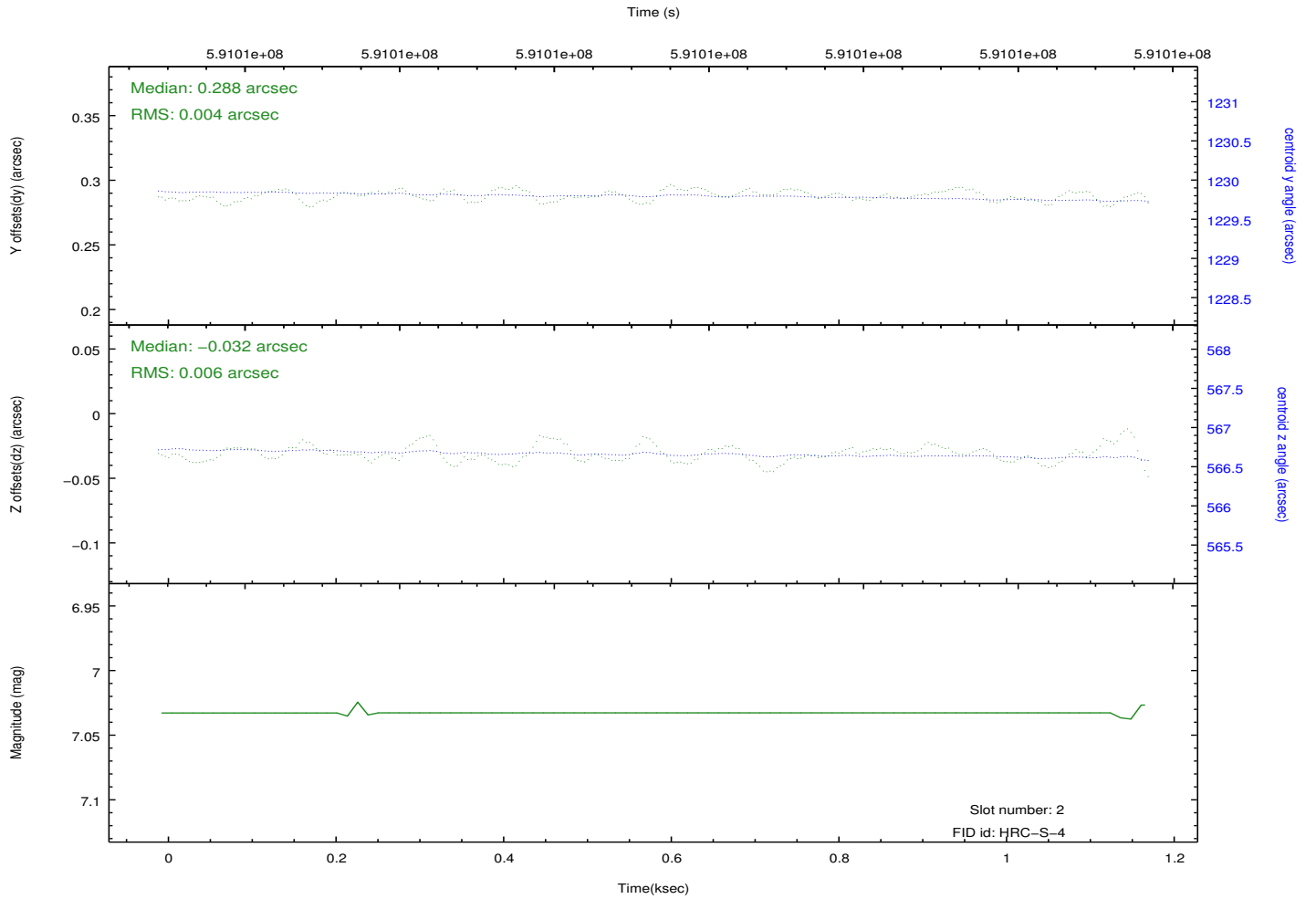
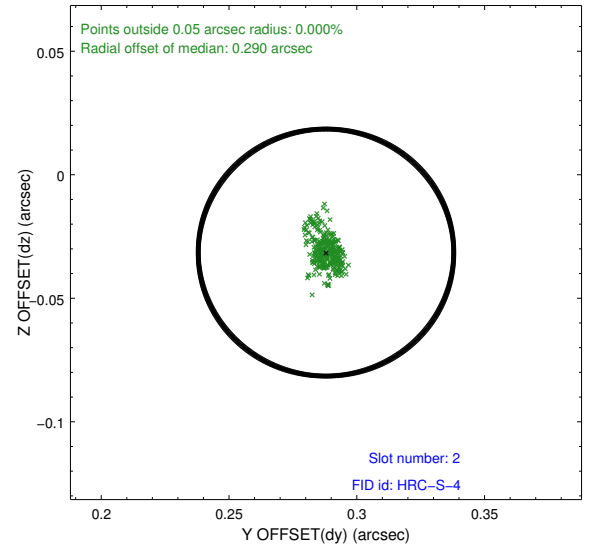
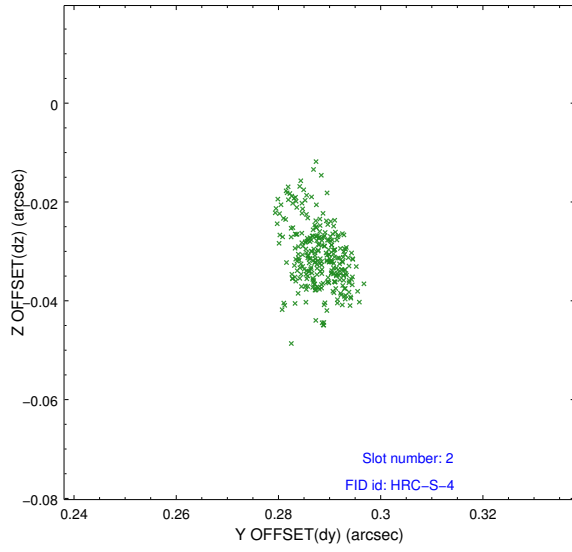
2.5.1 Slot 0



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) | 2016.09.23 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 1.18208131814 |

A.2 Comments