

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 17382 - L2 Version 1
Chandra X-Ray Center

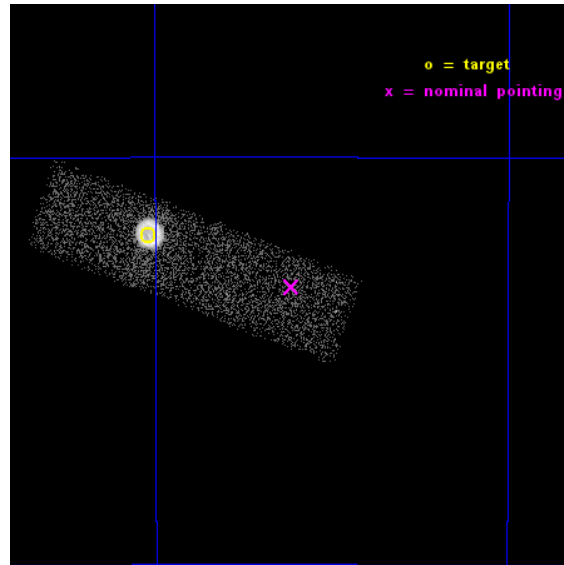
L2 Processing Date : Mar 7 2015

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Bias | 3 |
| 2.1.3 | Parameters | 4 |
| 2.1.4 | 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

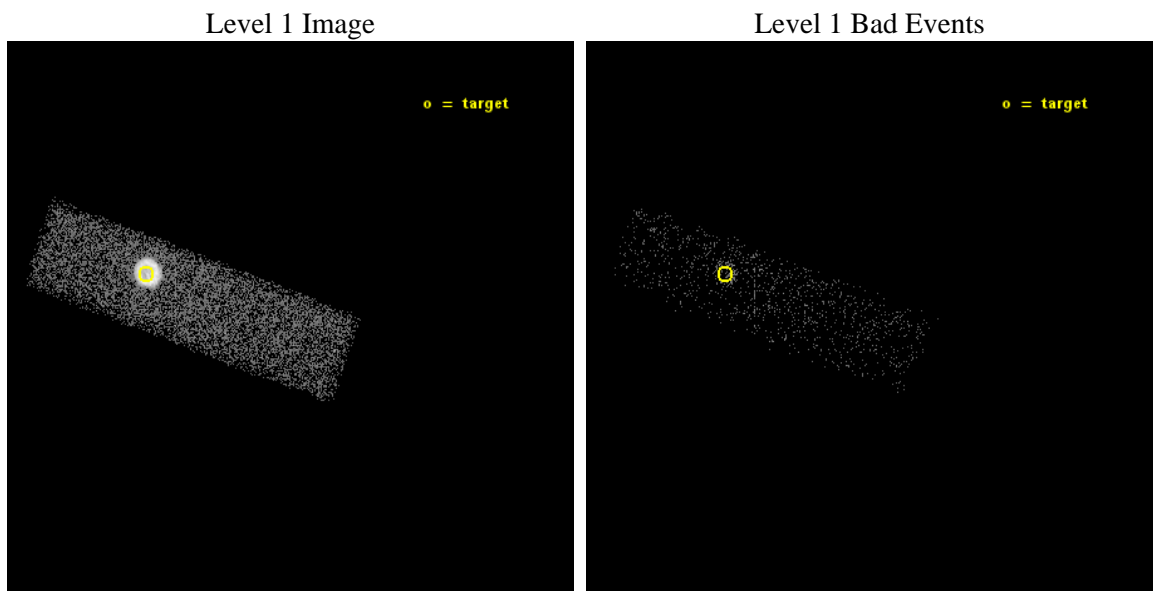
| | | |
|----------|--|---|
| seq_num | 590541 | Sequence number |
| obs_id | 17382 | Observation id |
| title | AO-16 Calibration Observations of E0102-72 | Proposal title |
| observer | Dr. CXC Calibration | Principal investigator |
| object | E0102-72 S3,-120,1,0,0 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 16.01 | Observer's specified target RA [deg] |
| dec_targ | -72.032028 | Observer's specified target Dec [deg] |
| ra_nom | 15.806914527749 | Nominal RA [deg] |
| dec_nom | -72.053067475182 | Nominal Dec [deg] |
| roll_nom | 199.96338772973 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 10063.011661291 | Sum of GTIs [s] |
| livetime | 9571.9696197956 | Livetime [s] |
| ontime7 | 10063.011661291 | Sum of GTIs [s] |
| l2events | 28545 | Number of level 2 events |



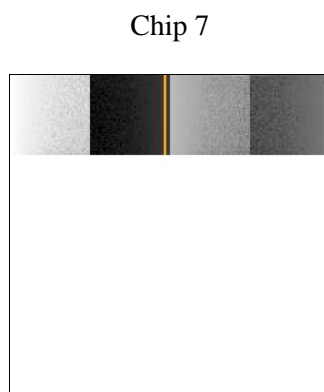
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 2 | Obi number | sched_exp_time | 10000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.3.3 | Processing system revision | ontime | 10063.011661291 | Sum of GTIs [s] |
| caldsver | 4.6.7 | | ontime7 | 10063.011661291 | Sum of GTIs [s] |
| date | 2015-03-07T15:03:47 | Date and time of file creation | l1events | 35774 | Number of level 1 events |
| revision | 1 | Processing version of data | | | |

2.1.4 Events

| | |
|-----------------|--------------|
| | ccd 7 |
| level 1 events | 35774 |
| rejected events | 6923 |
| rejected % | 19% |

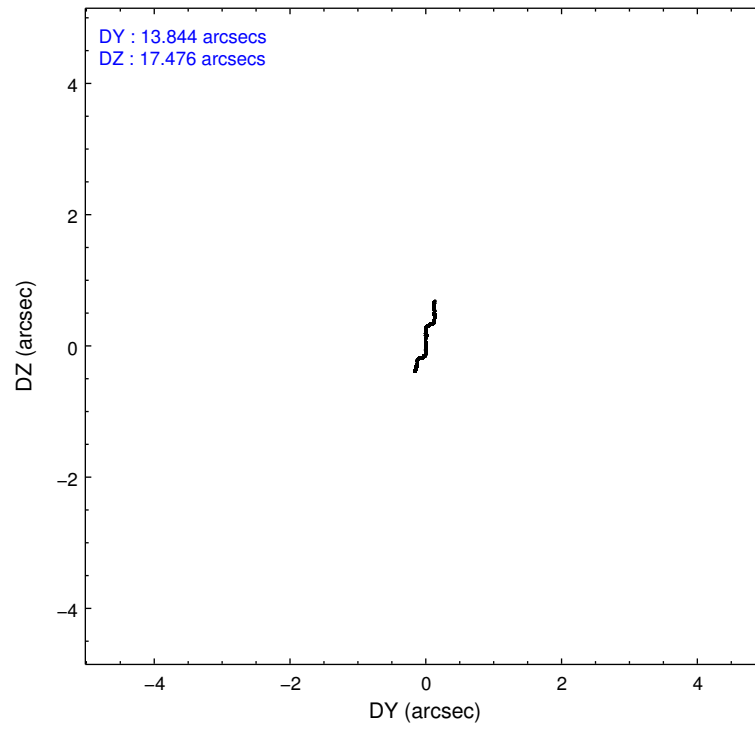
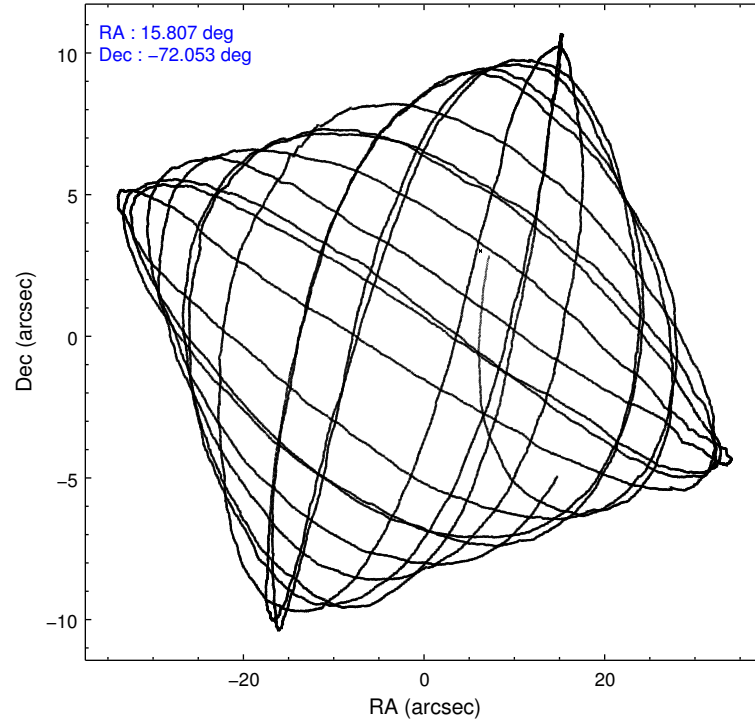
| | |
|----------------|--------------|
| | ccd 7 |
| grade 0 events | 8379 |
| | 23% |
| grade 1 events | 42 |
| | 0% |
| grade 2 events | 7434 |
| | 20% |
| grade 3 events | 3315 |
| | 9% |
| grade 4 events | 3362 |
| | 9% |
| grade 5 events | 1643 |
| | 4% |
| grade 6 events | 6363 |
| | 17% |
| grade 7 events | 5236 |
| | 14% |

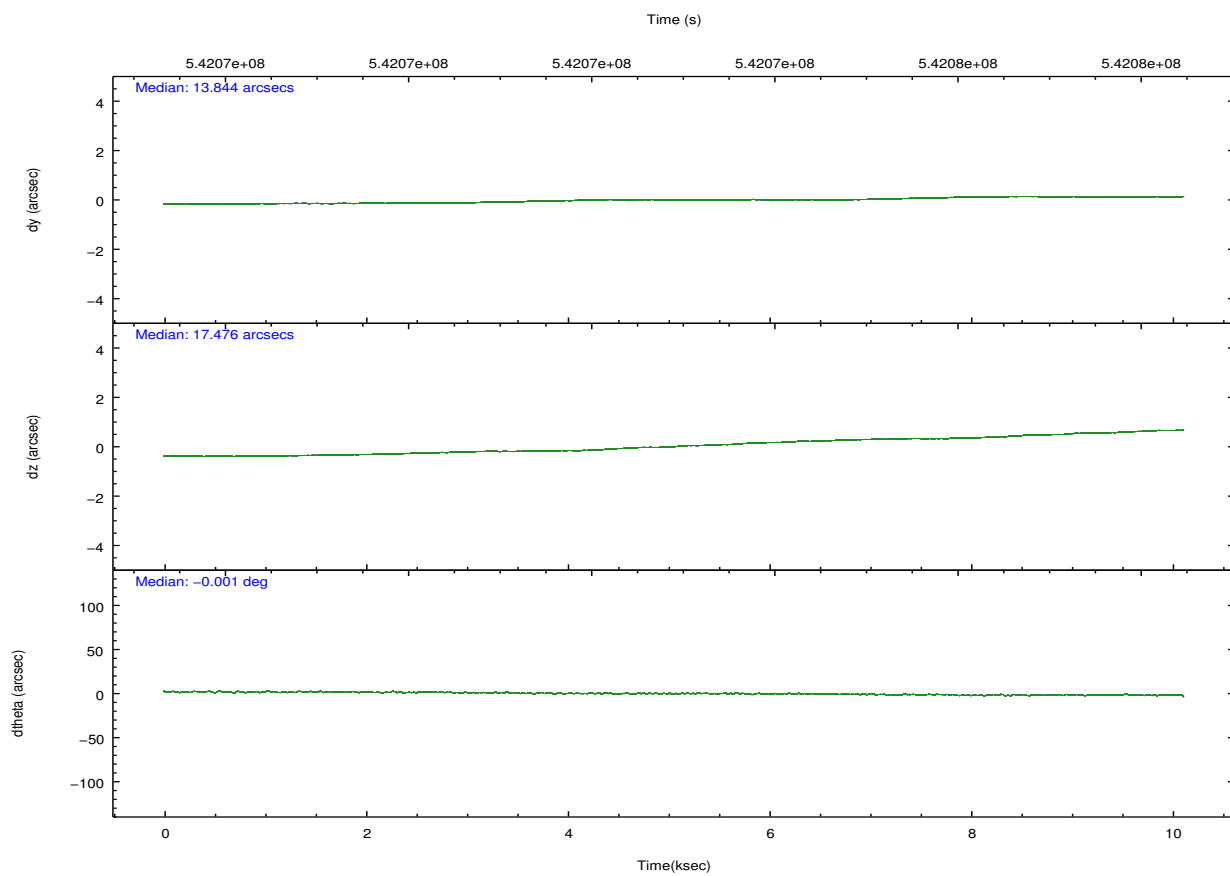
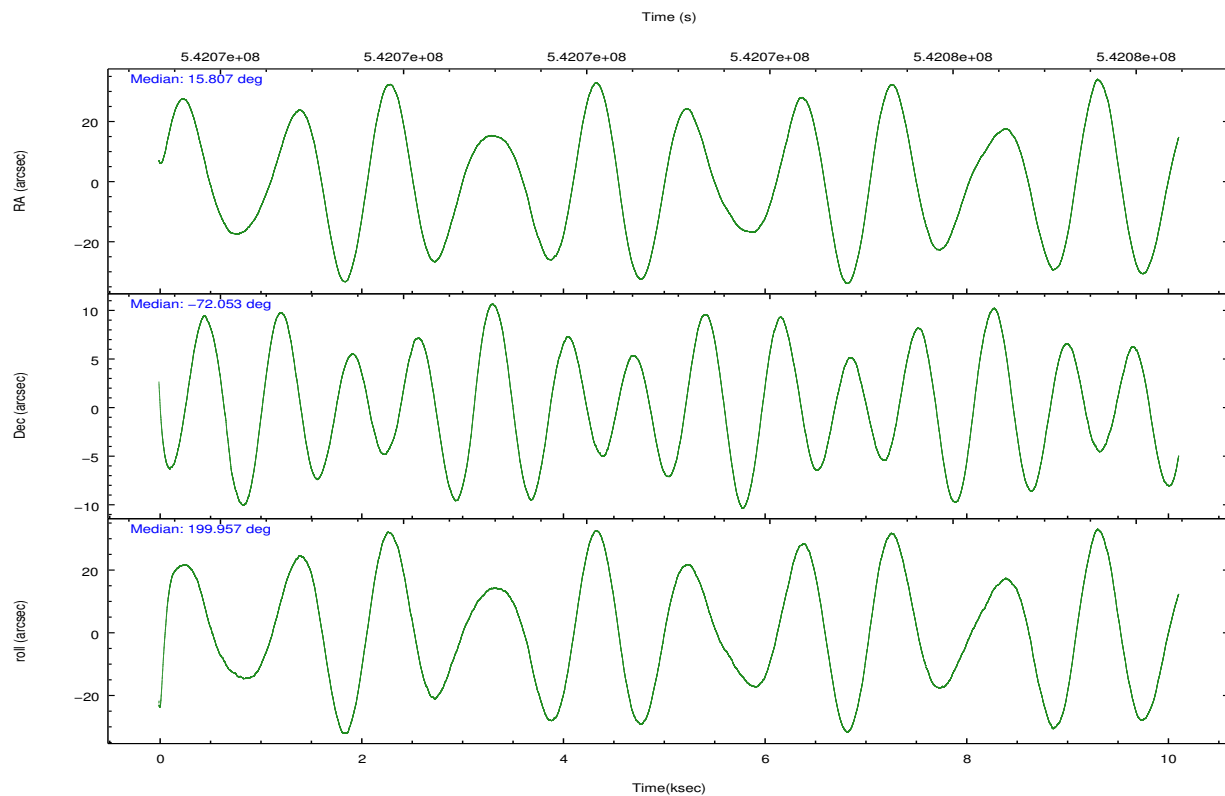
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|
| Instrument | ACIS | ACIS |
| Detector | ACIS-7 | ACIS-7 |
| Grating | NONE | NONE |
| Data mode | VFAINT | VFAINT |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 15.863194 | 15.80691452774875 |
| [deg] Pointing Dec | -72.031777 | -72.05306747518173 |
| [deg] Pointing Roll | 199.860343 | 199.9633877297279 |
| [s] Window start time (MET) | 539136067.184000 | 539136067.184000 |
| [s] Window stop time (MET) | 544147267.184000 | 544147267.184000 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 |
| [mm] SIM defocus | 0 | 0.001444936568705701 |
| [mm] SIM translation stage pos | -200.662523 | -200.6624755869005 |
| [mm] SIM translation stage offset | 10.53 | 10.52995300389267 |
| [s] Observation start time (MET) | 542067942.184000 | 542066369.89029 |
| Observation start date | 2015-03-06T22:24:35 | 2015-03-06T21:59:29 |
| [s] Observation end time (MET) | 542077942.184000 | 542078660.1534801 |
| Observation end date | 2015-03-07T01:11:15 | 2015-03-07T01:24:20 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---------------------------------------|-----------|---------|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |
| Number of optional ACIS chips dropped | 0 | 0 |
| On-chip summing requested | N | N |
| Subarray requested | CUSTOM | 1/4 |
| Subarray start row | 769 | 769 |
| Subarray row count | 256 | 256 |
| Alternating exposures requested | N | N |
| [s] Primary exposure time | 0.000000 | 0.8 |

2.3 Aspect



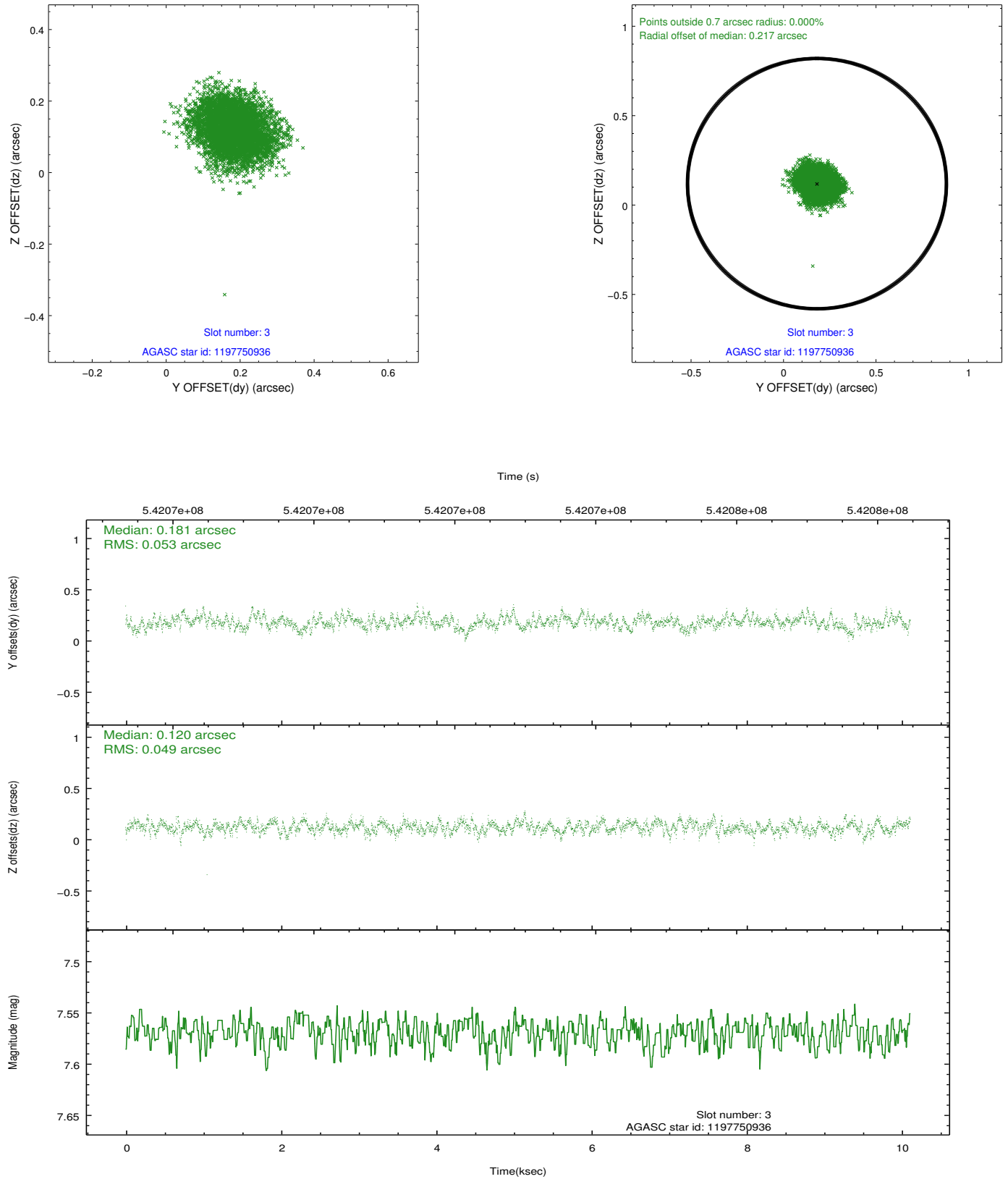


Slot Statistics

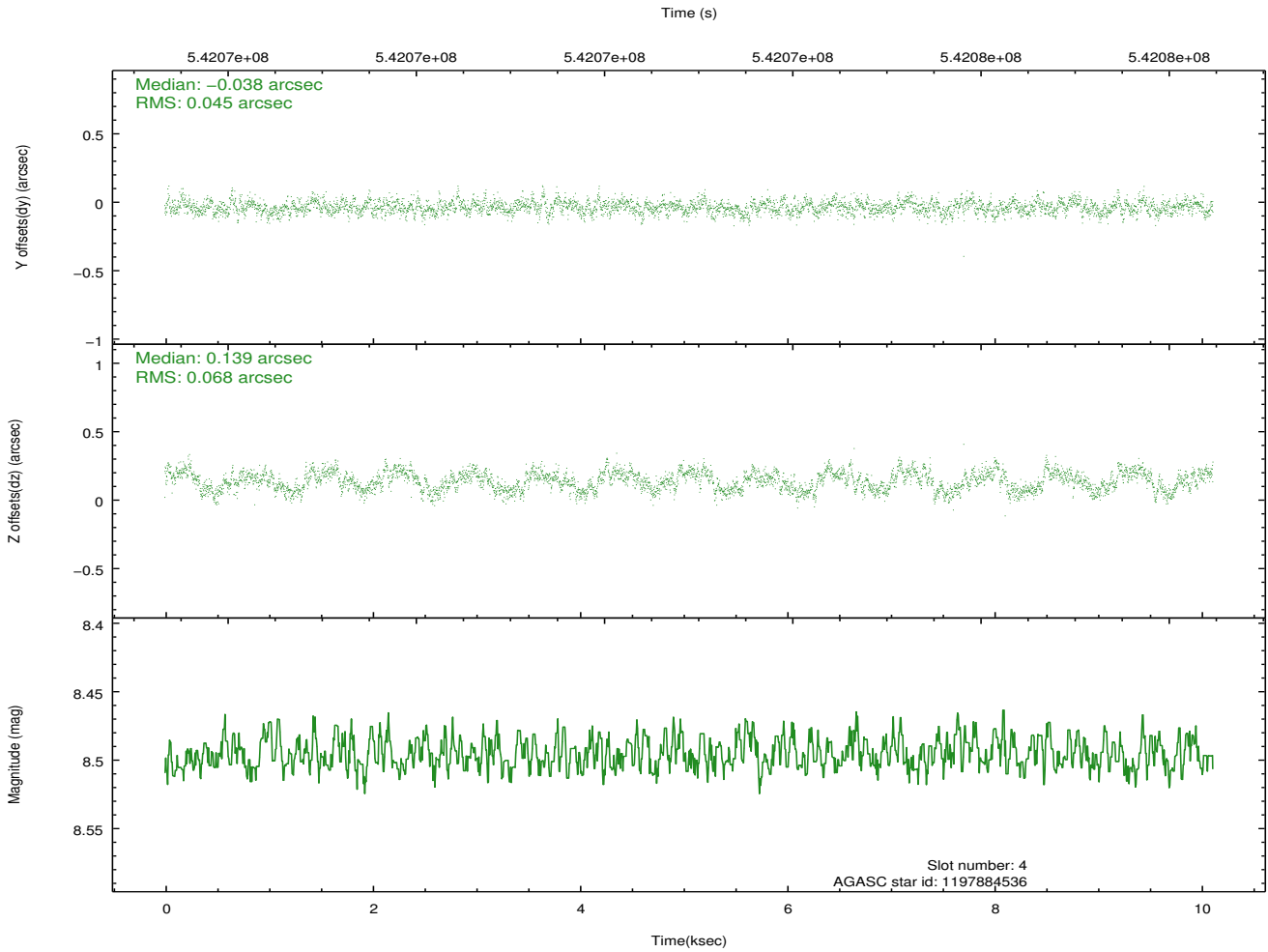
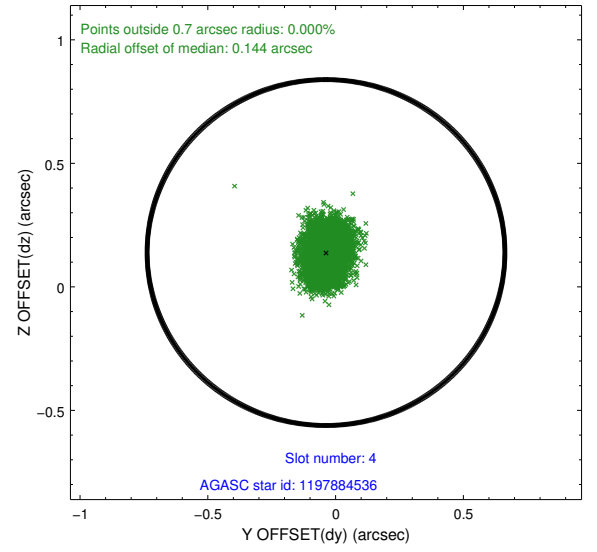
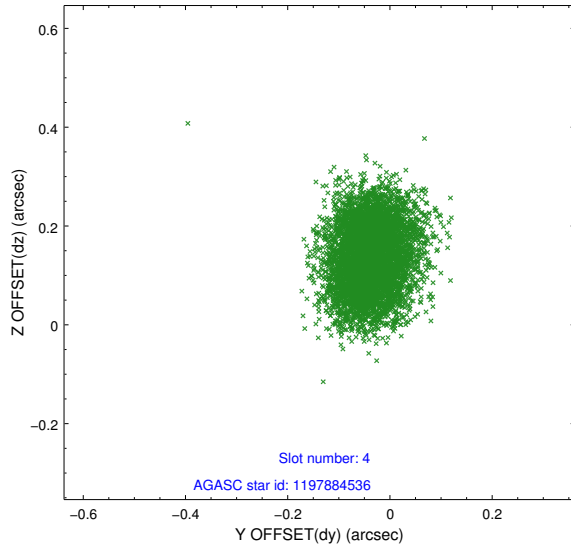
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|------------|------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | | ACIS-S-2 | 7.16 | 2467 | 0.001 | 0.099 | 0.012 | 0.016 | 0.000000 | 0.000000 | -767.48 | -1521.75 |
| 1 | FID | | ACIS-S-4 | 7.23 | 2467 | 0.290 | -0.026 | 0.007 | 0.012 | 0.000000 | 0.000000 | 2145.95 | 386.00 |
| 2 | FID | | ACIS-S-5 | 7.23 | 2465 | -0.322 | -0.063 | 0.012 | 0.019 | 0.000000 | 0.000000 | -1819.87 | 380.46 |
| 3 | GUIDE | used | 1197750936 | 7.57 | 4935 | 0.181 | 0.120 | 0.076 | 0.124 | 15.387940 | -71.549550 | -78.86 | -1813.67 |
| 4 | GUIDE | used | 1197884536 | 8.50 | 4933 | -0.038 | 0.139 | 0.087 | 0.138 | 17.160729 | -71.835289 | -1604.05 | -156.02 |
| 5 | GUIDE | used | 1197885104 | 9.32 | 4935 | 0.042 | 0.068 | 0.133 | 0.215 | 17.845067 | -72.189368 | -1846.32 | 1309.44 |
| 6 | GUIDE | used | 1197885328 | 7.24 | 4934 | 0.145 | 0.115 | 0.085 | 0.129 | 16.283090 | -71.733943 | -810.69 | -845.50 |
| 7 | GUIDE | used | 1198189696 | 7.34 | 4934 | -0.334 | -0.435 | 0.074 | 0.121 | 15.223750 | -72.697522 | 1458.97 | 2025.11 |

2.4 Star Slots

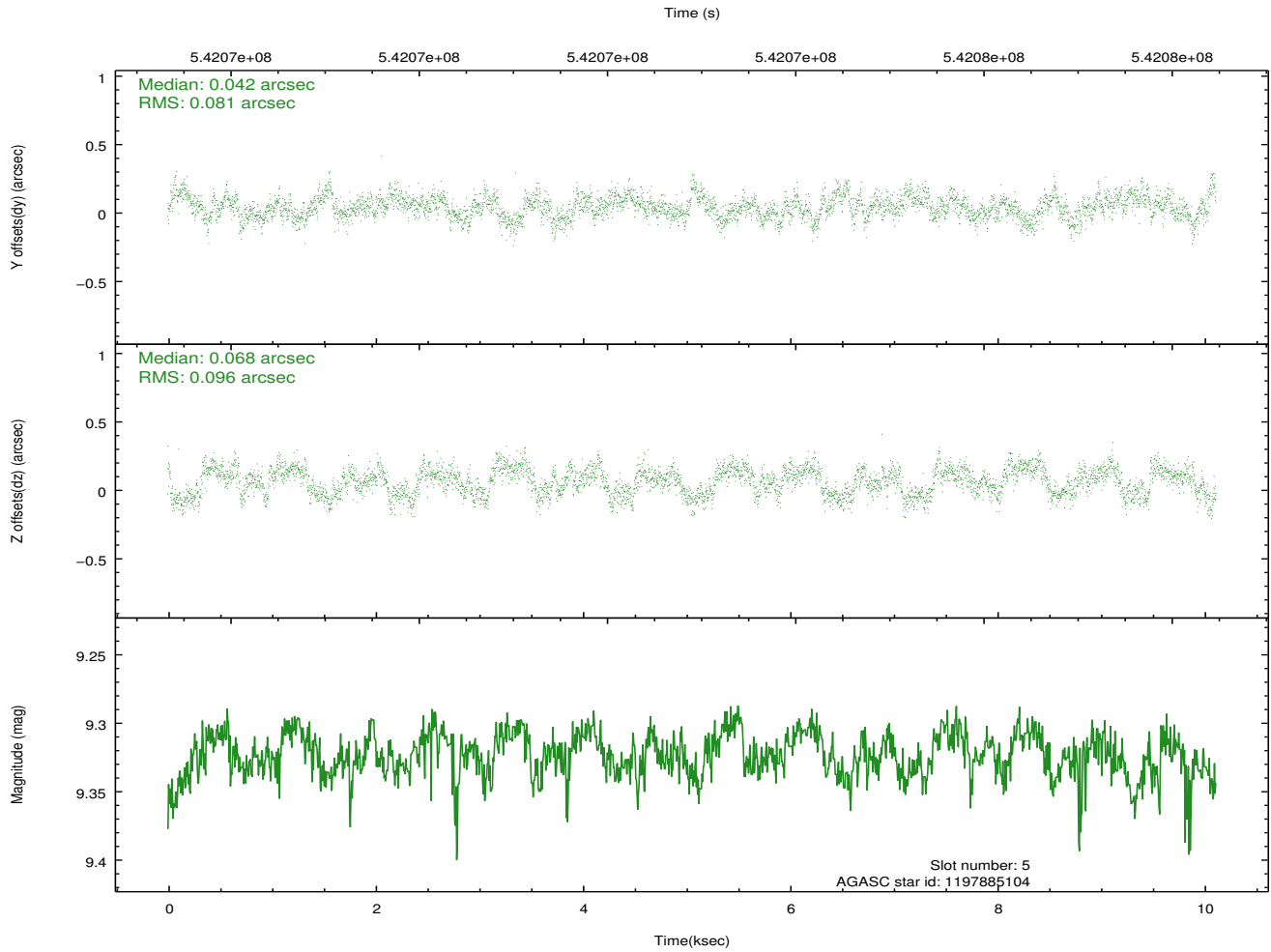
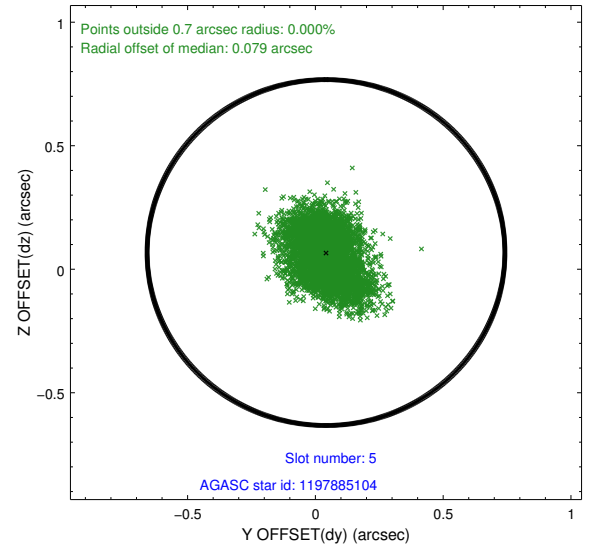
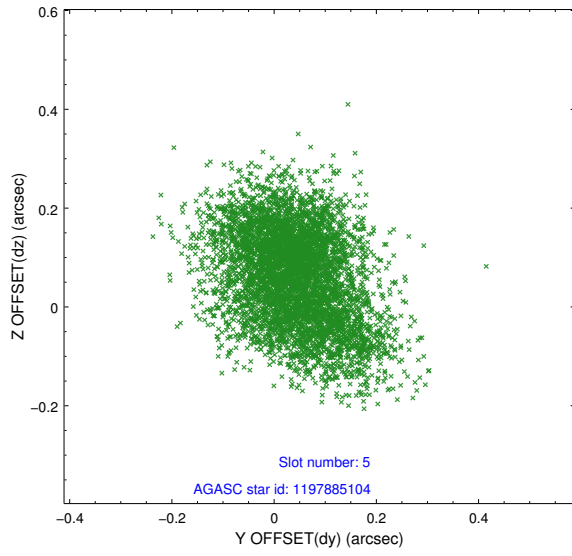
2.4.1 Slot 3



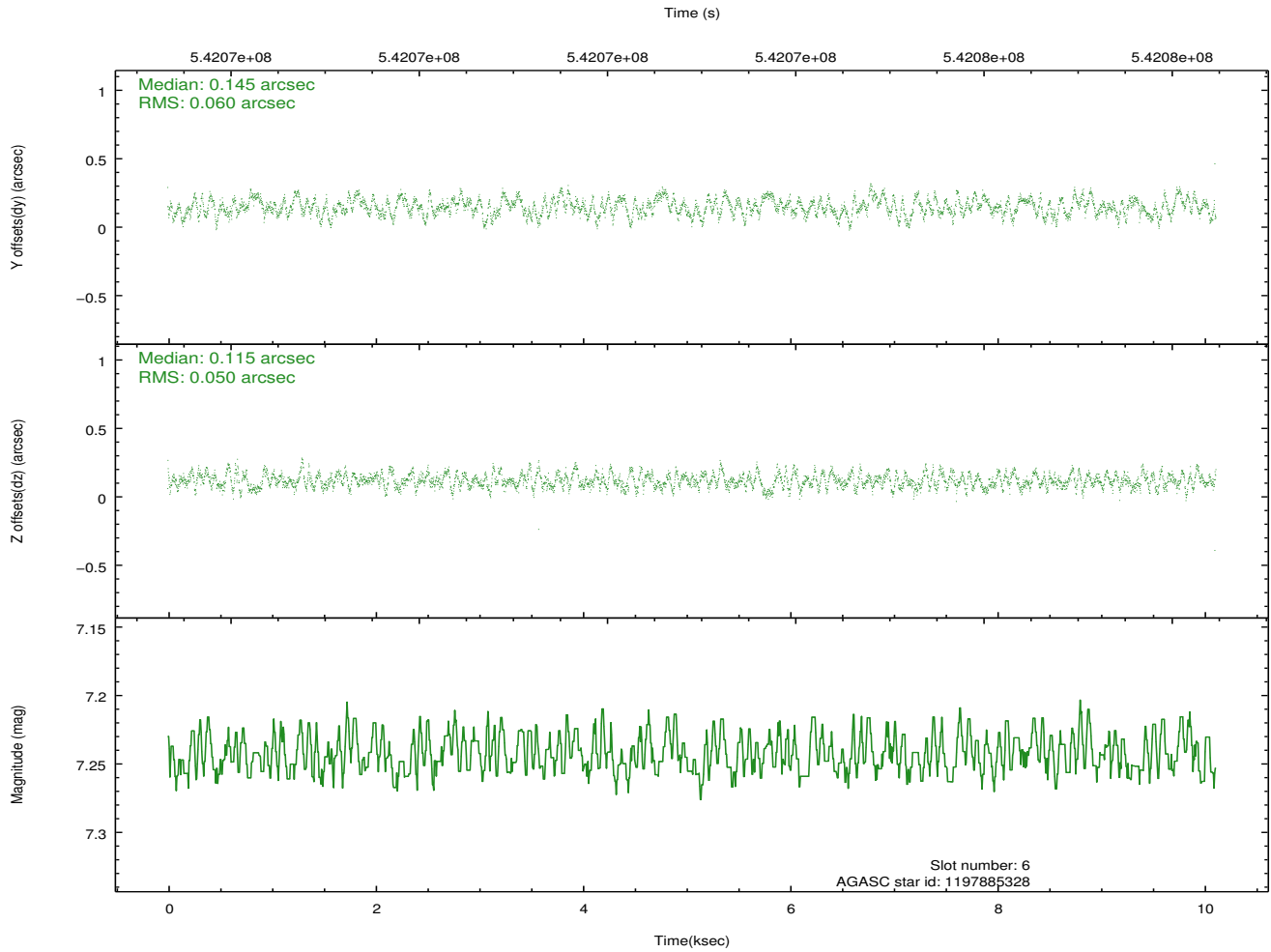
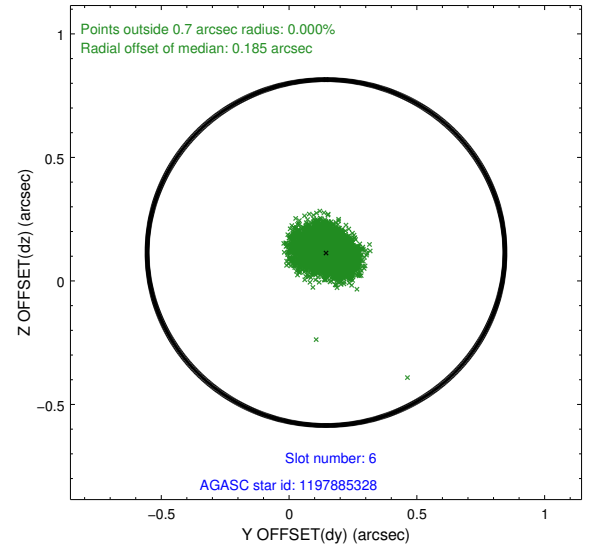
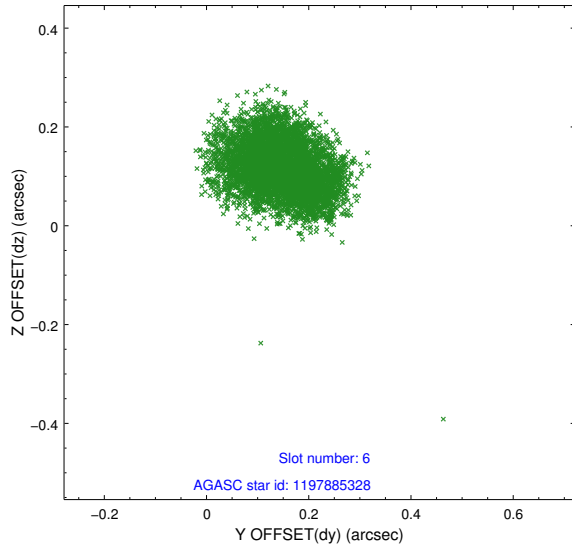
2.4.2 Slot 4



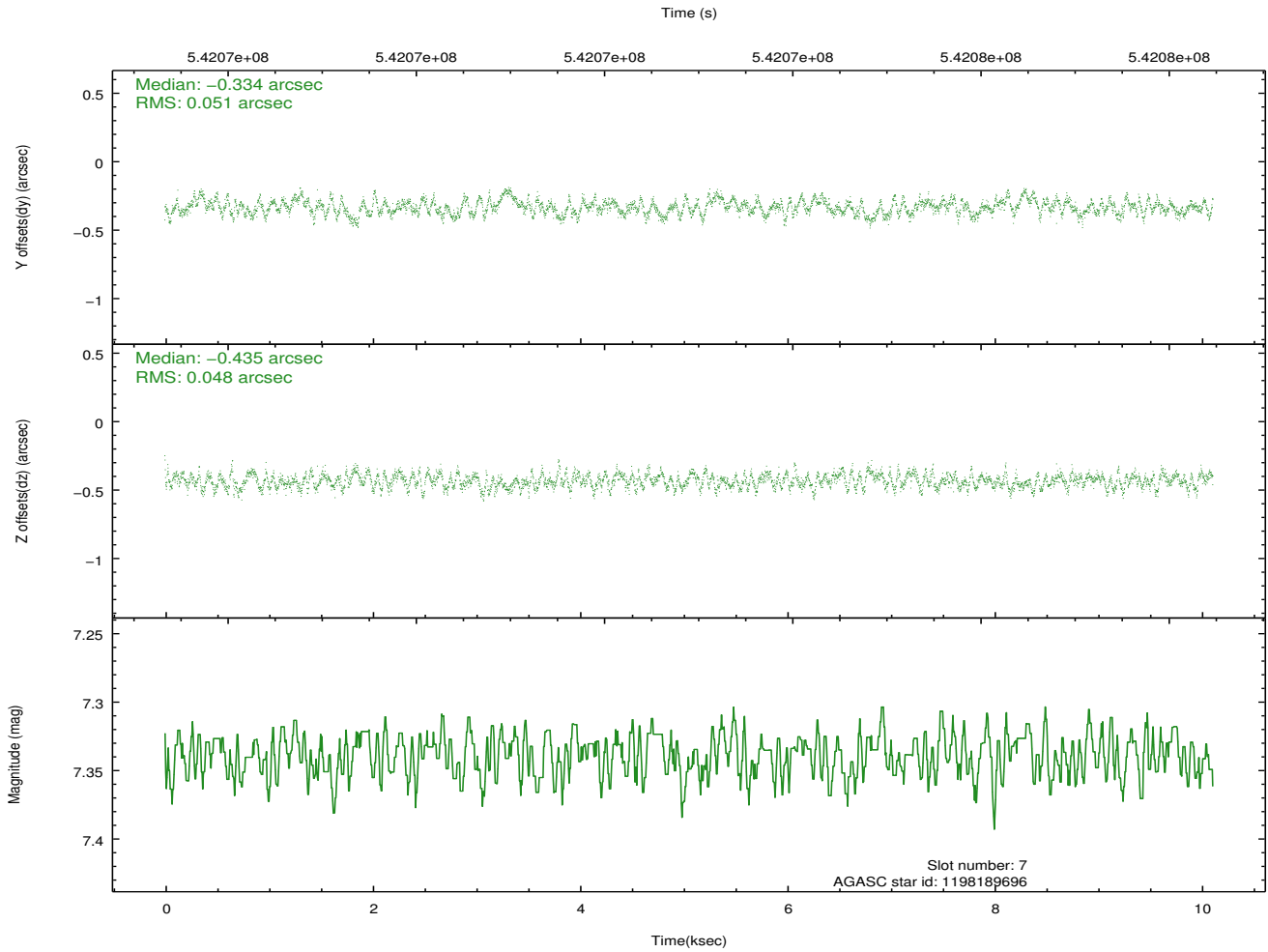
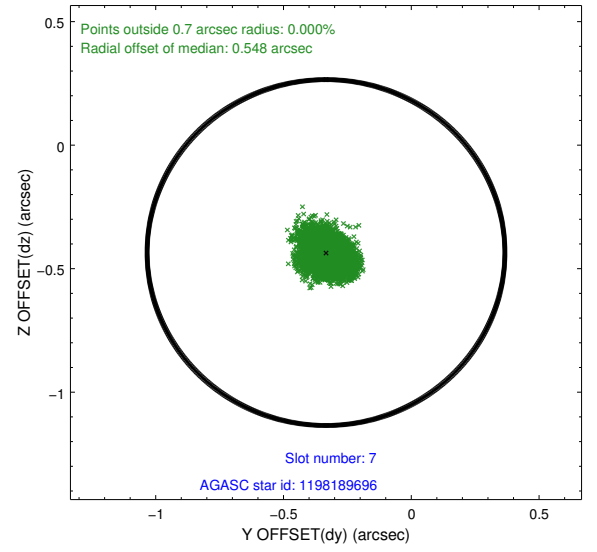
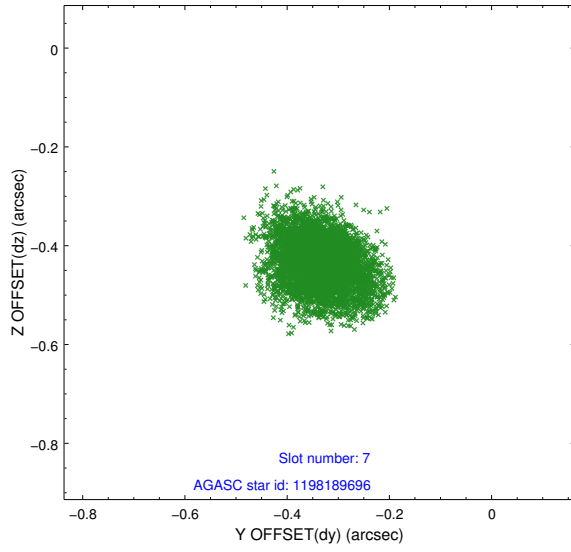
2.4.3 Slot 5



2.4.4 Slot 6

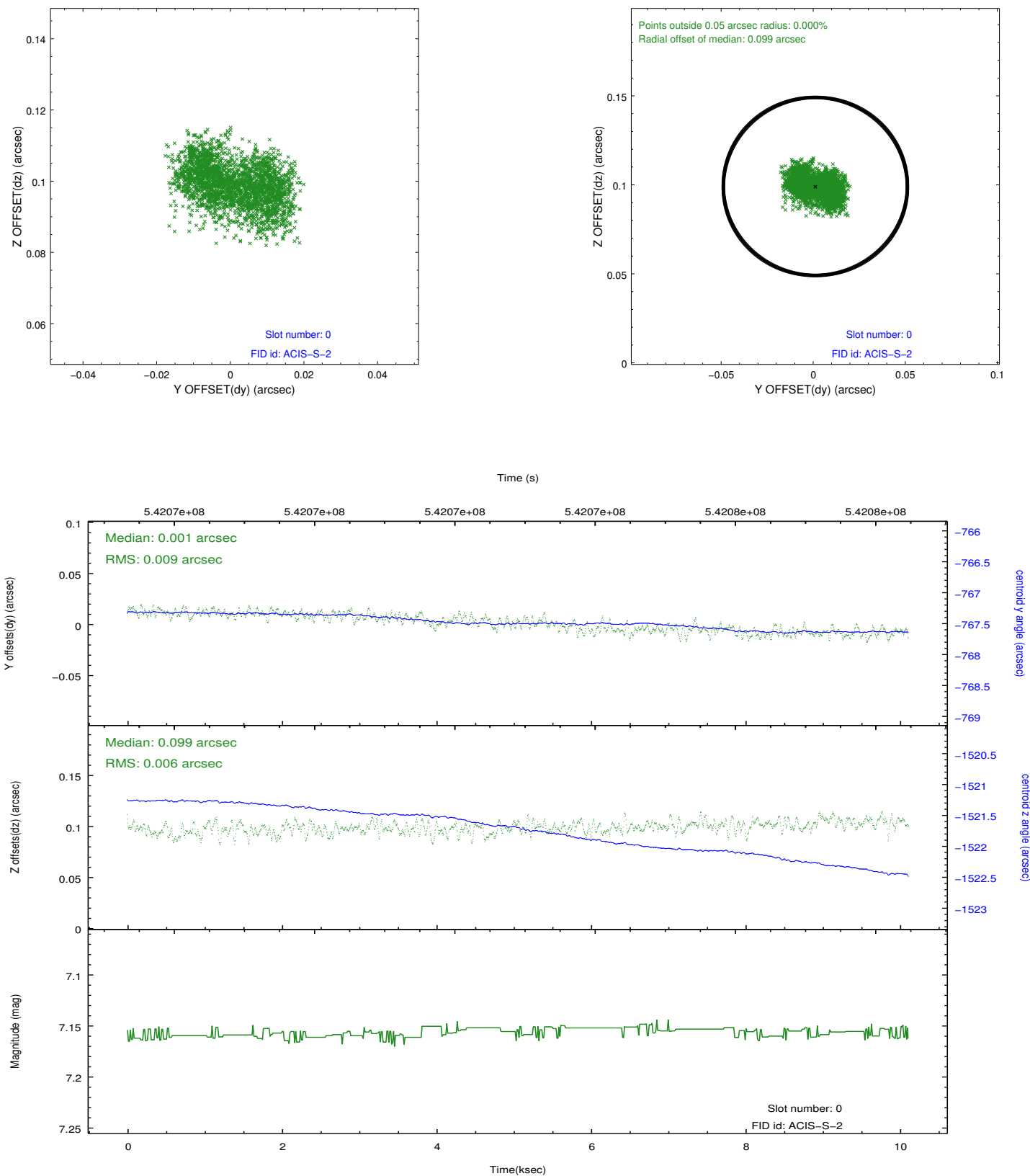


2.4.5 Slot 7

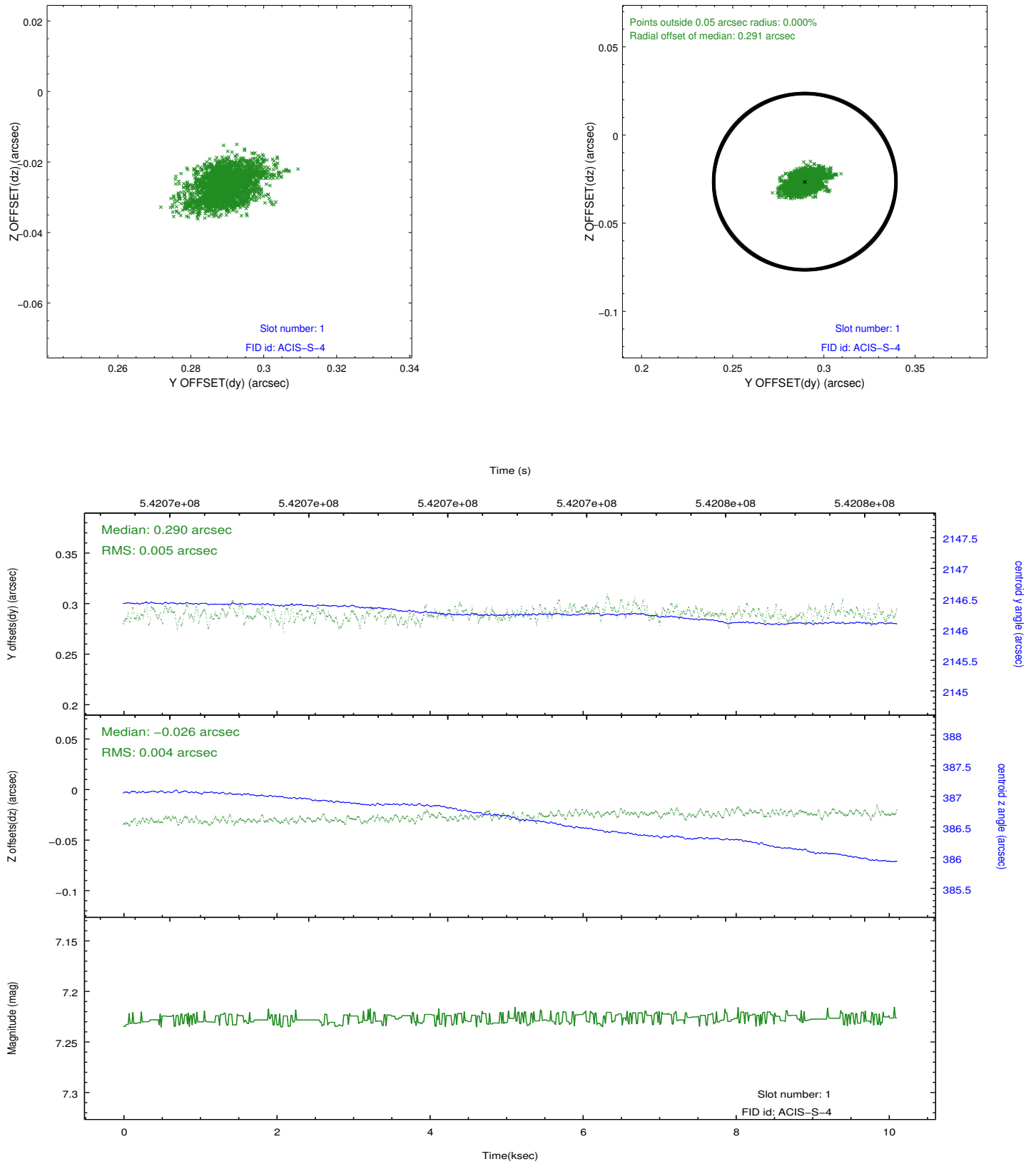


2.5 FID Slots

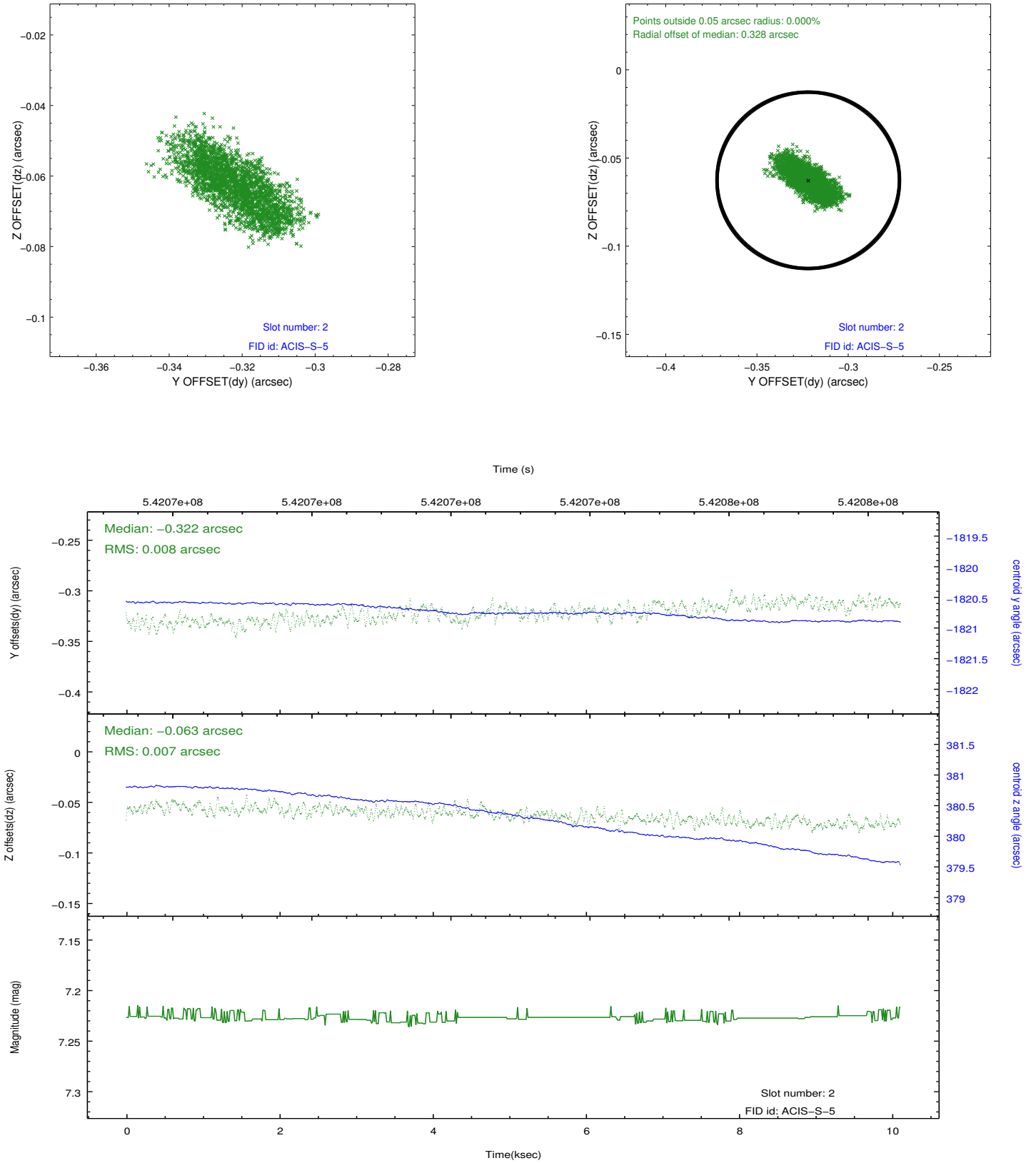
2.5.1 Slot 0



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) | 2015.03.08 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 10.063011661291 |

A.2 Comments

Window preference met.