

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6249 - L2 Version 5
Chandra X-Ray Center

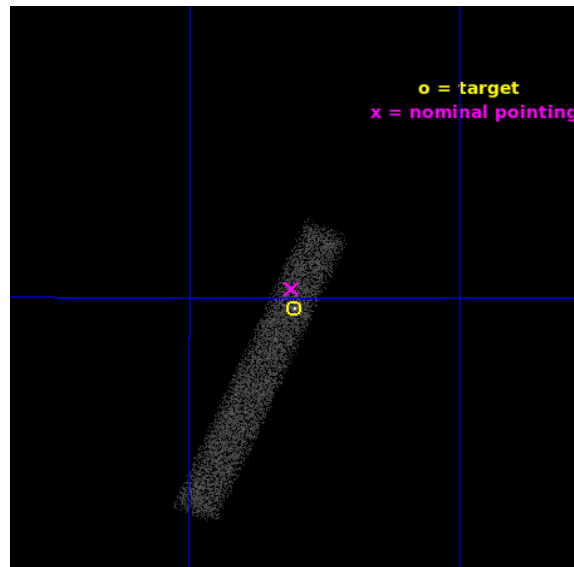
L2 Processing Date : Oct 6 2020

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1 Front

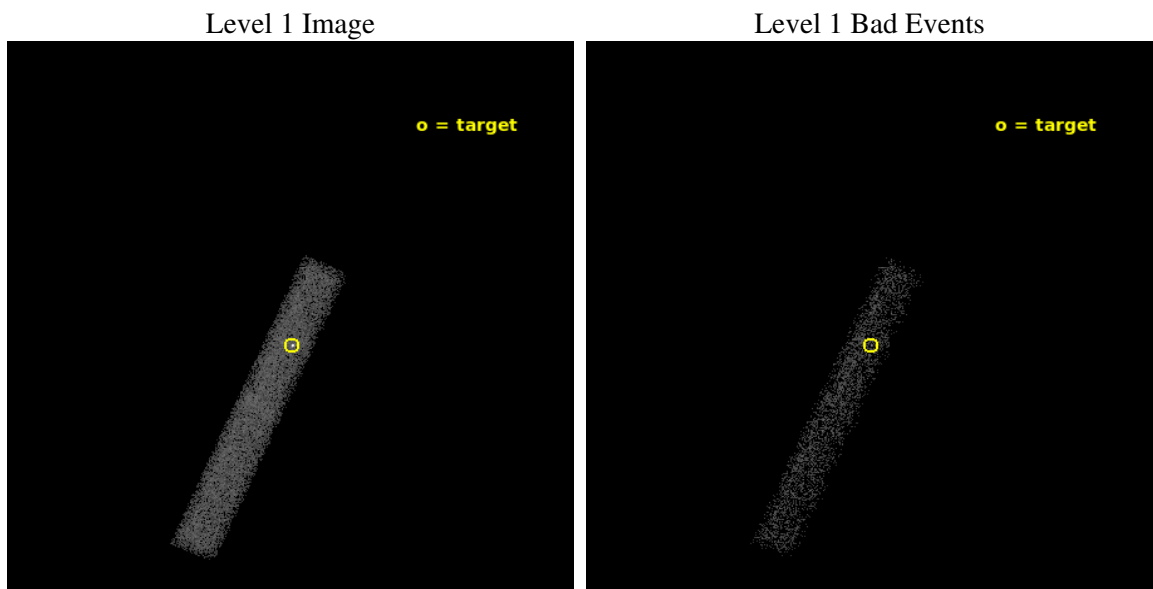
| | | |
|----------|---|---|
| seq_num | 600428 | Sequence number |
| obs_id | 6249 | Observation id |
| title | Dust-to-gas ratio in the z=0.44 lens galaxy B1152+199 | Proposal tit |
| observer | Dr. Kristian Pedersen | Principal investigator |
| object | B1152+199 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 178.82625 | Observer's specified target RA [deg] |
| dec_targ | 19.661722 | Observer's specified target Dec [deg] |
| ra_nom | 178.82738902101 | Nominal RA [deg] |
| dec_nom | 19.670549070369 | Nominal Dec [deg] |
| roll_nom | 113.95027721546 | Nominal Roll [deg] |
| revision | 5 | Processing version of data |
| ontime | 18136.80027023 | Sum of GTIs [s] |
| livetime | 16449.120506285 | Livetime [s] |
| ontime7 | 18136.80027023 | Sum of GTIs [s] |
| l2events | 13656 | Number of level 2 events |



2 OBI

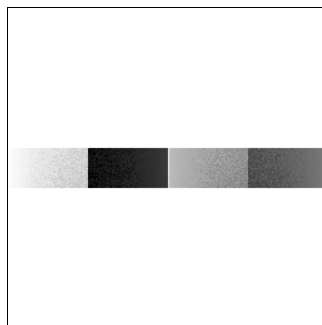
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 18000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 18136.80027023 | Sum of GTIs [s] |
| caldsver | 4.9.2 | | ontime7 | 18136.80027023 | Sum of GTIs [s] |
| date | 2020-10-06T22:12:51 | Date and time of file creation | l1events | 28109 | Number of level 1 events |
| revision | 5 | Processing version of data | | | |

2.1.4 Events

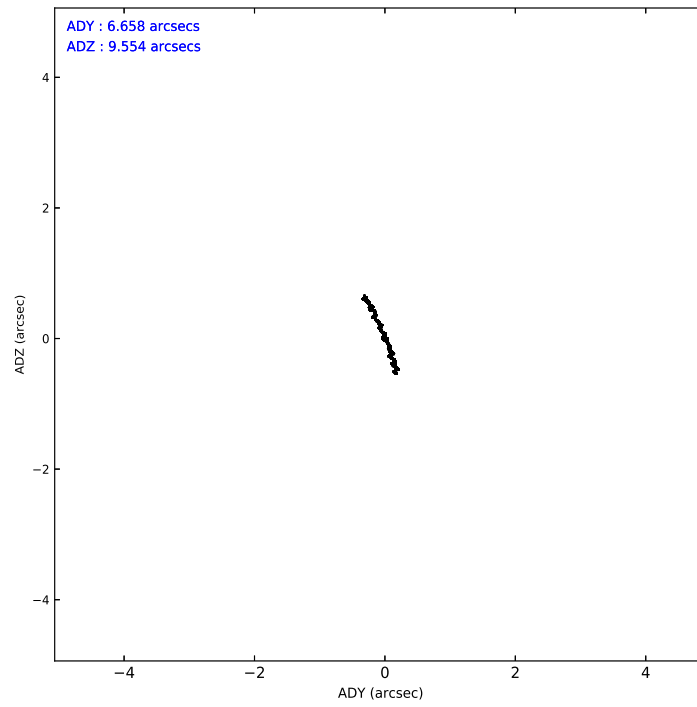
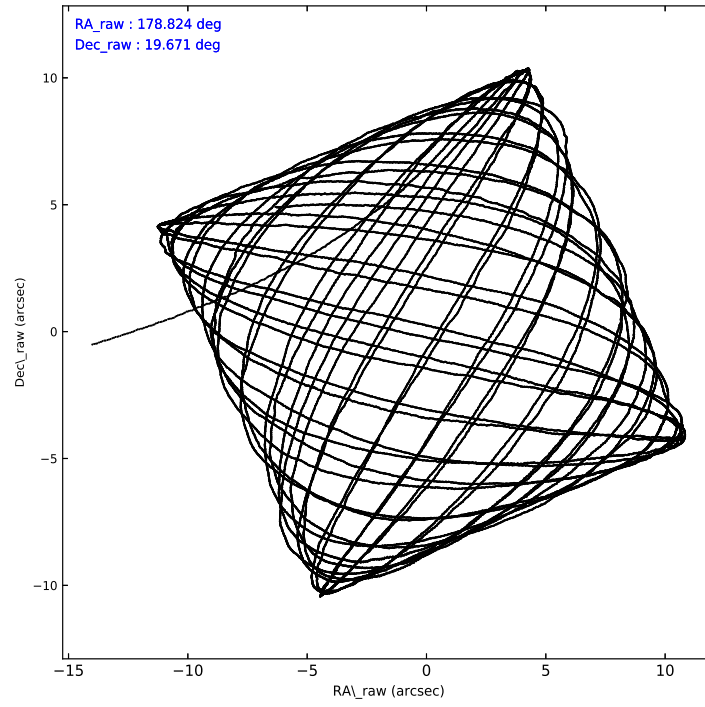
| | |
|-----------------|--------------|
| | ccd 7 |
| level 1 events | 28109 |
| rejected events | 14012 |
| rejected % | 49% |

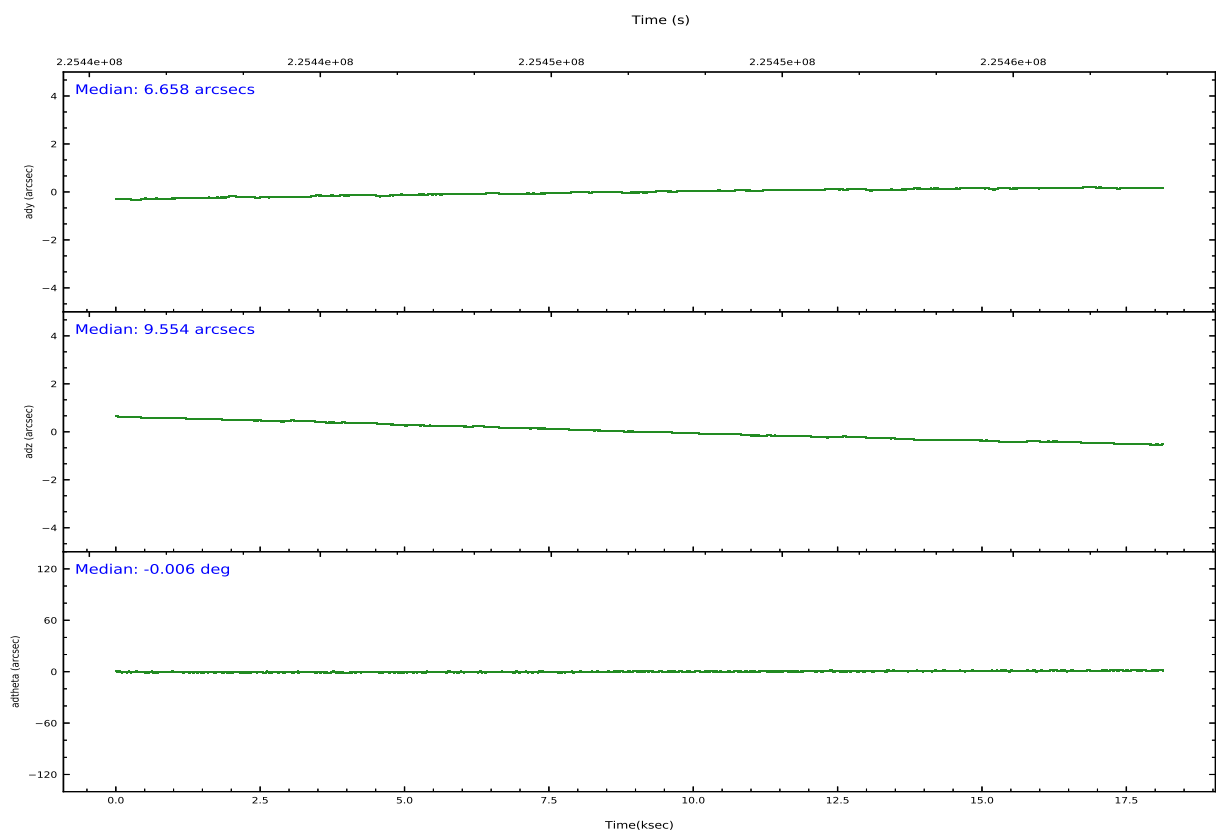
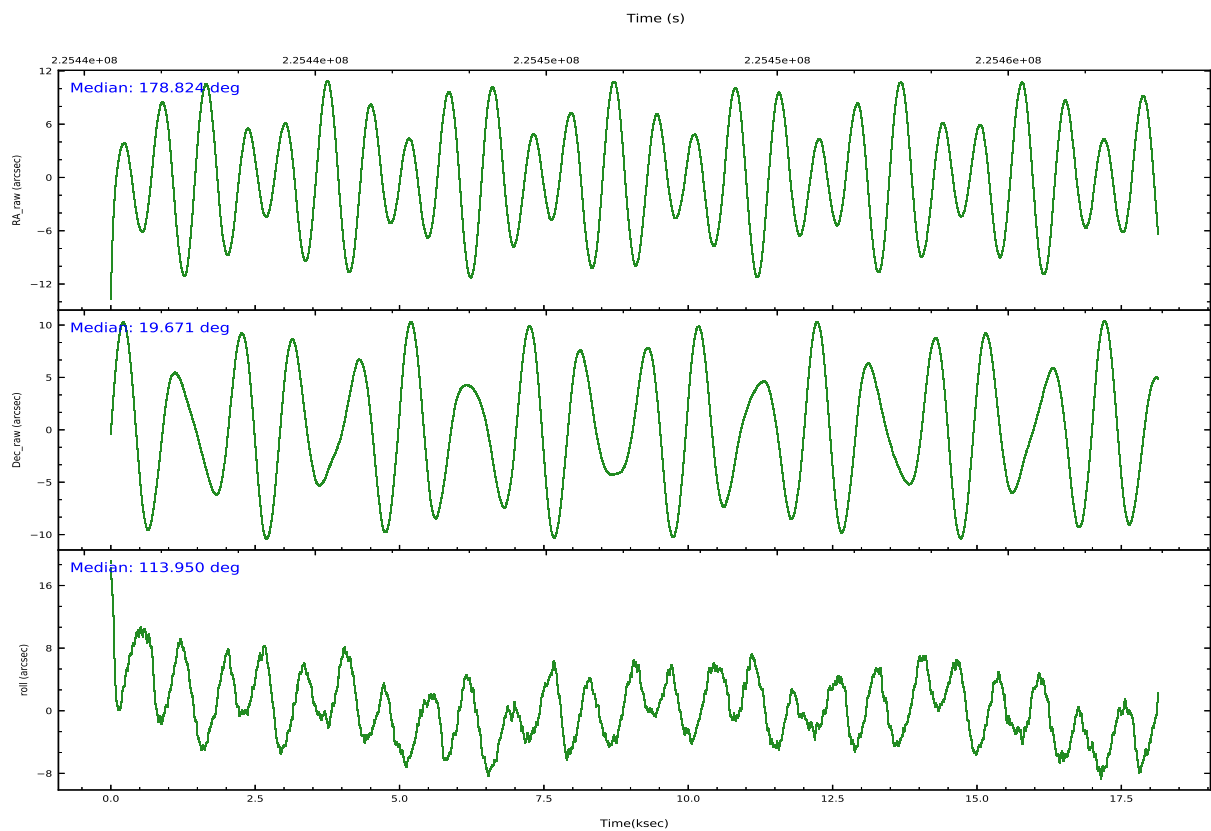
| | |
|----------------|--------------|
| | ccd 7 |
| grade 0 events | 2270 |
| | 8% |
| grade 1 events | 36 |
| | 0% |
| grade 2 events | 2932 |
| | 10% |
| grade 3 events | 1846 |
| | 6% |
| grade 4 events | 1810 |
| | 6% |
| grade 5 events | 2315 |
| | 8% |
| grade 6 events | 5866 |
| | 20% |
| grade 7 events | 11034 |
| | 39% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| Detector | ACIS-7 | ACIS-7 | 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 | 178.847399 | 178.82738902101 | Subarray requested | CUSTOM | 1/8 |
| [deg] Pointing Dec | 19.655379 | 19.670549070369 | Subarray start row | 449 | 449 |
| [deg] Pointing Roll | 113.792888 | 113.95027721546 | Subarray row count | 128 | 128 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | Alternating exposures requested | N | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | [s] Primary exposure time | 0.000000 | 0.4 |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 225440595.184000 | 225439360.52841 | | | |
| Observation start date | 2005-02-22T06:22:11 | 2005-02-22T06:02:40 | | | |
| [s] Observation end time (MET) | 225458595.184000 | 225459188.12931 | | | |
| Observation end date | 2005-02-22T11:22:11 | 2005-02-22T11:33:08 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



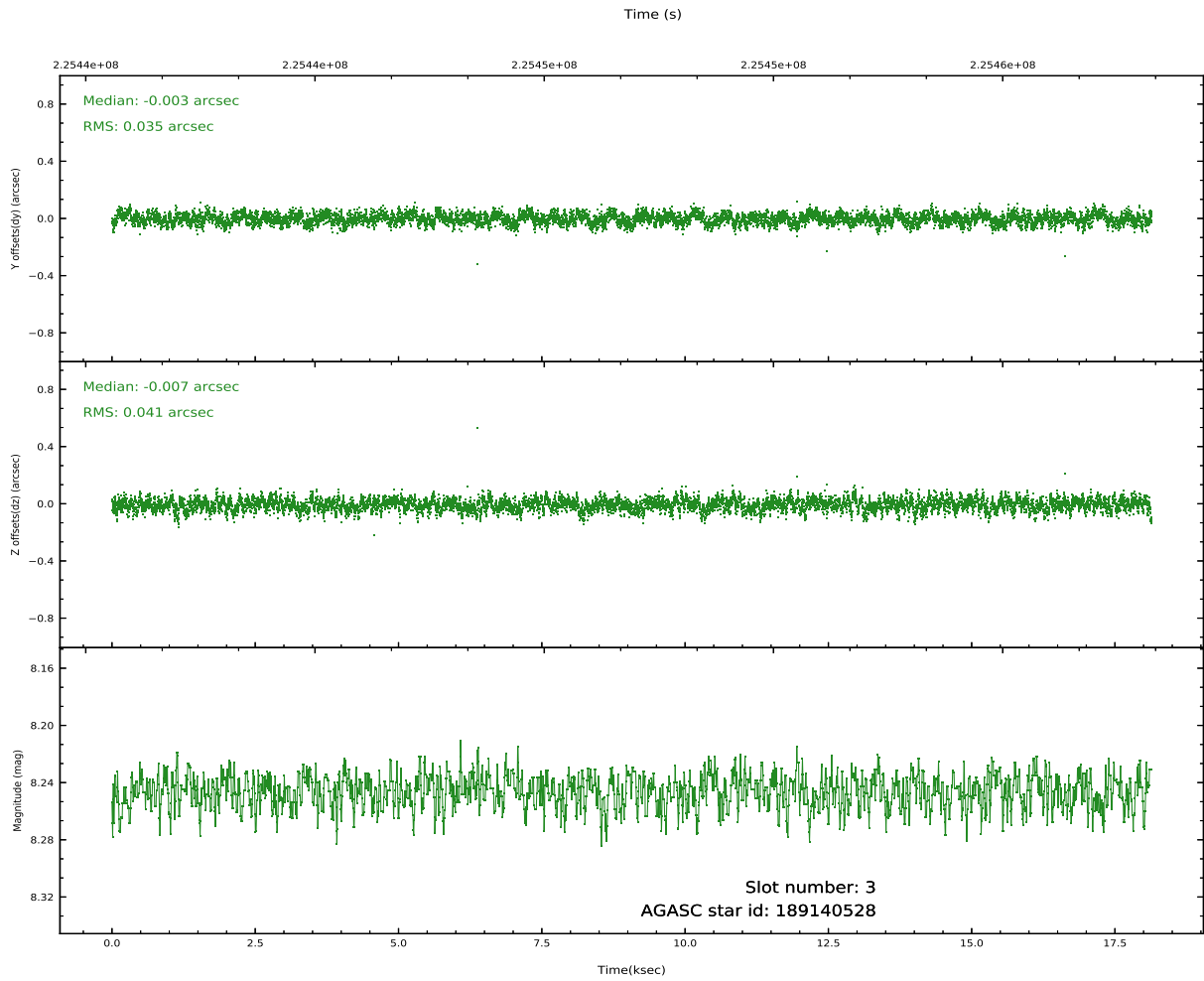
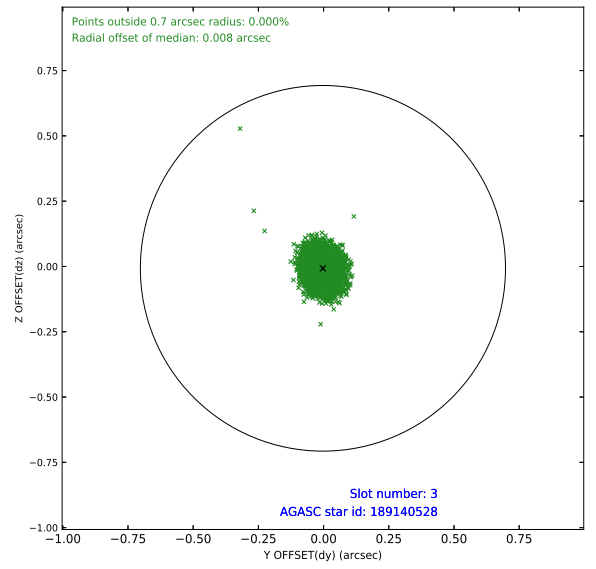
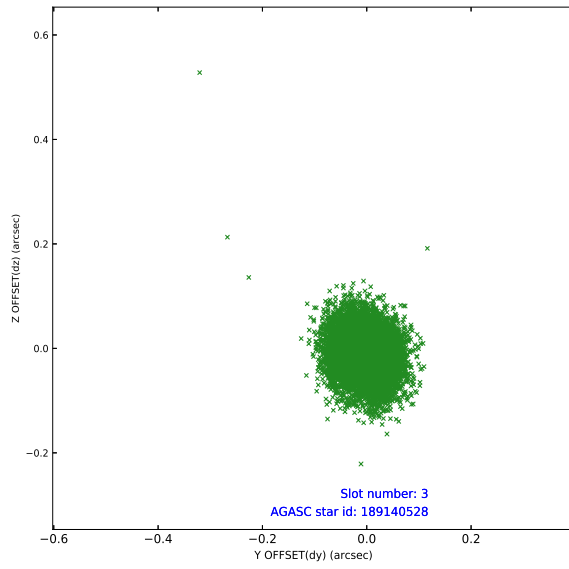


Slot Statistics

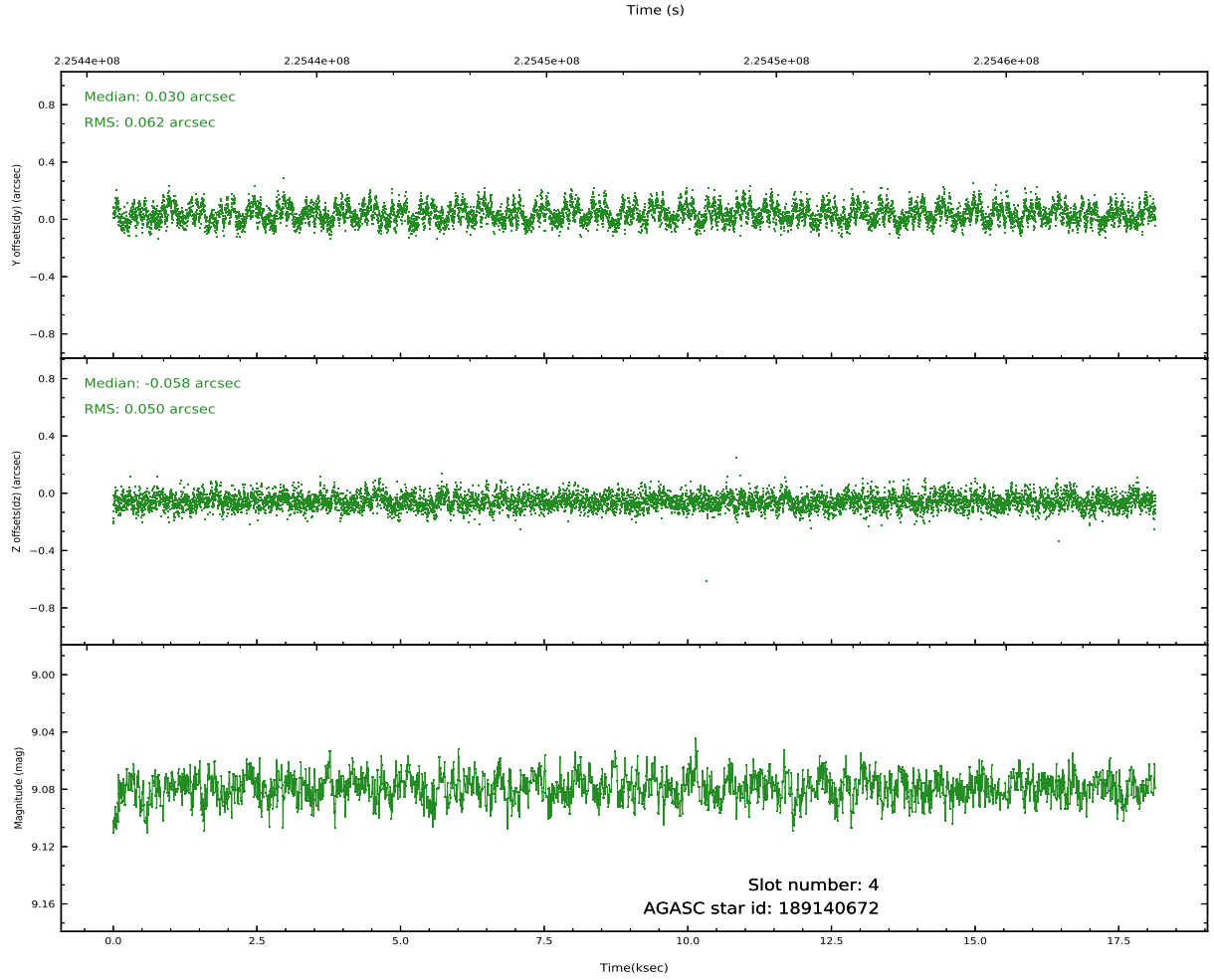
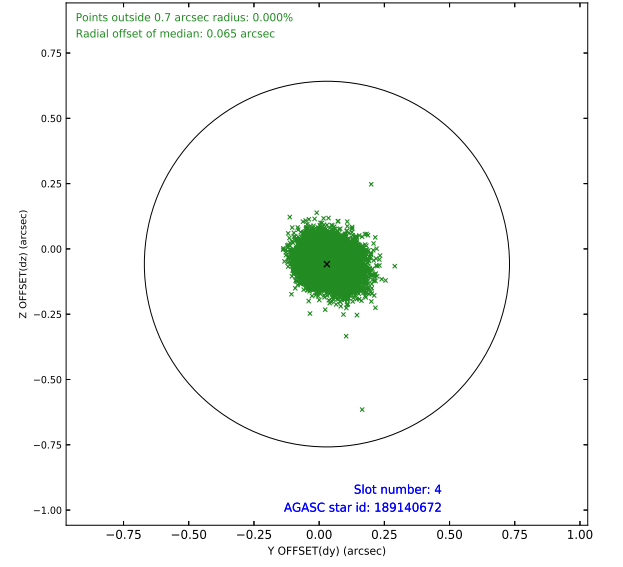
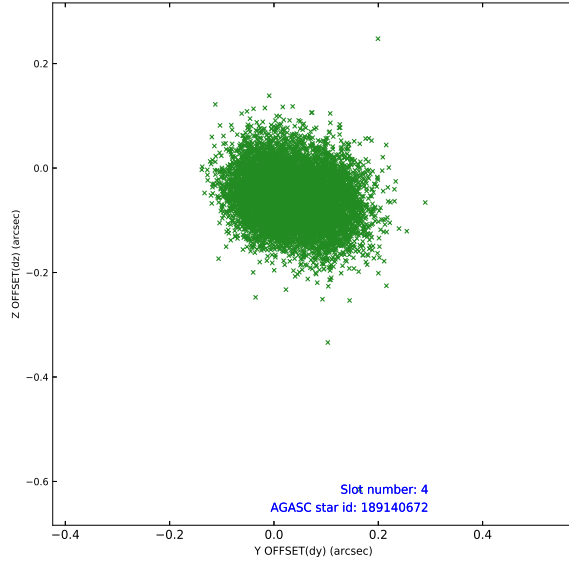
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|---------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.10 | 4424 | 1.000 | -0.078 | -0.065 | 0.013 | 0.020 | 0.000000 | 0.000000 | -759.41 | -1730 |
| 1 | FID | | ACIS-S-4 | 7.20 | 4424 | 1.000 | 0.140 | 0.056 | 0.009 | 0.017 | 0.000000 | 0.000000 | 2153.93 | 177 |
| 2 | FID | | ACIS-S-5 | 7.23 | 4424 | 1.000 | -0.092 | 0.019 | 0.012 | 0.018 | 0.000000 | 0.000000 | -1812.03 | 171 |
| 3 | GUIDE | used | 189140528 | 8.25 | 8848 | 1.000 | -0.003 | -0.007 | 0.056 | 0.092 | 178.633618 | 19.411233 | -510.33 | 1021 |
| 4 | GUIDE | used | 189140672 | 9.08 | 8846 | 1.000 | 0.030 | -0.058 | 0.084 | 0.136 | 178.601271 | 18.918622 | -2088.74 | 1836 |
| 5 | GUIDE | used | 189143880 | 8.02 | 8848 | 1.000 | -0.039 | 0.065 | 0.068 | 0.105 | 179.370549 | 19.983904 | 371.89 | -2095 |
| 6 | OMITTED | | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0 |
| 7 | GUIDE | used | 189140696 | 8.43 | 8846 | 1.000 | 0.006 | 0.002 | 0.067 | 0.107 | 178.646164 | 19.427835 | -472.82 | 957 |

2.4 Star Slots

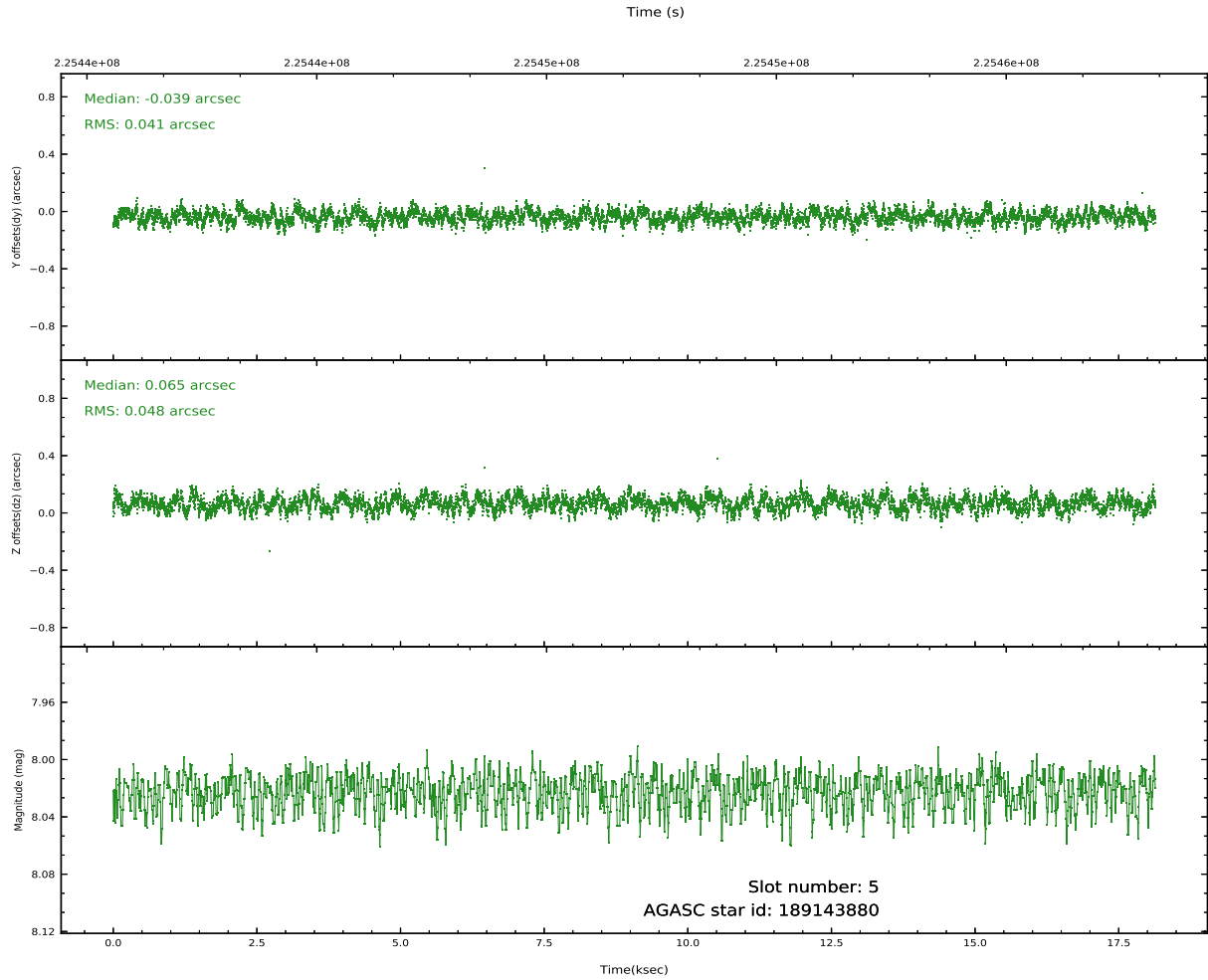
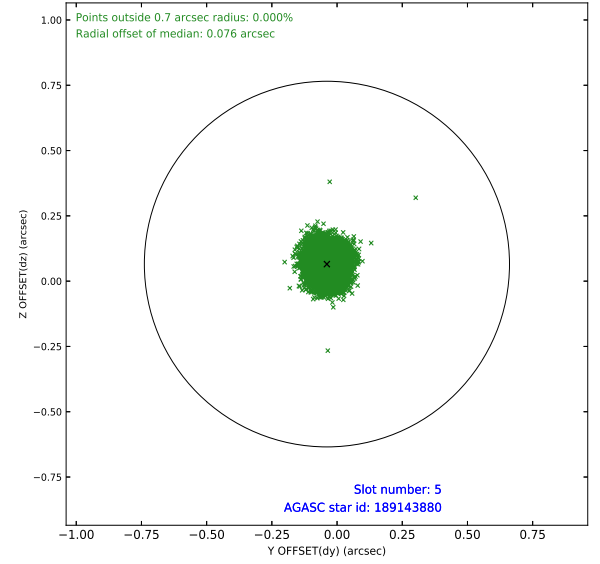
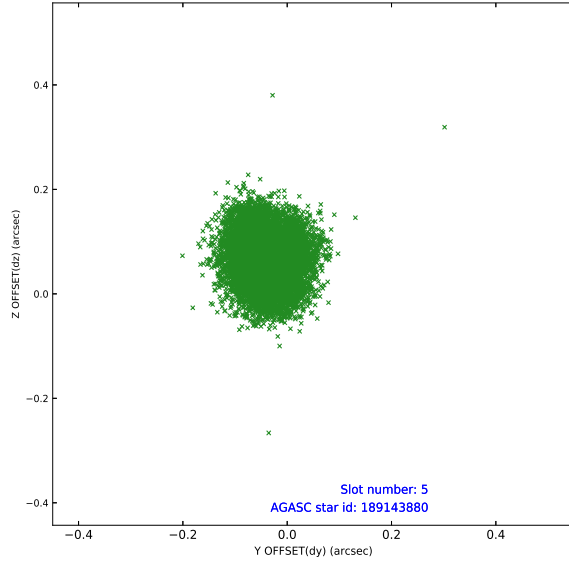
2.4.1 Slot 3



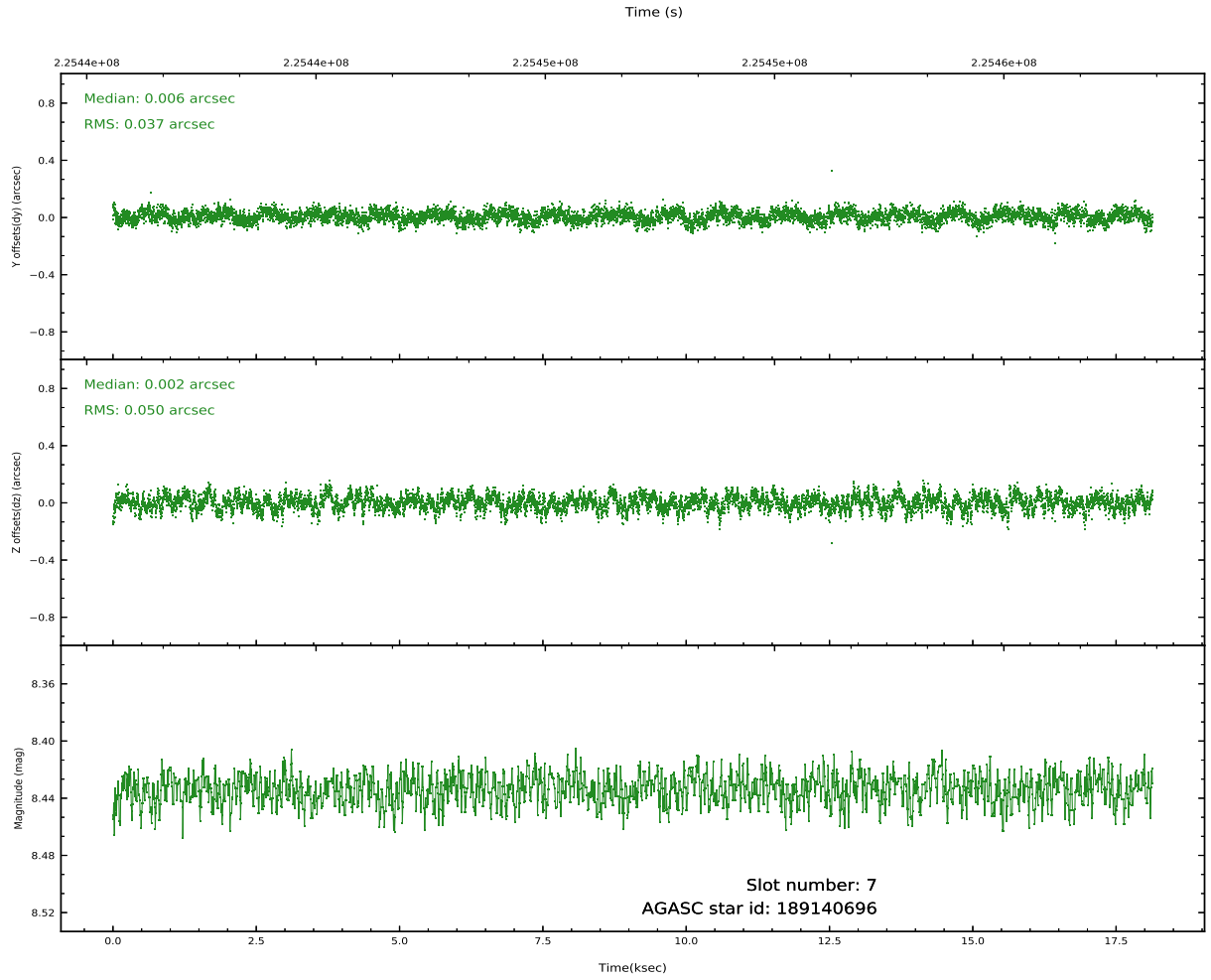
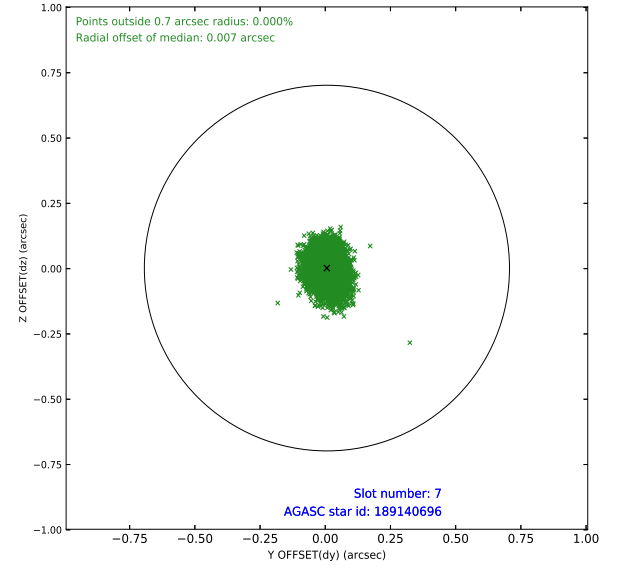
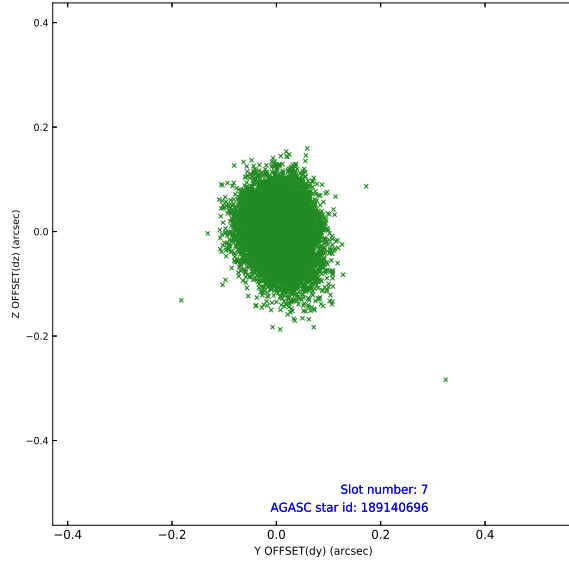
2.4.2 Slot 4



2.4.3 Slot 5

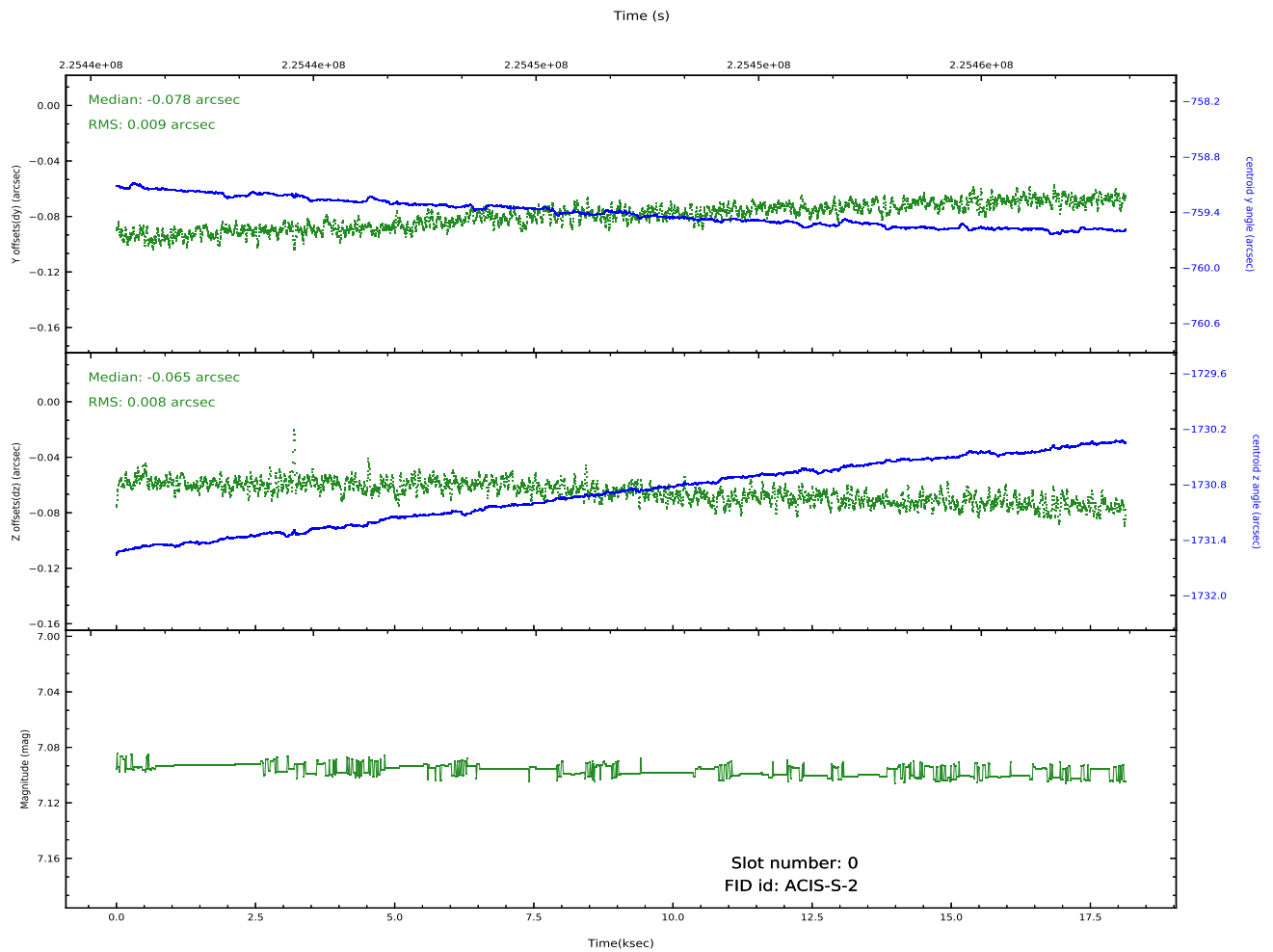
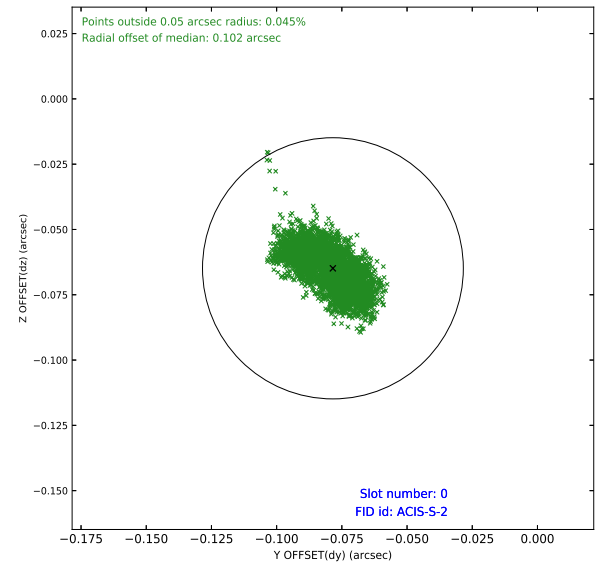
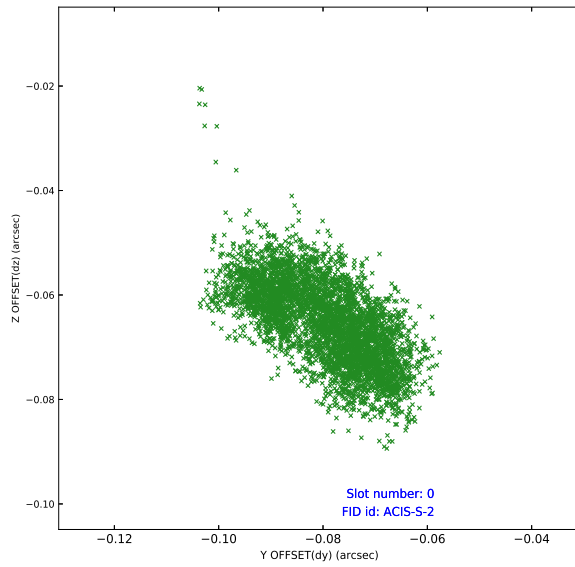


2.4.4 Slot 7

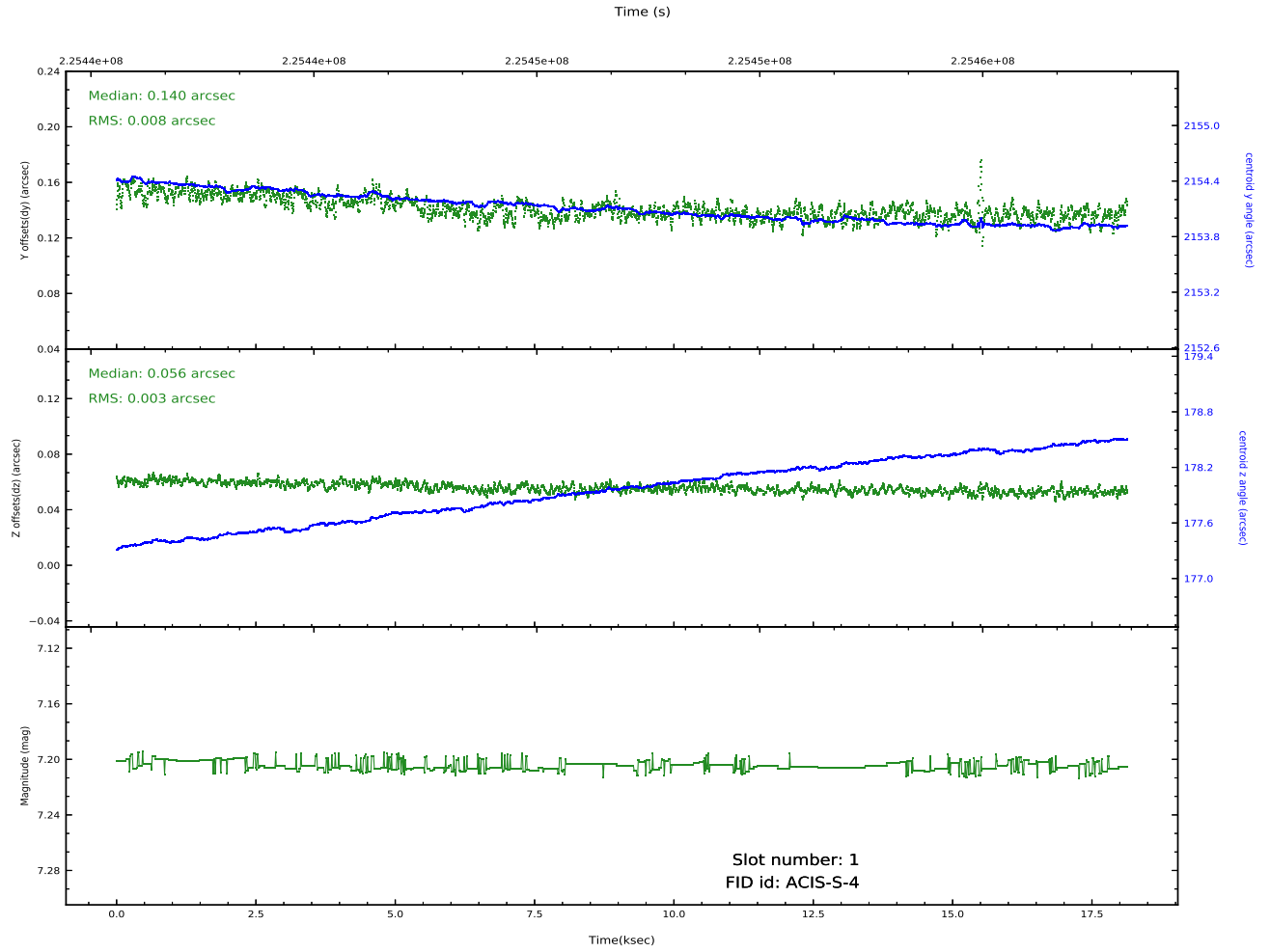
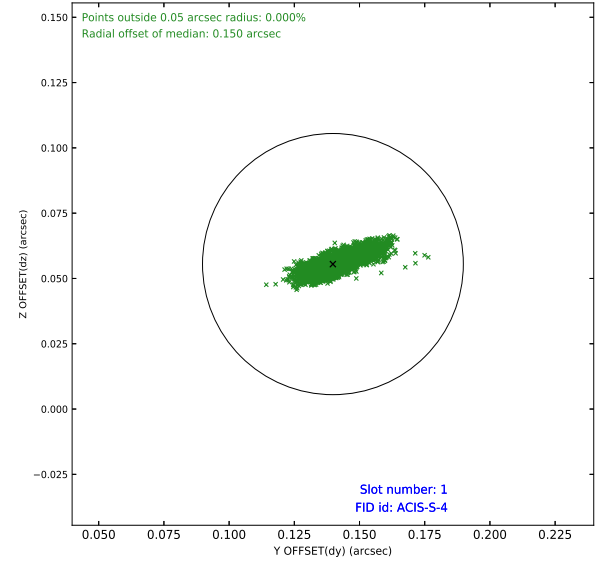
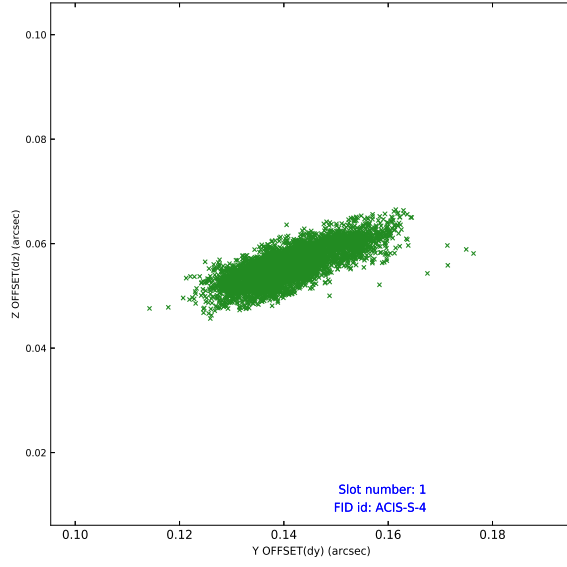


2.5 FID Slots

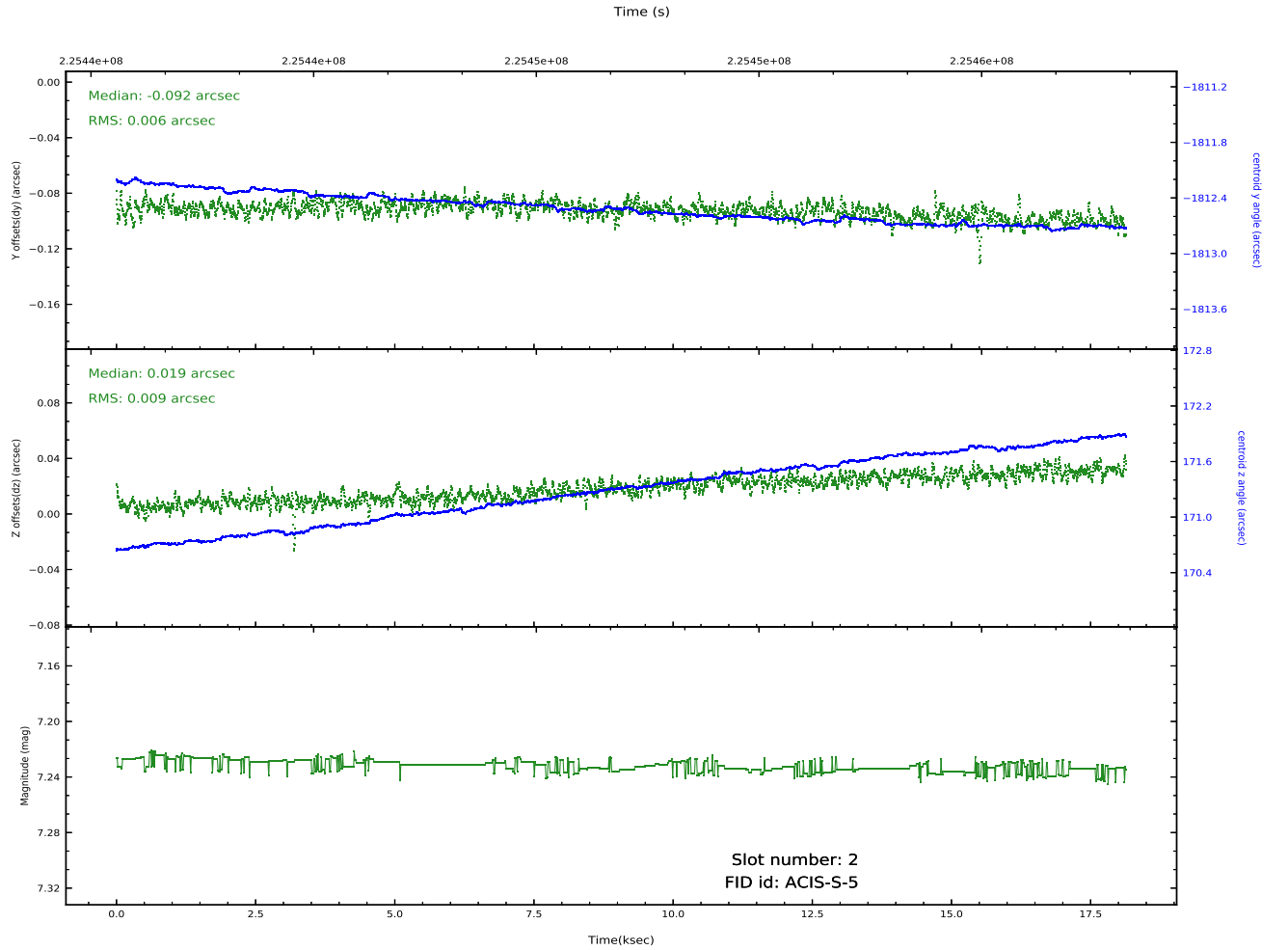
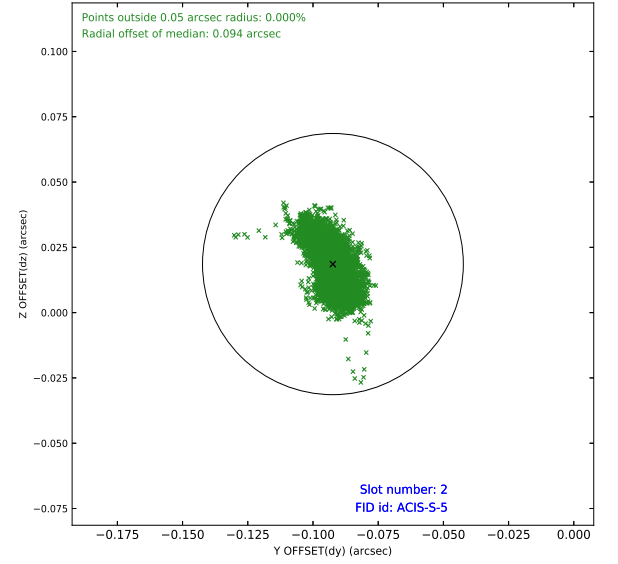
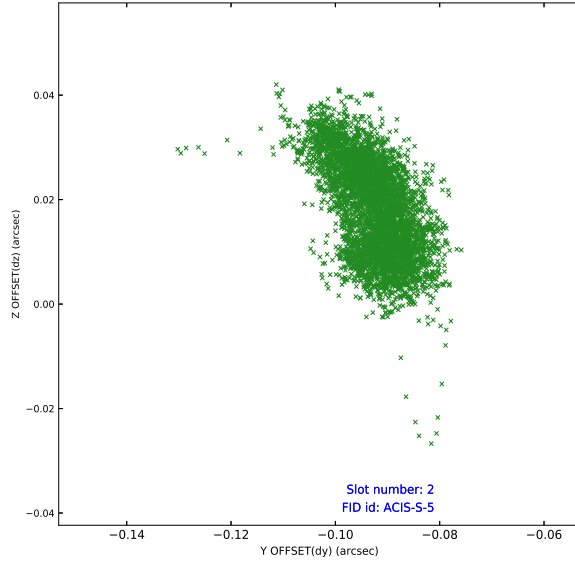
2.5.1 Slot 0



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) | 2020.10.07 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 18.1368 |

A.2 Comments

The guide star in slot 6 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.