

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6357 - L2 Version 4
Chandra X-Ray Center

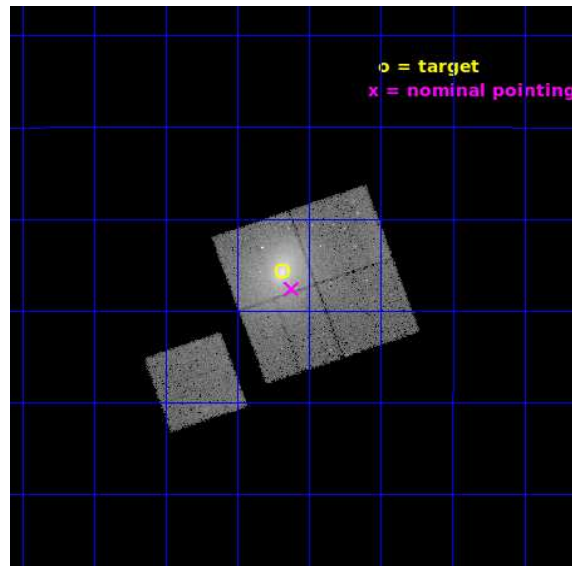
L2 Processing Date : Oct 9 2020

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1 Front

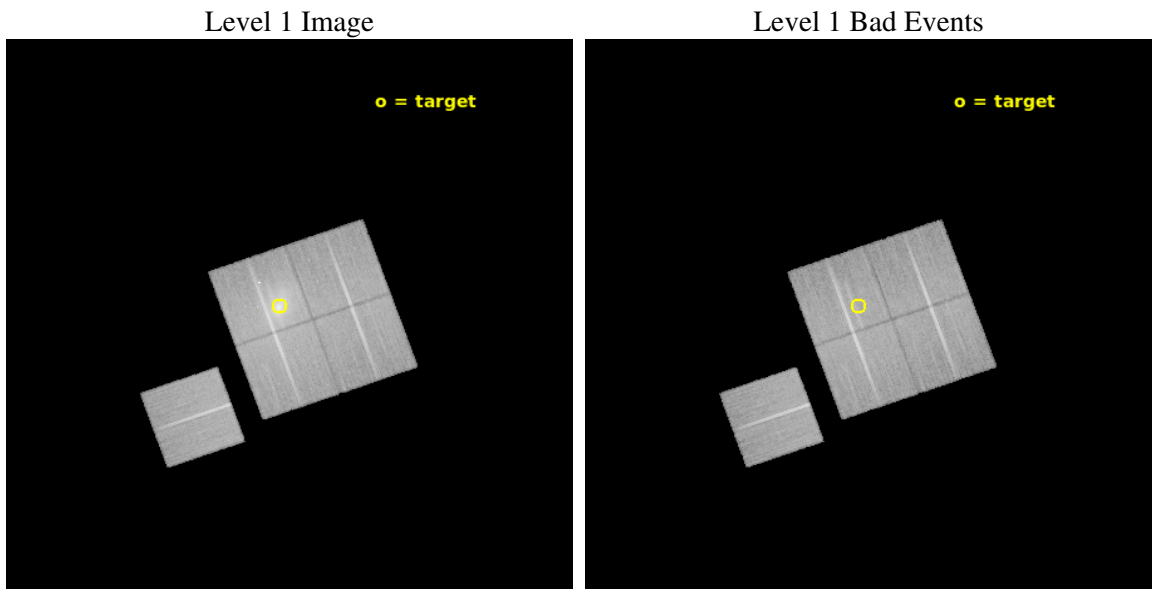
| | | |
|----------|--|---|
| seq_num | 800535 | Sequence number |
| obs_id | 6357 | Observation id |
| title | A Deep Observation of a Radio-Quiet Cooling Flow | Proposal title |
| observer | Megan Donahue | Principal investigator |
| object | Abell 1650 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 194.672083 | Observer's specified target RA [deg] |
| dec_targ | -1.761389 | Observer's specified target Dec [deg] |
| ra_nom | 194.65505888287 | Nominal RA [deg] |
| dec_nom | -1.7930434423505 | Nominal Dec [deg] |
| roll_nom | 250.40370211753 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 33089.358966082 | Sum of GTIs [s] |
| livetime | 32657.022131159 | Livetime [s] |
| ontime0 | 33092.499936342 | Sum of GTIs [s] |
| ontime1 | 33092.499936342 | Sum of GTIs [s] |
| ontime2 | 33089.358966053 | Sum of GTIs [s] |
| ontime3 | 33089.358966082 | Sum of GTIs [s] |
| ontime6 | 33086.217985928 | Sum of GTIs [s] |
| l2events | 189732 | Number of level 2 events |



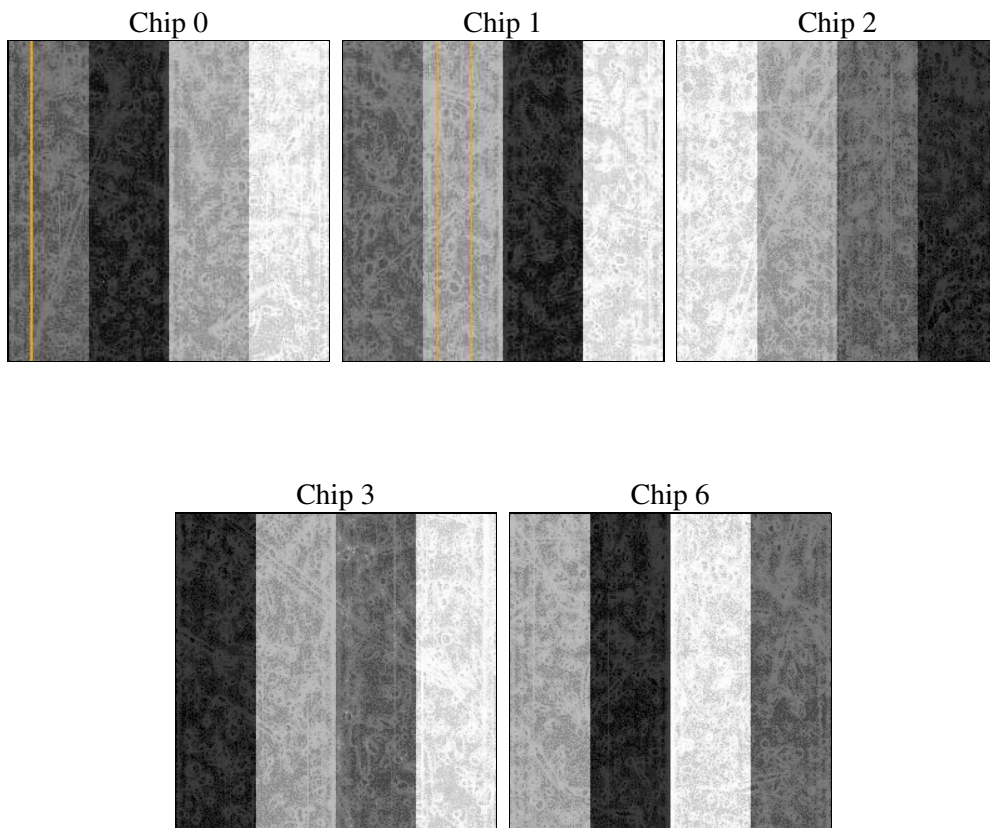
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 33000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 33089.358966082 | Sum of GTIs [s] |
| caldbver | 4.9.2 | | ontime0 | 33092.499936342 | Sum of GTIs [s] |
| date | 2020-10-09T18:50:52 | Date and time of file creation | ontime1 | 33092.499936342 | Sum of GTIs [s] |
| revision | 4 | Processing version of data | ontime2 | 33089.358966053 | Sum of GTIs [s] |
| | | | ontime3 | 33089.358966082 | Sum of GTIs [s] |
| | | | ontime6 | 33086.217985928 | Sum of GTIs [s] |
| | | | l1events | 1108861 | Number of level 1 events |

2.1.4 Events

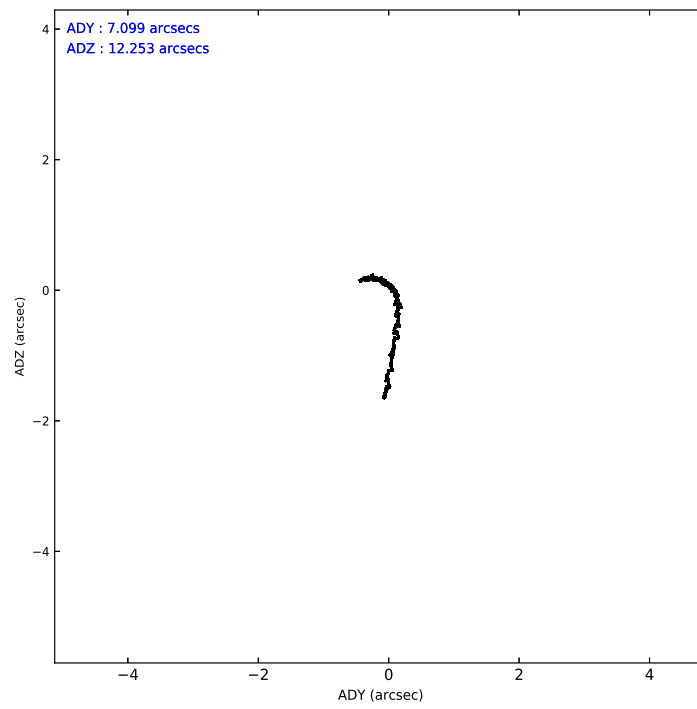
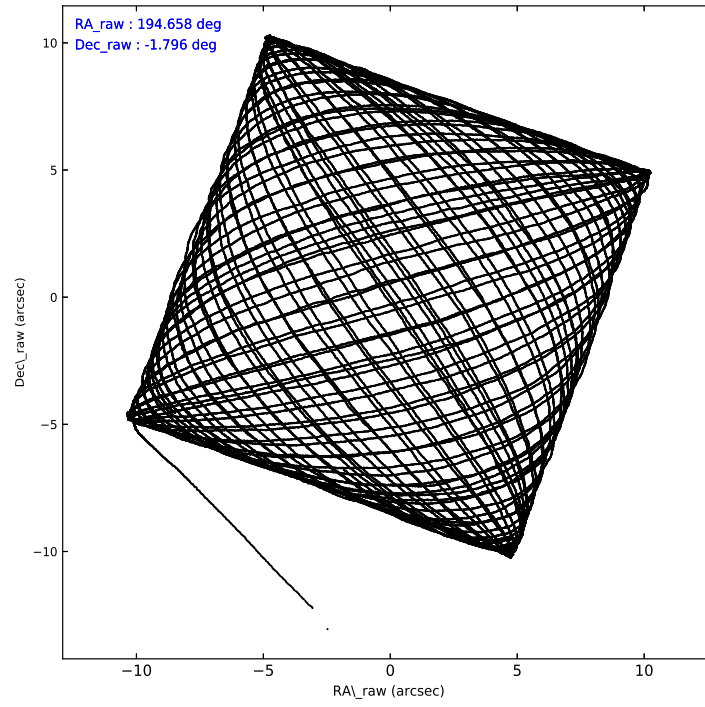
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 195480 | 195011 | 223405 | 292138 | 202827 |
| rejected events | 173512 | 165284 | 193309 | 184550 | 181833 |
| rejected % | 88% | 84% | 86% | 63% | 89% |

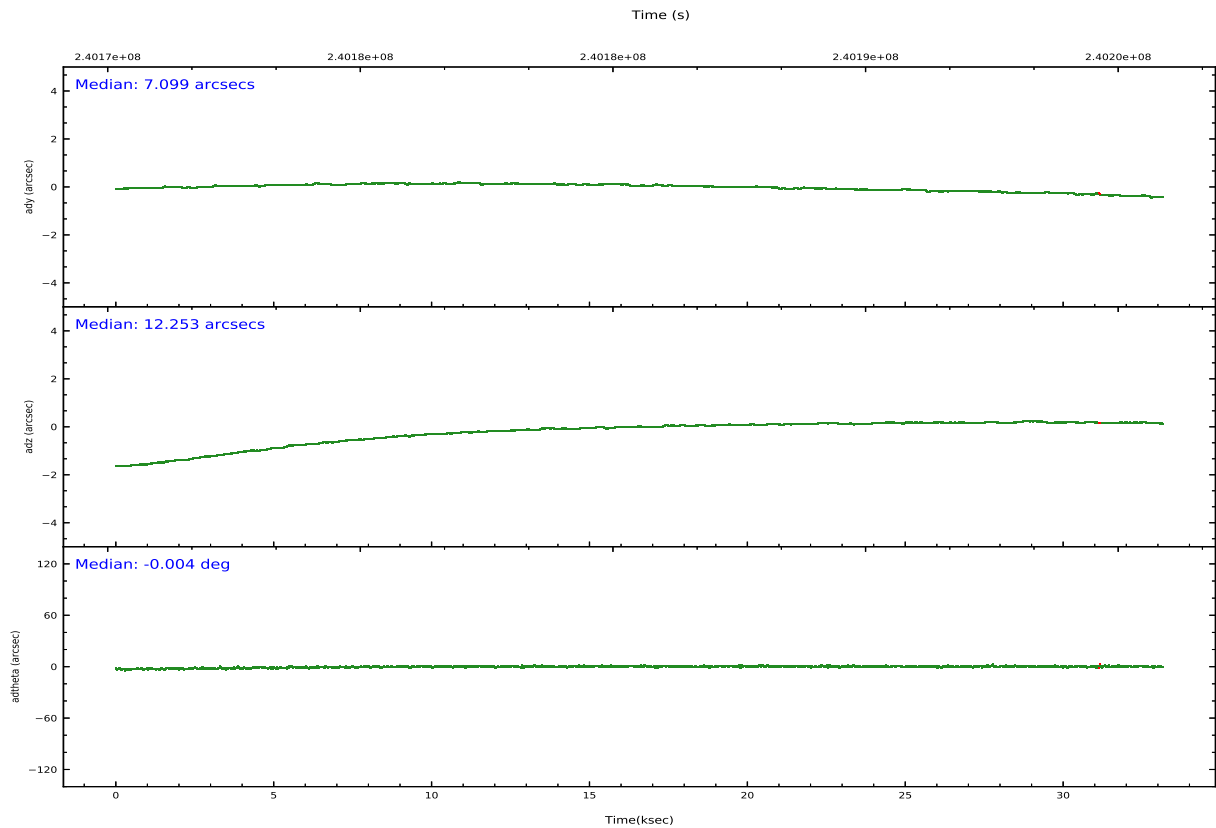
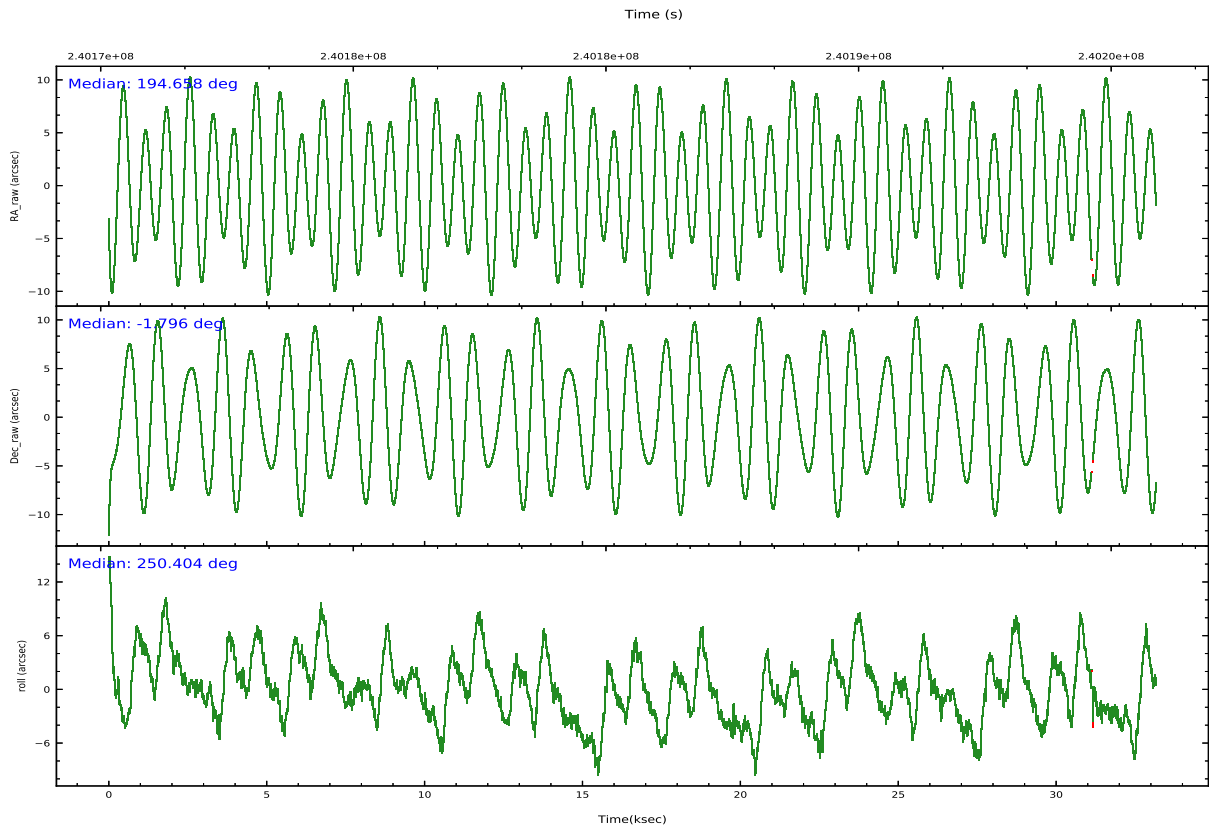
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 8784 | 14596 | 15719 | 80523 | 7713 |
| | 4% | 7% | 7% | 27% | 3% |
| grade 1 events | 114 | 112 | 139 | 498 | 91 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 4894 | 5646 | 5679 | 12539 | 4441 |
| | 2% | 2% | 2% | 4% | 2% |
| grade 3 events | 2364 | 2632 | 2534 | 4768 | 2349 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 2248 | 2568 | 2564 | 4761 | 2328 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 7118 | 7962 | 6911 | 8402 | 7998 |
| | 3% | 4% | 3% | 2% | 3% |
| grade 6 events | 3870 | 4623 | 3824 | 5758 | 4354 |
| | 1% | 2% | 1% | 1% | 2% |
| grade 7 events | 166088 | 156872 | 186035 | 174889 | 173553 |
| | 84% | 80% | 83% | 59% | 85% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| Detector | ACIS-01236 | ACIS-01236 | 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 | 194.652591 | 194.65505888287 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -1.769260 | -1.7930434423505 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 250.196774 | 250.40370211753 | [s] Primary exposure time | 0.000000 | 3.1 |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | | | |
| [mm] SIM defocus | 0 | 0.001439871863259334 | | | |
| [mm] SIM translation stage pos | -227.592463 | -227.5933067819097 | | | |
| [mm] SIM translation stage offset | -6 | -5.999146221020027 | | | |
| [s] Observation start time (MET) | 240168423.184000 | 240167314.57445 | | | |
| Observation start date | 2005-08-11T17:25:59 | 2005-08-11T17:08:34 | | | |
| [s] Observation end time (MET) | 240201423.184000 | 240201938.05104 | | | |
| Observation end date | 2005-08-12T02:35:59 | 2005-08-12T02:45:38 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



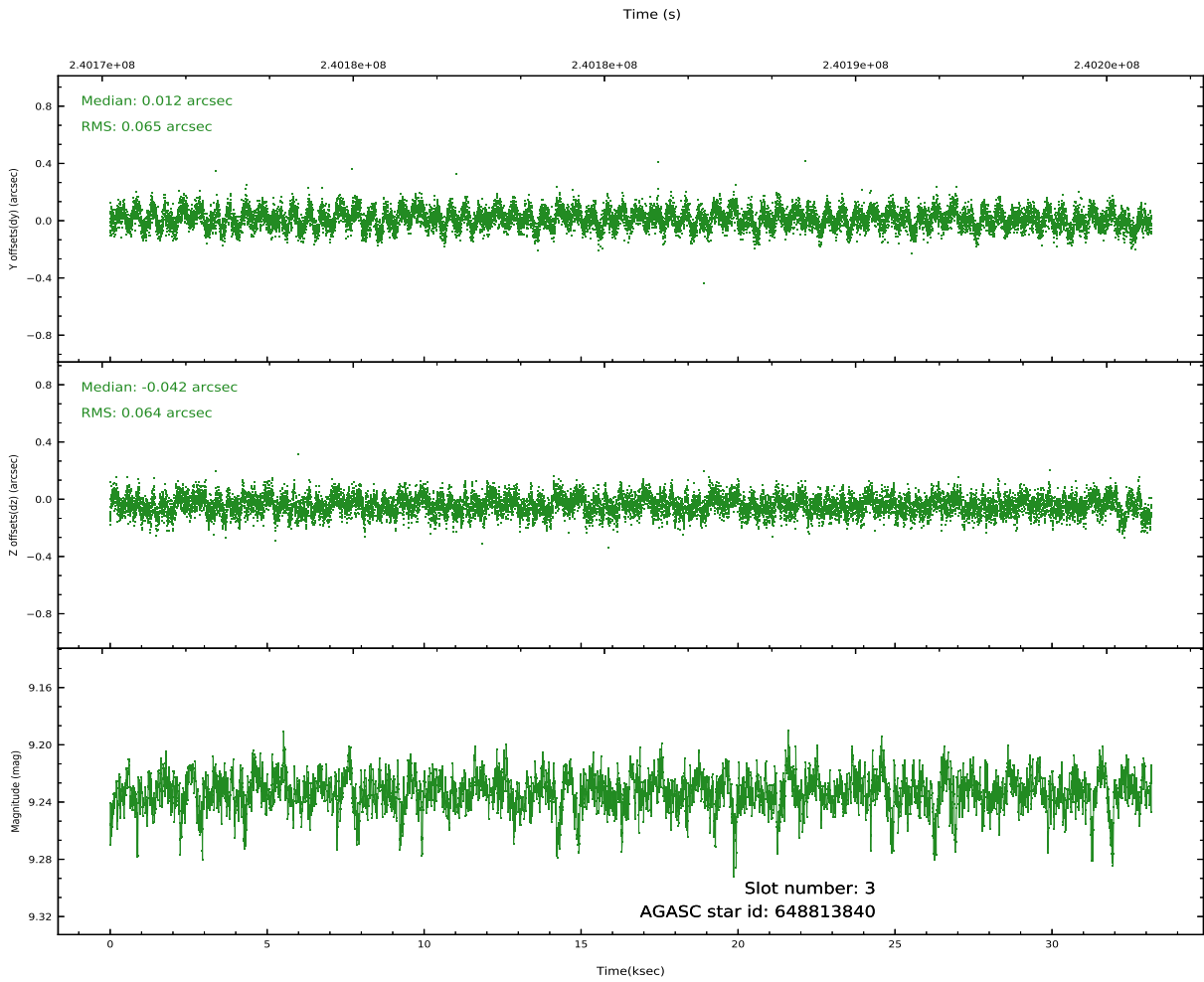
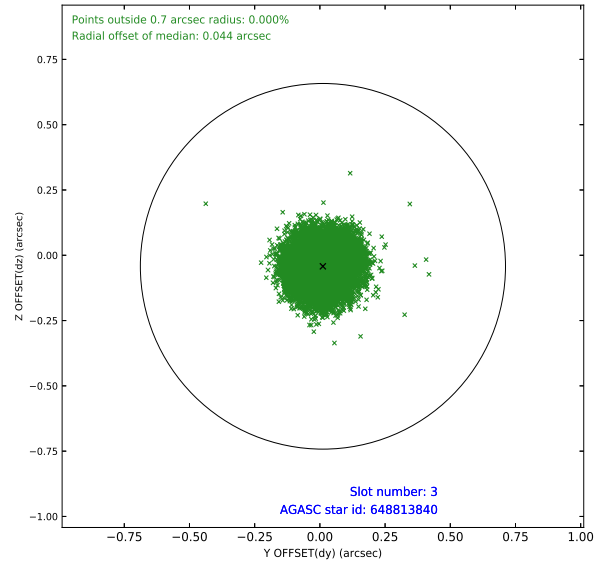
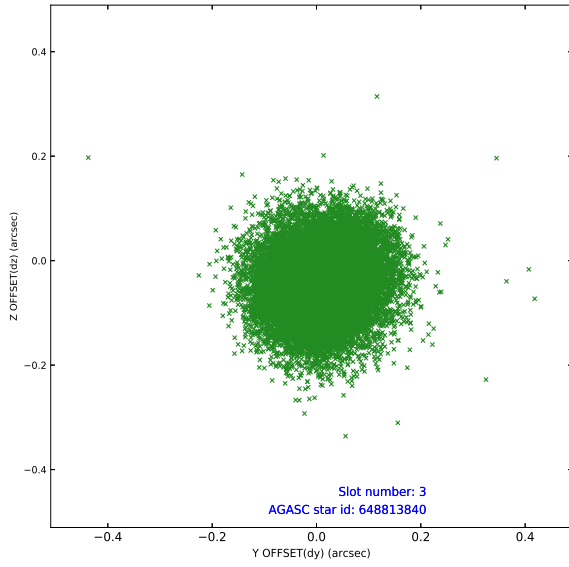


Slot Statistics

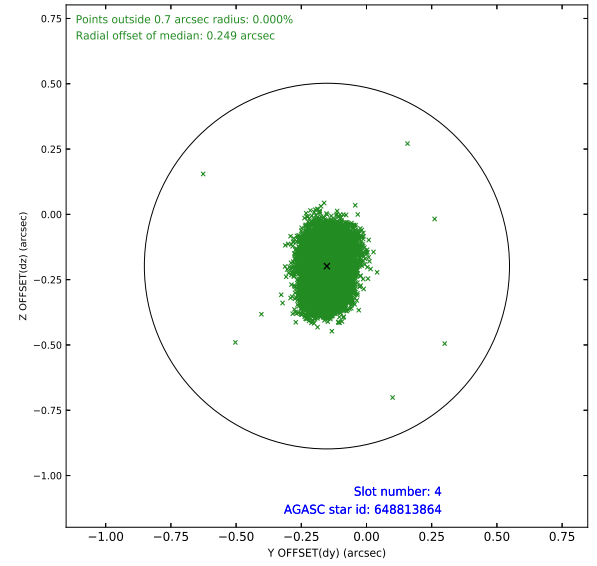
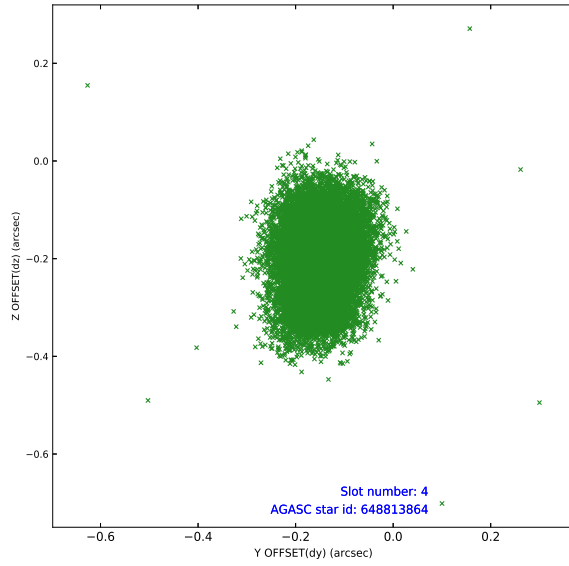
| slot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|------|--------|------|-----------|-------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | ACIS-I-1 | 7.23 | 8082 | 1.000 | 0.067 | -0.203 | 0.015 | 0.065 | 0.000000 | 0.000000 | 932.60 | -958 |
| 1 | FID | | ACIS-I-4 | 7.15 | 8082 | 1.000 | 0.075 | 0.132 | 0.017 | 0.036 | 0.000000 | 0.000000 | 2152.27 | 942 |
| 2 | FID | | ACIS-I-5 | 7.22 | 8082 | 1.000 | -0.237 | 0.142 | 0.013 | 0.028 | 0.000000 | 0.000000 | -1815.70 | 939 |
| 3 | GUIDE | used | 648813840 | 9.23 | 16150 | 1.000 | 0.012 | -0.042 | 0.098 | 0.153 | 194.717621 | -1.945504 | 518.28 | 435 |
| 4 | GUIDE | used | 648813864 | 8.82 | 16160 | 1.000 | -0.152 | -0.198 | 0.091 | 0.151 | 194.235605 | -1.103465 | -1746.11 | -2224 |
| 5 | GUIDE | used | 648815736 | 9.93 | 16146 | 1.000 | 0.155 | -0.125 | 0.135 | 0.212 | 194.100949 | -2.130858 | 1897.95 | -1425 |
| 6 | GUIDE | used | 648815800 | 9.56 | 16075 | 1.000 | 0.208 | 0.125 | 0.121 | 0.187 | 194.475560 | -2.052849 | 1176.82 | -253 |
| 7 | GUIDE | used | 649731776 | 10.02 | 16139 | 1.000 | -0.227 | 0.240 | 0.197 | 0.302 | 195.271404 | -1.336449 | -2220.18 | 1567 |

2.4 Star Slots

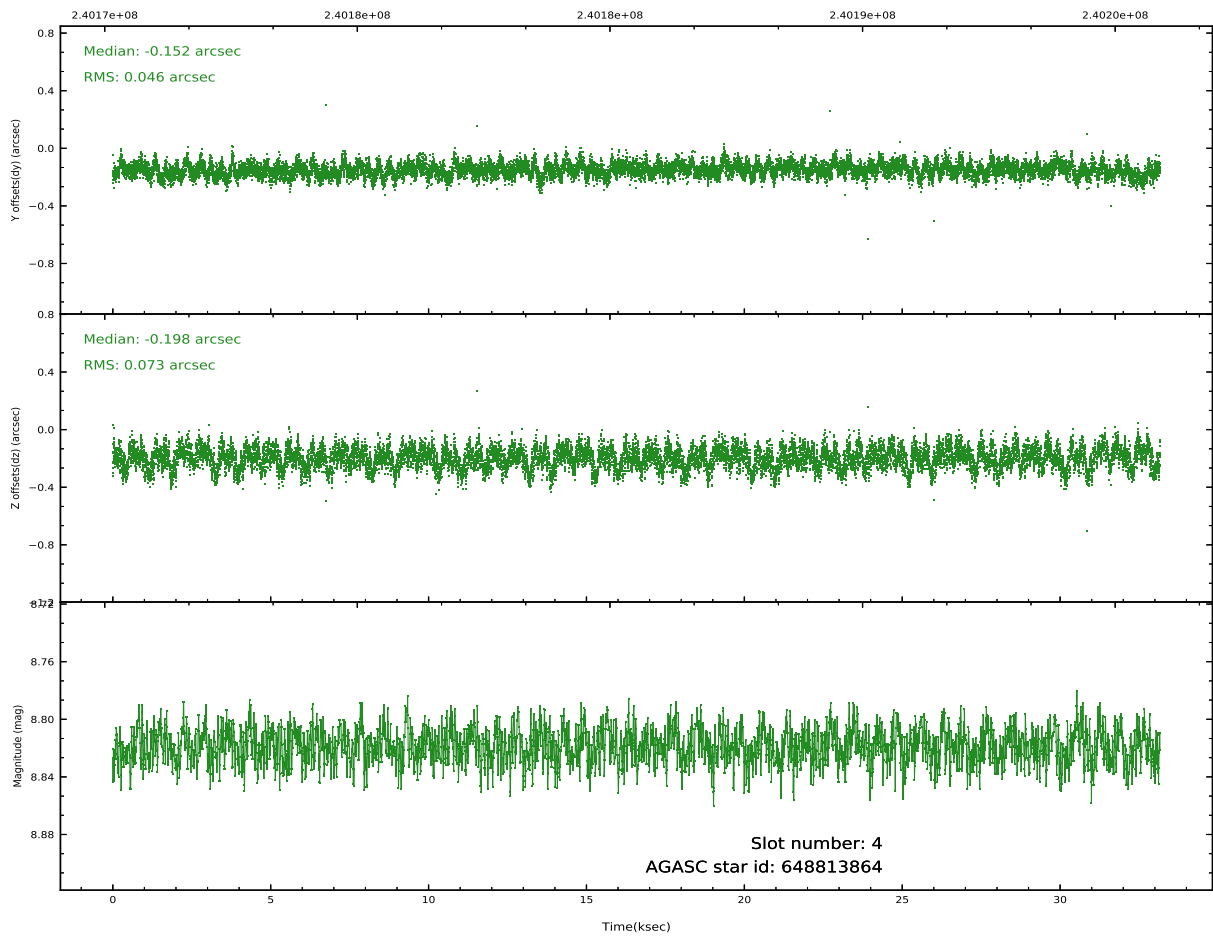
2.4.1 Slot 3



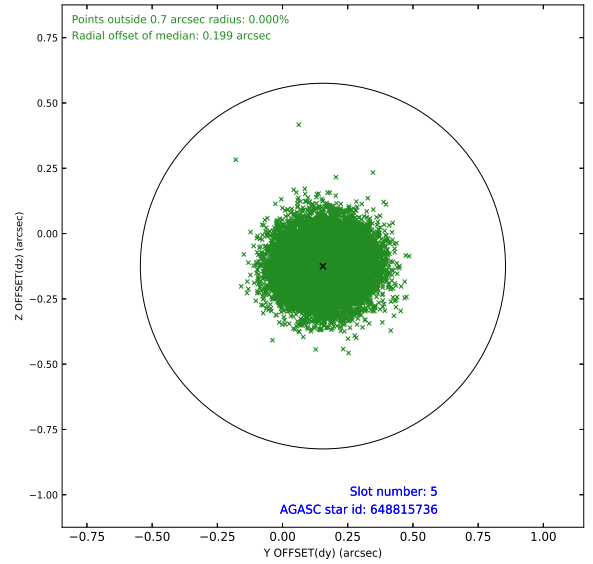
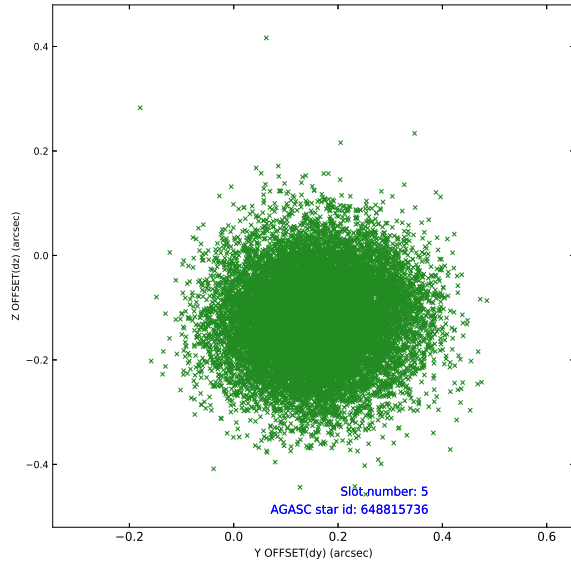
2.4.2 Slot 4



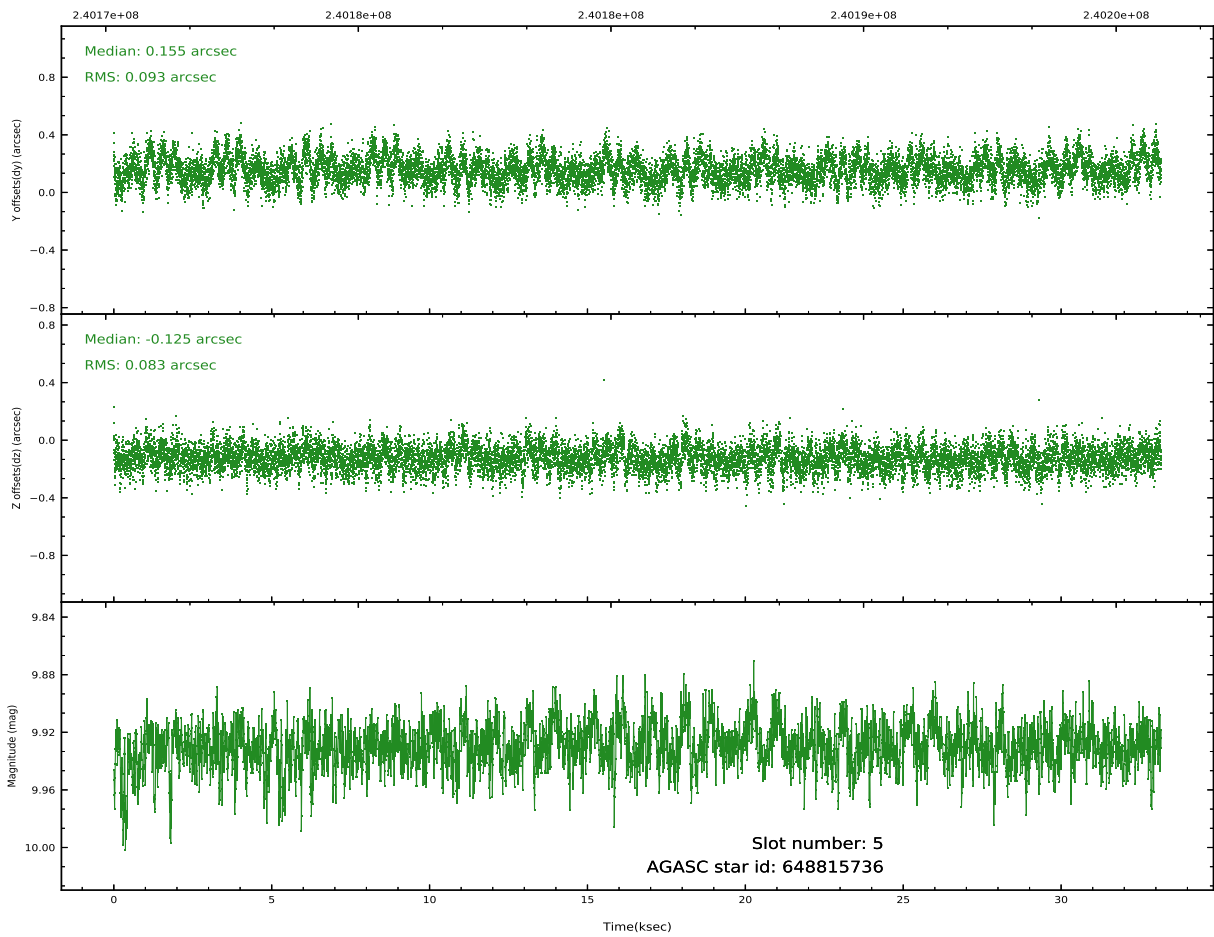
Time (s)



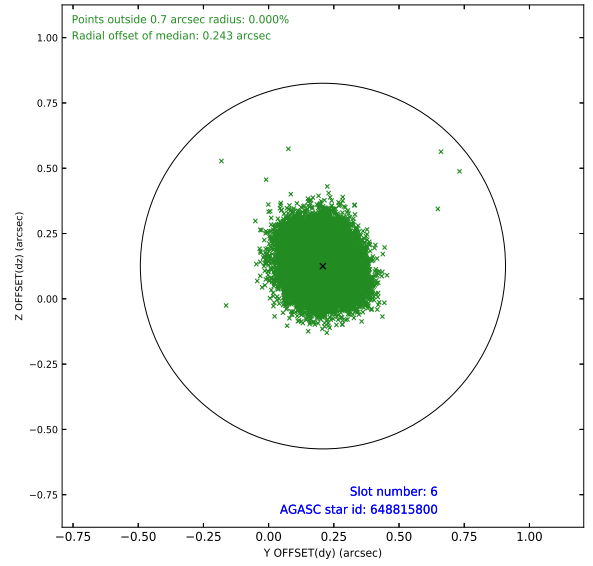
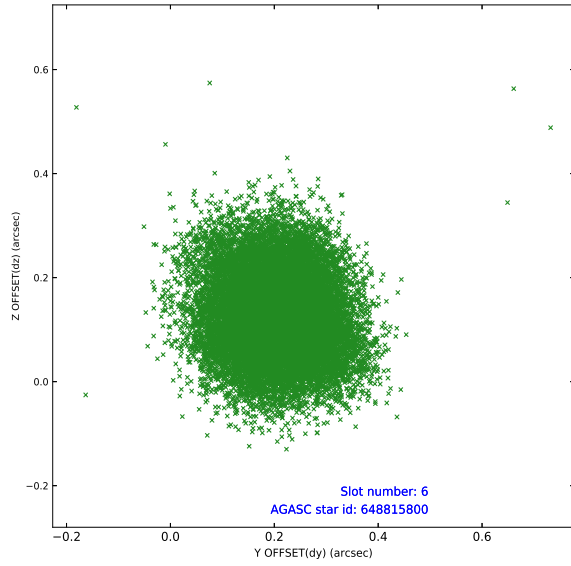
2.4.3 Slot 5



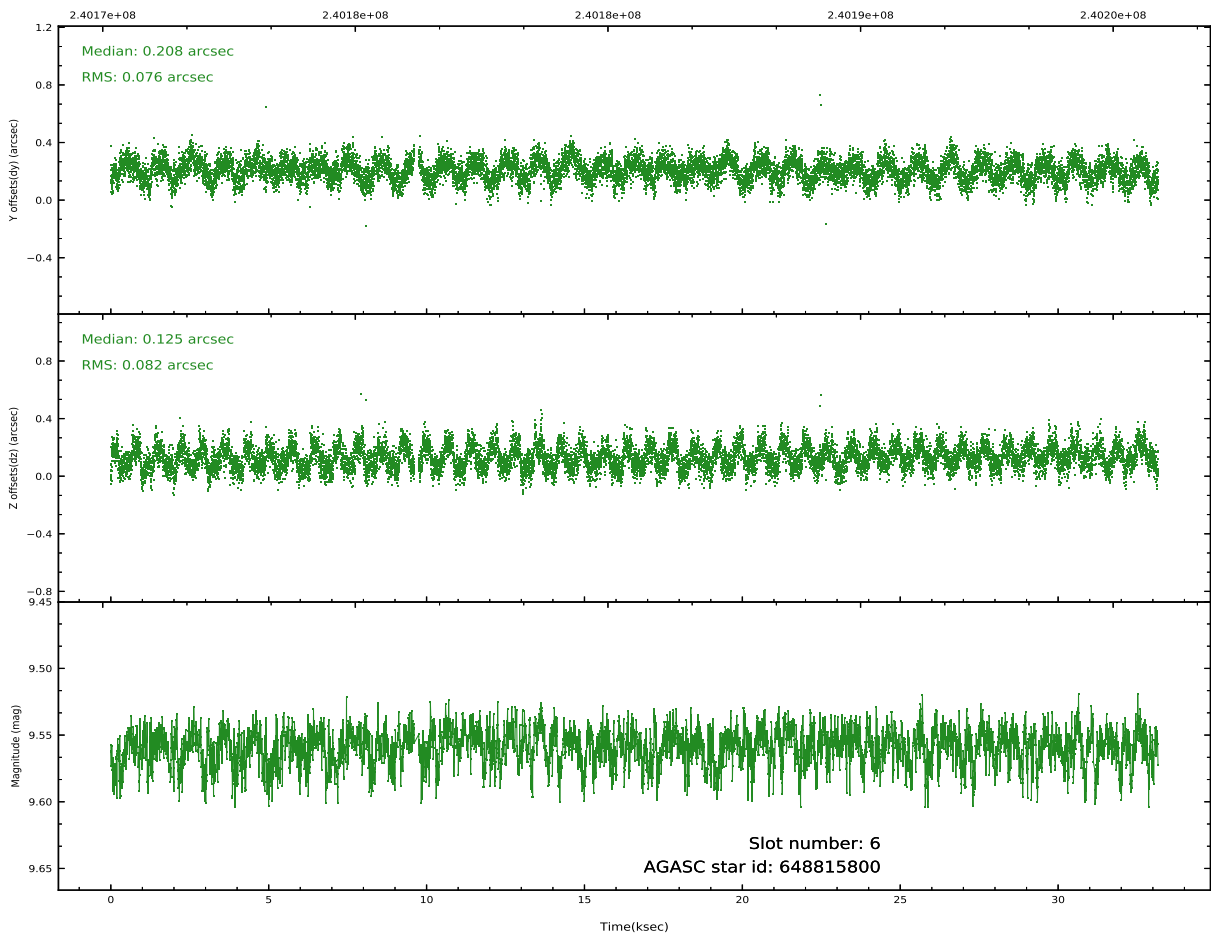
Time (s)



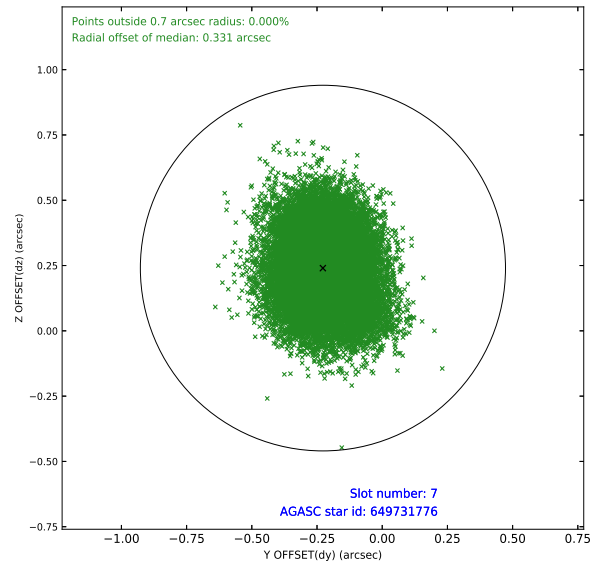
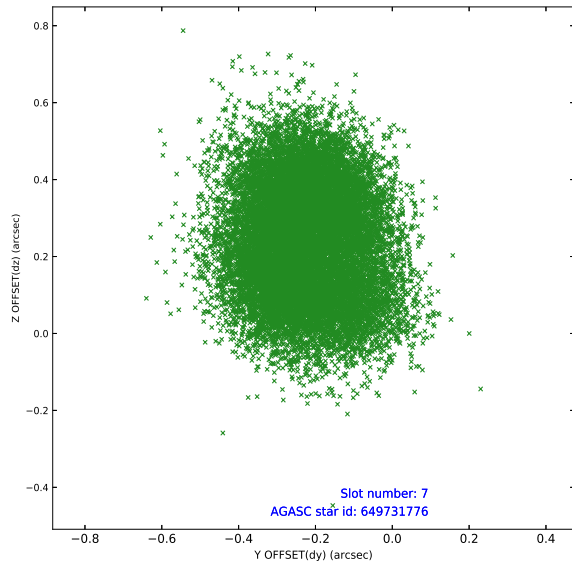
2.4.4 Slot 6



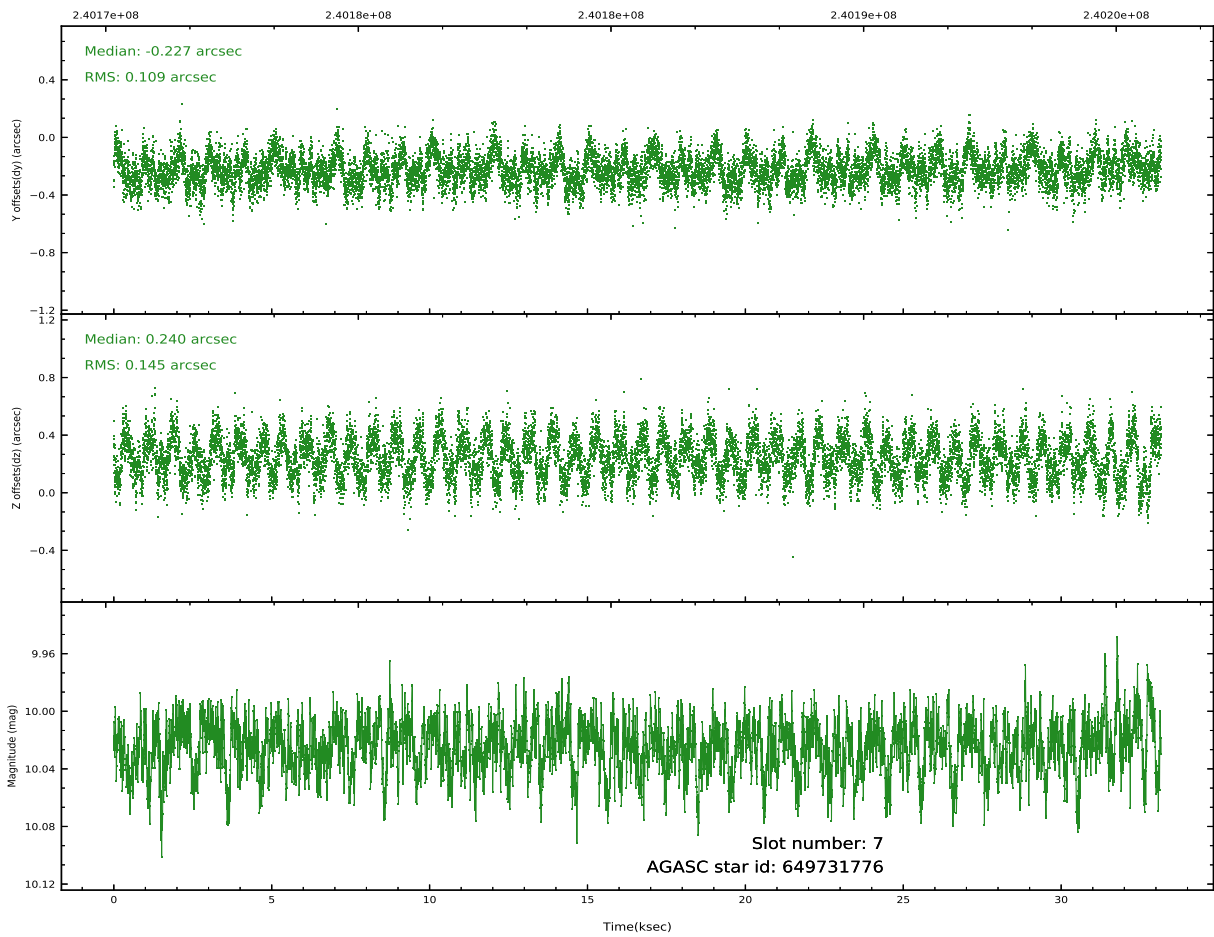
Time (s)



2.4.5 Slot 7

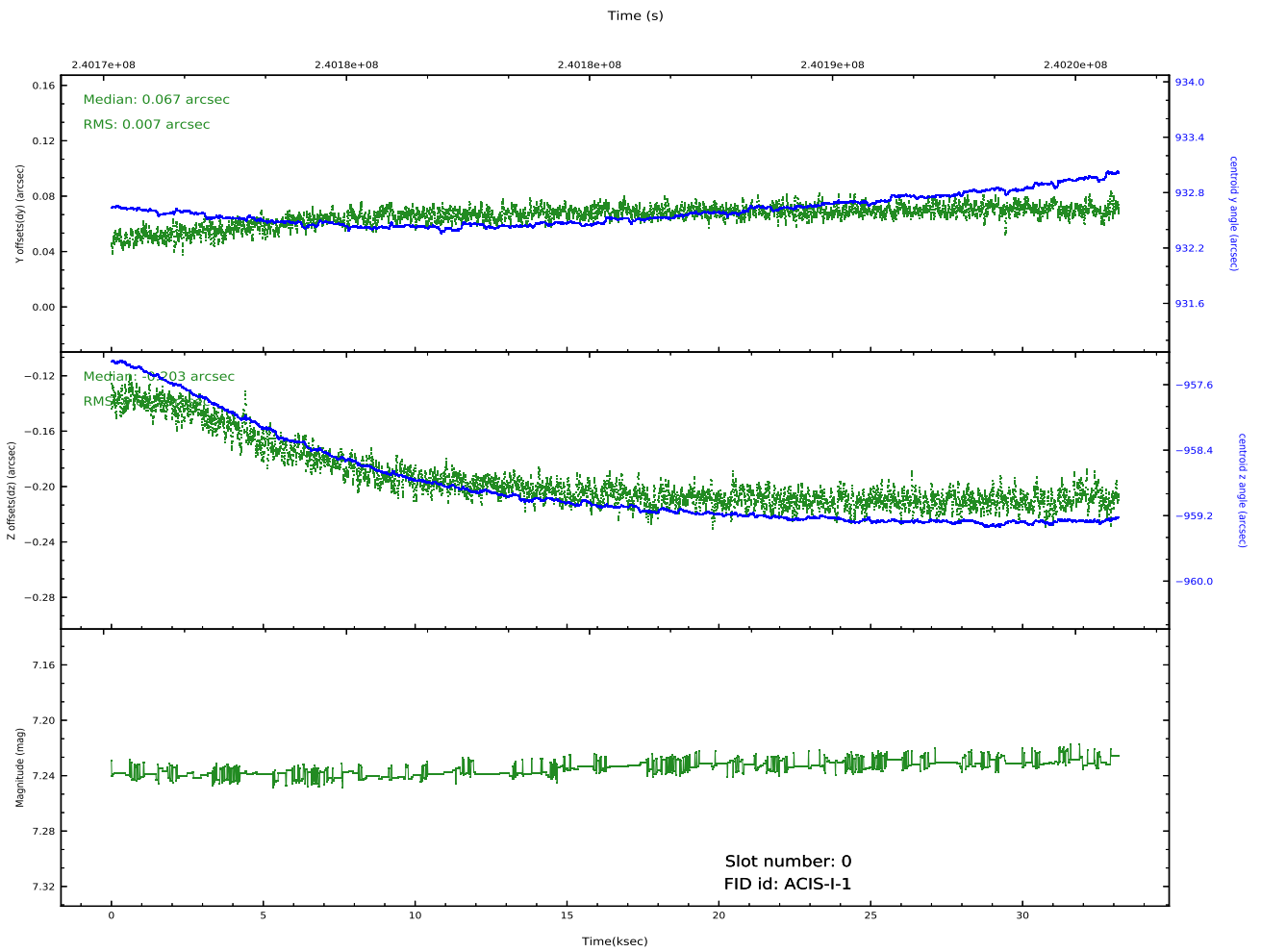
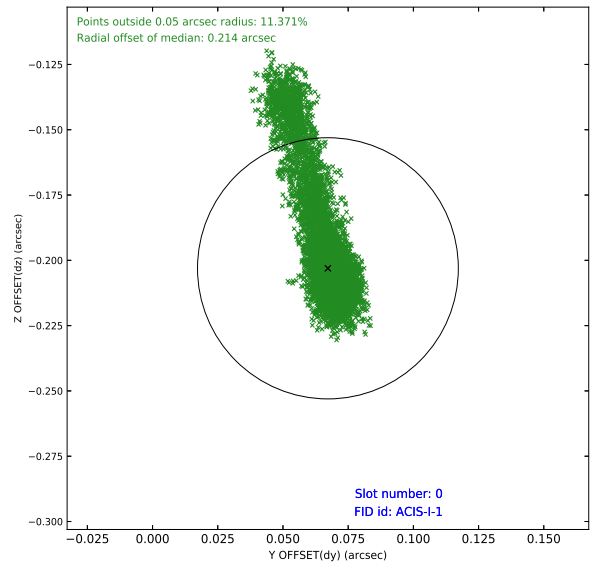
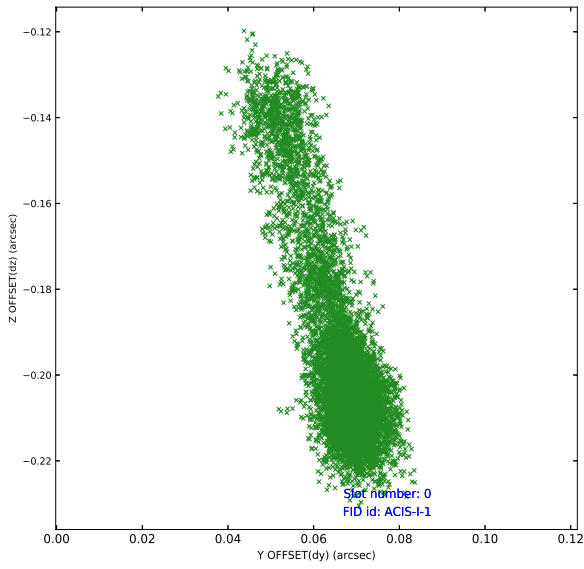


Time (s)

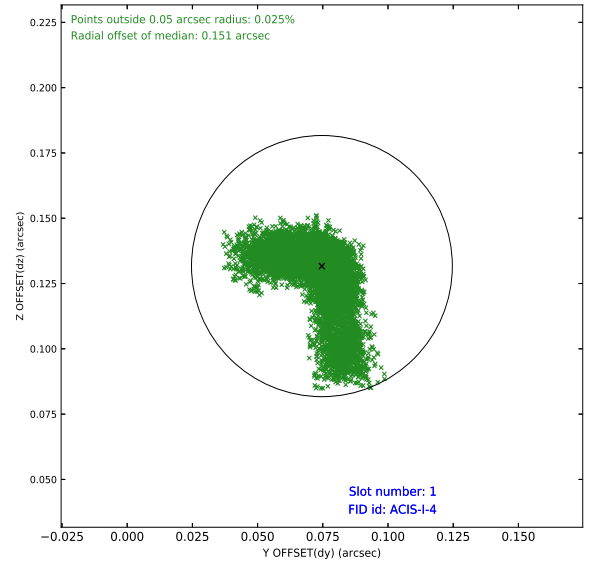
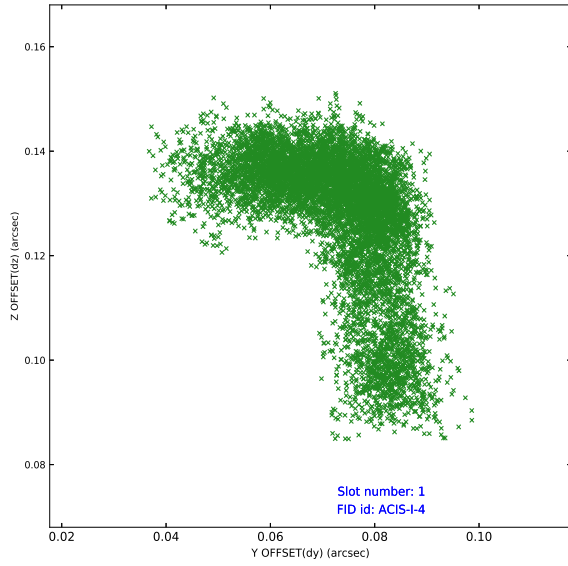


2.5 FID Slots

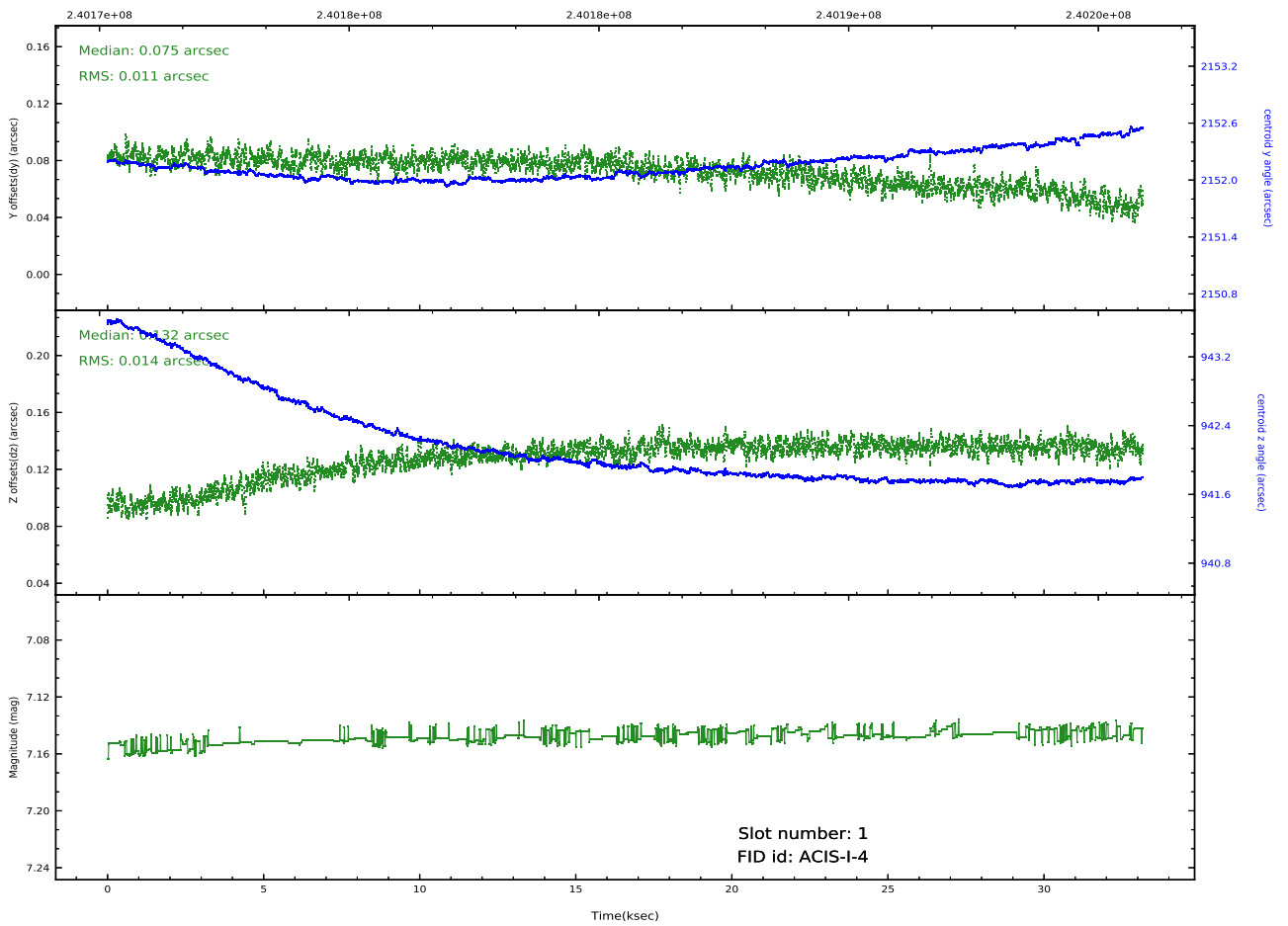
2.5.1 Slot 0



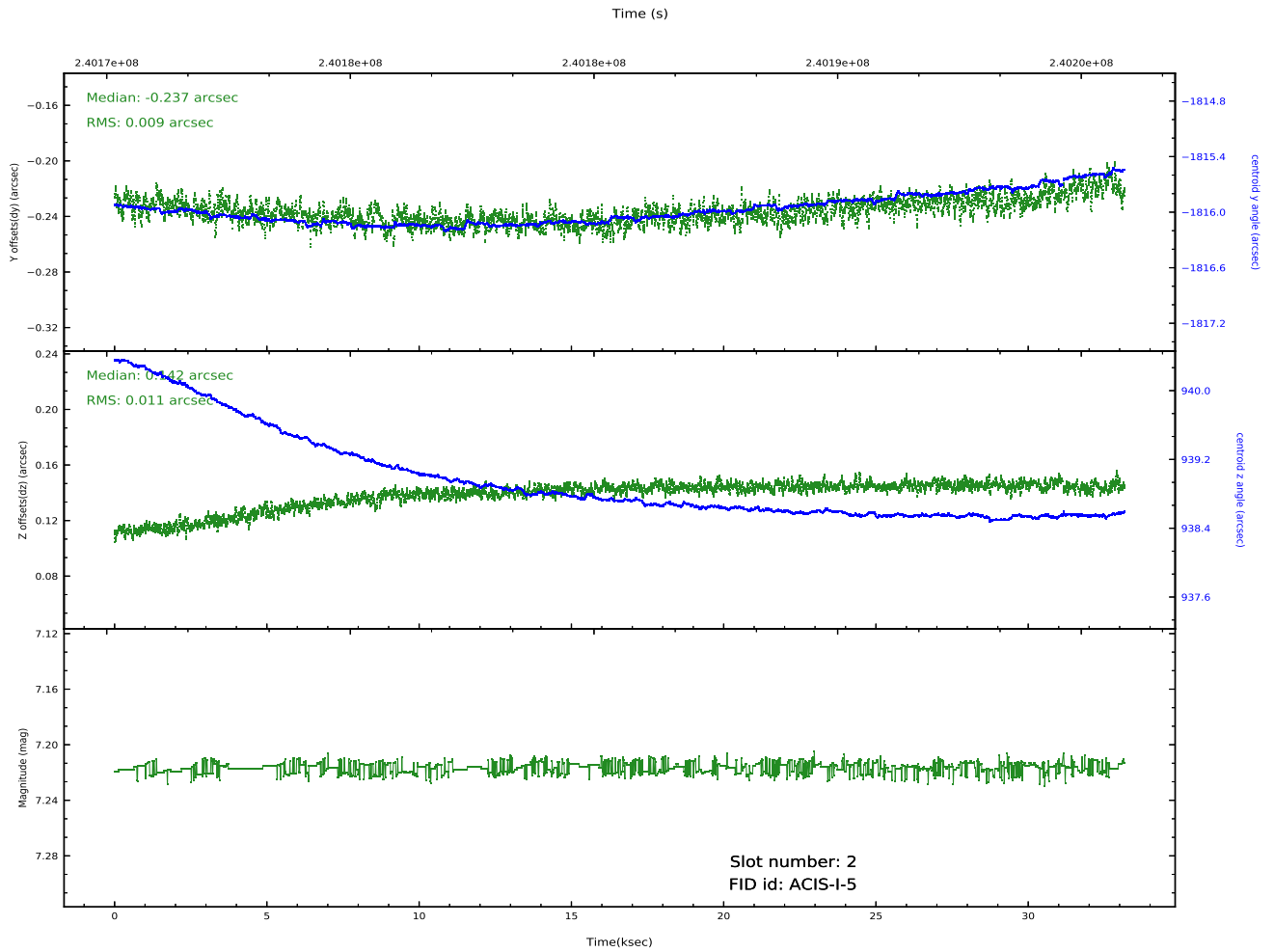
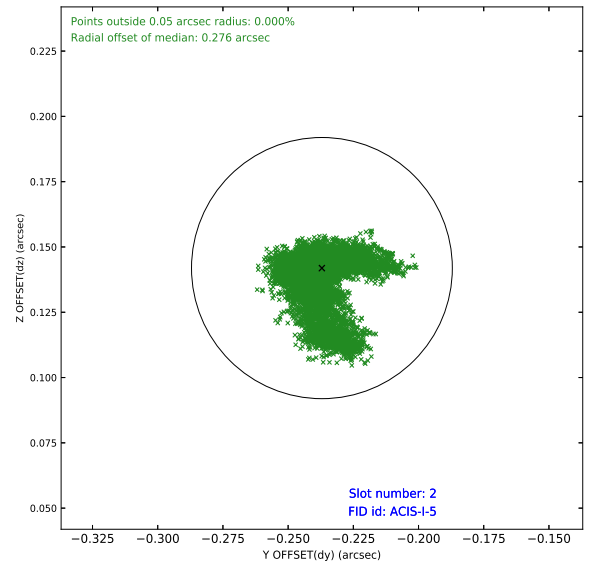
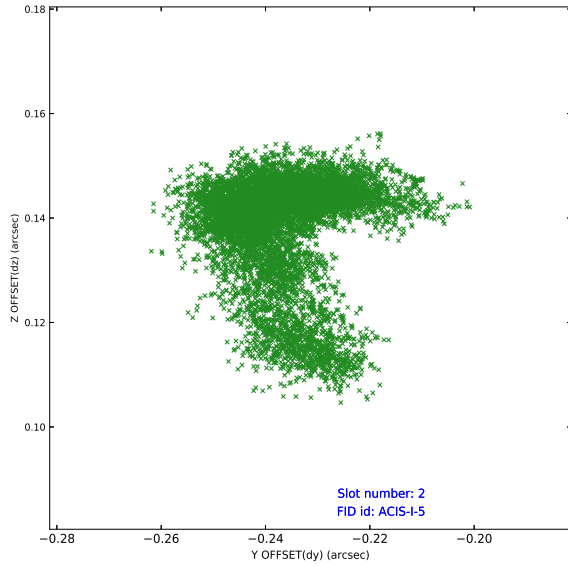
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2020.10.15 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 33.08935 |

A.2 Comments