

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5726 - L2 Version 4
Chandra X-Ray Center

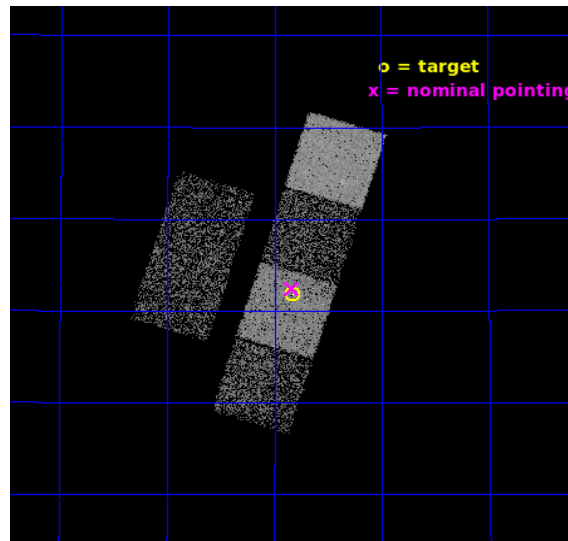
L2 Processing Date : Oct 5 2020

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1 Front

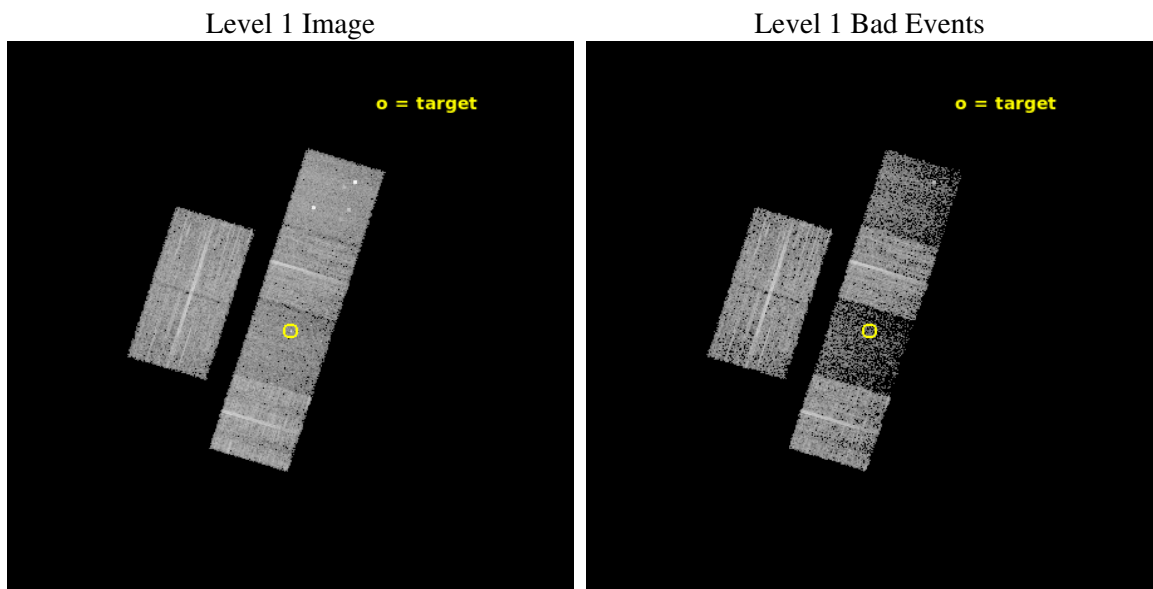
| | | |
|----------|--|---|
| seq_num | 701148 | Sequence number |
| obs_id | 5726 | Observation id |
| title | What kind of Jets does Nature make? X-ray characterization of the FIRST Flat Spectrum Sample | Proposal title |
| observer | Dr. Giovanni Fossati | Principal investigator |
| object | FIRST J093949.6+414154 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 144.956667 | Observer's specified target RA [deg] |
| dec_targ | 41.698444 | Observer's specified target Dec [deg] |
| ra_nom | 144.9591606547 | Nominal RA [deg] |
| dec_nom | 41.707233804587 | Nominal Dec [deg] |
| roll_nom | 107.3198186343 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 7171.1999732852 | Sum of GTIs [s] |
| livetime | 7080.3939212452 | Livetime [s] |
| ontime2 | 7171.1999732852 | Sum of GTIs [s] |
| ontime3 | 7171.1999732852 | Sum of GTIs [s] |
| ontime5 | 7171.1999732852 | Sum of GTIs [s] |
| ontime6 | 7171.1999732852 | Sum of GTIs [s] |
| ontime7 | 7171.1999732852 | Sum of GTIs [s] |
| ontime8 | 7171.1999732852 | Sum of GTIs [s] |
| l2events | 37975 | Number of level 2 events |



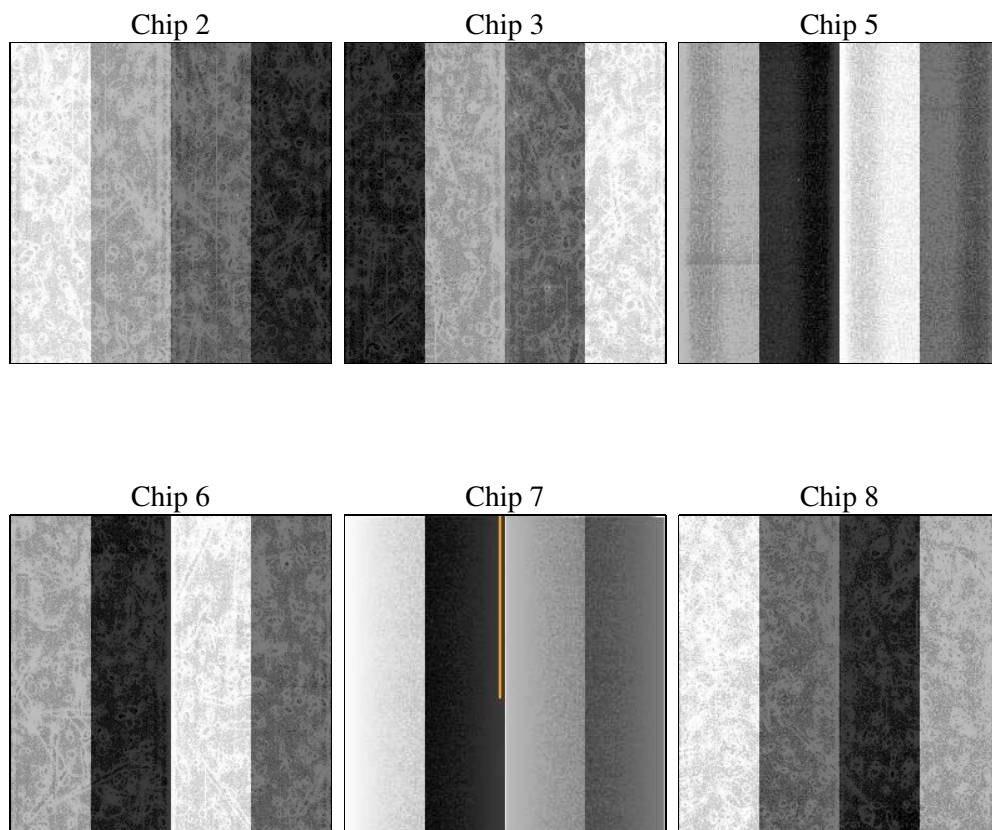
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 7000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 7171.1999732852 | Sum of GTIs [s] |
| caldsver | 4.9.2 | | ontime2 | 7171.1999732852 | Sum of GTIs [s] |
| date | 2020-10-06T02:43:22 | Date and time of file creation | ontime3 | 7171.1999732852 | Sum of GTIs [s] |
| revision | 4 | Processing version of data | ontime5 | 7171.1999732852 | Sum of GTIs [s] |
| | | | ontime6 | 7171.1999732852 | Sum of GTIs [s] |
| | | | ontime7 | 7171.1999732852 | Sum of GTIs [s] |
| | | | ontime8 | 7171.1999732852 | Sum of GTIs [s] |
| | | | l1events | 246751 | Number of level 1 events |

2.1.4 Events

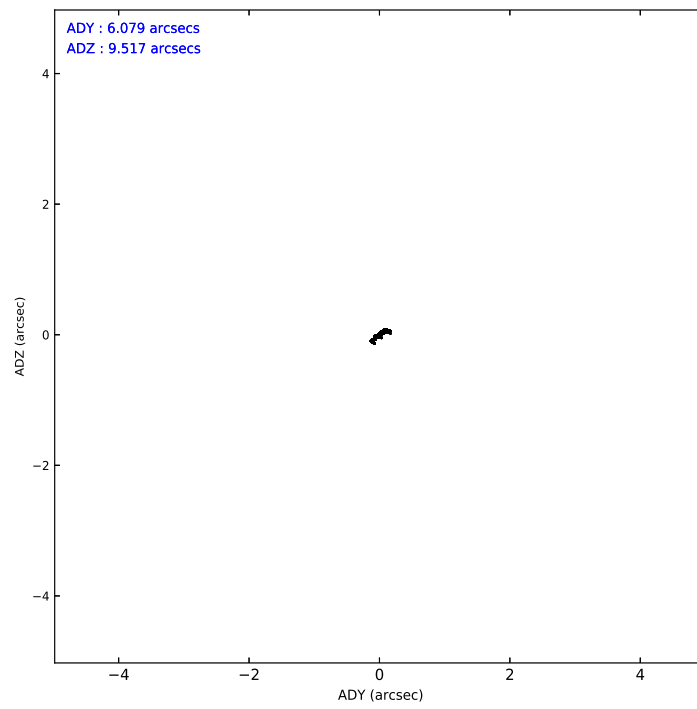
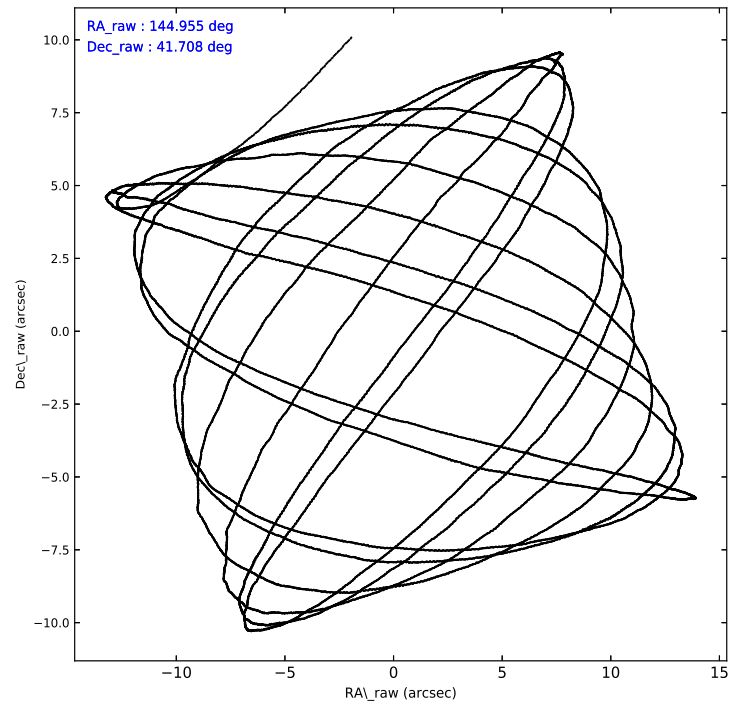
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 46501 | 40986 | 40588 | 42959 | 25254 | 50463 |
| rejected events | 43514 | 38162 | 20241 | 39861 | 13385 | 40397 |
| rejected % | 93% | 93% | 49% | 92% | 53% | 80% |

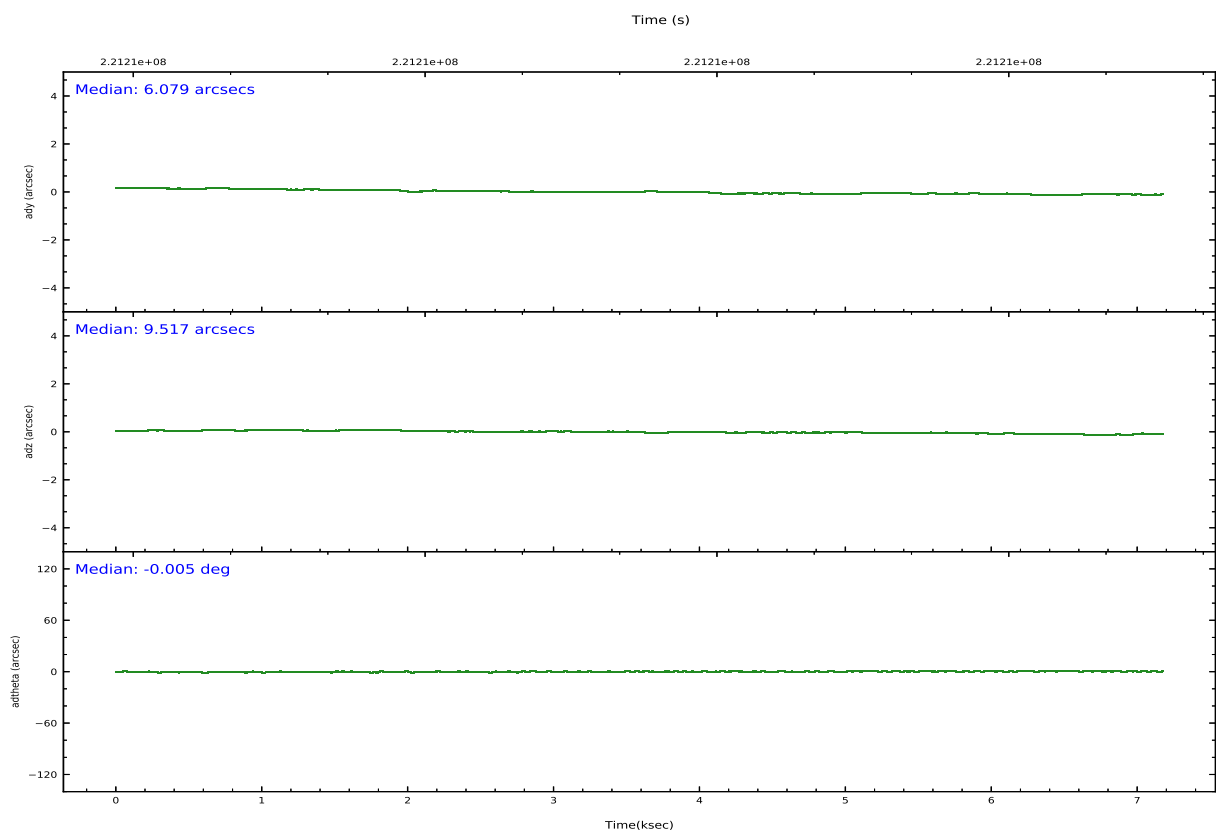
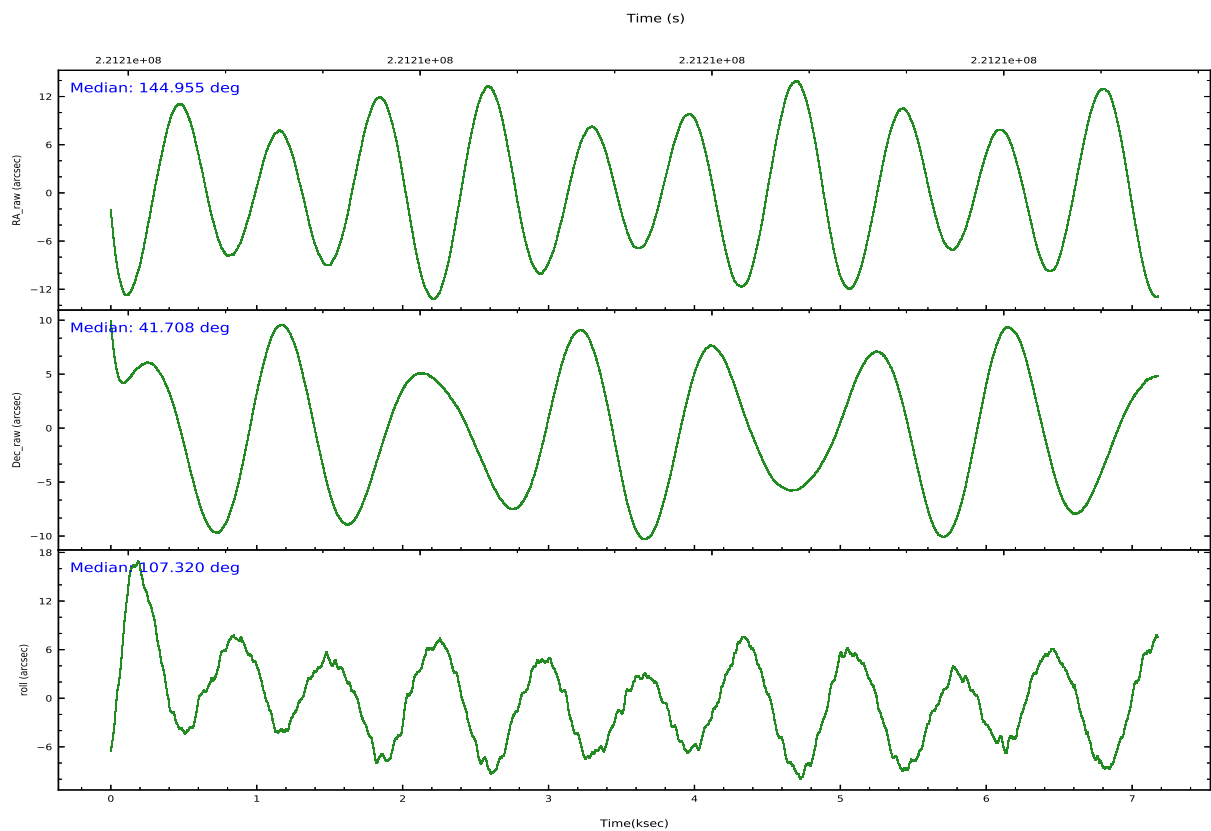
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 1444 | 1473 | 5011 | 1545 | 1940 | 3581 |
| | 3% | 3% | 12% | 3% | 7% | 7% |
| grade 1 events | 27 | 32 | 284 | 18 | 52 | 41 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 924 | 735 | 7904 | 860 | 3491 | 2909 |
| | 1% | 1% | 19% | 2% | 13% | 5% |
| grade 3 events | 386 | 411 | 1258 | 418 | 1529 | 1323 |
| | 0% | 1% | 3% | 0% | 6% | 2% |
| grade 4 events | 438 | 394 | 1226 | 414 | 1629 | 1274 |
| | 0% | 0% | 3% | 0% | 6% | 2% |
| grade 5 events | 695 | 867 | 3147 | 862 | 2626 | 1468 |
| | 1% | 2% | 7% | 2% | 10% | 2% |
| grade 6 events | 578 | 505 | 10120 | 639 | 6167 | 3389 |
| | 1% | 1% | 24% | 1% | 24% | 6% |
| grade 7 events | 42009 | 36569 | 11638 | 38203 | 7820 | 36478 |
| | 90% | 89% | 28% | 88% | 30% | 72% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| Detector | ACIS-235678 | ACIS-235678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 144.982182 | 144.9591606547 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 41.689843 | 41.707233804587 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 107.140454 | 107.3198186343 | [s] Primary exposure time | 0.000000 | 3.2 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | | | |
| [mm] SIM defocus | 0 | 0.001444936568705701 | | | |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 221208059.184000 | 221206102.64968 | | | |
| Observation start date | 2005-01-04T06:39:55 | 2005-01-04T06:08:22 | | | |
| [s] Observation end time (MET) | 221215059.184000 | 221215958.53763 | | | |
| Observation end date | 2005-01-04T08:36:35 | 2005-01-04T08:52:38 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



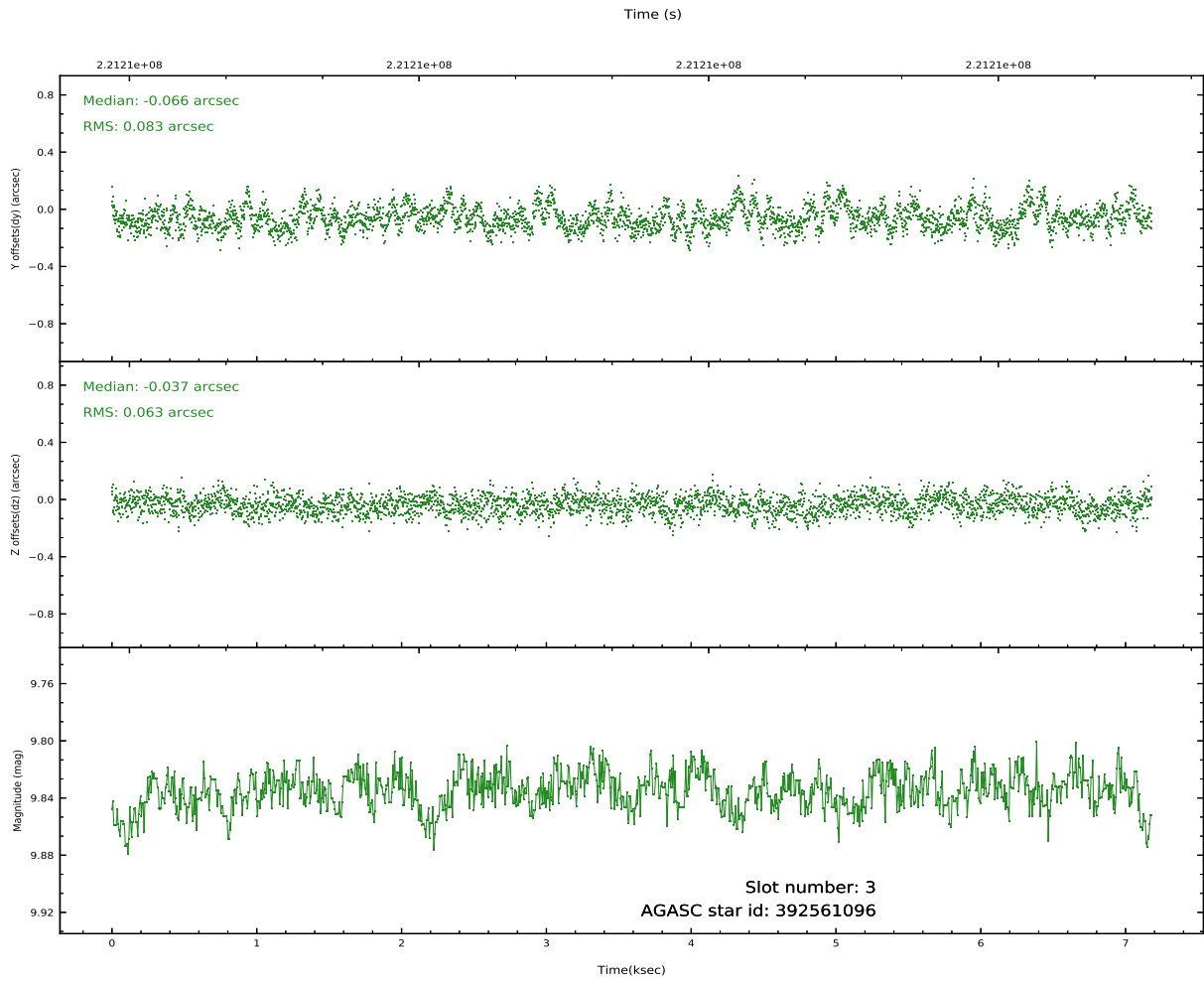
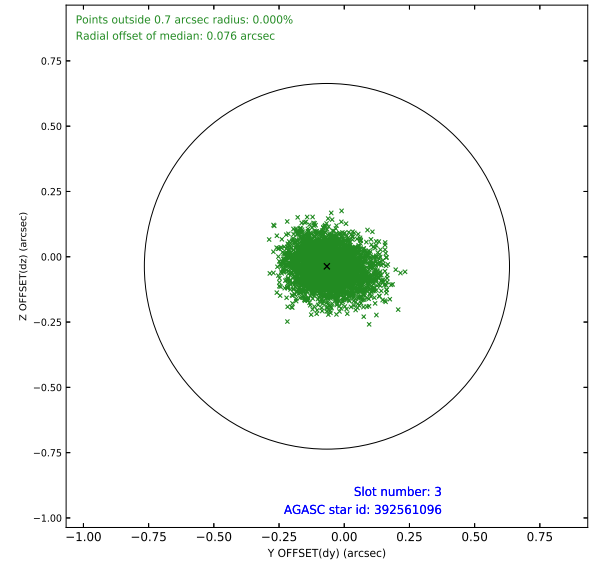
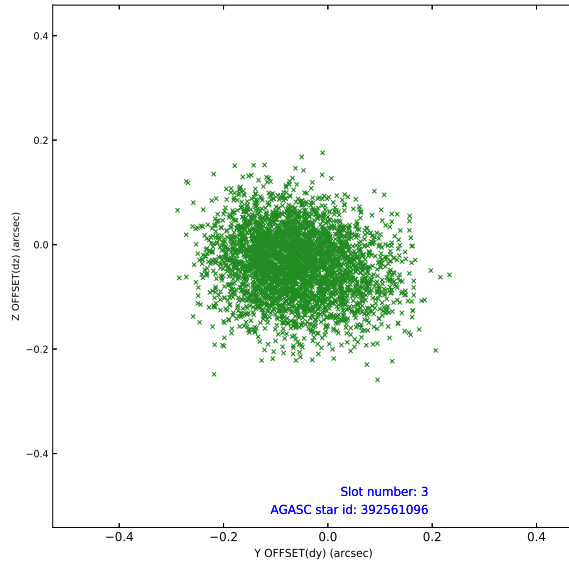


Slot Statistics

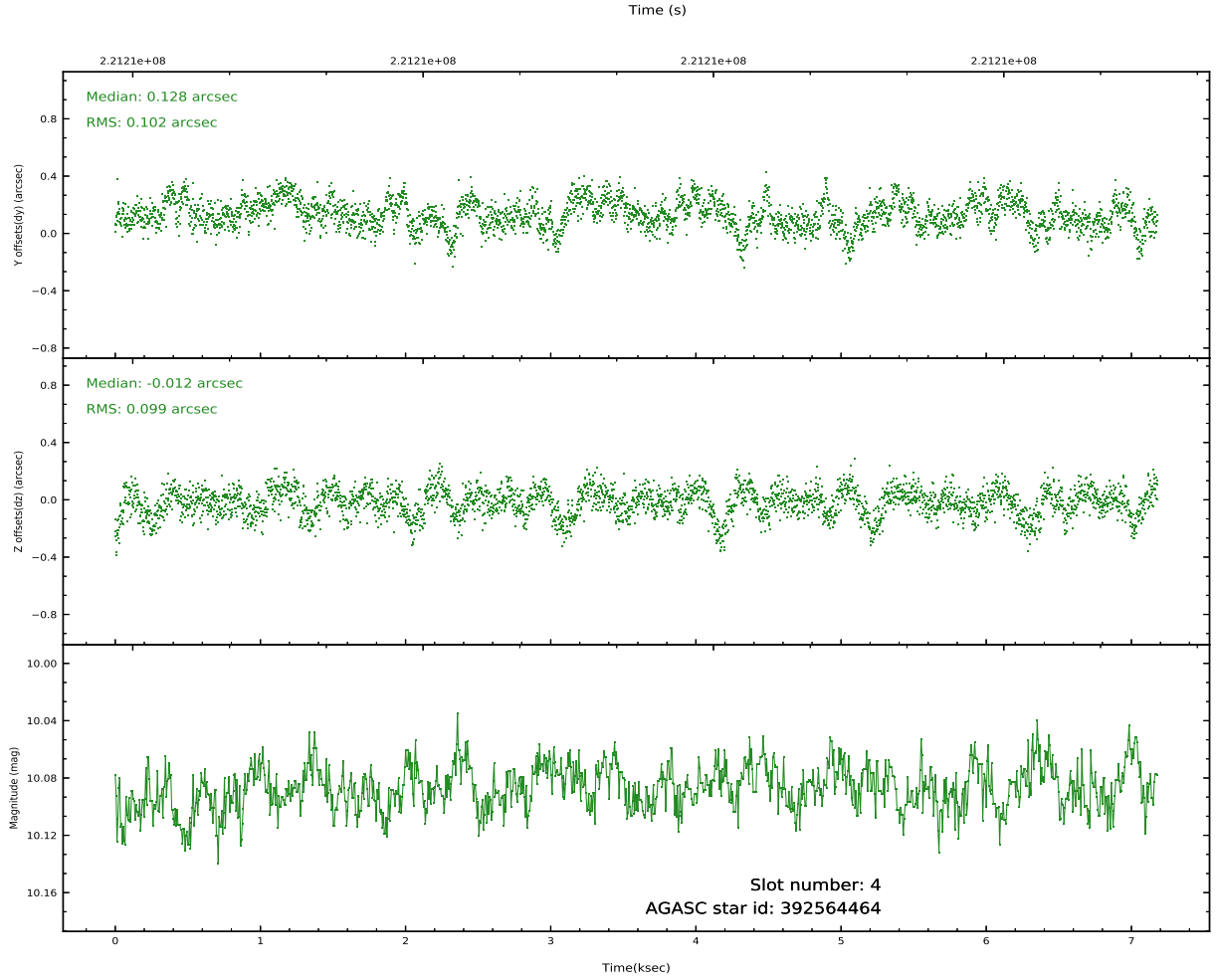
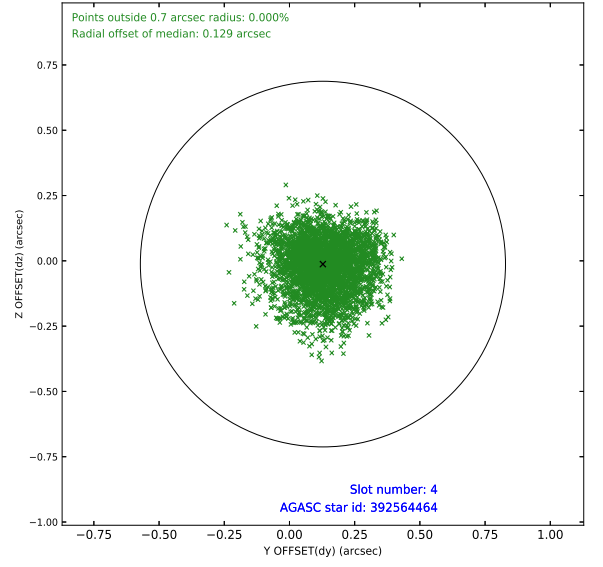
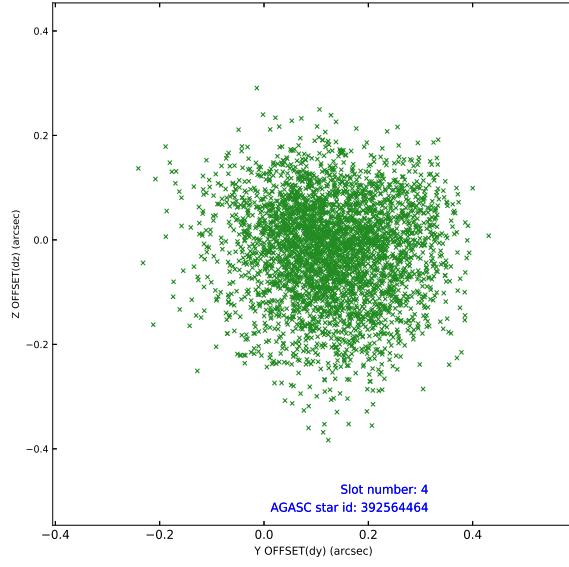
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|-----------|-------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.10 | 1751 | 1.000 | -0.096 | -0.077 | 0.008 | 0.015 | 0.000000 | 0.000000 | -758.86 | -1730 |
| 1 | FID | | ACIS-S-4 | 7.21 | 1751 | 1.000 | 0.167 | 0.067 | 0.007 | 0.013 | 0.000000 | 0.000000 | 2154.27 | 177 |
| 2 | FID | | ACIS-S-5 | 7.23 | 1751 | 1.000 | -0.102 | 0.019 | 0.008 | 0.013 | 0.000000 | 0.000000 | -1810.72 | 171 |
| 3 | GUIDE | used | 392561096 | 9.83 | 3502 | 1.000 | -0.066 | -0.037 | 0.110 | 0.184 | 143.974322 | 41.994916 | 1859.11 | 2248 |
| 4 | GUIDE | used | 392564464 | 10.09 | 3501 | 1.000 | 0.128 | -0.012 | 0.153 | 0.245 | 144.802508 | 41.190441 | -1573.59 | 995 |
| 5 | GUIDE | used | 392564728 | 8.01 | 3501 | 1.000 | -0.041 | 0.019 | 0.069 | 0.123 | 144.927557 | 42.064957 | 1332.81 | -258 |
| 6 | GUIDE | used | 392568728 | 8.91 | 3501 | 1.000 | -0.119 | 0.047 | 0.091 | 0.142 | 144.864302 | 42.285874 | 2143.25 | -332 |
| 7 | GUIDE | used | 392571296 | 10.71 | 3498 | 1.000 | 0.094 | -0.010 | 0.211 | 0.363 | 144.839482 | 41.129508 | -1812.74 | 964 |

2.4 Star Slots

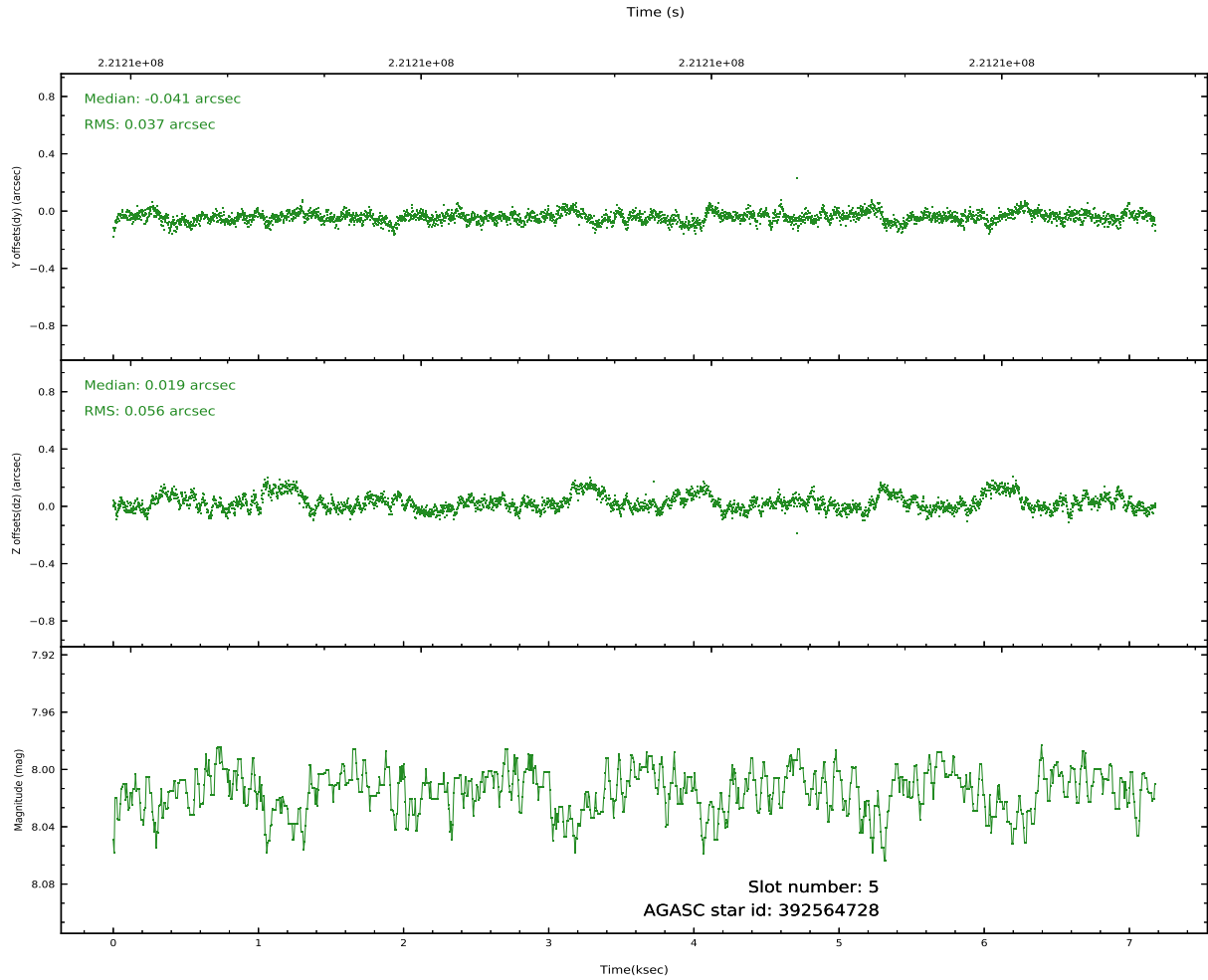
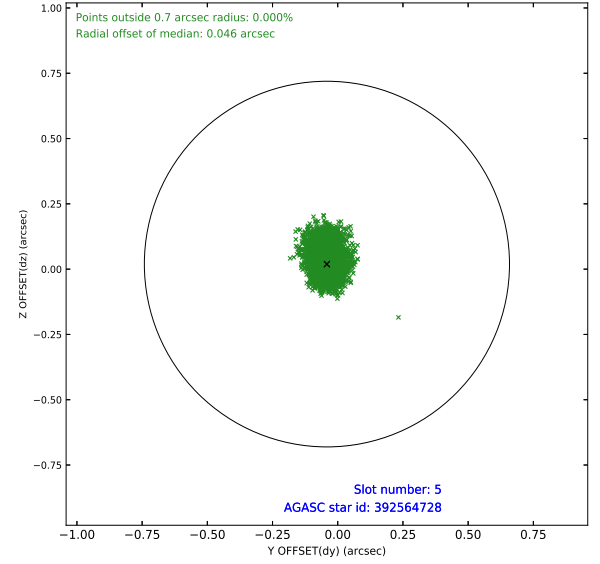
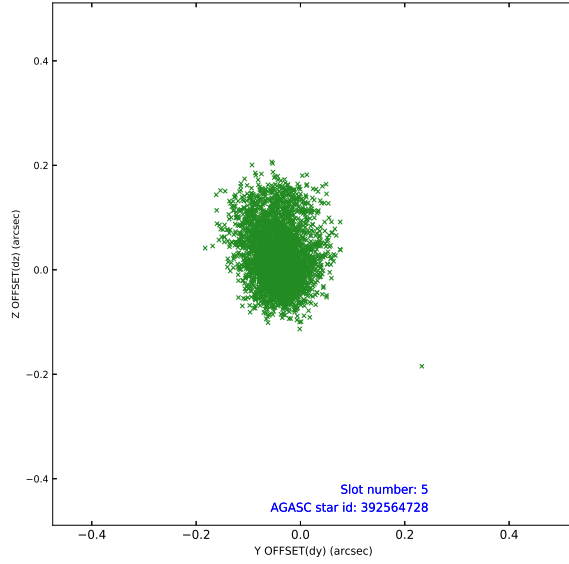
2.4.1 Slot 3



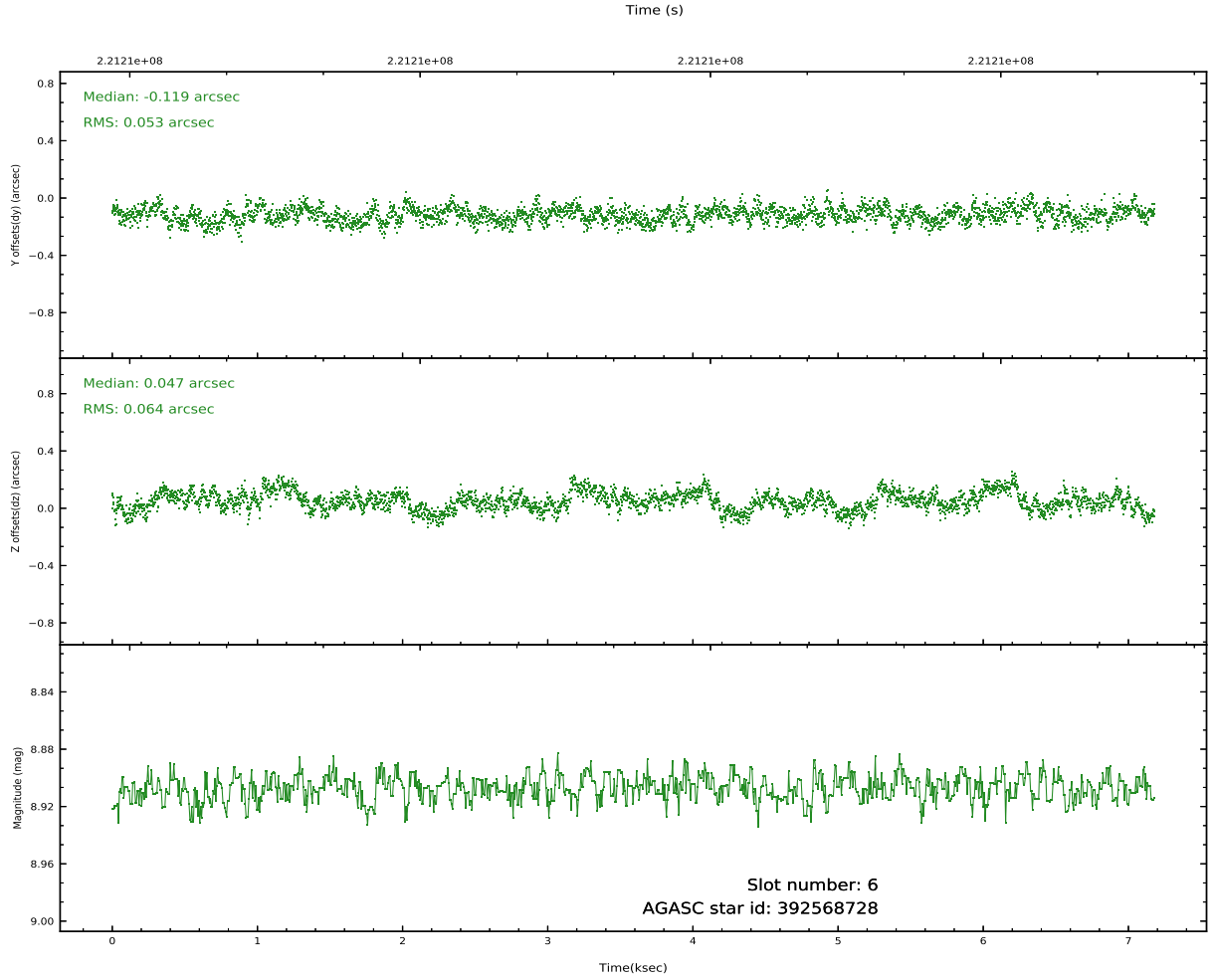
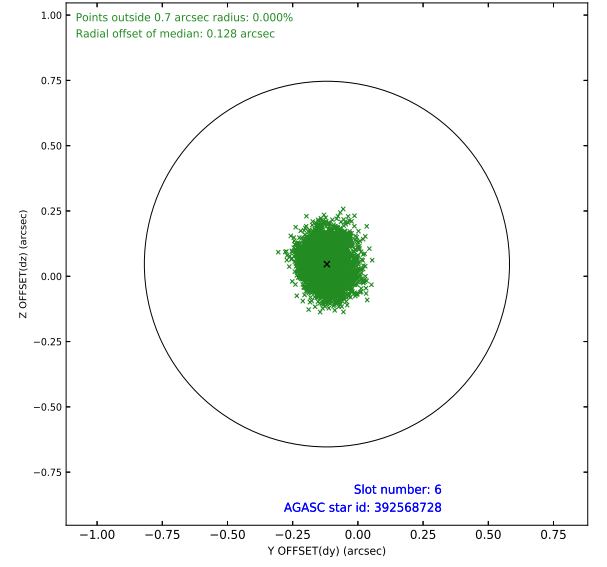
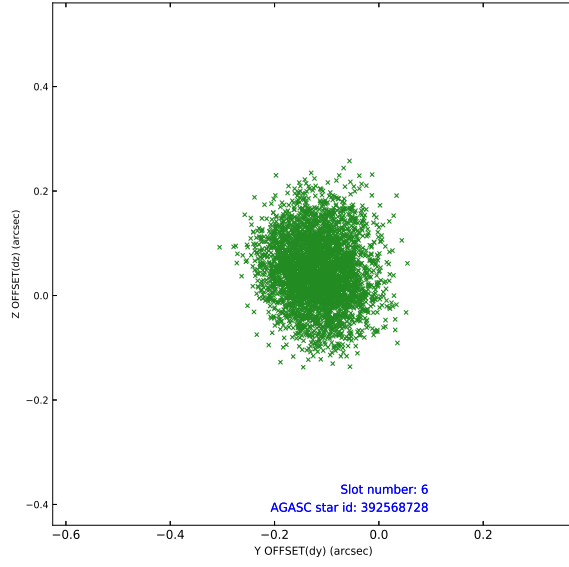
2.4.2 Slot 4



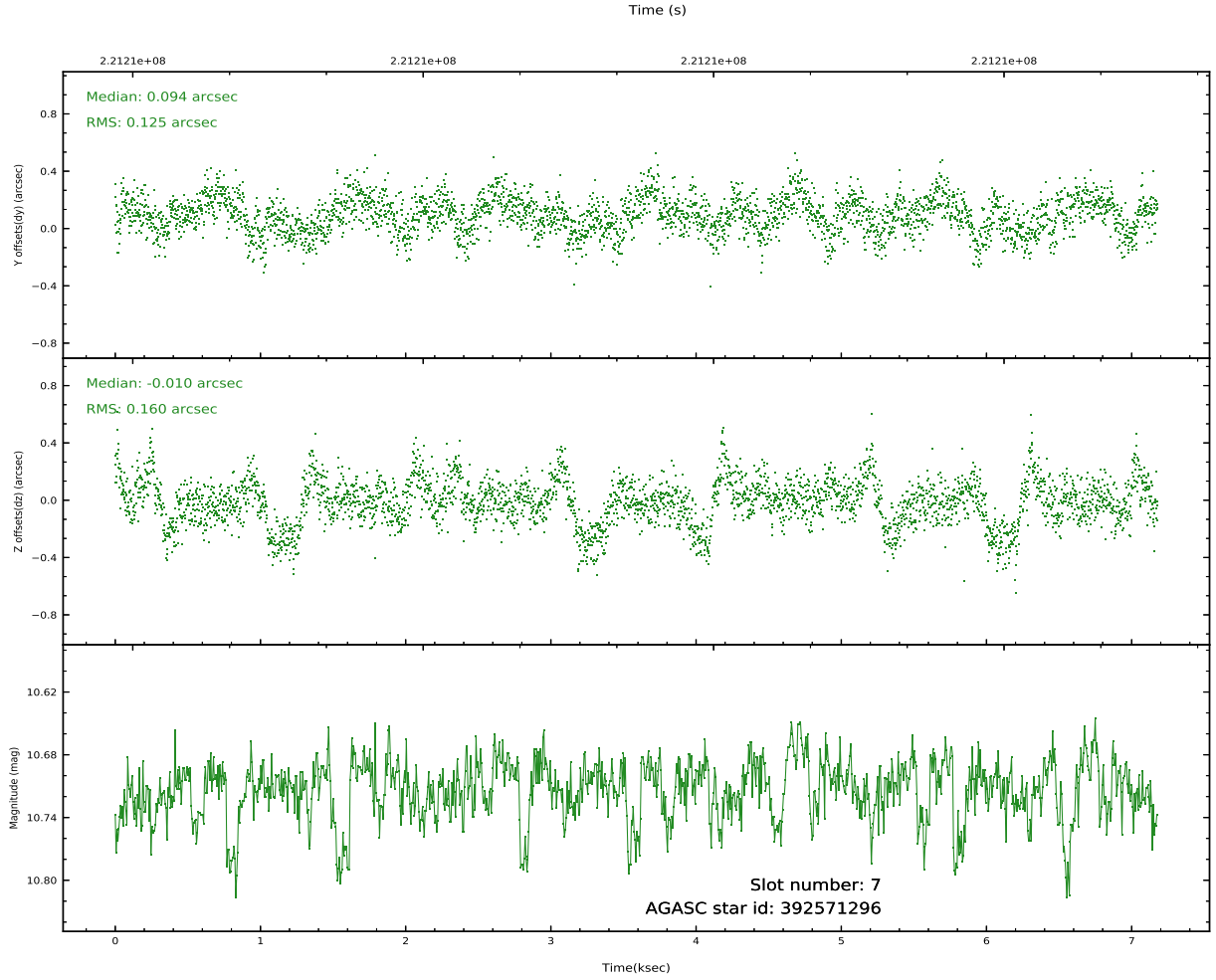
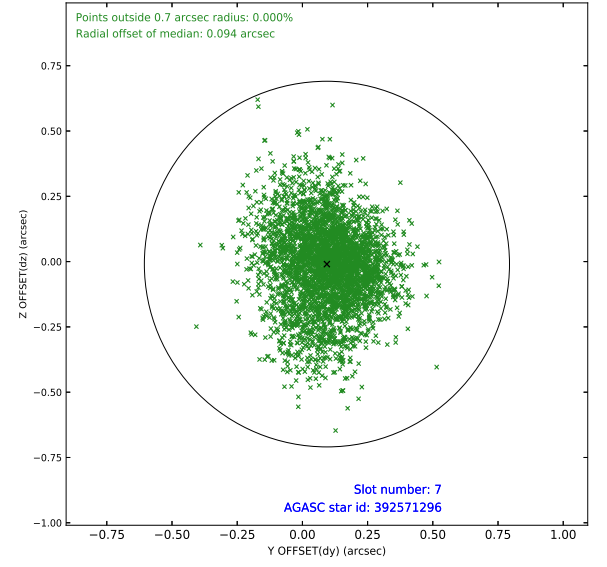
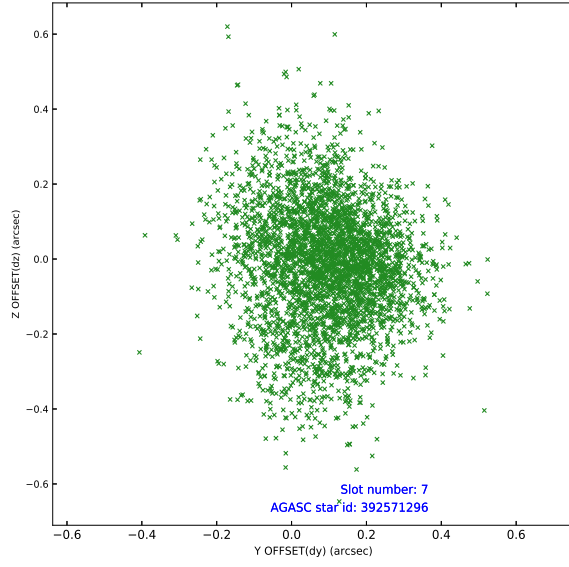
2.4.3 Slot 5



2.4.4 Slot 6

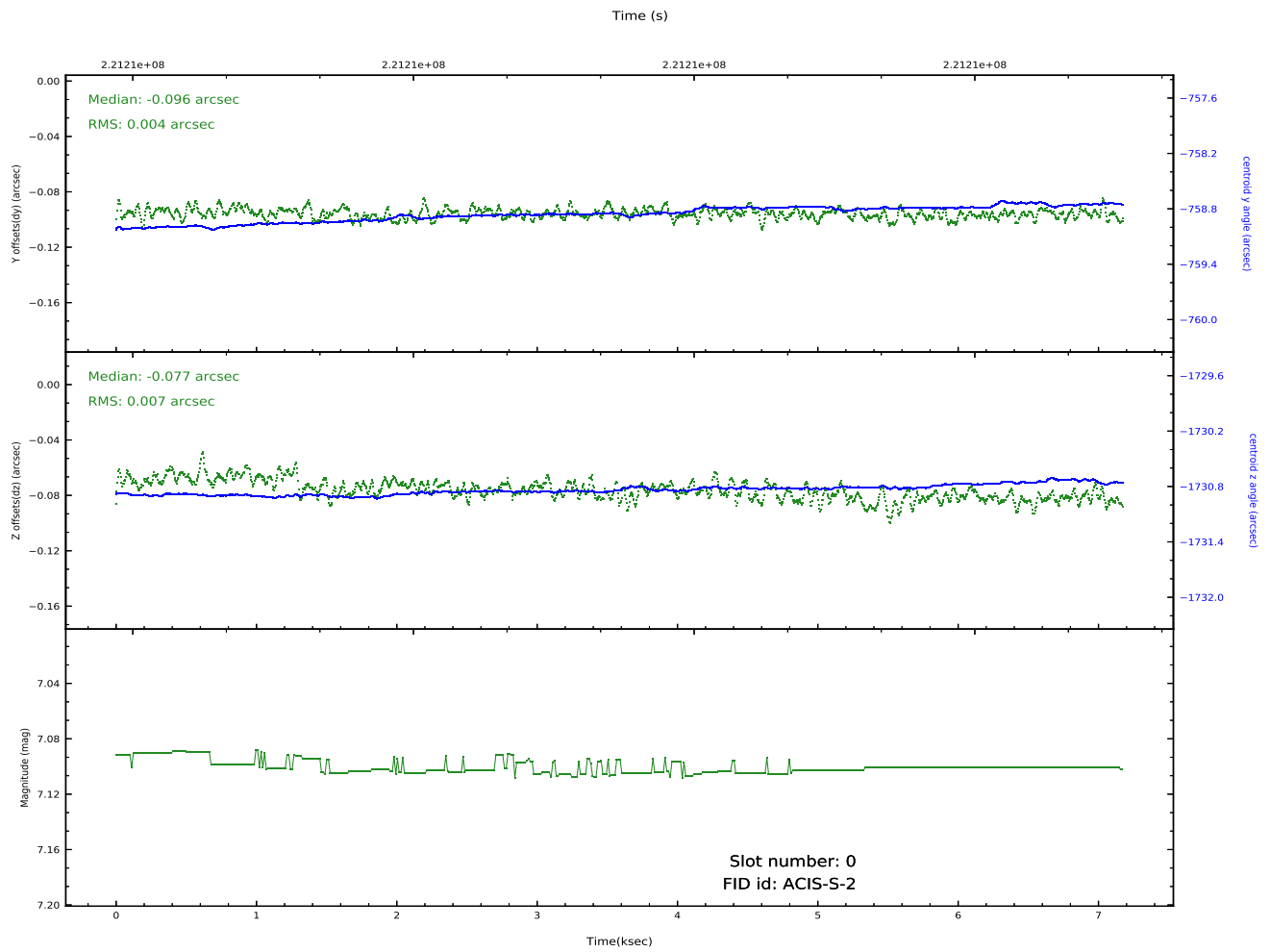
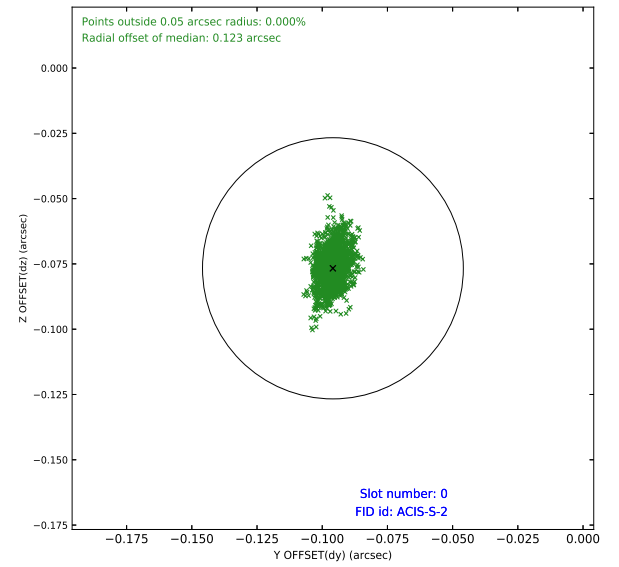
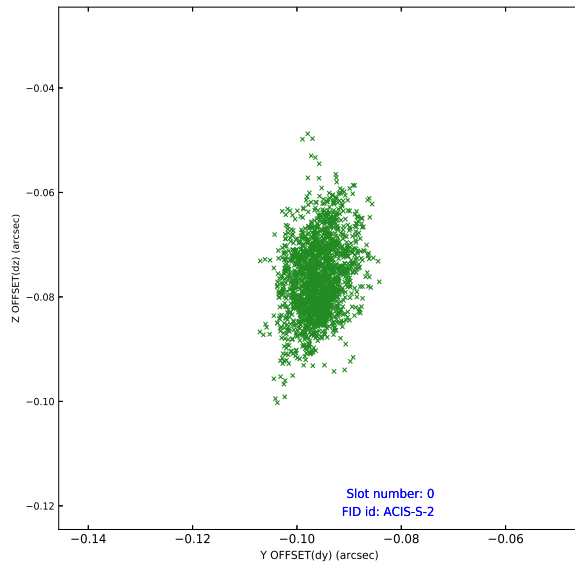


2.4.5 Slot 7

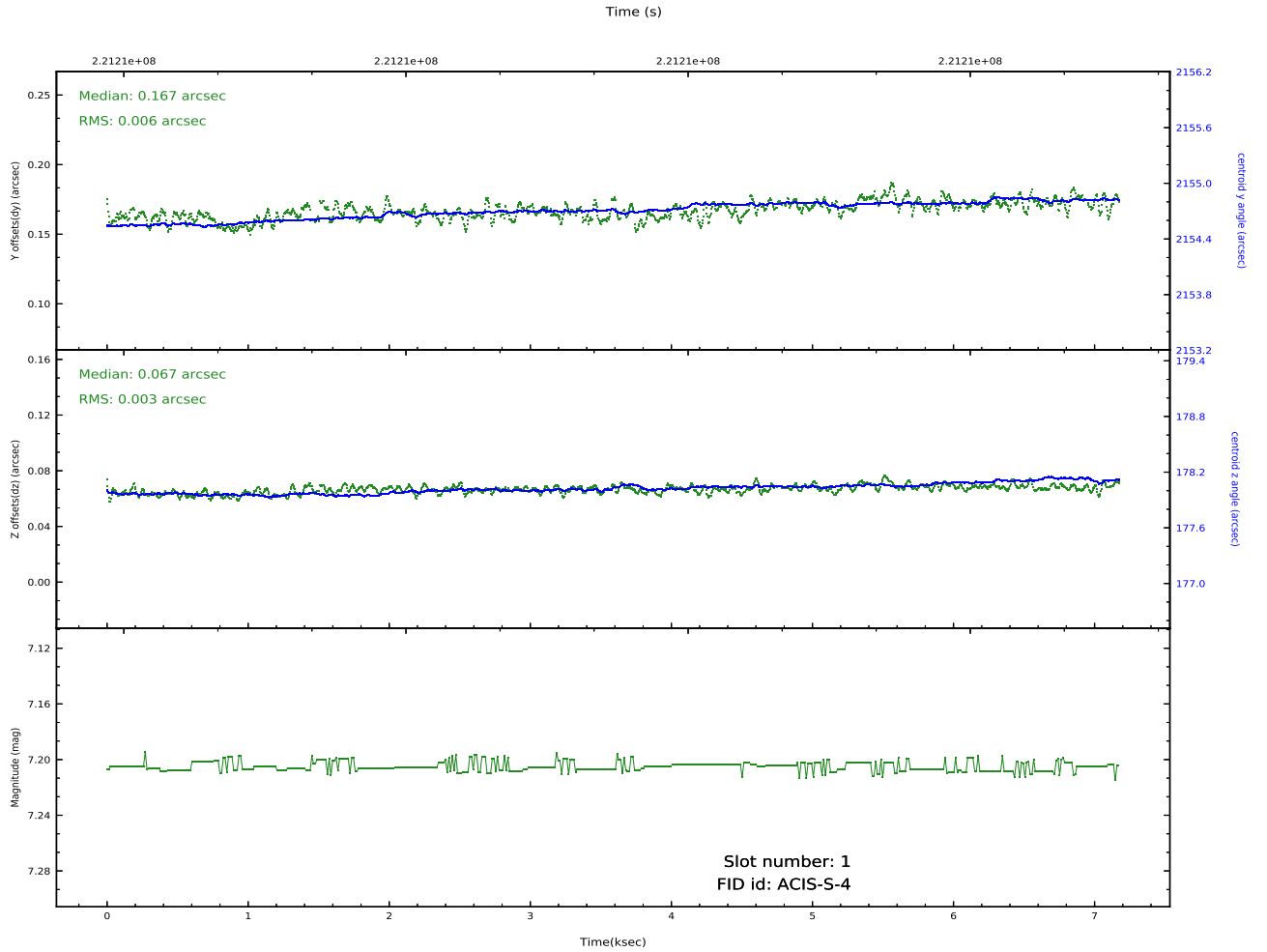
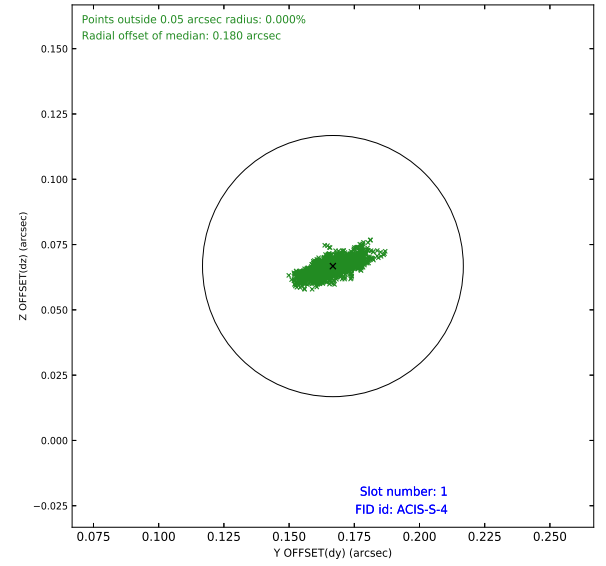
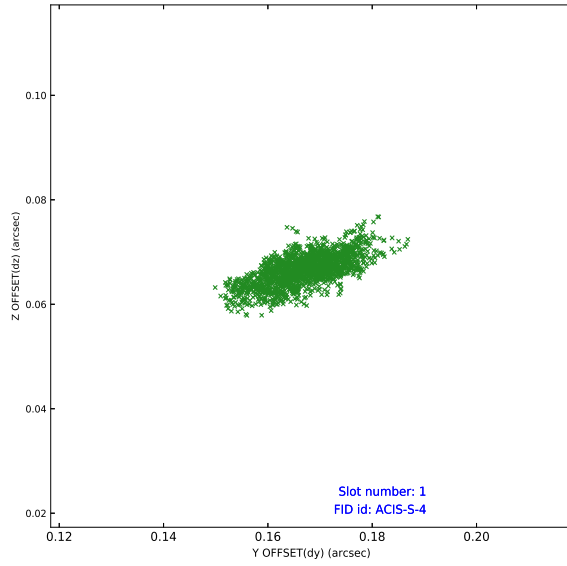


2.5 FID Slots

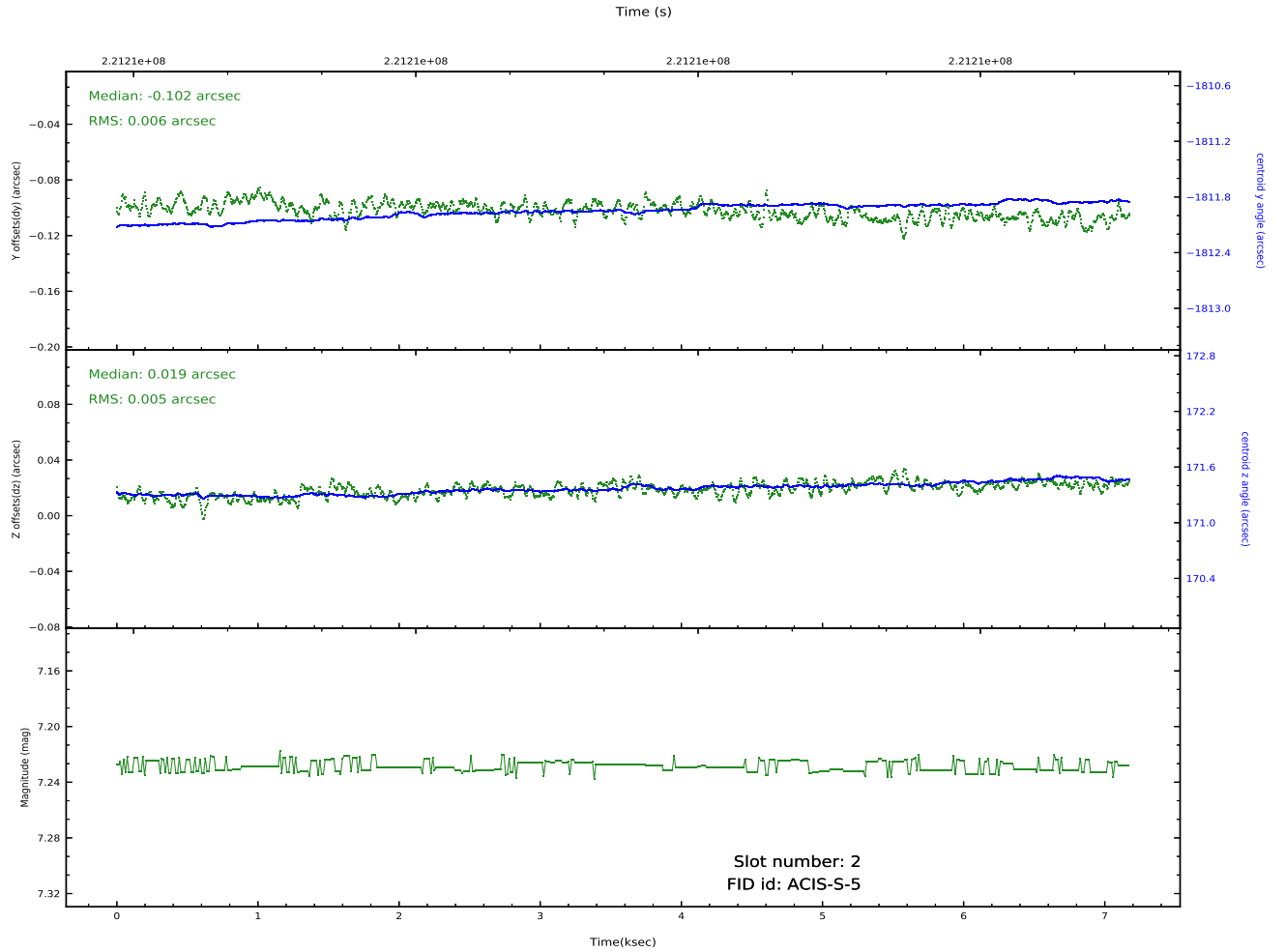
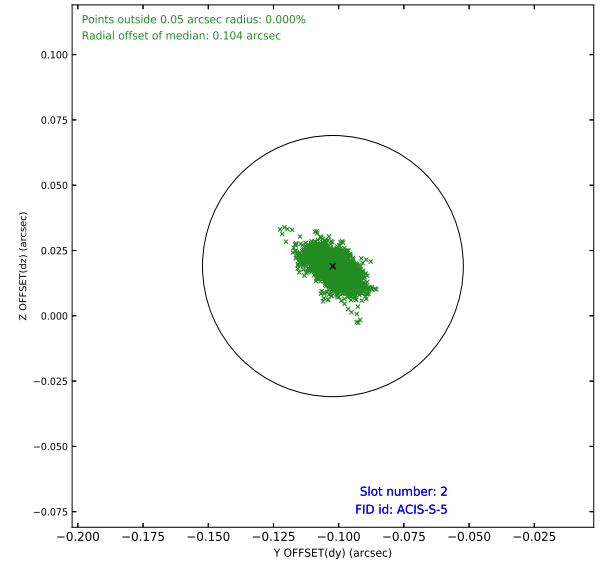
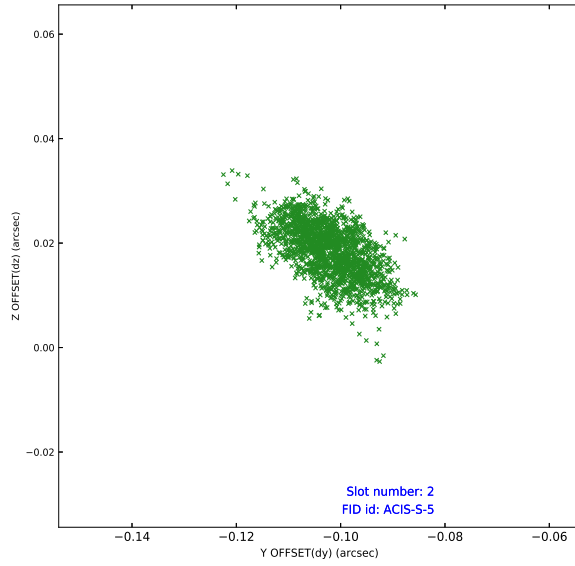
2.5.1 Slot 0



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) | 2020.10.06 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 7.171199 |

A.2 Comments