

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21790 - L2 Version 1
Chandra X-Ray Center

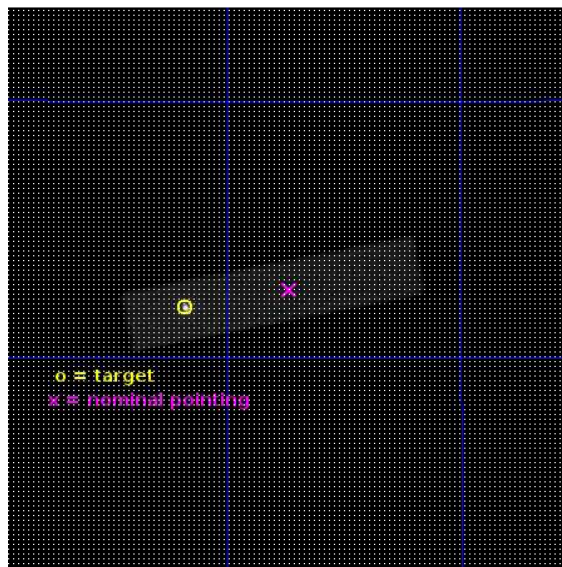
L2 Processing Date : Apr 4 2019

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

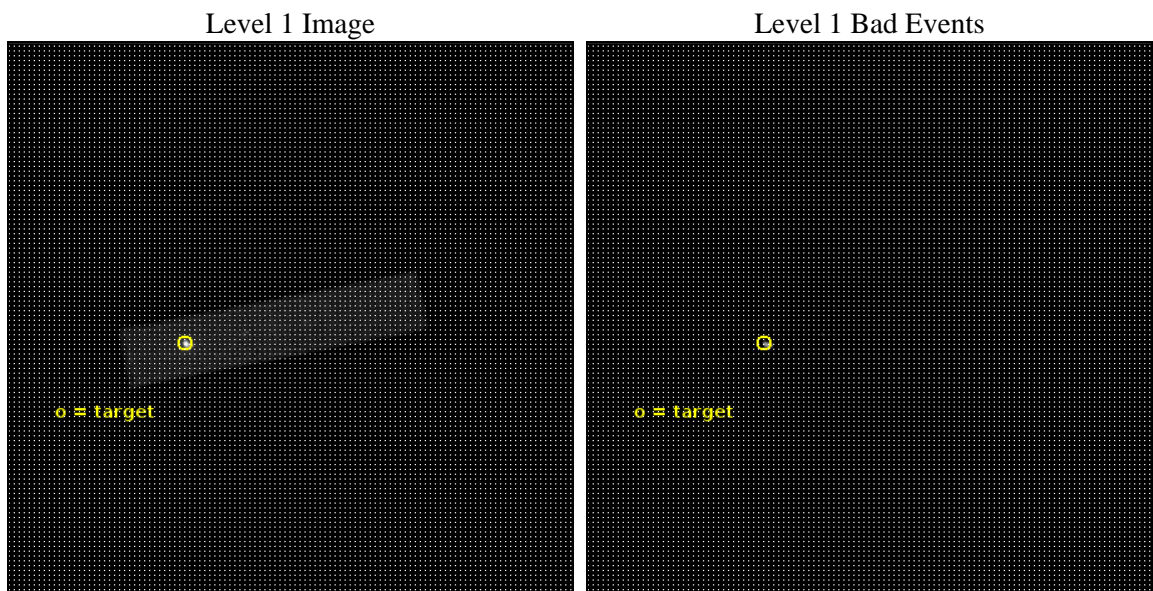
| | | |
|----------|---|---------------------------------------|
| seq_num | 291476 | Sequence number |
| obs_id | 21790 | Observation id |
| title | AO-20 HRC-S Gain Calibration Observations of HZ43 | Proposal title |
| observer | CXC Calibration | Principal investigator |
| object | HZ43 | Source name |
| ra_targ | 199.090076 | Observer's specified target RA [deg] |
| dec_targ | 29.098119 | Observer's specified target Dec [deg] |
| ra_nom | 198.86717710054 | Nominal RA [deg] |
| dec_nom | 29.133238048157 | Nominal Dec [deg] |
| roll_nom | 168.39439277977 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 1897.5313636065 | [s] |
| livetime | 1411.5583091949 | Ontime multiplied by DTCOR |
| l2events | 333721 | 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 | 1700.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.7.1 | Processing system revision | ontime | 1897.5313636065 | [s] |
| caldsver | 4.8.2 | | l1events | 407481 | Number of level 1 events |
| date | 2019-04-04T11:34:32 | Date and time of file creation | | | |
| revision | 1 | Processing version of data | | | |

2.1.3 Events

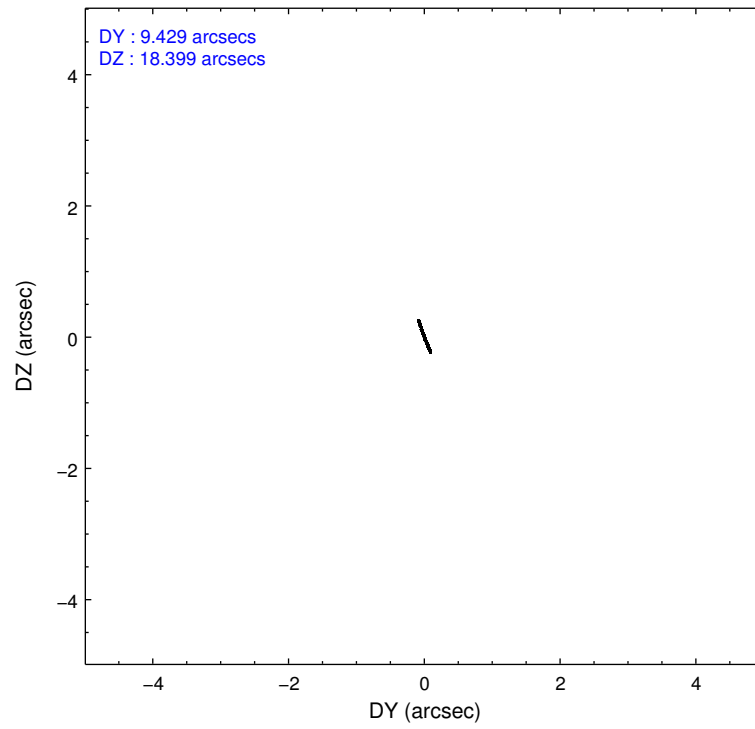
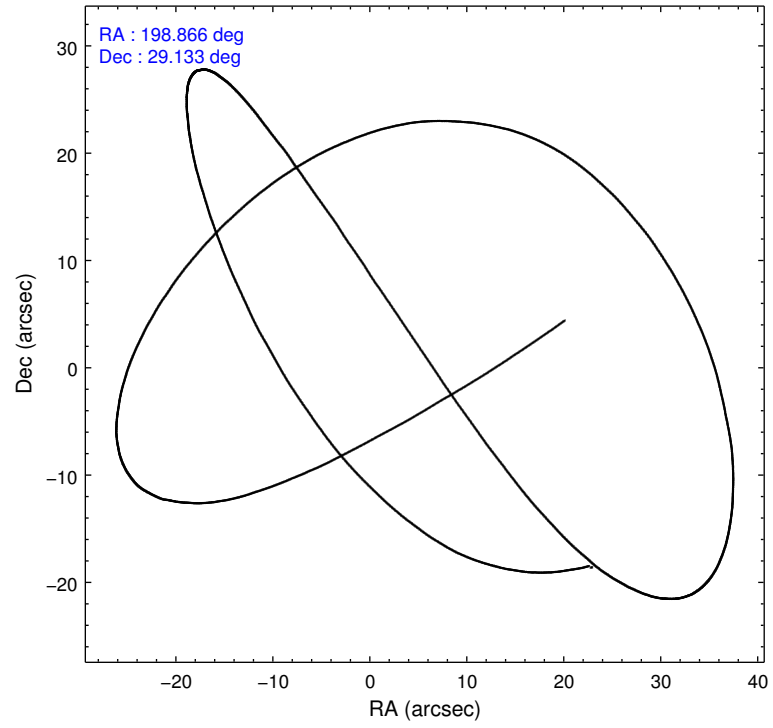
Level 1 Events

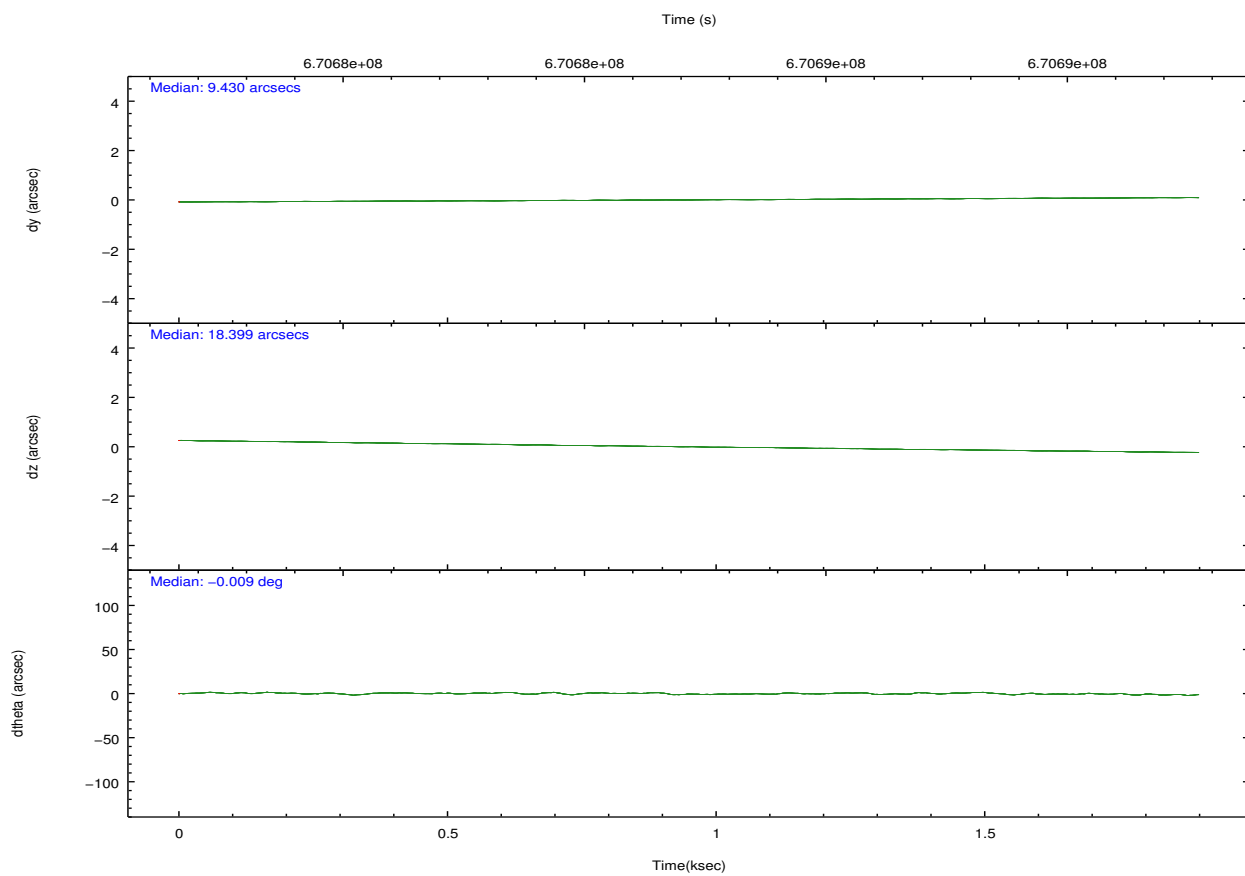
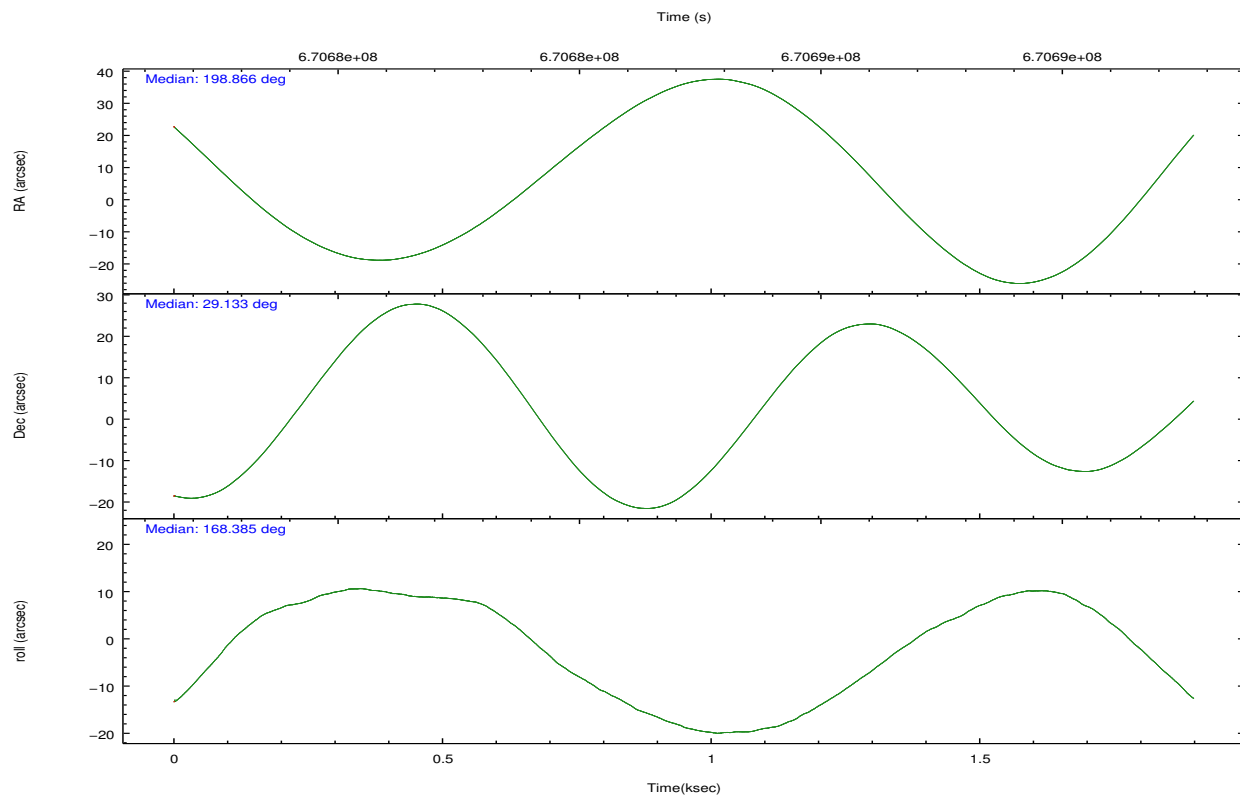
| | segment 1 | segment 2 | segment 3 |
|-----------------|----------------------|----------------------|----------------------|
| level 1 events | 694 | 406154 | 633 |
| rejected events | 694 | 56267 | 633 |
| rejected % | 100% | 13% | 100% |

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 | 198.899571 | 198.8671771005374 | | | |
| [deg] Pointing Dec | 29.143960 | 29.13323804815657 | | | |
| [deg] Pointing Roll | 168.311272 | 168.3943927797729 | | | |
| [mm] SIM focus pos | -1.533336 | -1.526339935833849 | | | |
| [mm] SIM defocus | 7.710433287538843e-07 | 0.006996703570447904 | | | |
| [mm] SIM translation stage pos | 250.455976 | 250.466033080201 | | | |
| [mm] SIM translation stage offset | 0 | -0.01005468664627074 | | | |
| [s] Observation start time (MET) | 670684472.184000 | 670684096.1649801 | | | |
| Observation start date | 2019-04-03T13:13:23 | 2019-04-03T13:08:16 | | | |
| [s] Observation end time (MET) | 670686172.184000 | 670686306.57761 | | | |
| Observation end date | 2019-04-03T13:41:43 | 2019-04-03T13:45:06 | | | |

2.3 Aspect



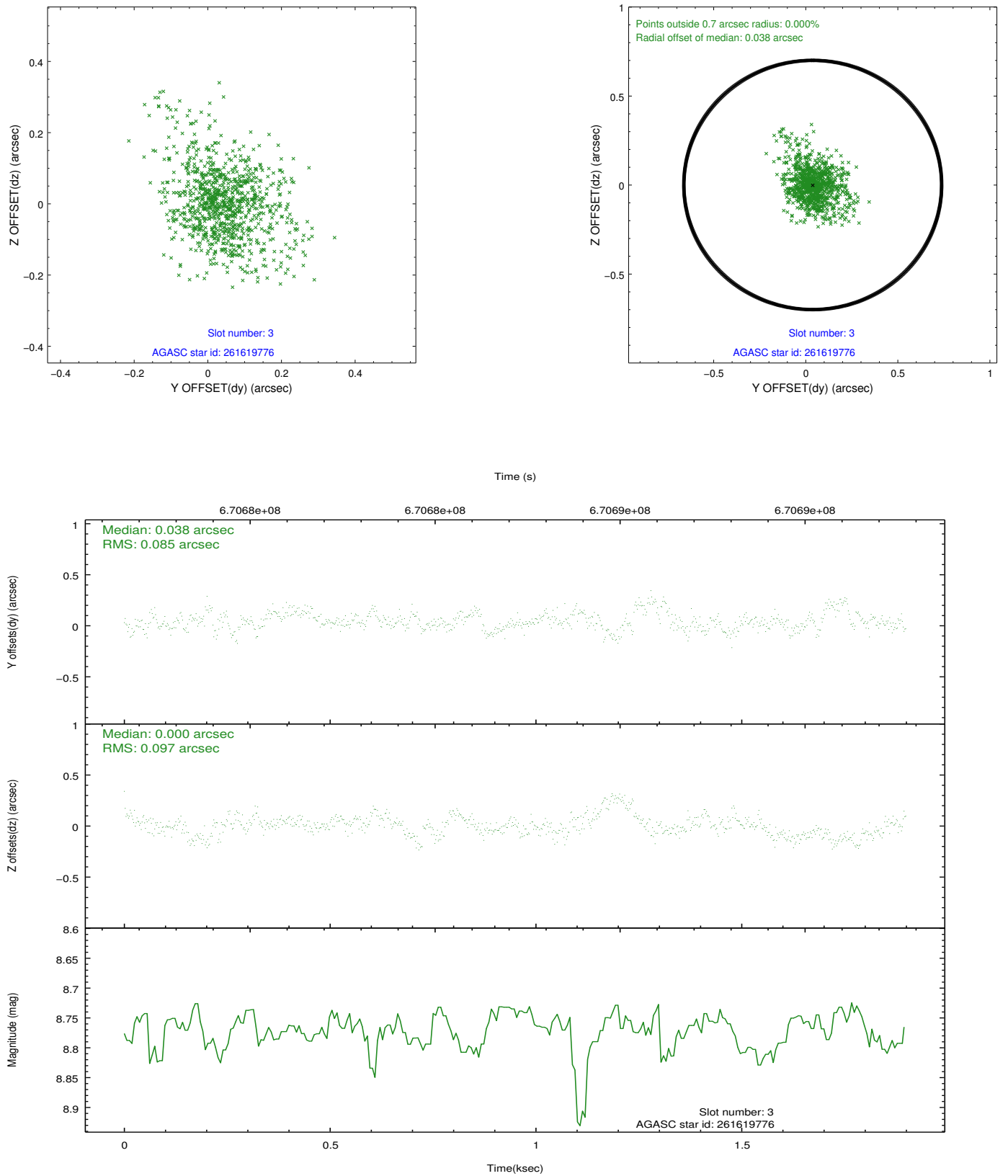


Slot Statistics

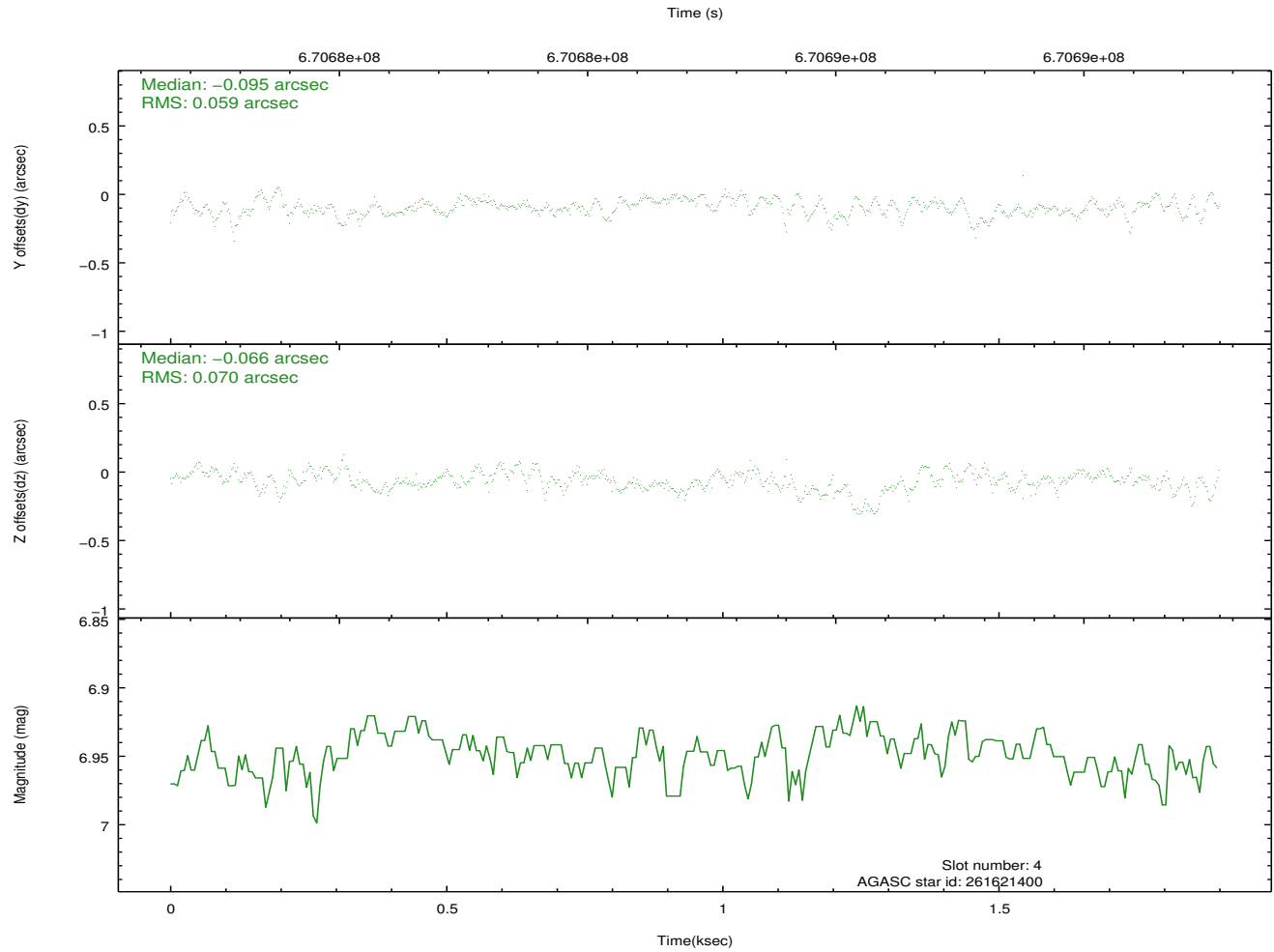
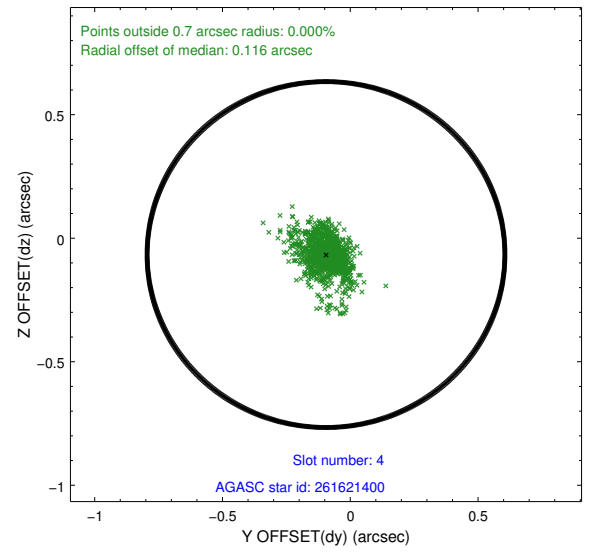
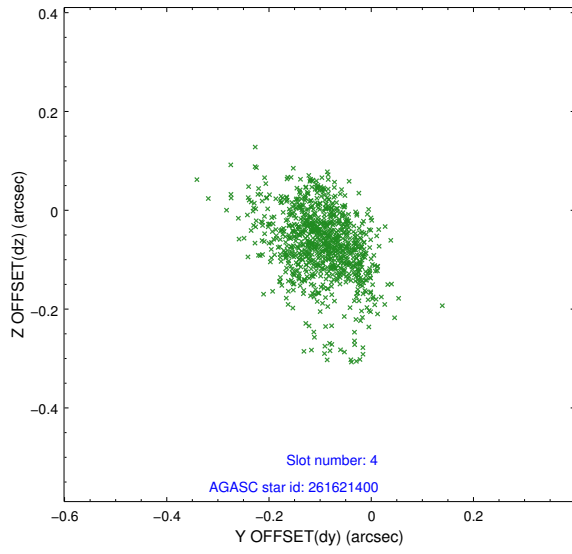
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | HRC-S-1 | 7.09 | 464 | 1.000 | -0.055 | -0.194 | 0.009 | 0.016 | 0.000000 | 0.000000 | -1163.74 | -467 |
| 1 | FID | | HRC-S-2 | 7.06 | 464 | 1.000 | 0.396 | -0.134 | 0.005 | 0.008 | 0.000000 | 0.000000 | 1233.86 | -460 |
| 2 | FID | | HRC-S-3 | 7.07 | 464 | 1.000 | 0.050 | 0.026 | 0.009 | 0.016 | 0.000000 | 0.000000 | -1163.79 | 561 |
| 3 | GUIDE | used | 261619776 | 8.77 | 926 | 1.000 | 0.038 | 0.000 | 0.131 | 0.239 | 198.654383 | 29.401174 | 935.53 | -752 |
| 4 | GUIDE | used | 261621400 | 6.95 | 927 | 1.000 | -0.095 | -0.066 | 0.090 | 0.168 | 198.901600 | 28.741982 | -302.44 | 1413 |
| 5 | GUIDE | used | 261624080 | 7.09 | 927 | 1.000 | 0.074 | -0.030 | 0.109 | 0.179 | 198.424651 | 29.817768 | 1940.71 | -2077 |
| 6 | GUIDE | used | 261626352 | 8.57 | 926 | 1.000 | 0.003 | -0.063 | 0.159 | 0.288 | 198.417097 | 29.781420 | 1942.72 | -1949 |
| 7 | GUIDE | used | 261629720 | 8.08 | 926 | 1.000 | -0.035 | 0.160 | 0.087 | 0.141 | 199.236176 | 29.044452 | -1111.64 | 130 |

2.4 Star Slots

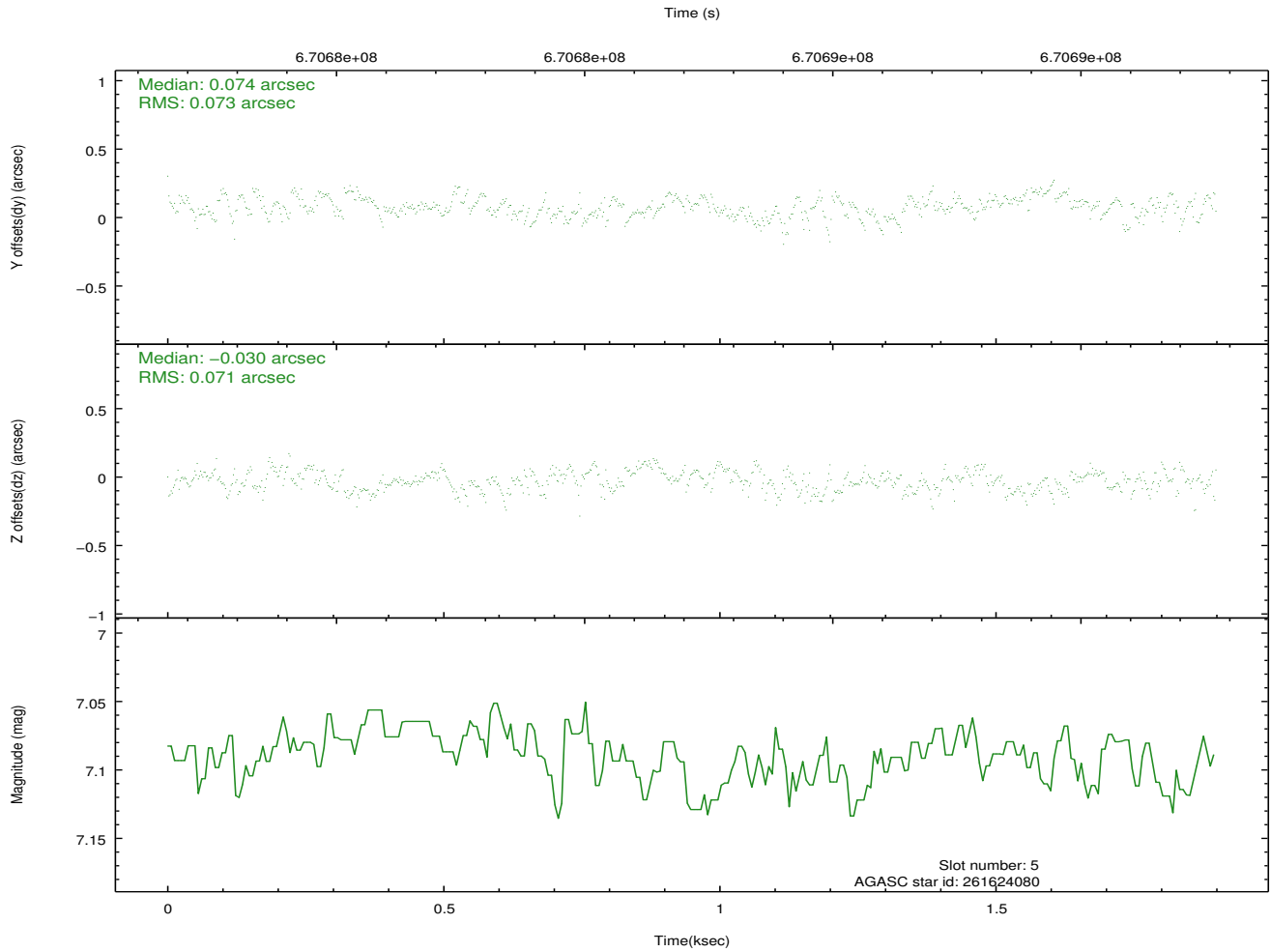
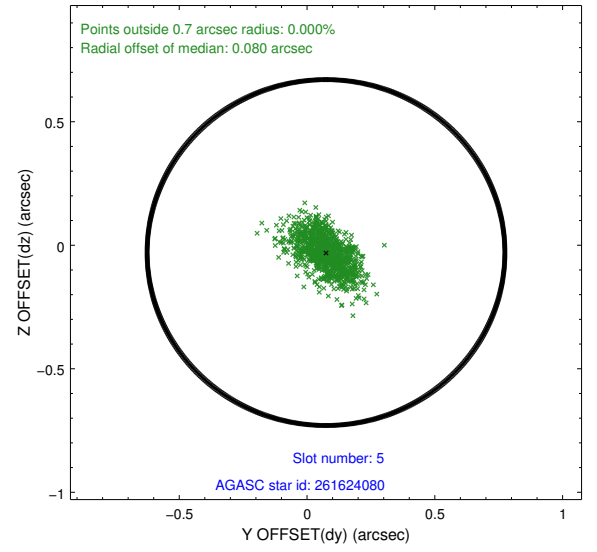
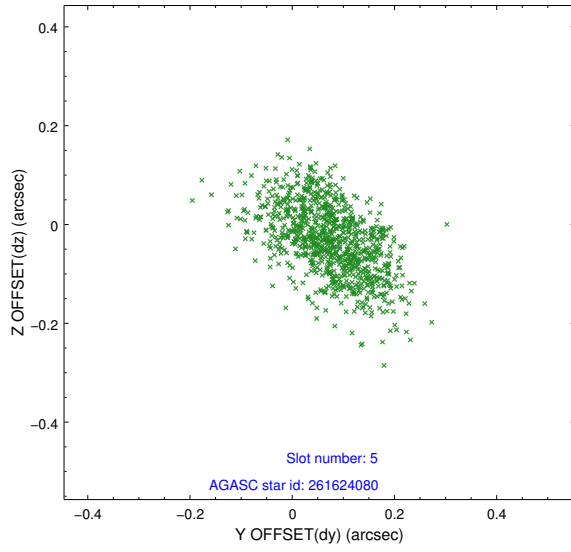
2.4.1 Slot 3



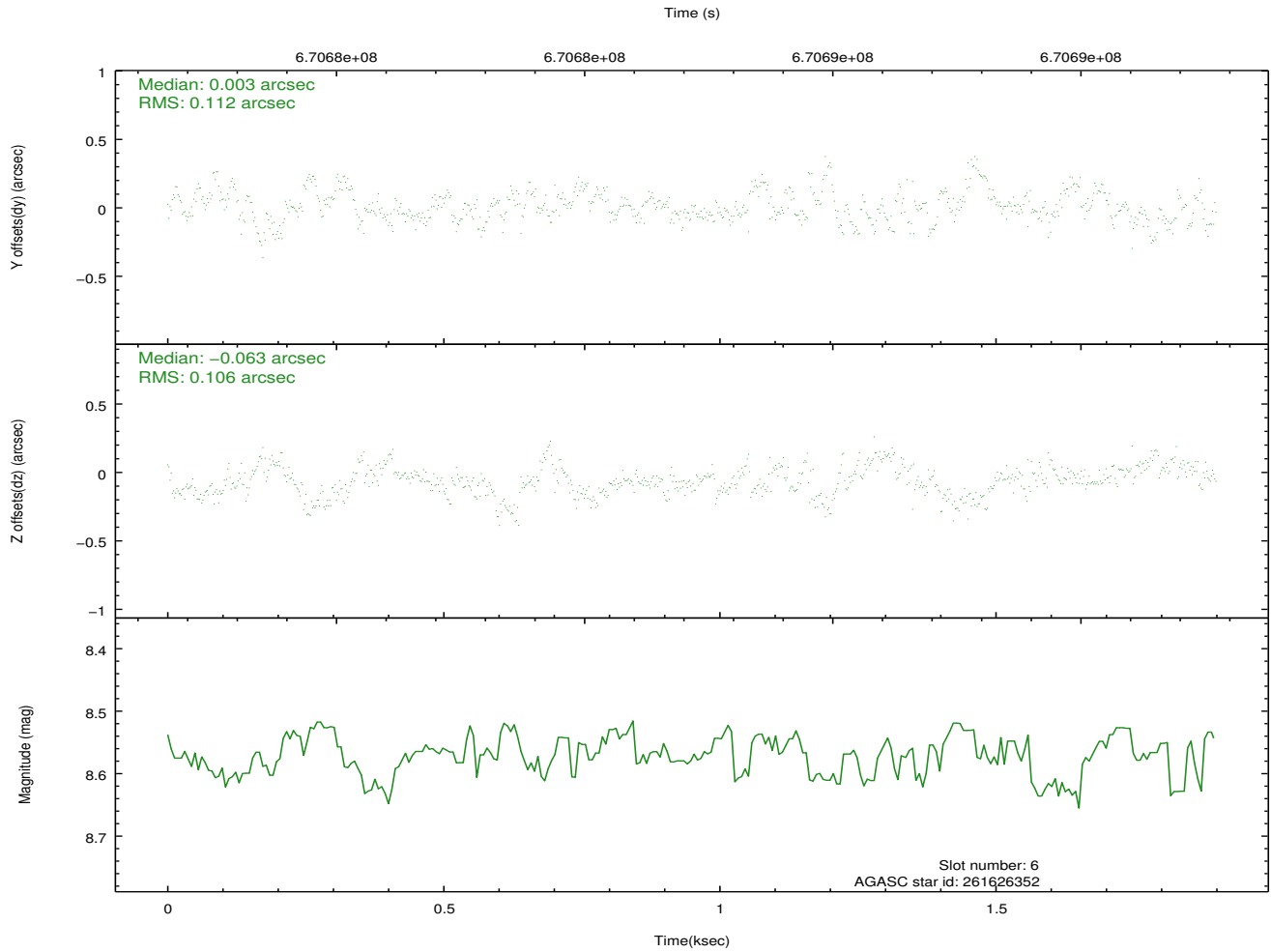
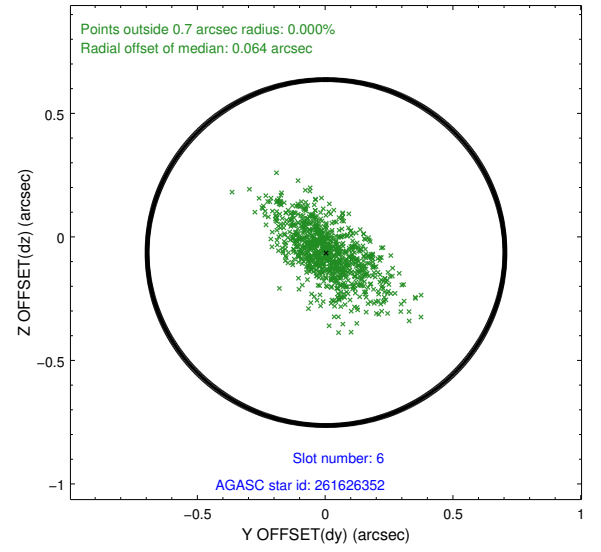
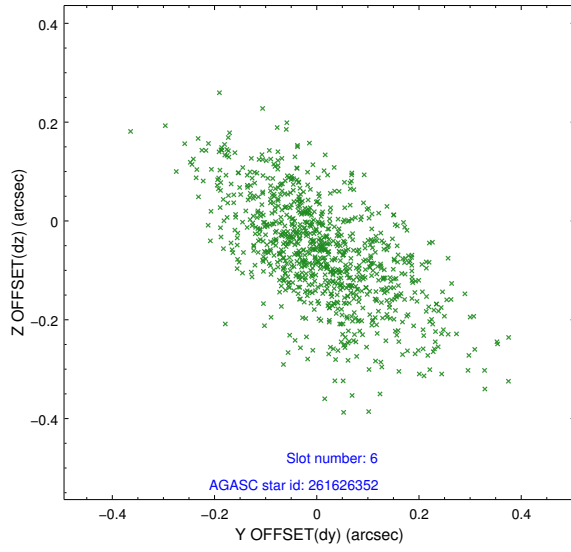
2.4.2 Slot 4



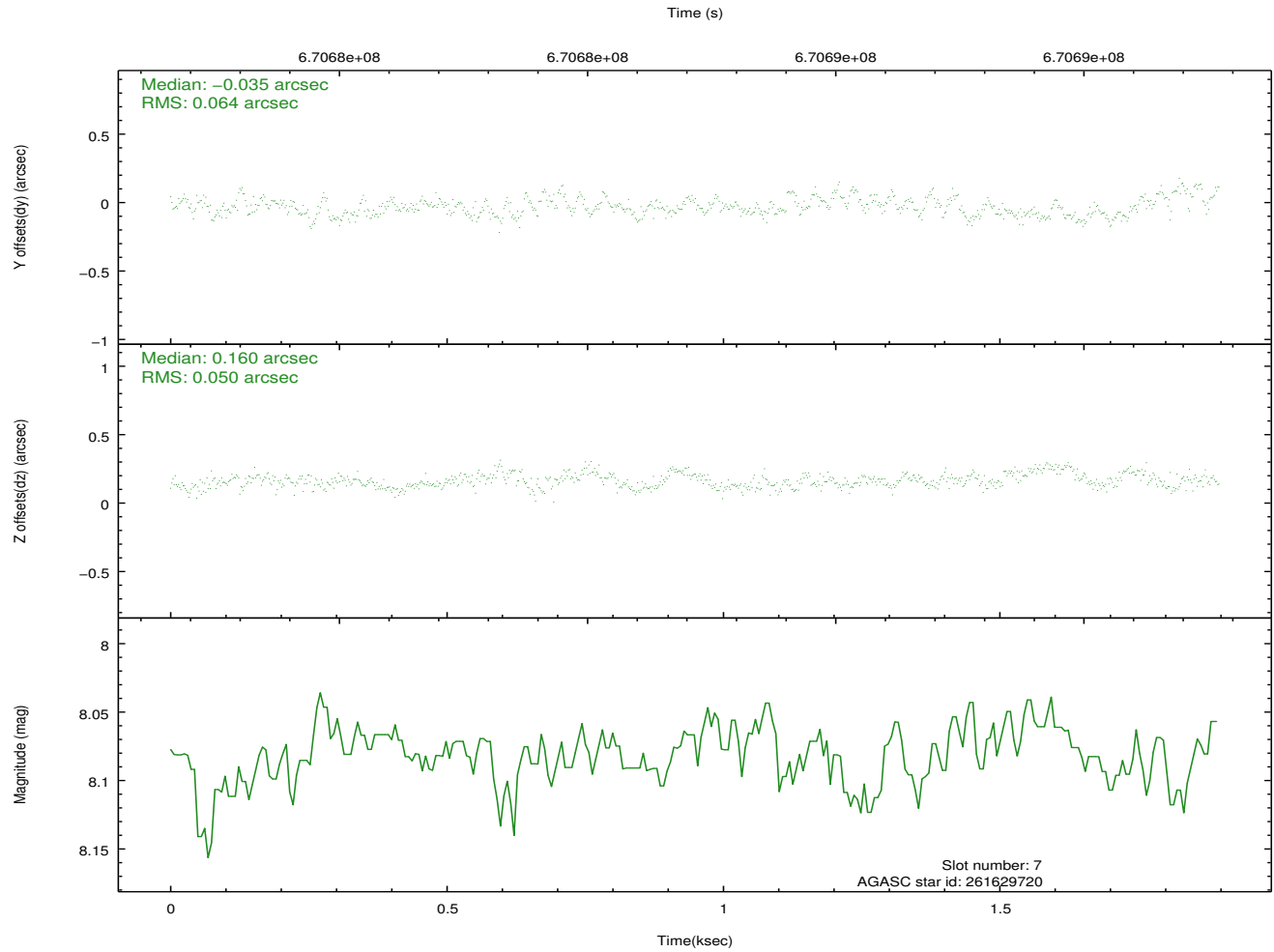
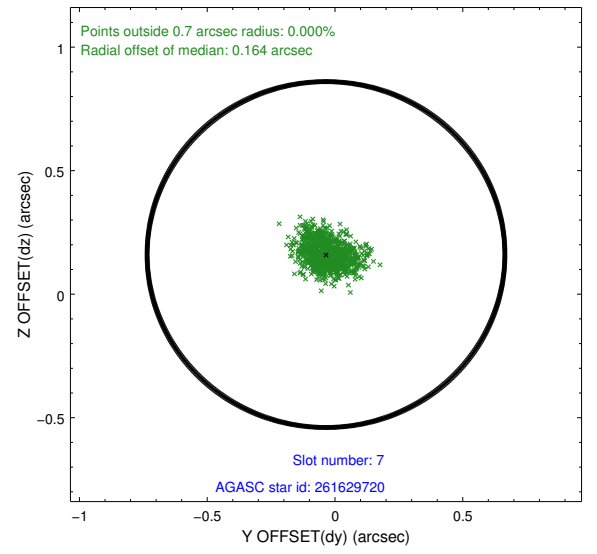
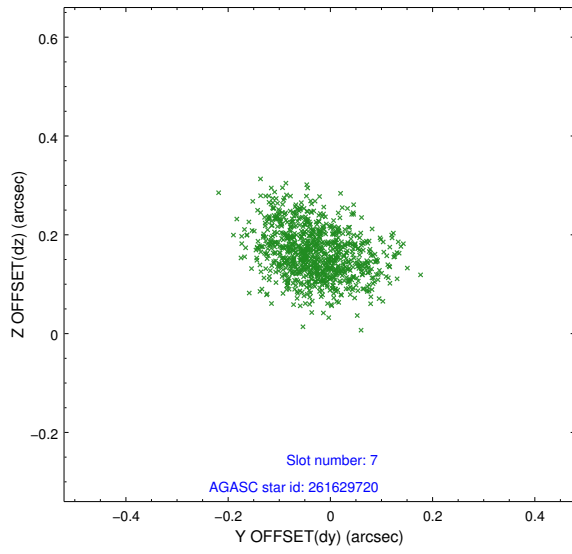
2.4.3 Slot 5



2.4.4 Slot 6

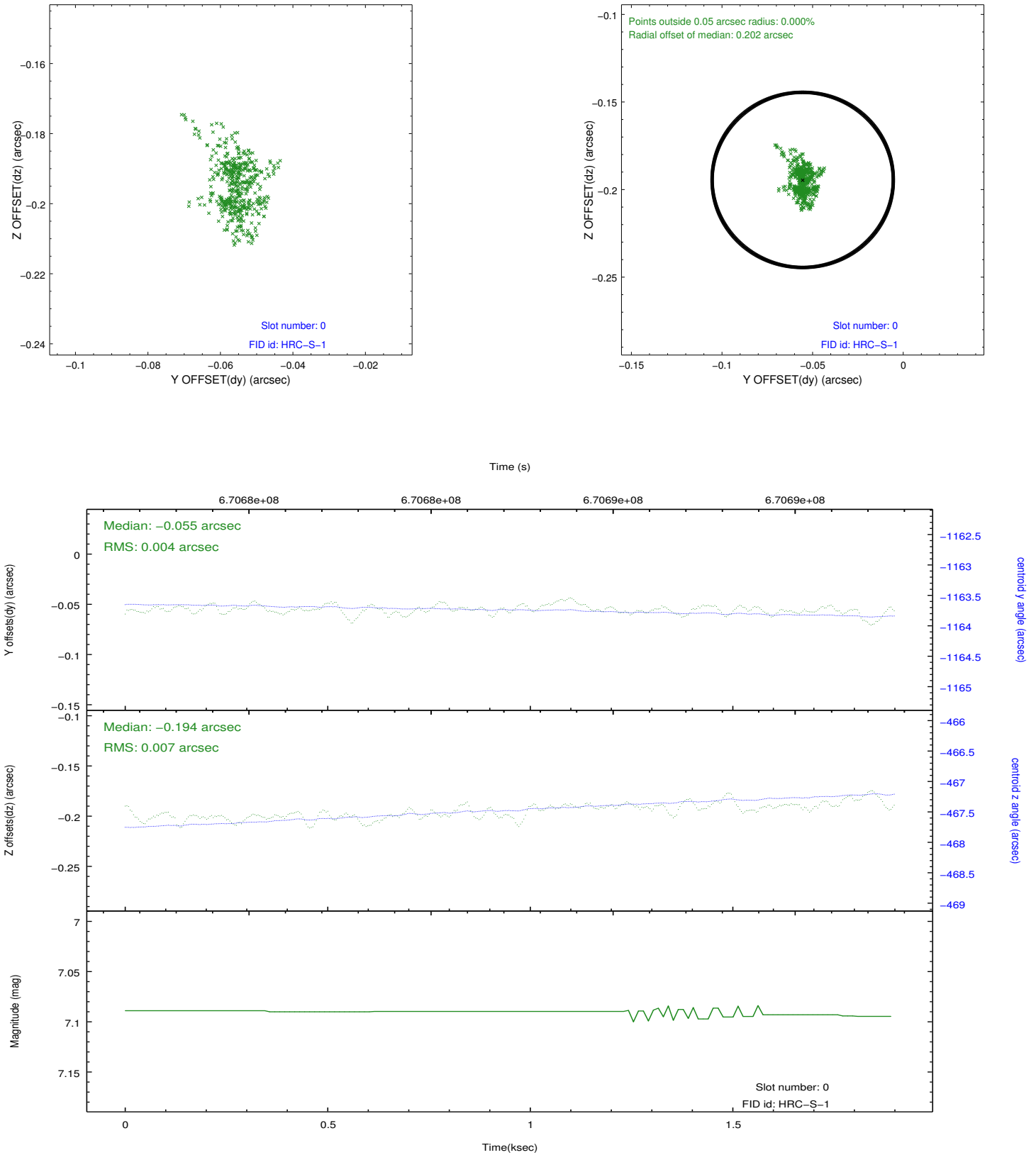


2.4.5 Slot 7

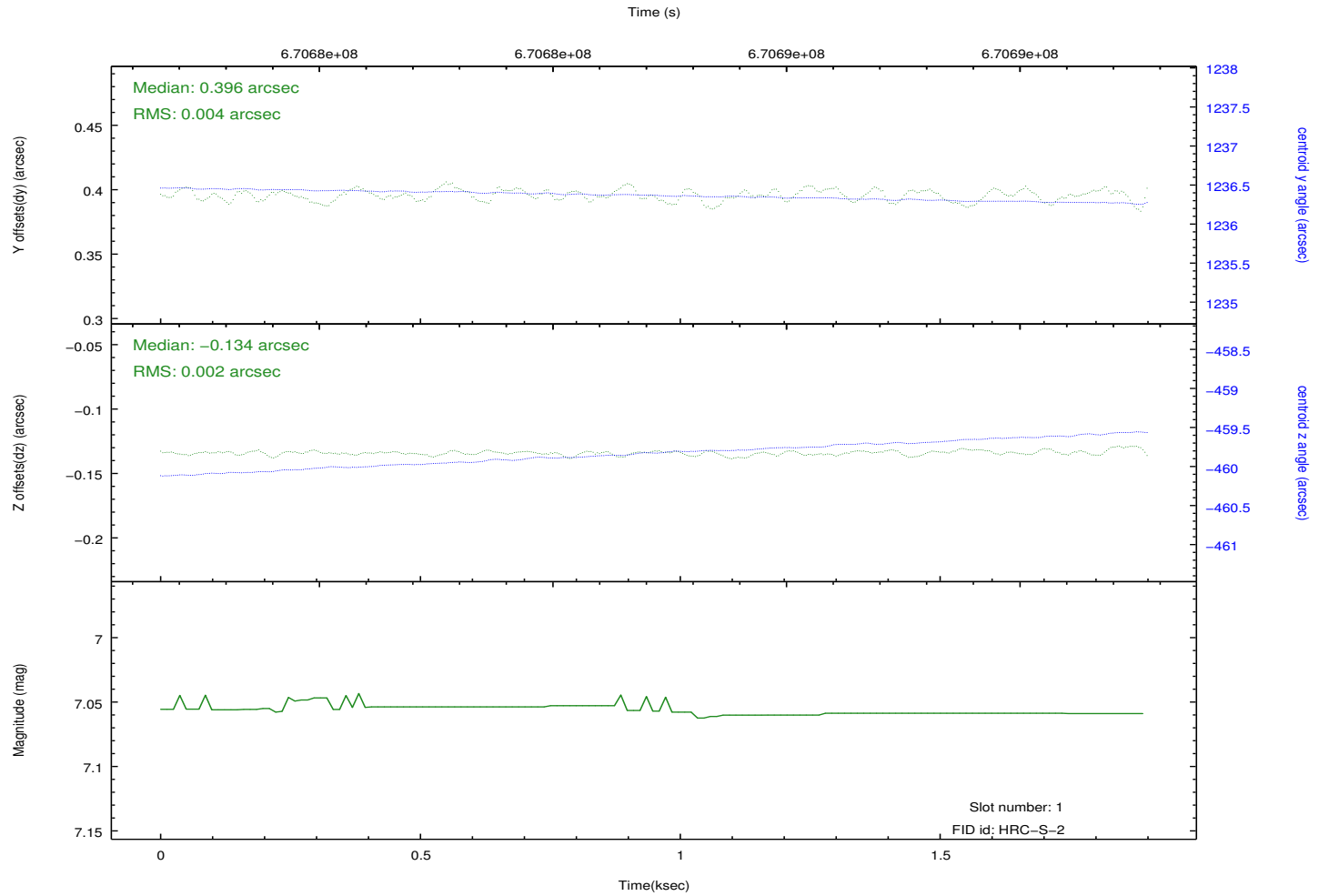
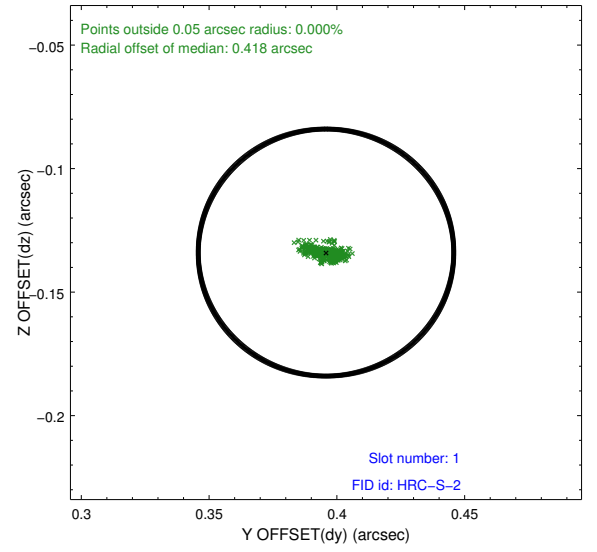
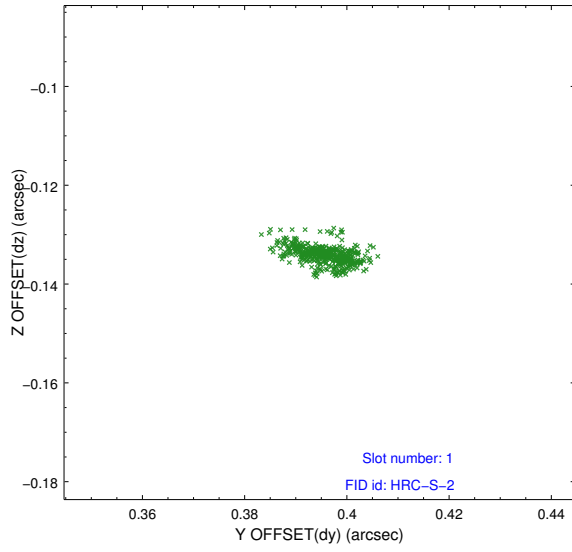


2.5 FID Slots

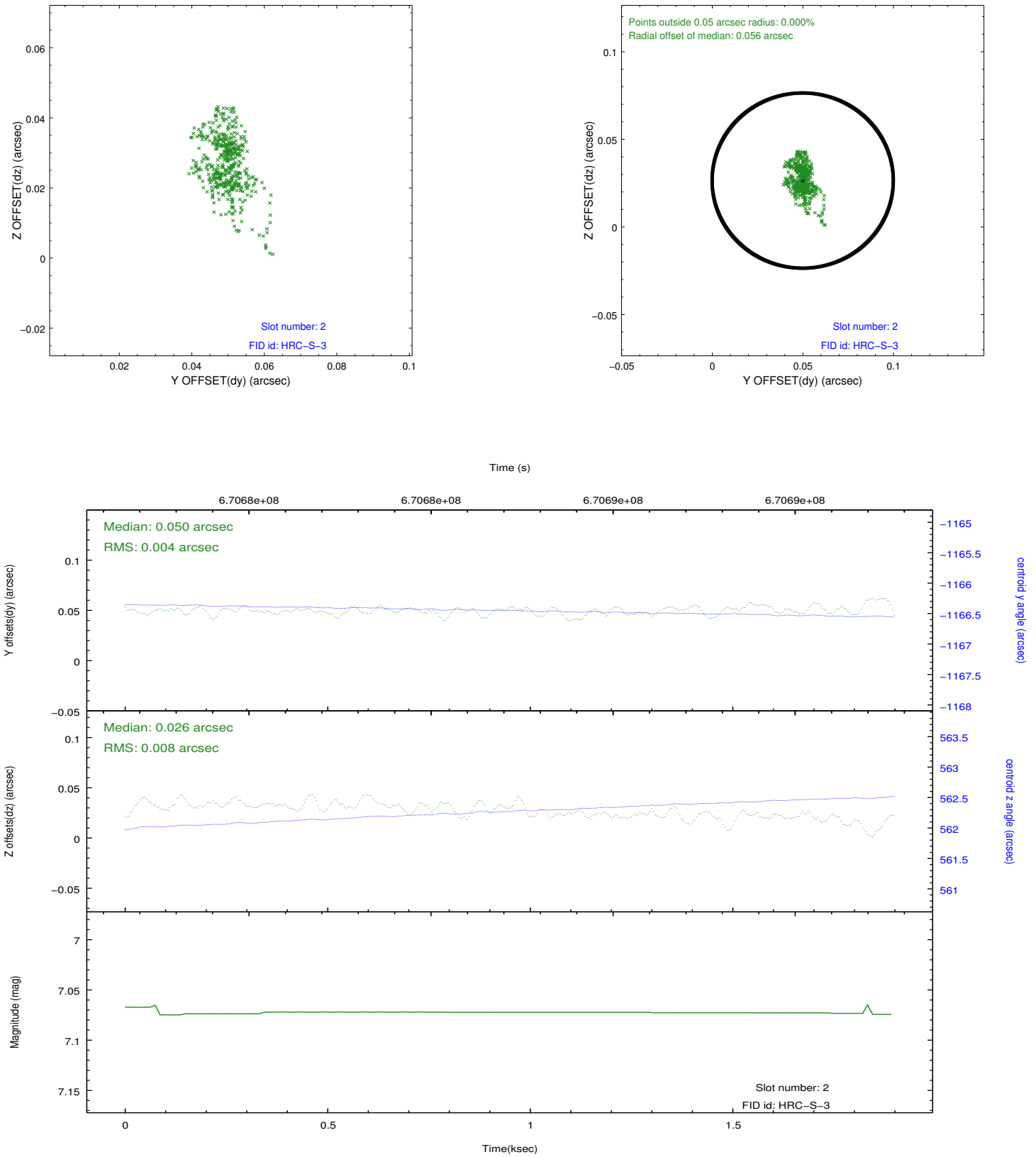
2.5.1 Slot 0



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) | 2019.04.04 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 1.8975313636065 |

A.2 Comments