

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5704 - L2 Version 4
Chandra X-Ray Center

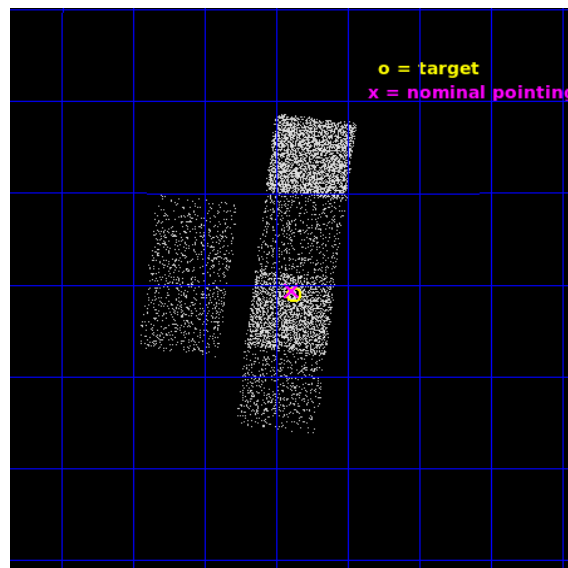
L2 Processing Date : Oct 7 2020

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1 Front

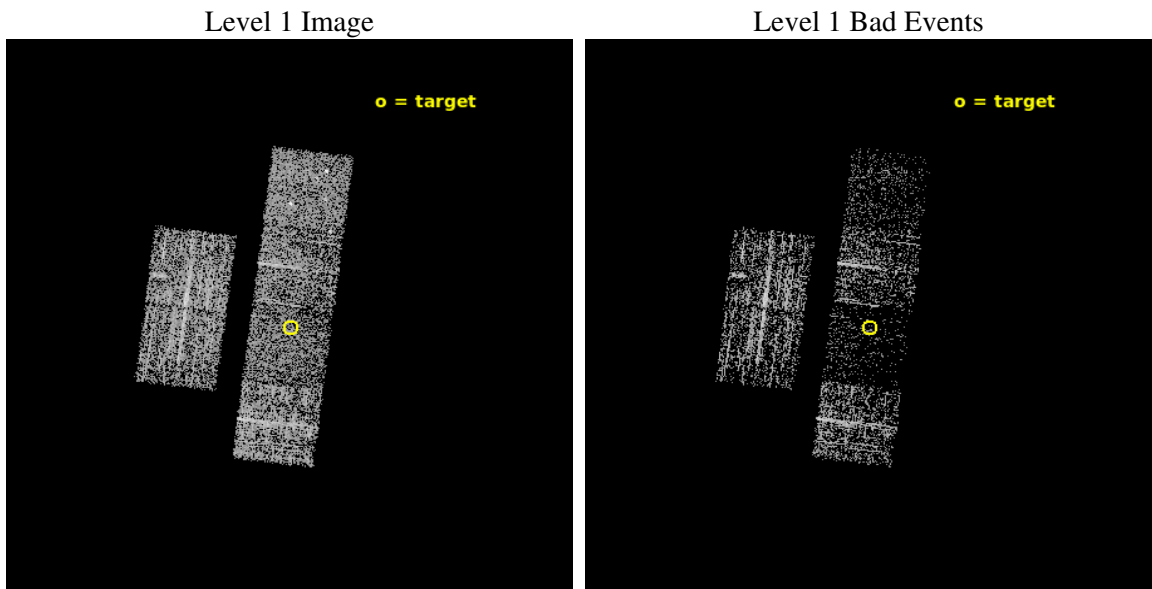
| | | |
|----------|---|---|
| seq_num | 701126 | Sequence number |
| obs_id | 5704 | Observation id |
| title | A Uniform Chandra Survey of the Brightest and Most Extreme SDSS BALQSOs | Proposal title |
| observer | Dr. Scott Anderson | Principal investigator |
| object | SDSS J143752.76+042854.5 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 219.47 | Observer's specified target RA [deg] |
| dec_targ | 4.481806 | Observer's specified target Dec [deg] |
| ra_nom | 219.47333058477 | Nominal RA [deg] |
| dec_nom | 4.4895958234795 | Nominal Dec [deg] |
| roll_nom | 97.16069683398 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 1545.5999942422 | Sum of GTIs [s] |
| livetime | 1526.0286764665 | Livetime [s] |
| ontime2 | 1545.5999942422 | Sum of GTIs [s] |
| ontime3 | 1545.5999942422 | Sum of GTIs [s] |
| ontime5 | 1545.5999942422 | Sum of GTIs [s] |
| ontime6 | 1545.5999942422 | Sum of GTIs [s] |
| ontime7 | 1545.5999942422 | Sum of GTIs [s] |
| ontime8 | 1545.5999942422 | Sum of GTIs [s] |
| l2events | 8457 | Number of level 2 events |



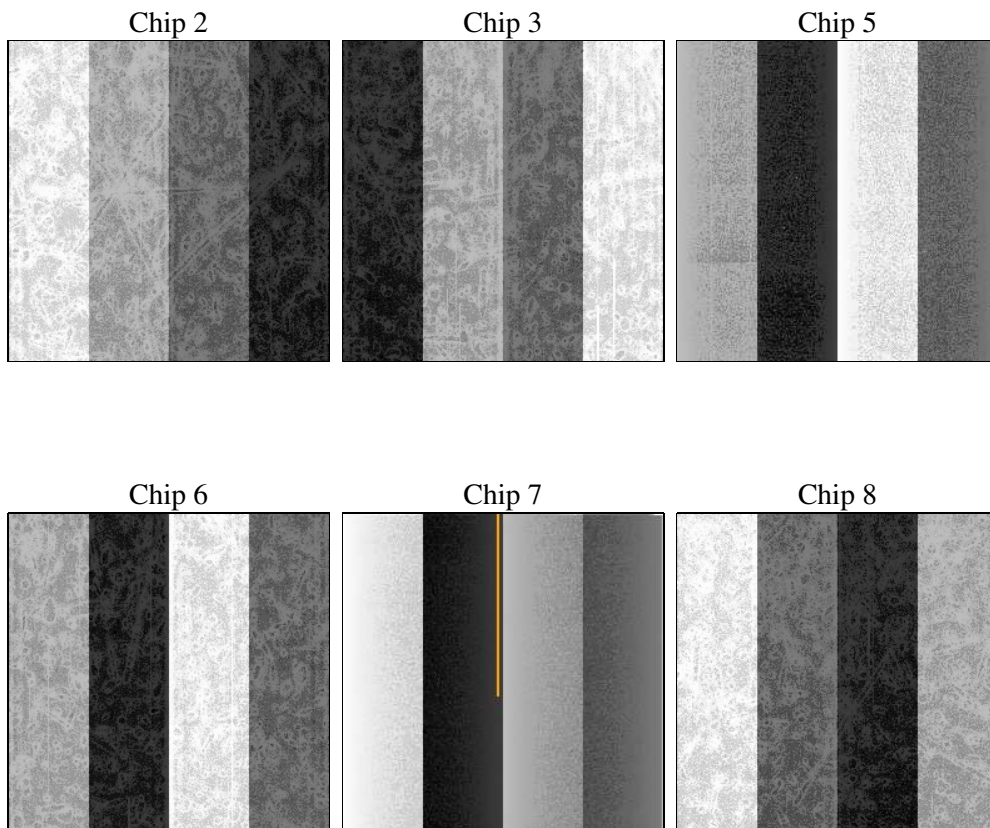
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 1500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 1545.5999942422 | Sum of GTIs [s] |
| caldsver | 4.9.2 | | ontime2 | 1545.5999942422 | Sum of GTIs [s] |
| date | 2020-10-07T10:41:33 | Date and time of file creation | ontime3 | 1545.5999942422 | Sum of GTIs [s] |
| revision | 4 | Processing version of data | ontime5 | 1545.5999942422 | Sum of GTIs [s] |
| | | | ontime6 | 1545.5999942422 | Sum of GTIs [s] |
| | | | ontime7 | 1545.5999942422 | Sum of GTIs [s] |
| | | | ontime8 | 1545.5999942422 | Sum of GTIs [s] |
| | | | l1events | 46273 | Number of level 1 events |

2.1.4 Events

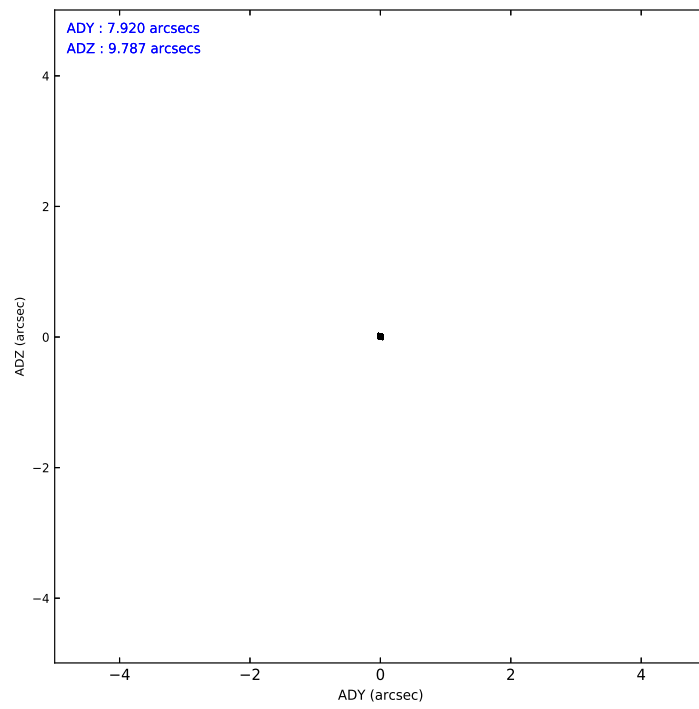
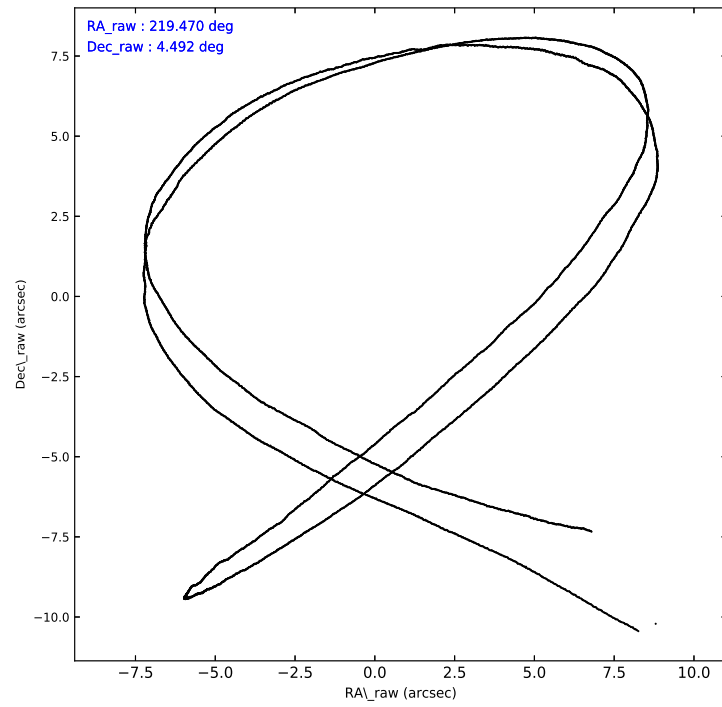
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 9617 | 7911 | 7496 | 7005 | 4602 | 9642 |
| rejected events | 8931 | 7269 | 2785 | 6308 | 1982 | 7597 |
| rejected % | 92% | 91% | 37% | 90% | 43% | 78% |

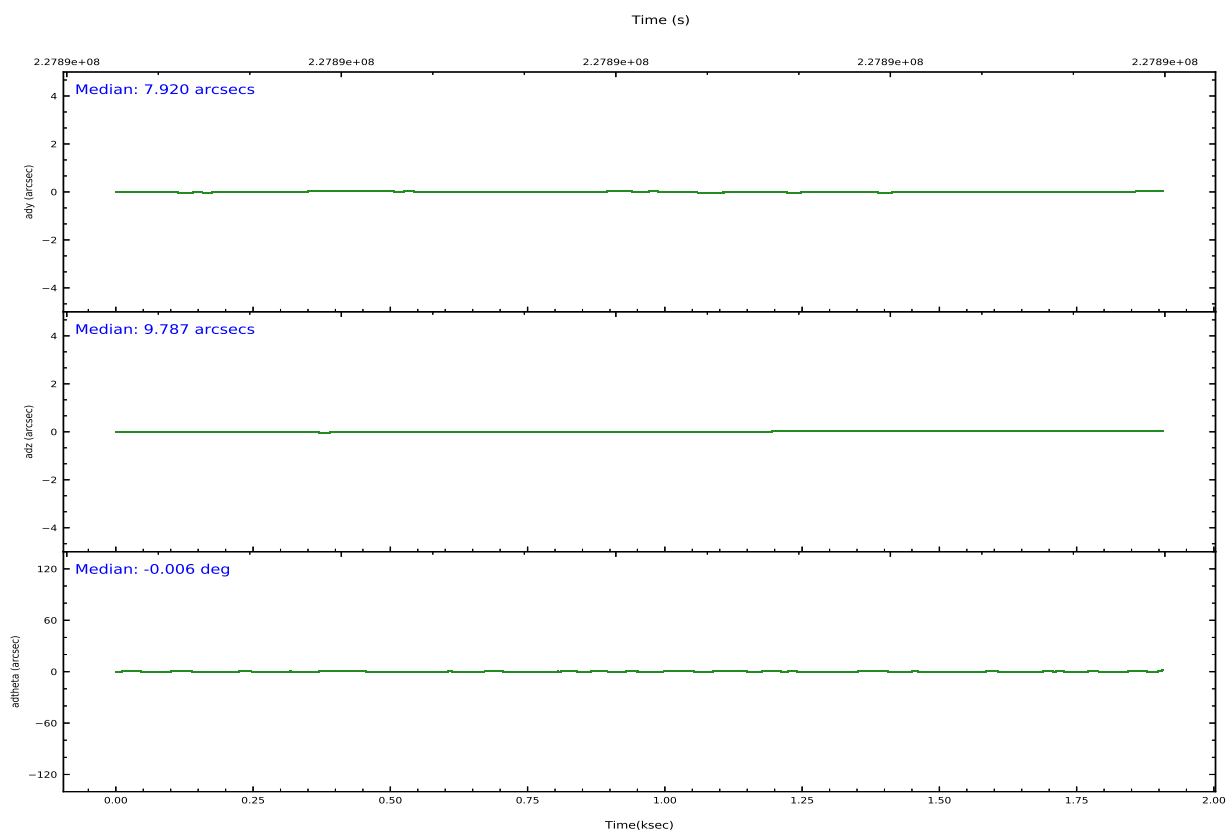
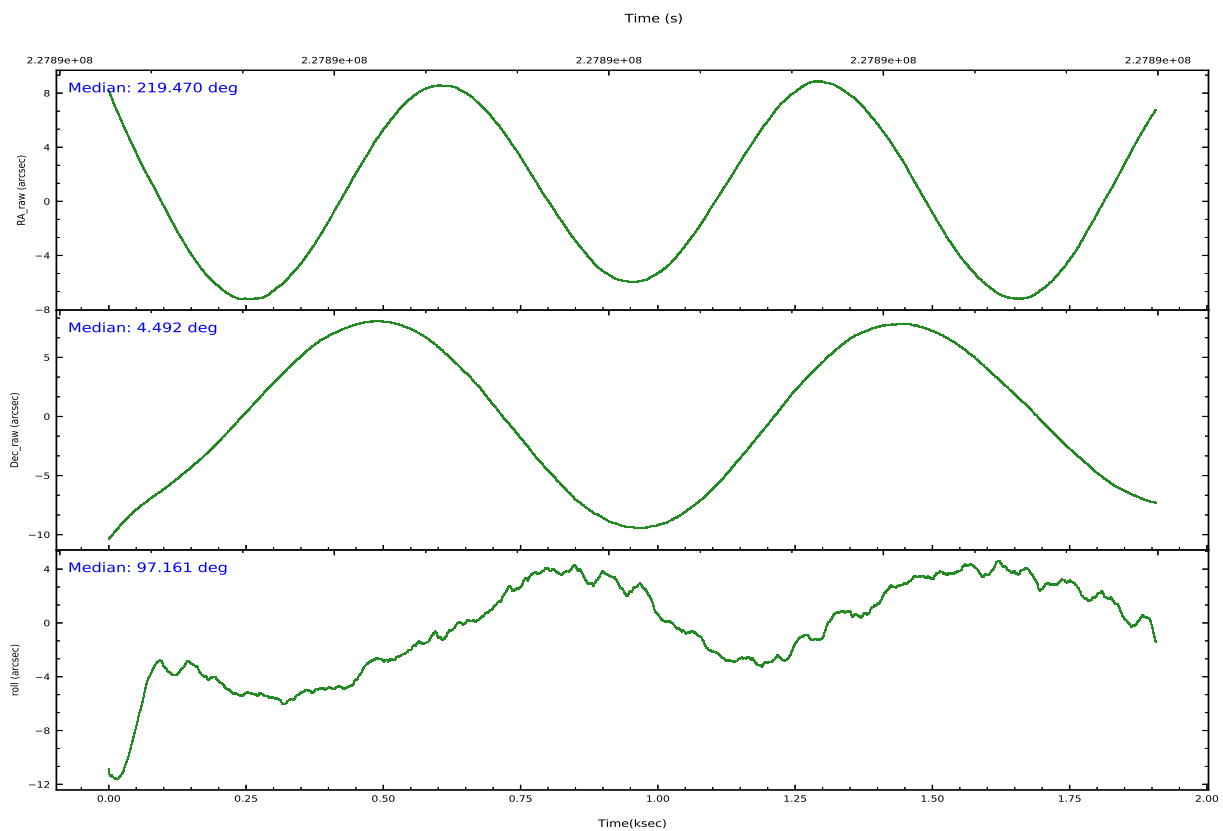
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 277 | 271 | 1013 | 291 | 355 | 597 |
| | 2% | 3% | 13% | 4% | 7% | 6% |
| grade 1 events | 0 | 3 | 46 | 4 | 10 | 4 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 171 | 124 | 1465 | 143 | 663 | 502 |
| | 1% | 1% | 19% | 2% | 14% | 5% |
| grade 3 events | 81 | 74 | 231 | 82 | 242 | 262 |
| | 0% | 0% | 3% | 1% | 5% | 2% |
| grade 4 events | 62 | 75 | 225 | 81 | 283 | 211 |
| | 0% | 0% | 3% | 1% | 6% | 2% |
| grade 5 events | 120 | 146 | 610 | 152 | 480 | 252 |
| | 1% | 1% | 8% | 2% | 10% | 2% |
| grade 6 events | 96 | 102 | 1801 | 103 | 1093 | 503 |
| | 0% | 1% | 24% | 1% | 23% | 5% |
| grade 7 events | 8810 | 7116 | 2105 | 6149 | 1476 | 7311 |
| | 91% | 89% | 28% | 87% | 32% | 75% |

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 | 219.487294 | 219.47333058477 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 4.469988 | 4.4895958234795 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 97.000549 | 97.16069683398 | [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 | -190.145094680475 | | | |
| [mm] SIM translation stage offset | 0 | 0.01257209746719923 | | | |
| [s] Observation start time (MET) | 227891496.184000 | 227890379.077 | | | |
| Observation start date | 2005-03-22T15:10:32 | 2005-03-22T14:52:59 | | | |
| [s] Observation end time (MET) | 227892996.184000 | 227893529.92714 | | | |
| Observation end date | 2005-03-22T15:35:32 | 2005-03-22T15:45:29 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



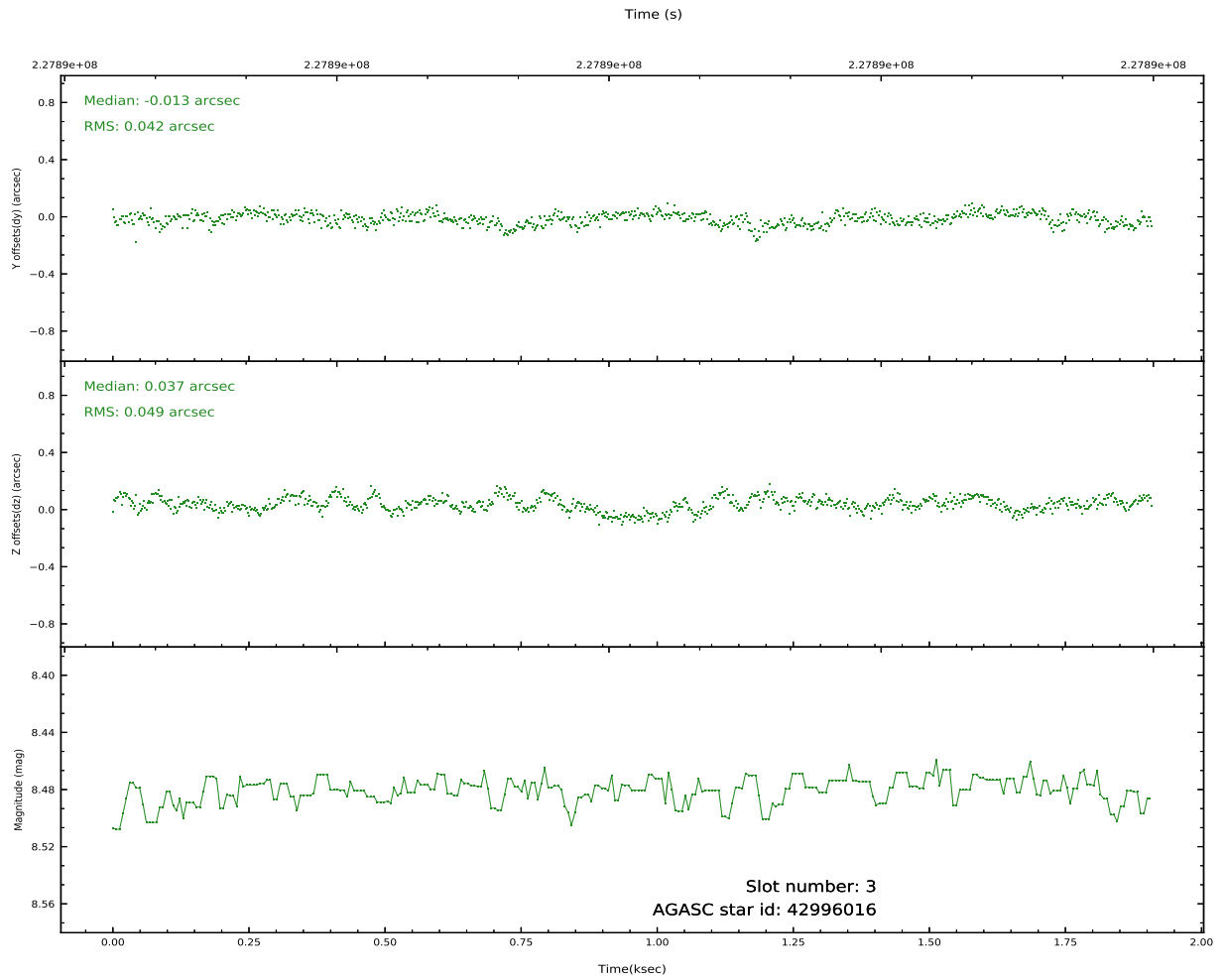
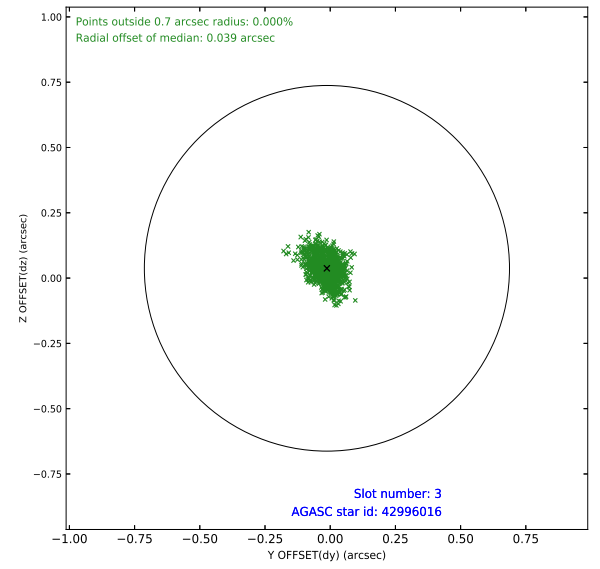
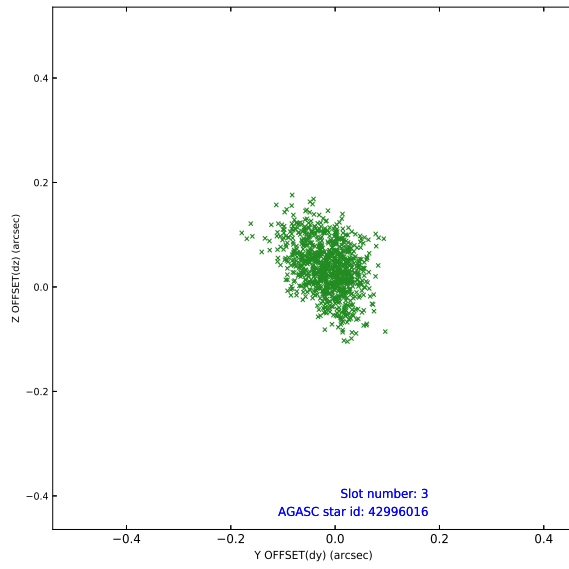


Slot Statistics

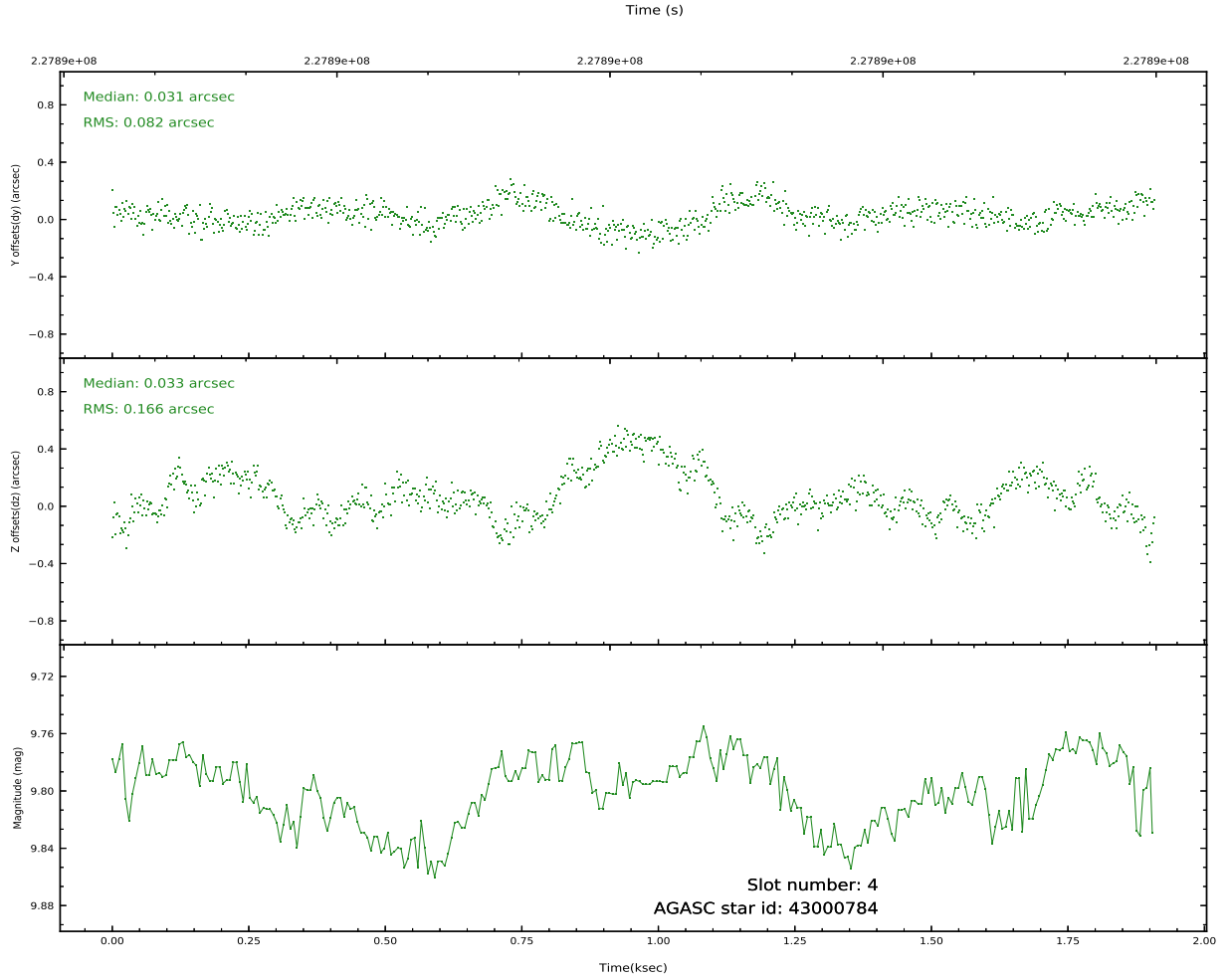
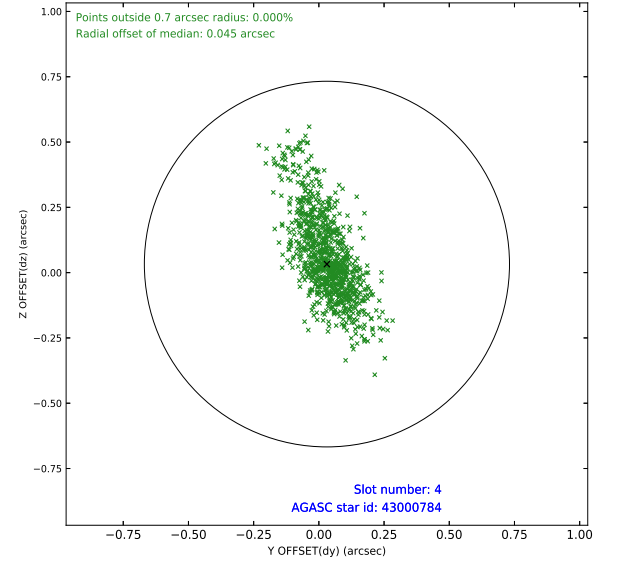
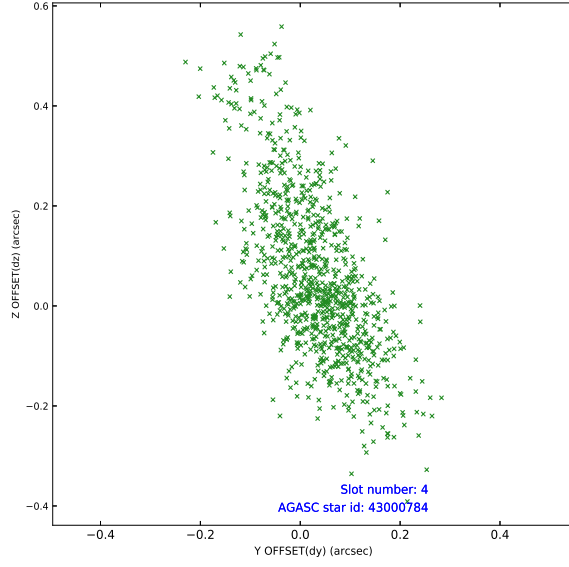
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|----------|------|-------|----------|--------|--------|-------|-------|------------|----------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.10 | 466 | 1.000 | -0.065 | -0.069 | 0.007 | 0.010 | 0.000000 | 0.000000 | -760.69 | -1731 |
| 1 | FID | | ACIS-S-4 | 7.21 | 466 | 1.000 | 0.168 | 0.050 | 0.004 | 0.009 | 0.000000 | 0.000000 | 2151.18 | 174 |
| 2 | FID | | ACIS-S-5 | 7.24 | 466 | 1.000 | -0.133 | 0.028 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1809.26 | 171 |
| 3 | GUIDE | used | 42996016 | 8.48 | 932 | 1.000 | -0.013 | 0.037 | 0.068 | 0.112 | 219.603215 | 4.854192 | 1321.90 | -582 |
| 4 | GUIDE | used | 43000784 | 9.80 | 932 | 1.000 | 0.031 | 0.033 | 0.178 | 0.376 | 219.989925 | 4.620386 | 319.73 | -1857 |
| 5 | GUIDE | used | 43387248 | 9.11 | 930 | 1.000 | 0.033 | 0.008 | 0.089 | 0.142 | 218.877208 | 5.050430 | 2341.44 | 1914 |
| 6 | GUIDE | used | 42994240 | 8.22 | 932 | 1.000 | -0.216 | -0.168 | 0.095 | 0.154 | 219.305733 | 4.467762 | 73.63 | 648 |
| 7 | GUIDE | used | 43006240 | 9.33 | 929 | 1.000 | 0.172 | 0.062 | 0.096 | 0.154 | 219.423959 | 3.924387 | -1921.67 | 464 |

2.4 Star Slots

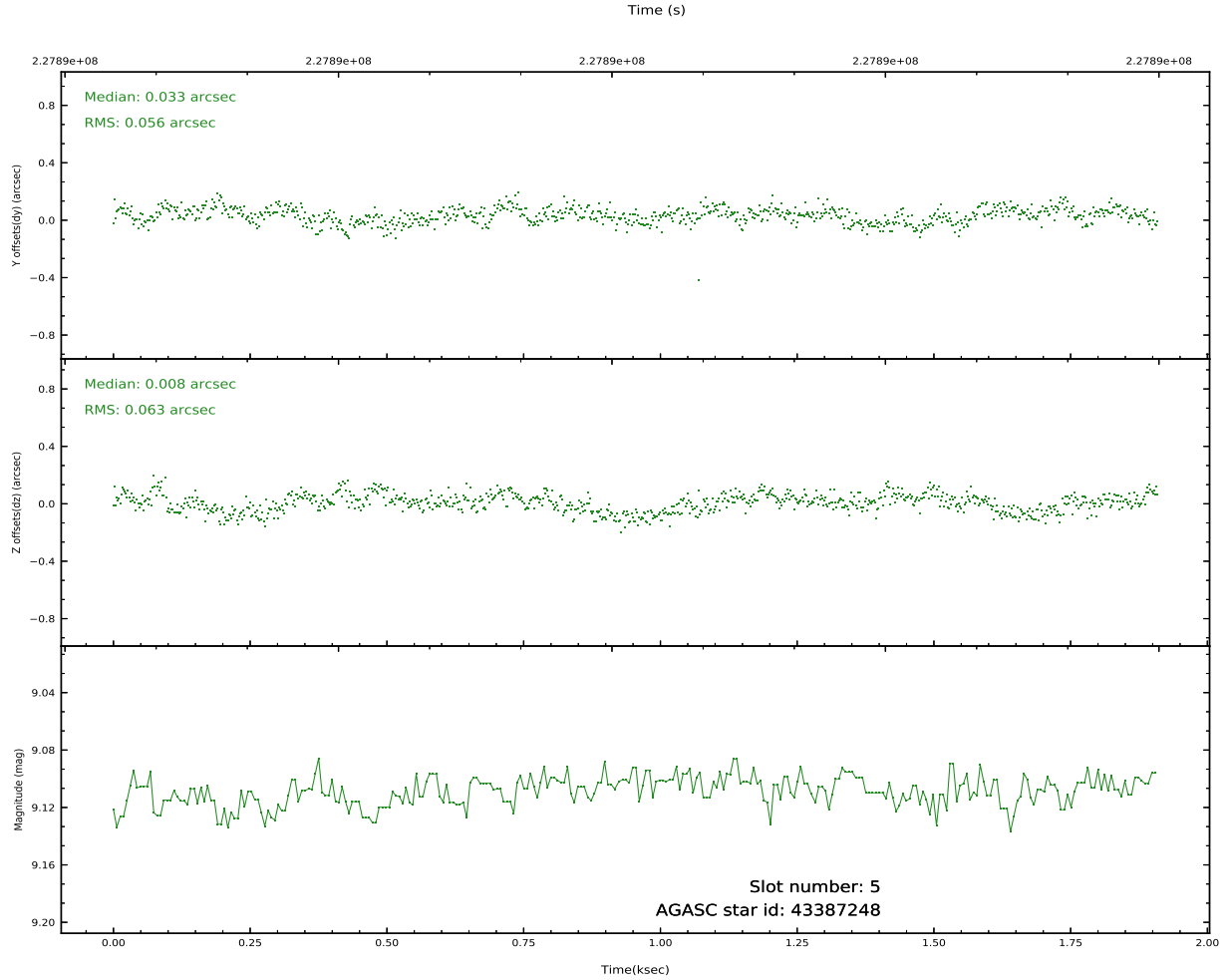
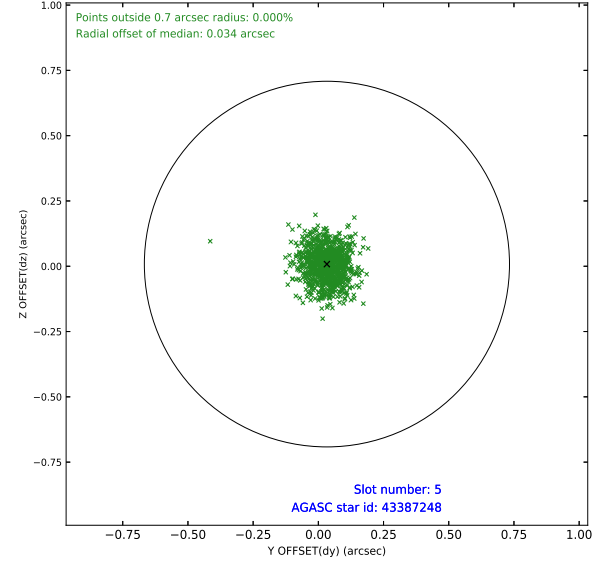
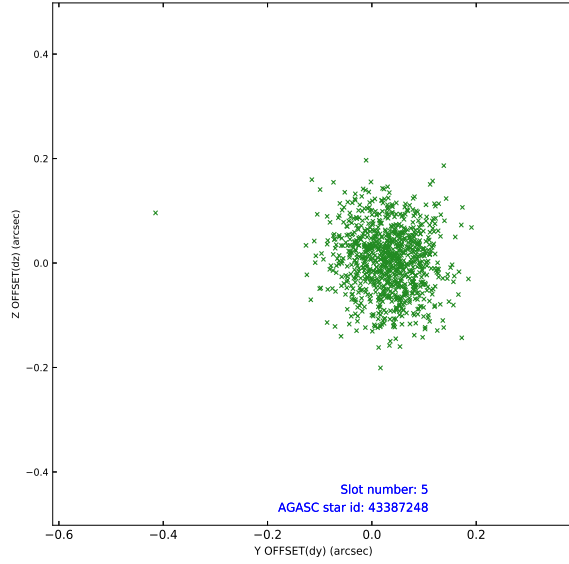
2.4.1 Slot 3



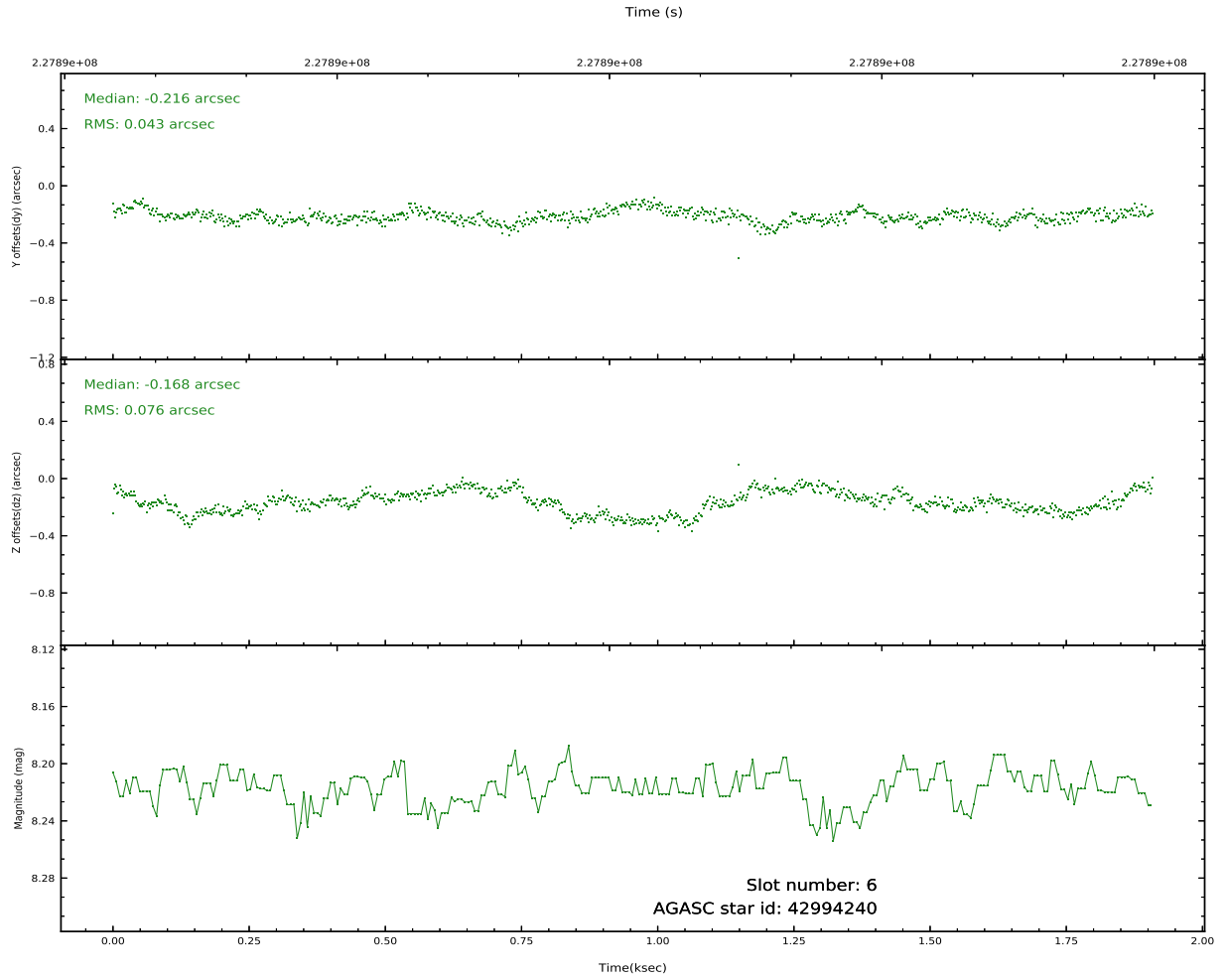
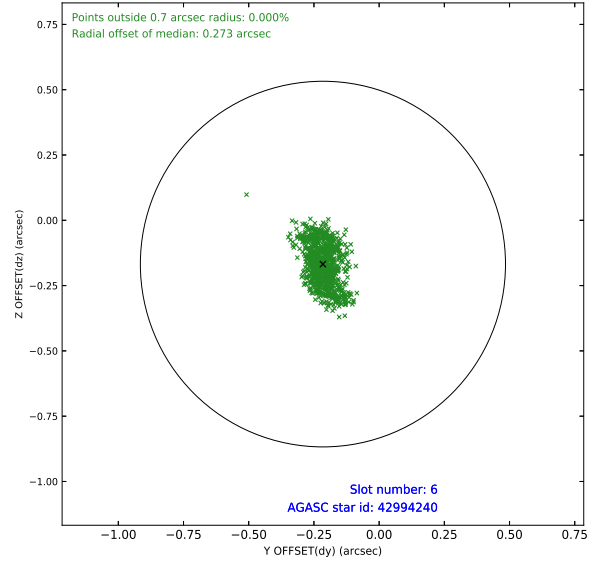
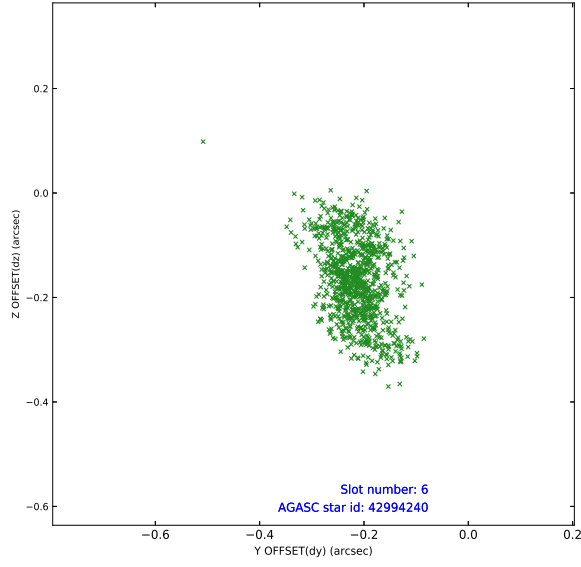
2.4.2 Slot 4



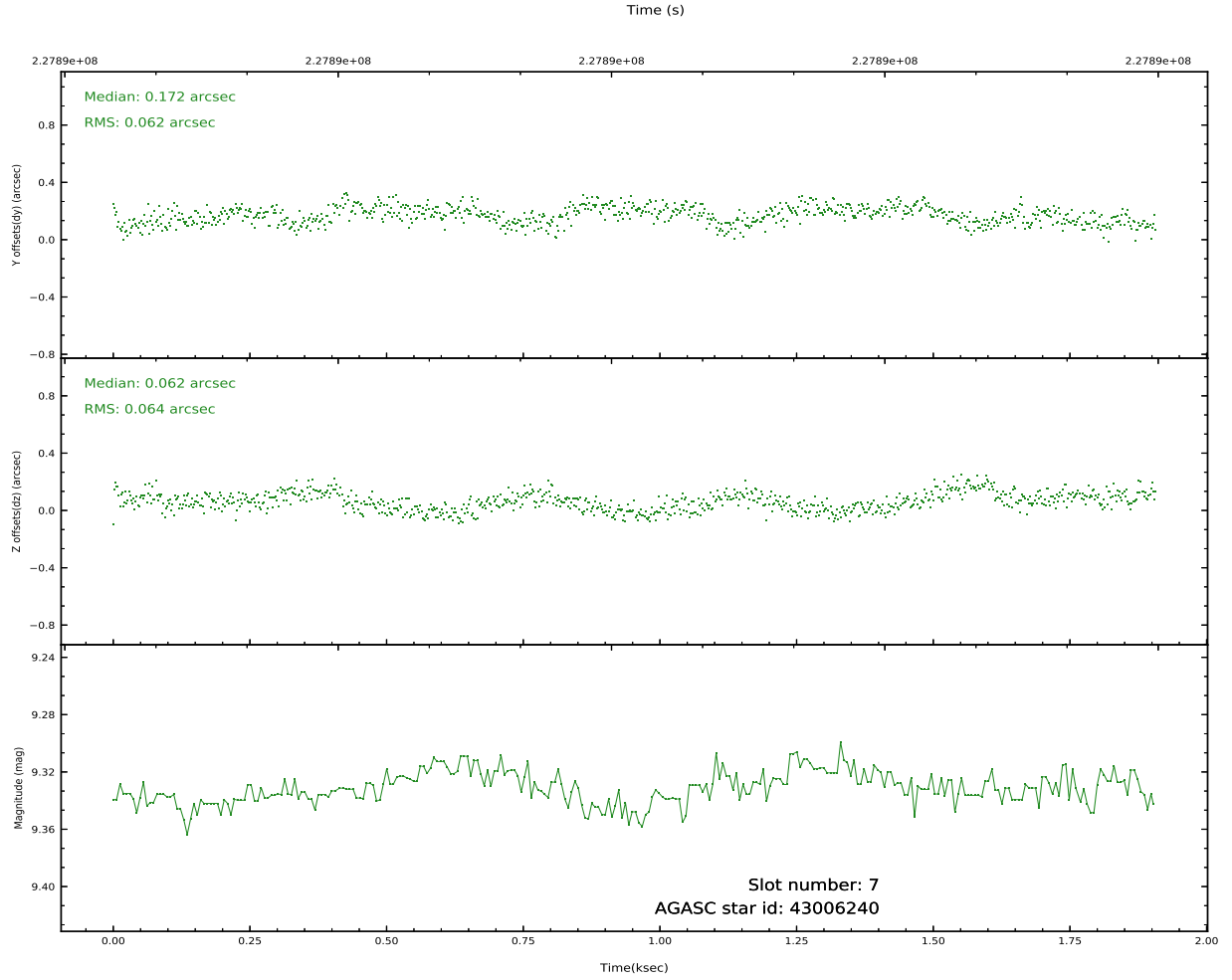
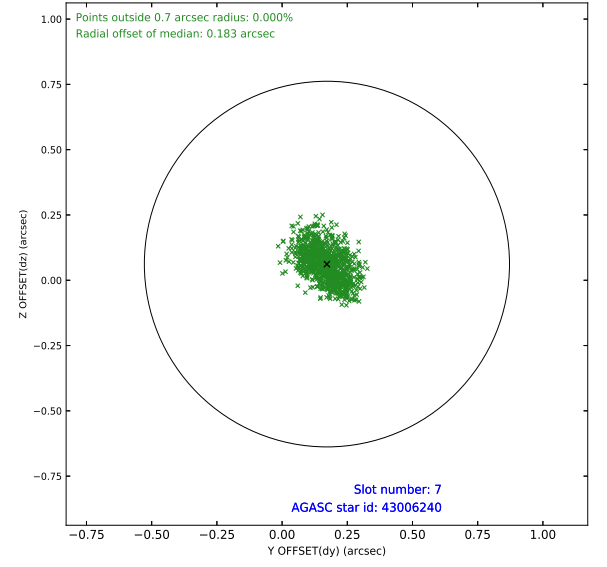
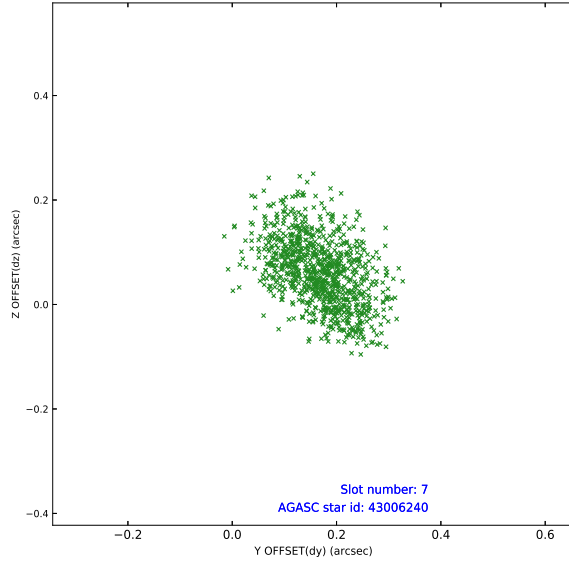
2.4.3 Slot 5



2.4.4 Slot 6

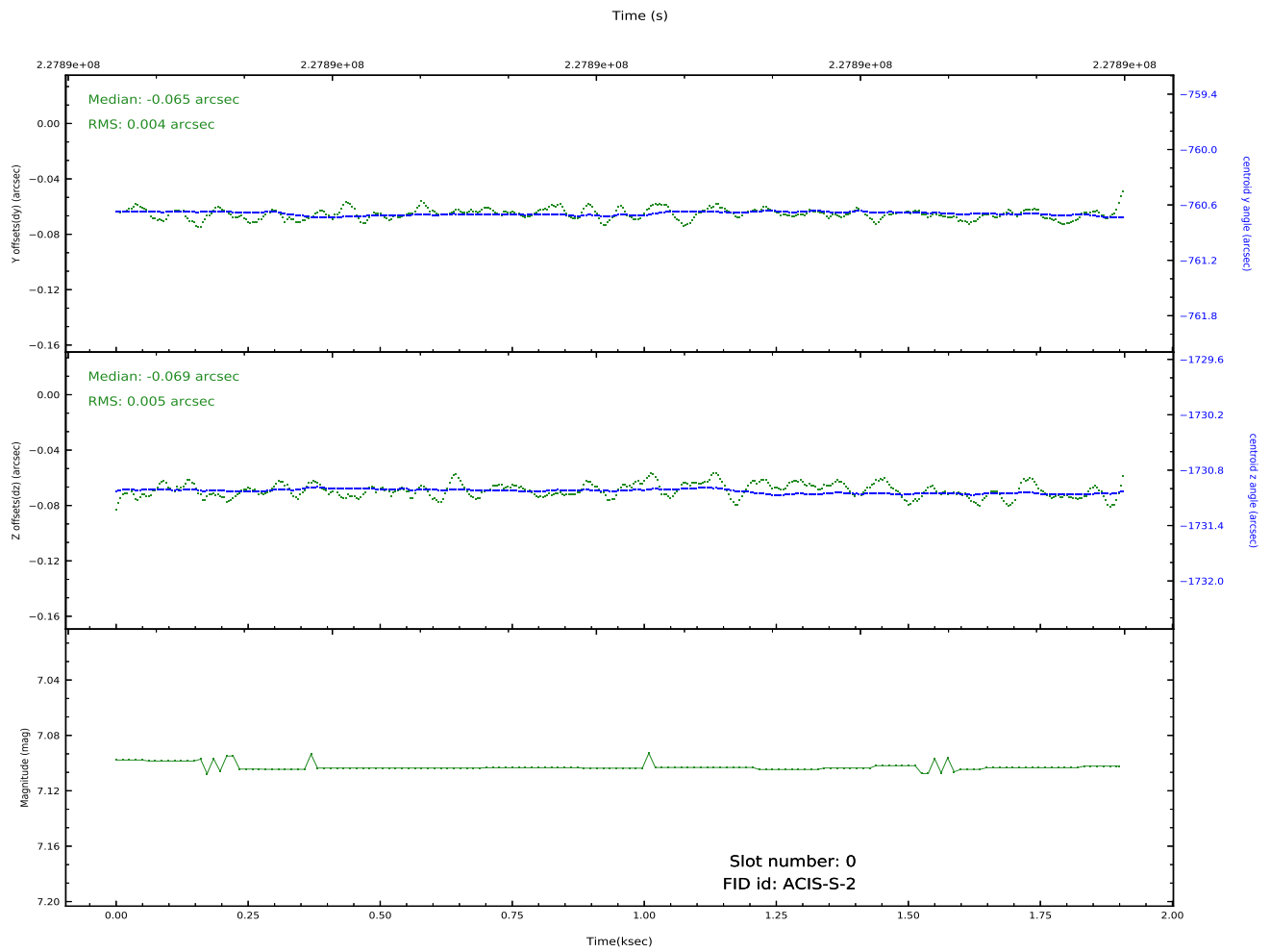
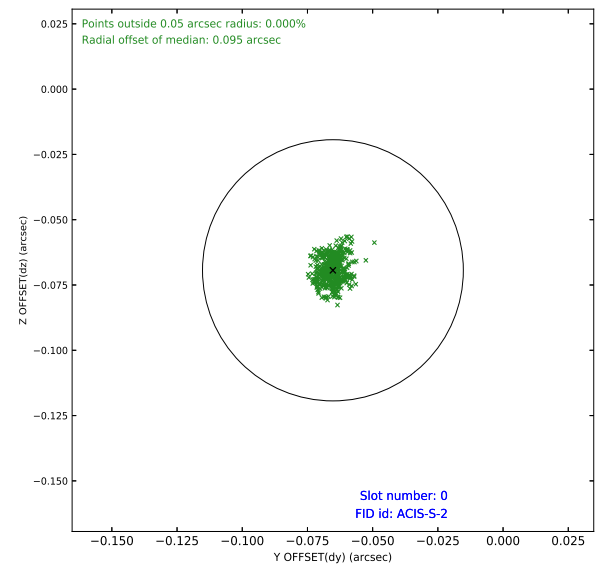
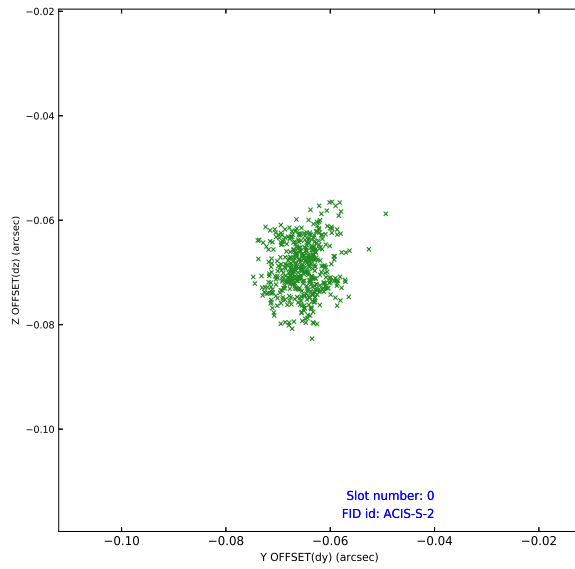


2.4.5 Slot 7

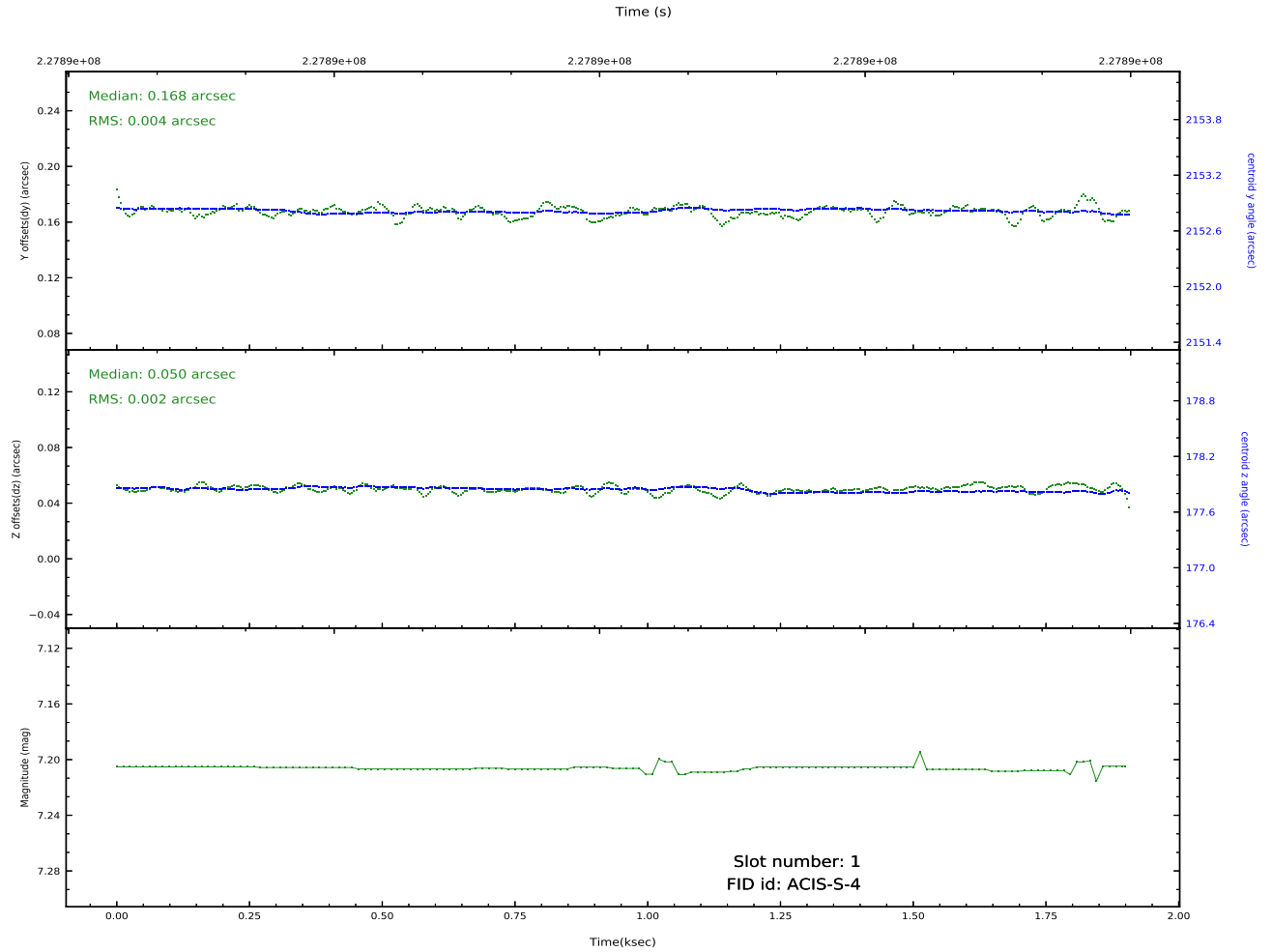
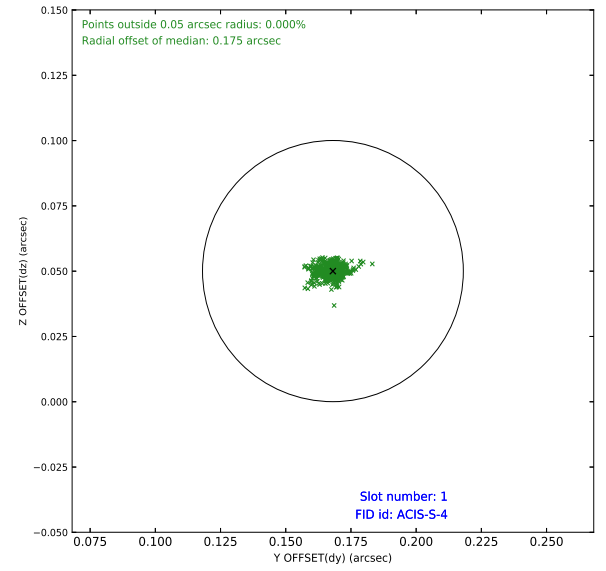
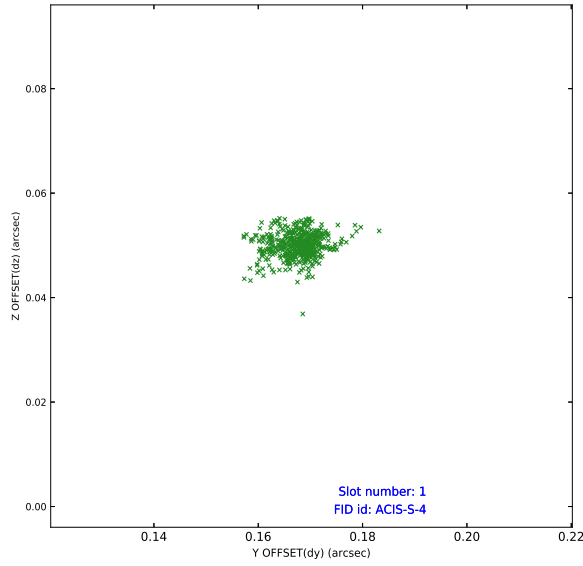


2.5 FID Slots

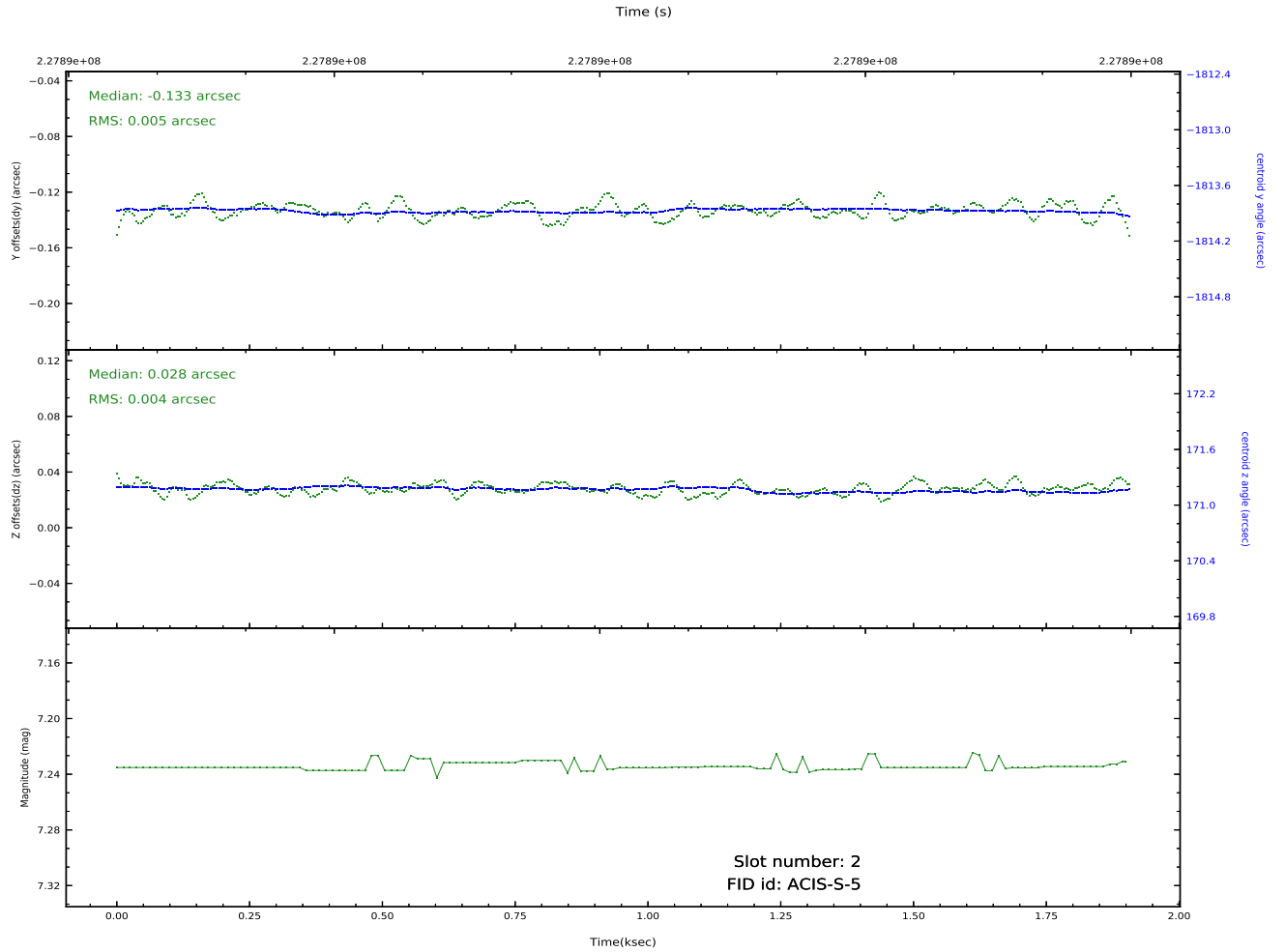
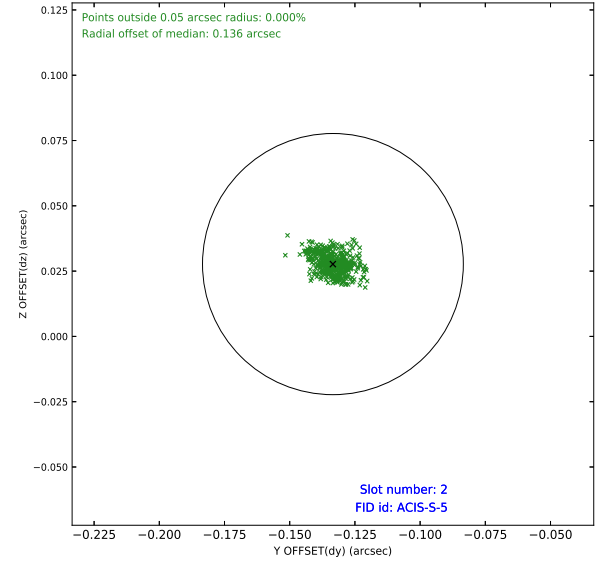
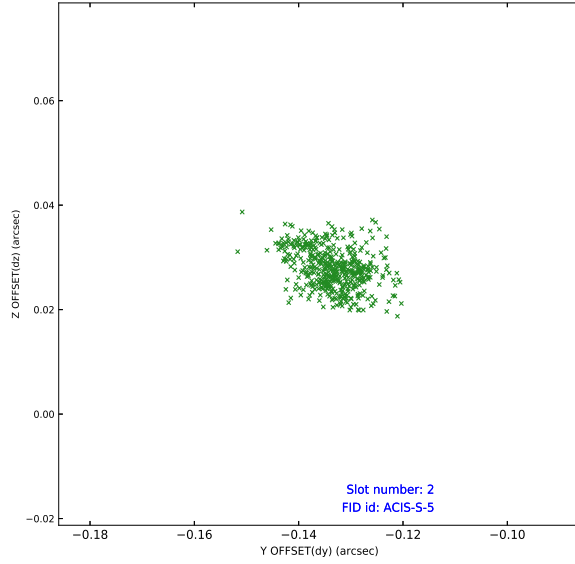
2.5.1 Slot 0



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) | 2020.10.08 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 1.545599 |

A.2 Comments