

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 11319 - L2 Version 2
Chandra X-Ray Center

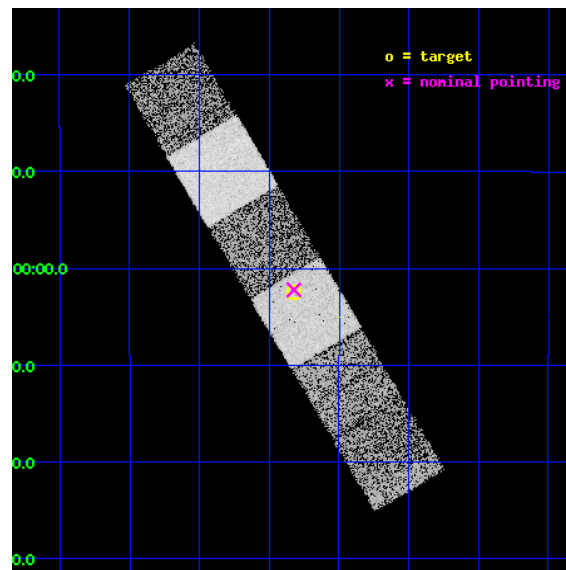
L2 Processing Date : Jun 23 2012

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

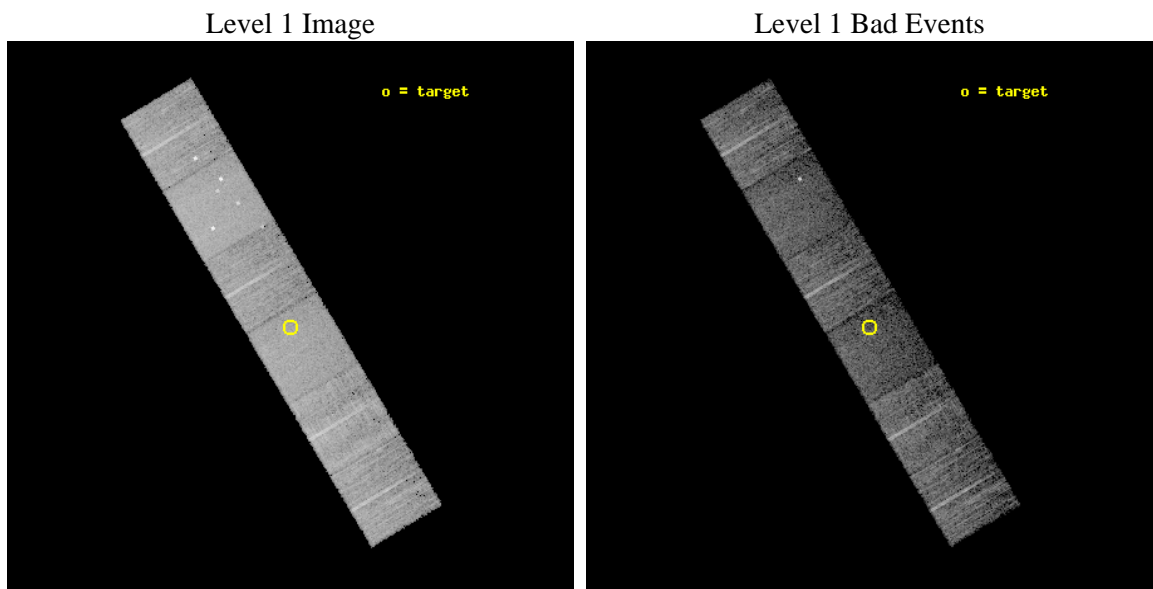
| | | |
|----------|--|---|
| seq_num | 600838 | Sequence number |
| obs_id | 11319 | Observation id |
| title | Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters | Proposal title |
| observer | Elena Gallo | Principal investigator |
| object | NGC5099 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 200.331 | Observer's specified target RA [deg] |
| dec_targ | -13.0421 | Observer's specified target Dec [deg] |
| ra_nom | 200.33088855706 | Nominal RA [deg] |
| dec_nom | -13.03717561202 | Nominal Dec [deg] |
| roll_nom | 59.211988326432 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 5875.1999781728 | Sum of GTIs [s] |
| livetime | 5800.8046584284 | Livetime [s] |
| ontime4 | 5875.1999781728 | Sum of GTIs [s] |
| ontime5 | 5875.1999781728 | Sum of GTIs [s] |
| ontime6 | 5875.1999781728 | Sum of GTIs [s] |
| ontime7 | 5875.1999781728 | Sum of GTIs [s] |
| ontime8 | 5875.1999781728 | Sum of GTIs [s] |
| ontime9 | 5871.9589878321 | Sum of GTIs [s] |
| l2events | 74486 | Number of level 2 events |



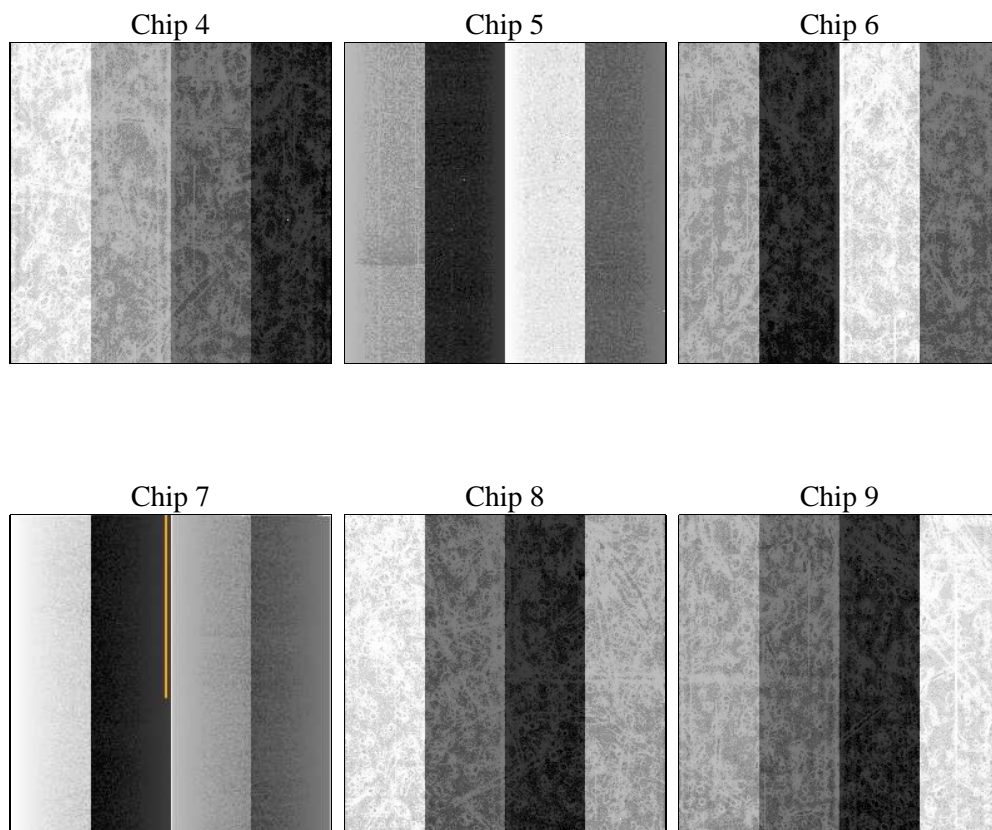
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 5700.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 5875.1999781728 | Sum of GTIs [s] |
| caldsver | 4.4.10 | | ontime4 | 5875.1999781728 | Sum of GTIs [s] |
| date | 2012-06-23T04:36:50 | Date and time of file creation | ontime5 | 5875.1999781728 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime6 | 5875.1999781728 | Sum of GTIs [s] |
| | | | ontime7 | 5875.1999781728 | Sum of GTIs [s] |
| | | | ontime8 | 5875.1999781728 | Sum of GTIs [s] |
| | | | ontime9 | 5871.9589878321 | Sum of GTIs [s] |
| | | | l1events | 370762 | Number of level 1 events |

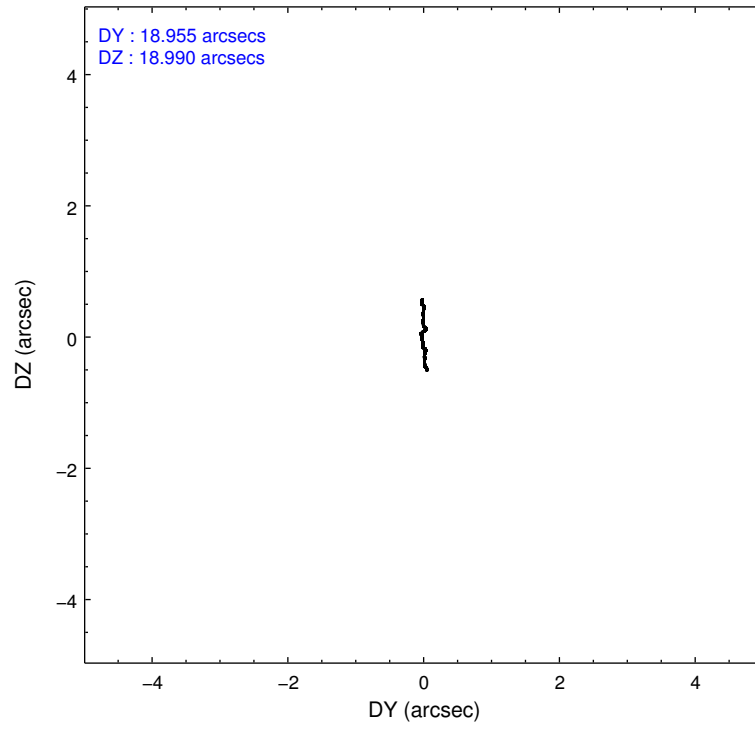
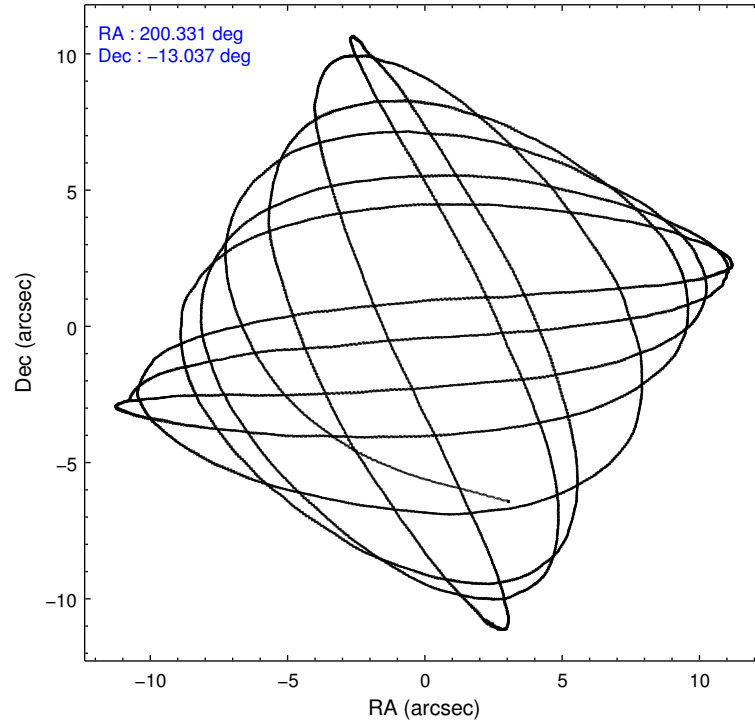
2.1.4 Events

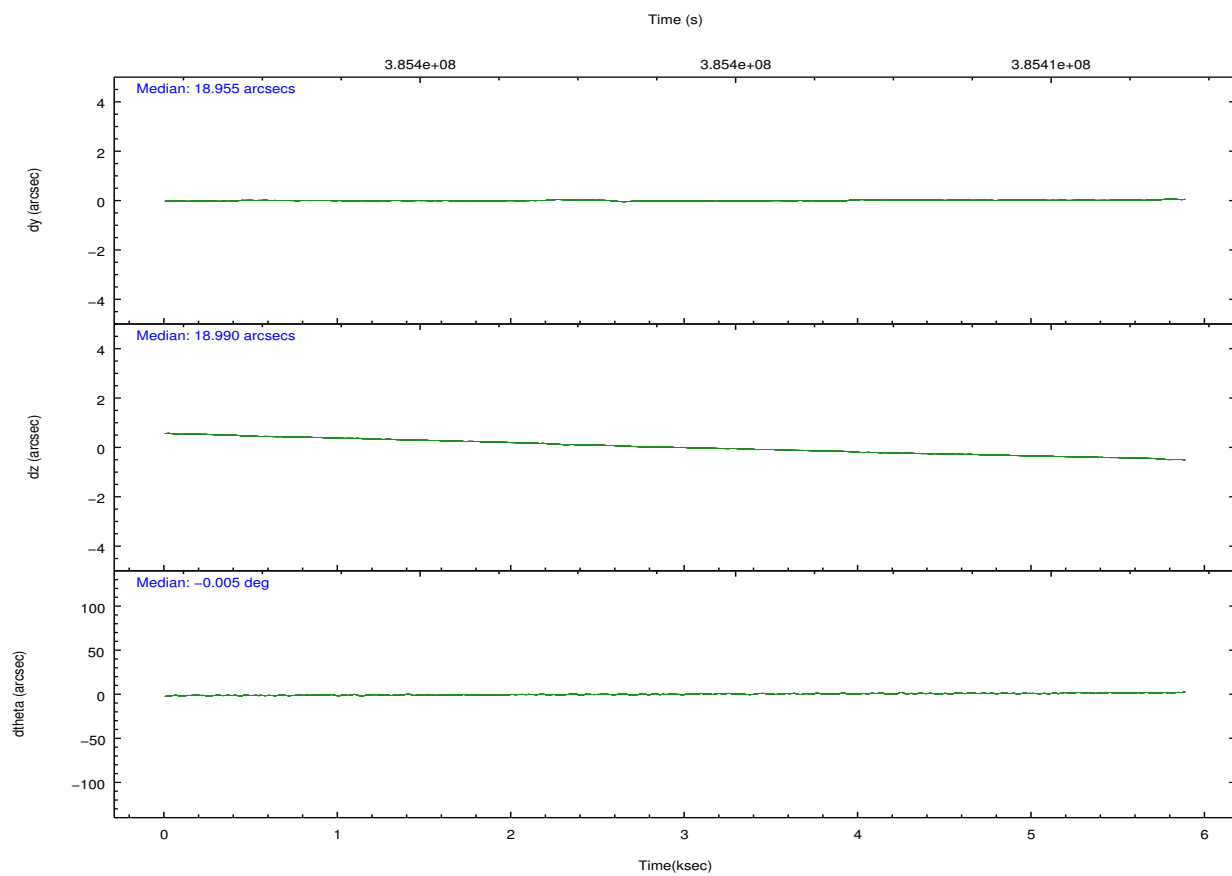
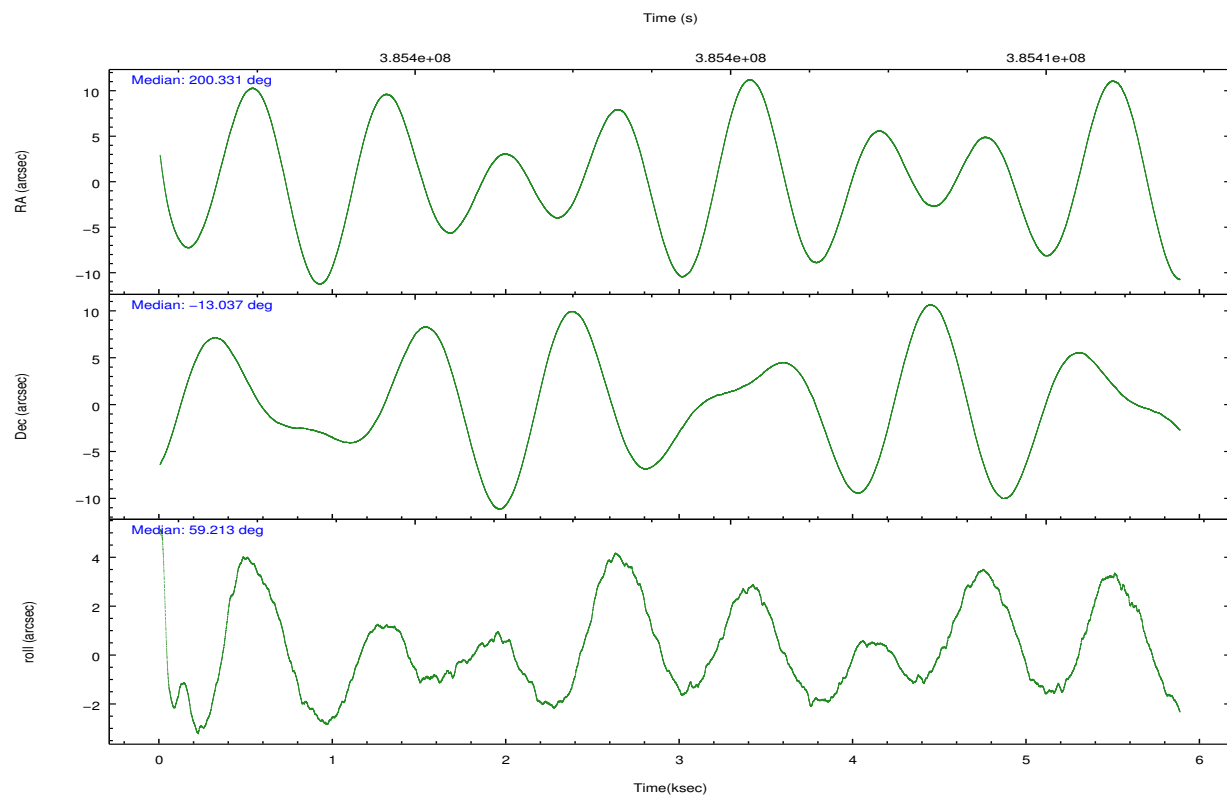
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 | | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 59357 | 79289 | 51665 | 61383 | 66789 | 52279 | grade 0 events | 3549 | 5000 | 1934 | 2543 | 5202 | 2226 |
| rejected events | 52920 | 43593 | 46675 | 36275 | 51418 | 46849 | | 5% | 6% | 3% | 4% | 7% | 4% |
| rejected % | 89% | 54% | 90% | 59% | 76% | 89% | grade 1 events | 59 | 134 | 14 | 75 | 58 | 31 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 1423 | 11998 | 1278 | 5587 | 4211 | 1333 |
| | | | | | | | | 2% | 15% | 2% | 9% | 6% | 2% |
| | | | | | | | grade 3 events | 674 | 1487 | 558 | 2532 | 1673 | 688 |
| | | | | | | | | 1% | 1% | 1% | 4% | 2% | 1% |
| | | | | | | | grade 4 events | 599 | 1489 | 598 | 2578 | 1553 | 609 |
| | | | | | | | | 1% | 1% | 1% | 4% | 2% | 1% |
| | | | | | | | grade 5 events | 2188 | 6325 | 2280 | 6455 | 3272 | 2412 |
| | | | | | | | | 3% | 7% | 4% | 10% | 4% | 4% |
| | | | | | | | grade 6 events | 1002 | 19959 | 1201 | 14913 | 4785 | 1221 |
| | | | | | | | | 1% | 25% | 2% | 24% | 7% | 2% |
| | | | | | | | grade 7 events | 49863 | 32897 | 43802 | 26700 | 46035 | 43759 |
| | | | | | | | | 84% | 41% | 84% | 43% | 68% | 83% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-456789 | ACIS-456789 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | CCD I0 on | N | N |
| Observation mode | POINTING | POINTING | CCD I1 on | N | N |
| [deg] Pointing RA | 200.330920 | 200.3308885570636 | CCD I2 on | N | N |
| [deg] Pointing Dec | -13.064600 | -13.03717561201959 | CCD I3 on | N | N |
| [deg] Pointing Roll | 59.055349 | 59.21198832643198 | CCD S0 on | O1 | Y |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | Y | Y |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | Y | Y |
| [mm] SIM translation stage pos | -190.132523 | -190.1425803651734 | CCD S3 on | Y | Y |
| [mm] SIM translation stage offset | 0 | 0.01005778216563158 | CCD S4 on | Y | Y |
| [s] Observation start time (MET) | 385400860.184000 | 385399432.98907 | CCD S5 on | O2 | Y |
| Observation start date | 2010-03-19T15:46:34 | 2010-03-19T15:23:52 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 385406560.184000 | 385407533.56448 | On-chip summing requested | N | N |
| Observation end date | 2010-03-19T17:21:34 | 2010-03-19T17:38:53 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



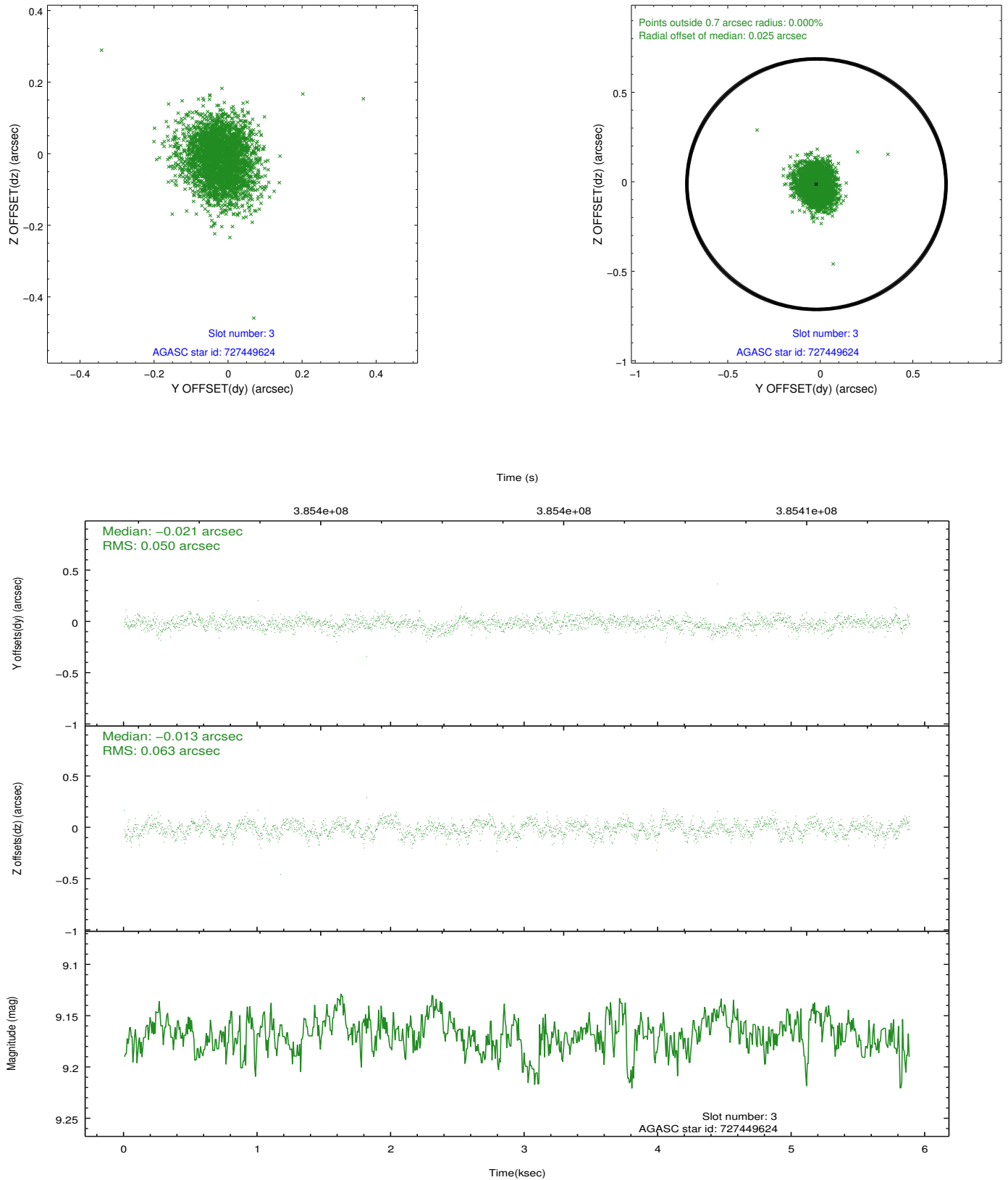


Slot Statistics

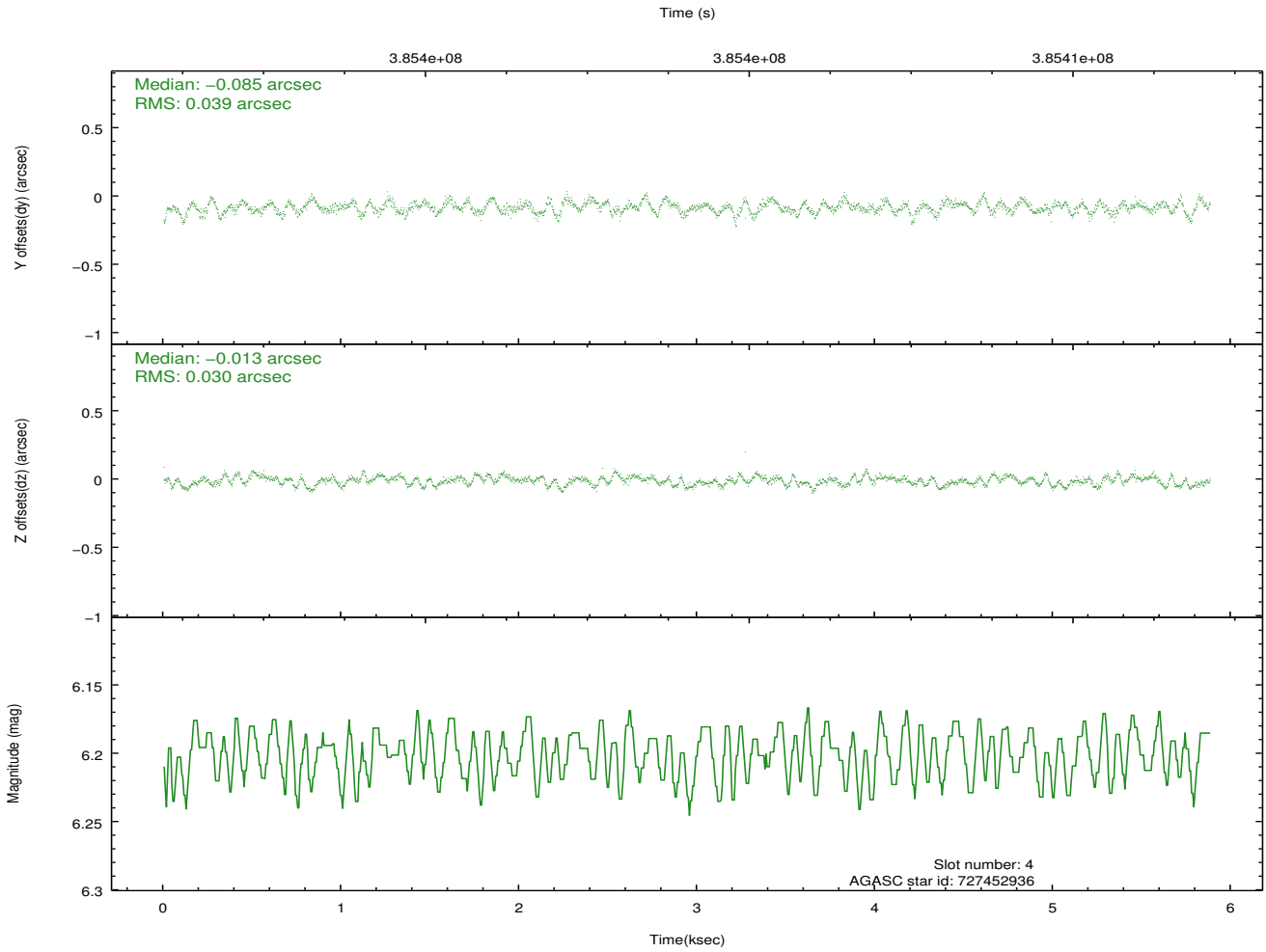
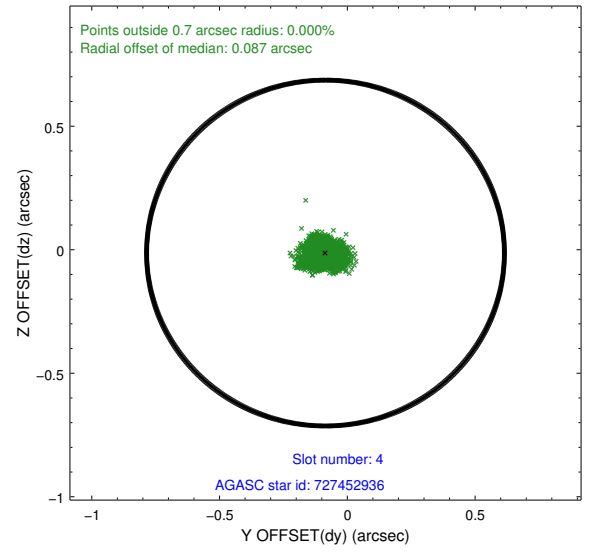
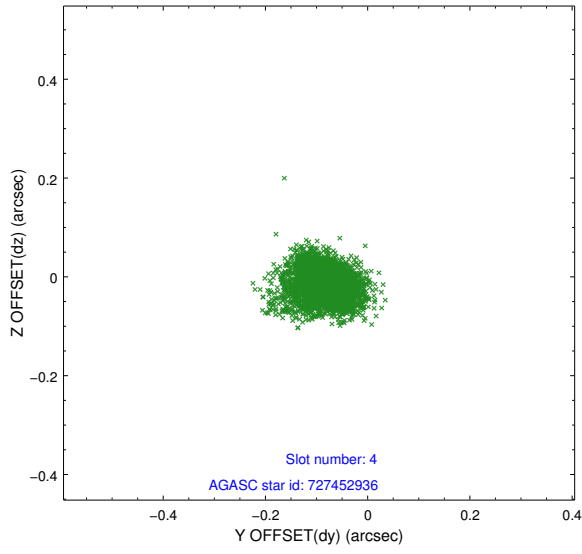
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-S-1 | 6.96 | 1435 | 0.050 | -0.003 | 0.010 | 0.017 | 0.000000 | 0.000000 | 924.03 | -1736.09 |
| 1 | FID | ACIS-S-4 | 6.97 | 1435 | 0.166 | -0.018 | 0.008 | 0.014 | 0.000000 | 0.000000 | 2142.12 | 167.00 |
| 2 | FID | ACIS-S-5 | 7.01 | 1435 | -0.242 | 0.032 | 0.008 | 0.014 | 0.000000 | 0.000000 | -1823.83 | 161.81 |
| 3 | GUIDE | 727449624 | 9.17 | 2866 | -0.021 | -0.013 | 0.084 | 0.136 | 199.880707 | -12.871025 | -216.36 | 1712.56 |
| 4 | GUIDE | 727452936 | 6.20 | 2870 | -0.085 | -0.013 | 0.051 | 0.085 | 200.534381 | -12.579543 | 1864.49 | 284.94 |
| 5 | GUIDE | 727454184 | 8.85 | 2869 | 0.305 | 0.015 | 0.075 | 0.122 | 199.706716 | -13.195834 | -1532.86 | 1632.33 |
| 6 | GUIDE | 727067672 | 7.49 | 2869 | -0.211 | 0.030 | 0.063 | 0.098 | 199.904826 | -12.483588 | 1021.70 | 2359.84 |
| 7 | GUIDE | 727067544 | 8.97 | 2866 | 0.016 | -0.022 | 0.093 | 0.142 | 200.001263 | -12.469999 | 1239.12 | 2095.11 |

2.4 Star Slots

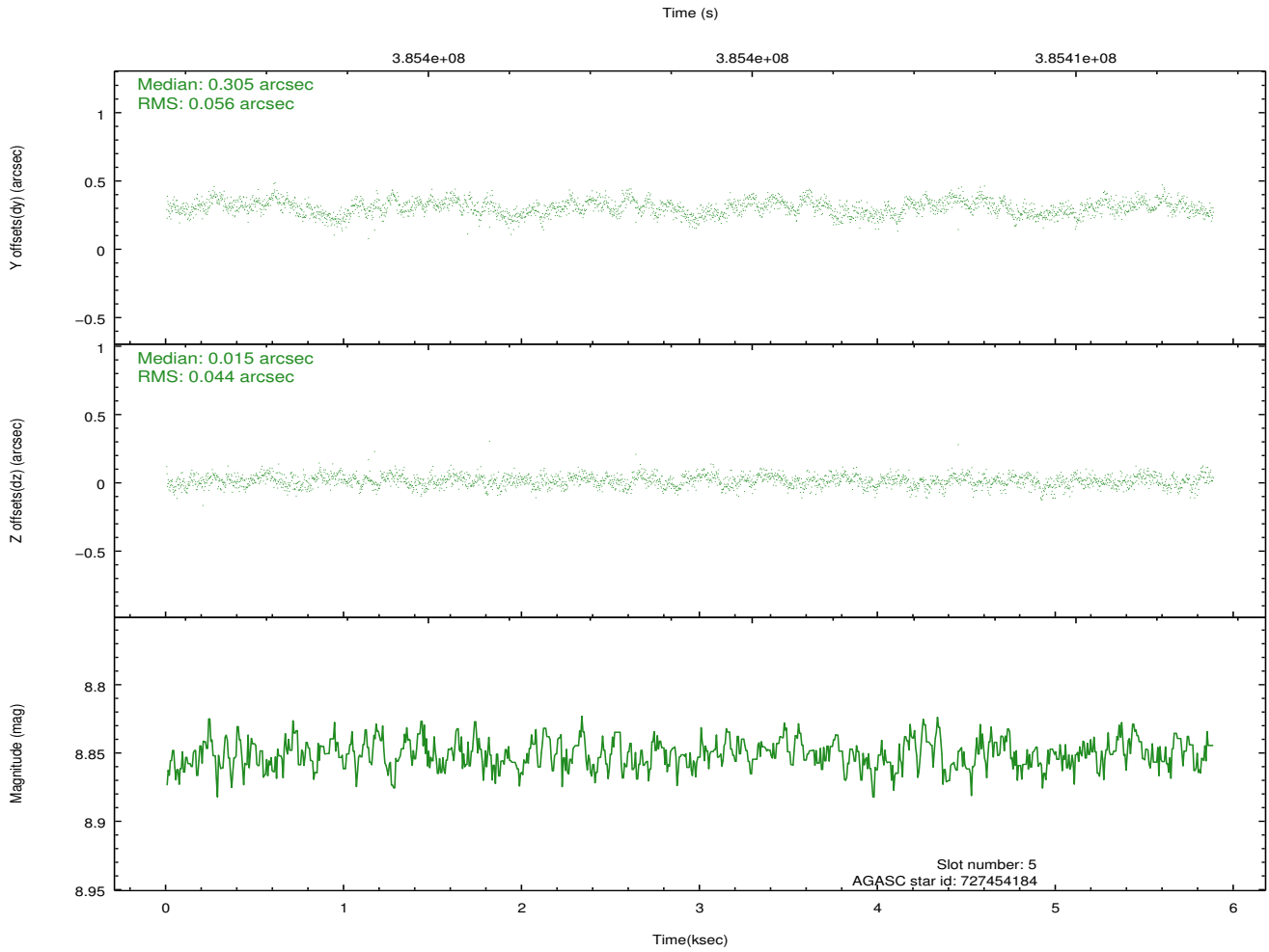
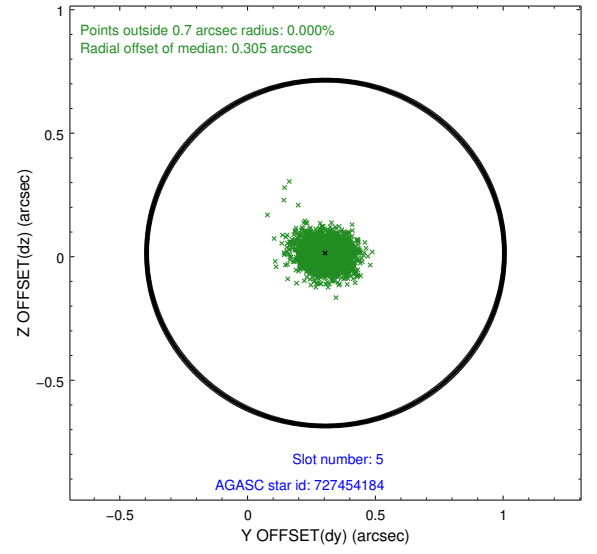
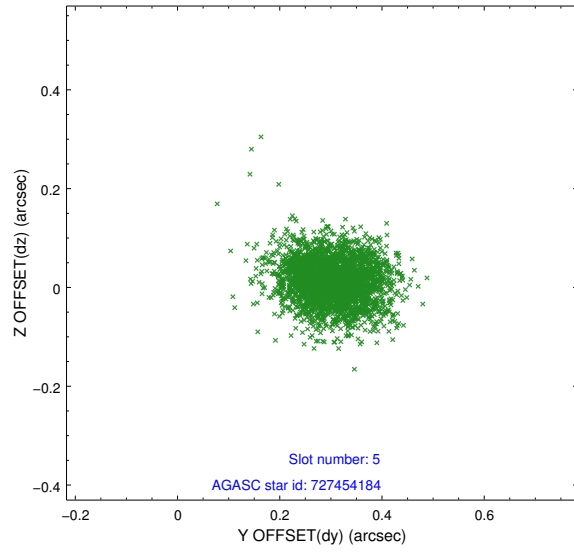
2.4.1 Slot 3



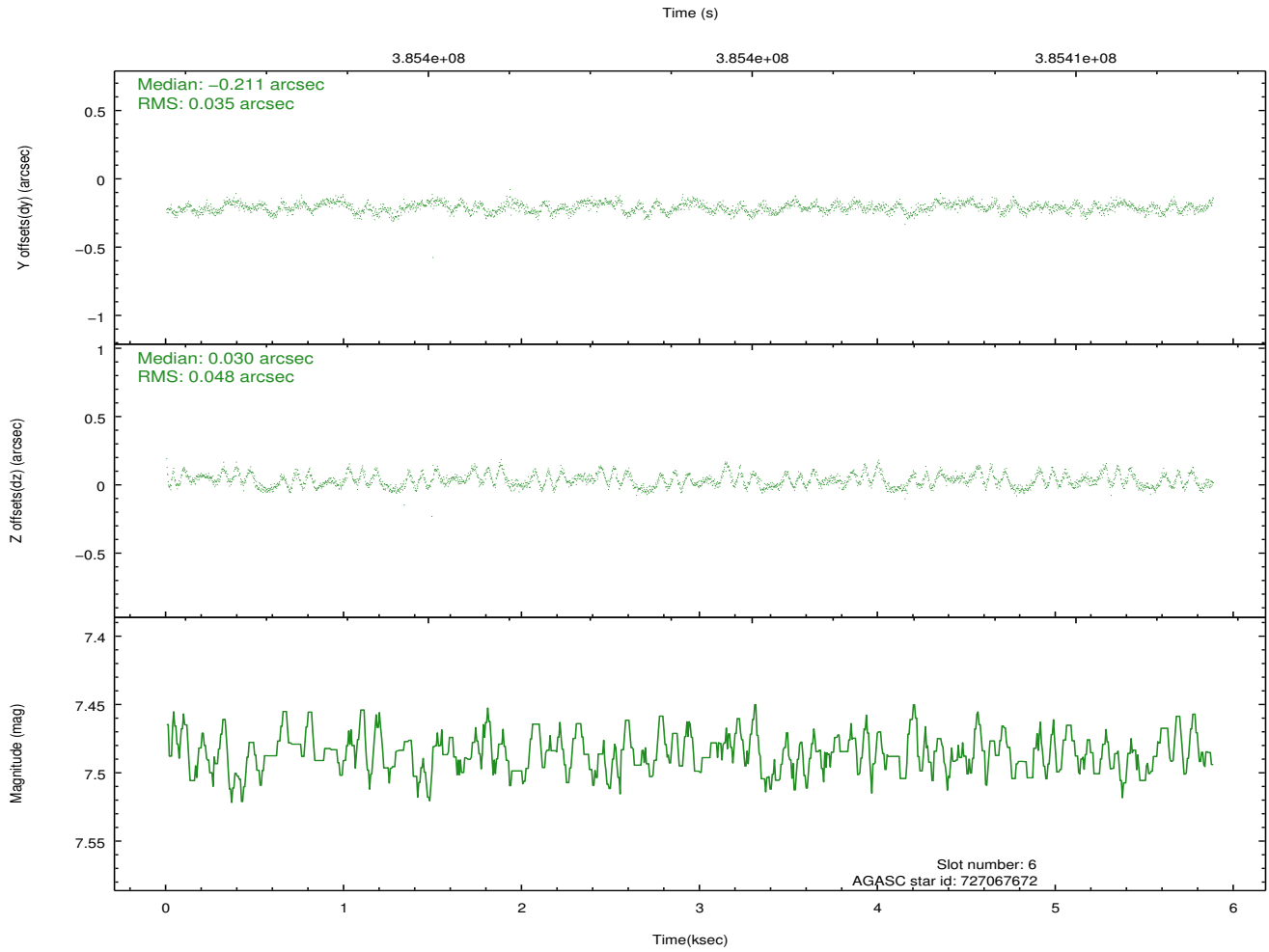
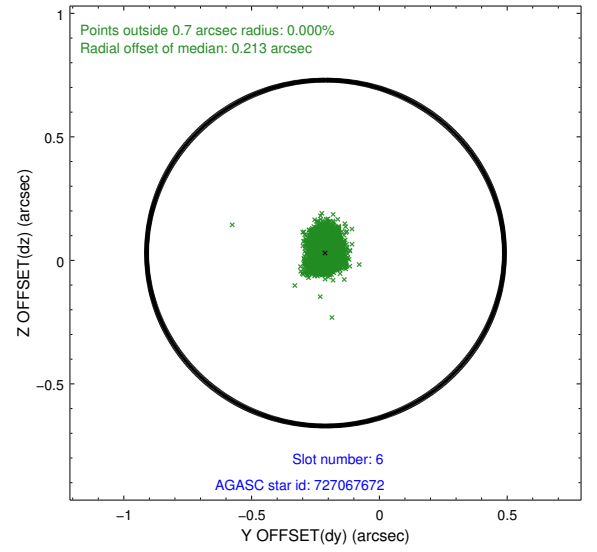
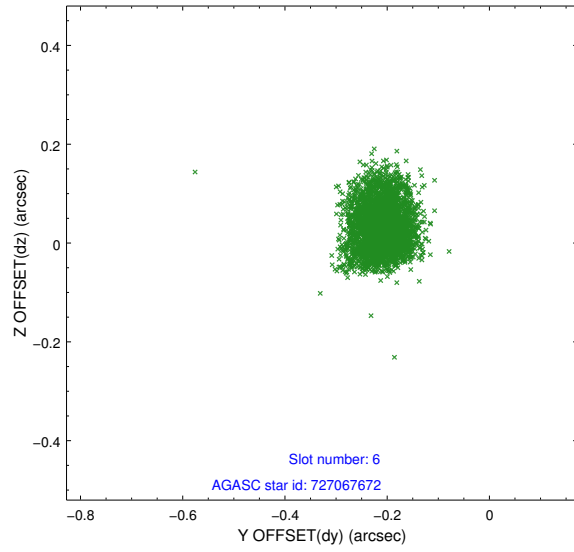
2.4.2 Slot 4



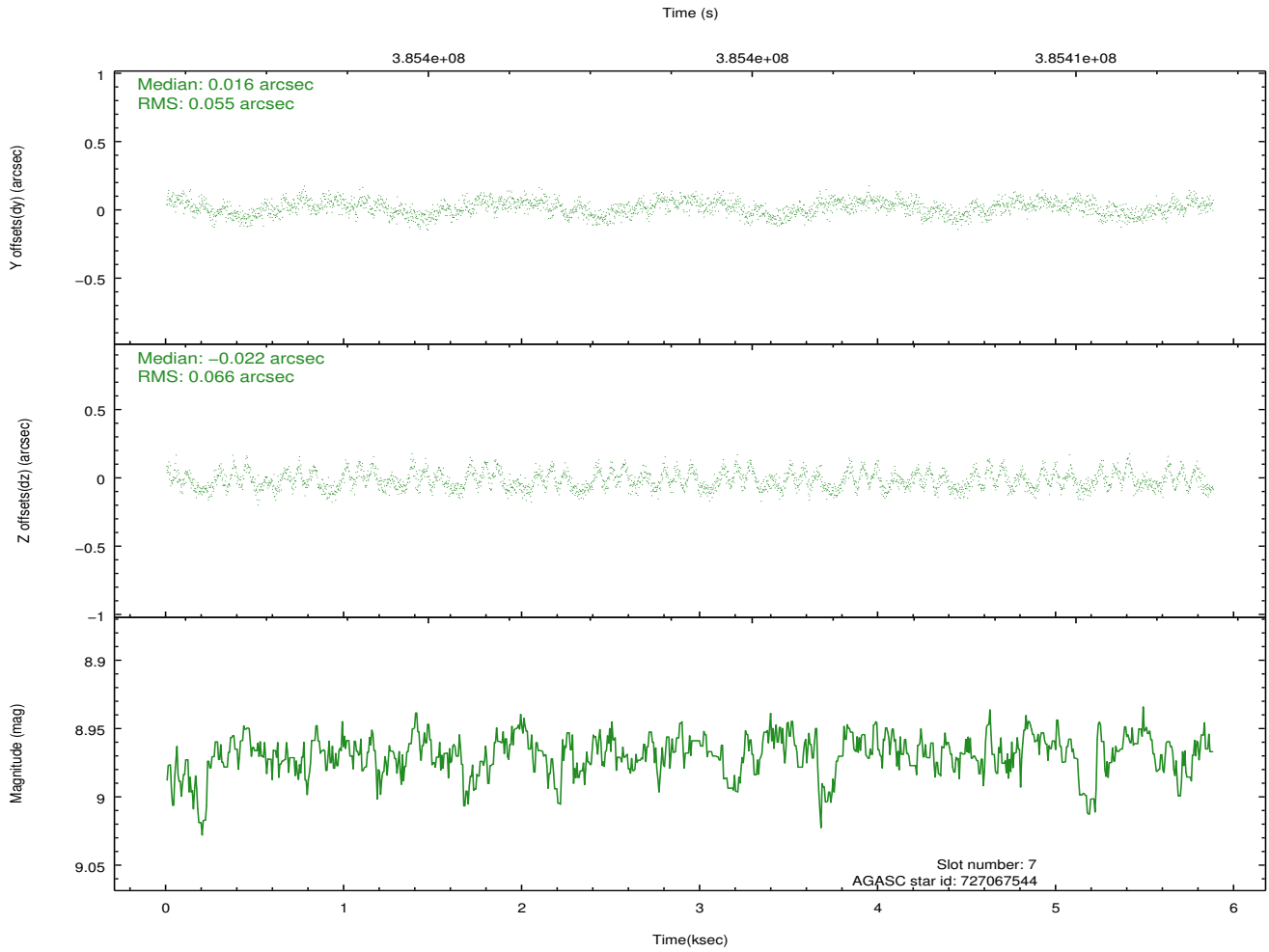
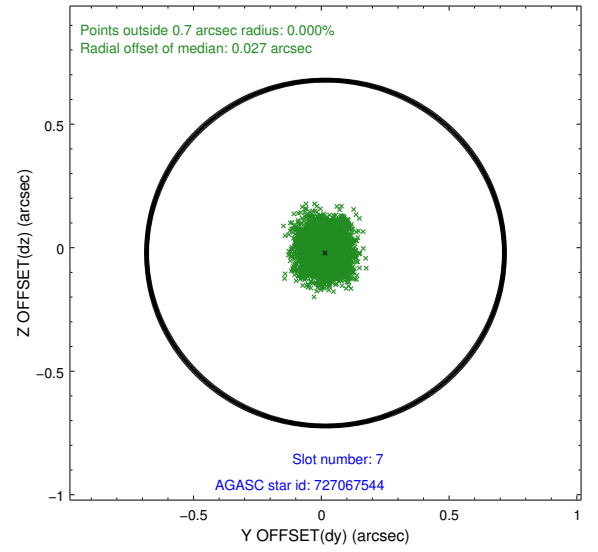
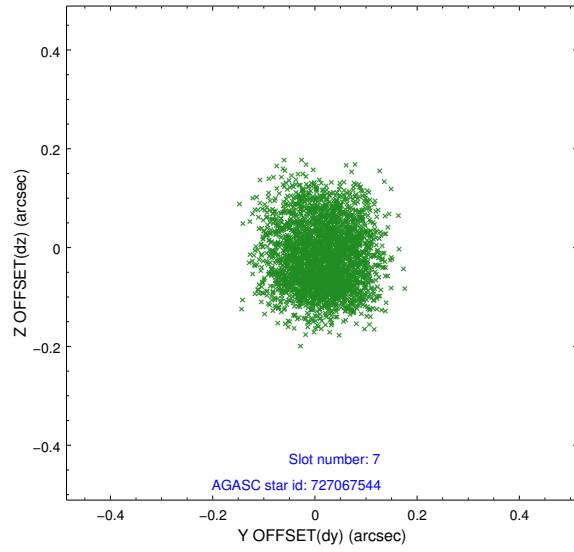
2.4.3 Slot 5



2.4.4 Slot 6

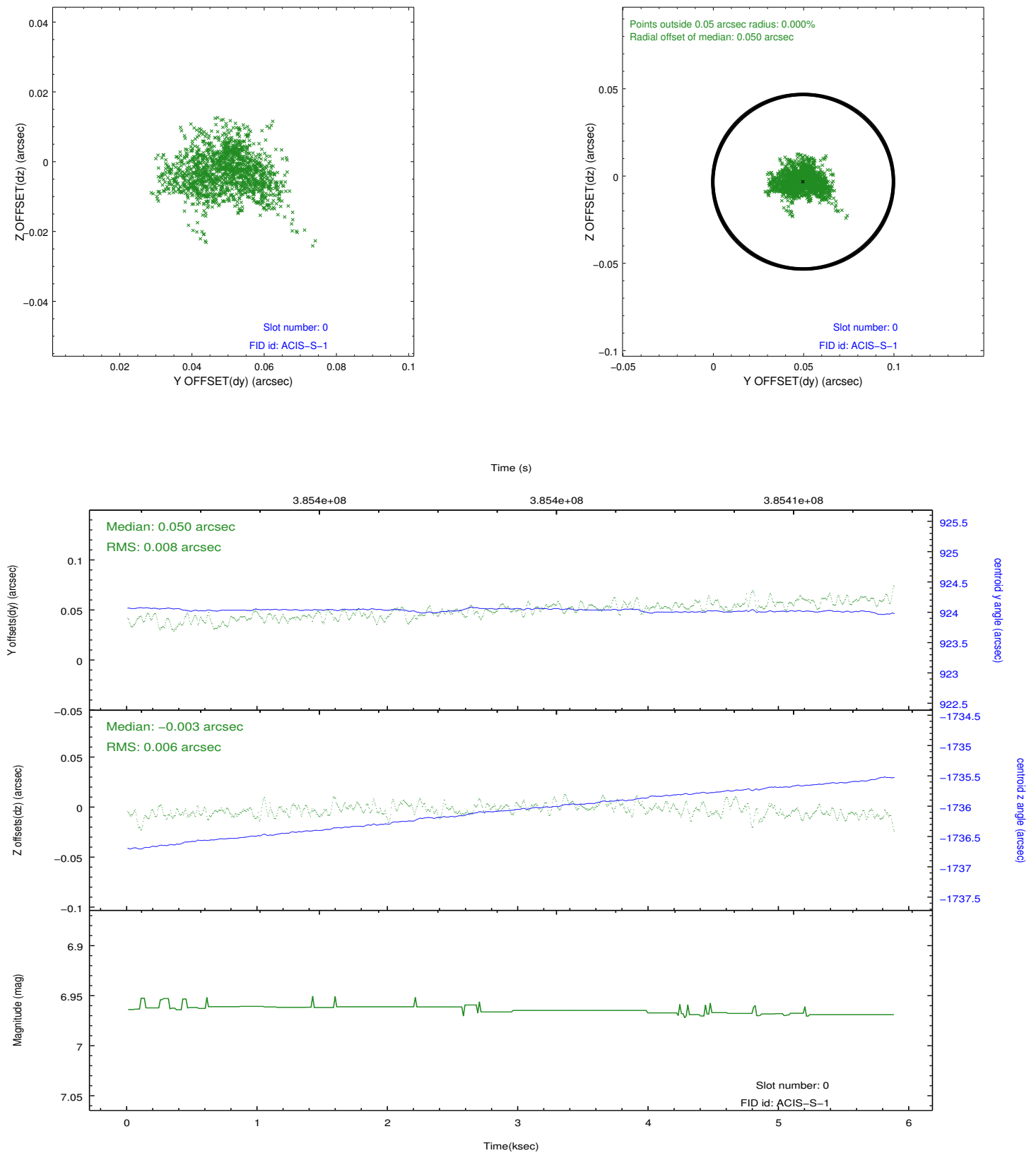


2.4.5 Slot 7

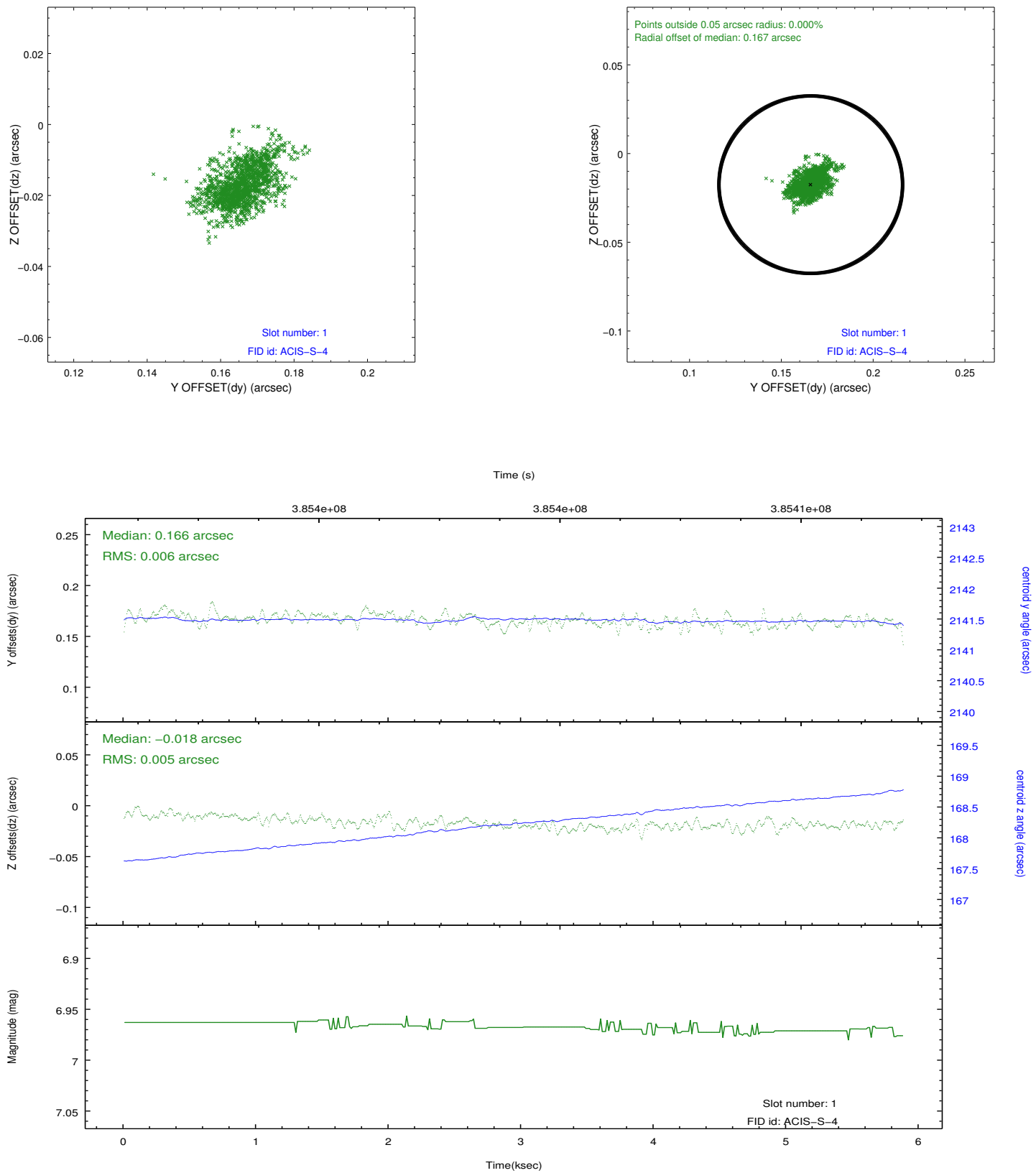


2.5 FID Slots

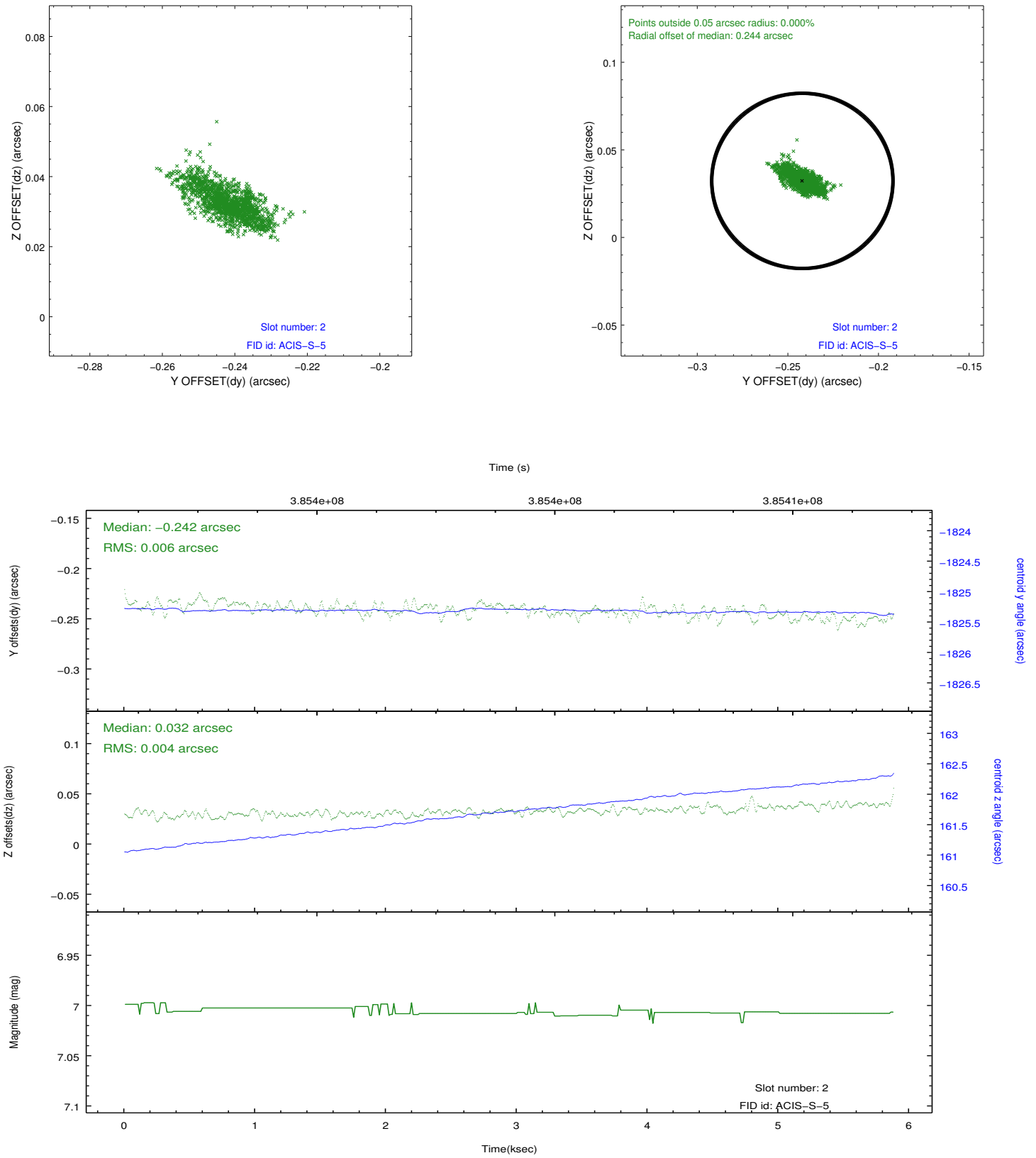
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.06.28 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 5.8751999781728 |

A.2 Comments