

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 7196 - L2 Version 4
Chandra X-Ray Center

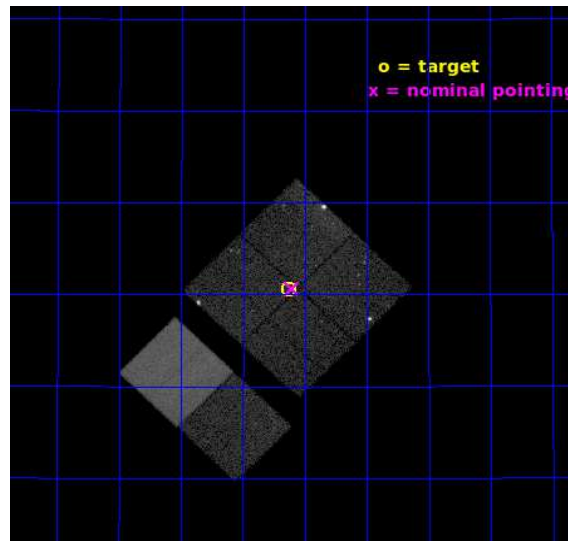
L2 Processing Date : Oct 11 2020

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1 Front

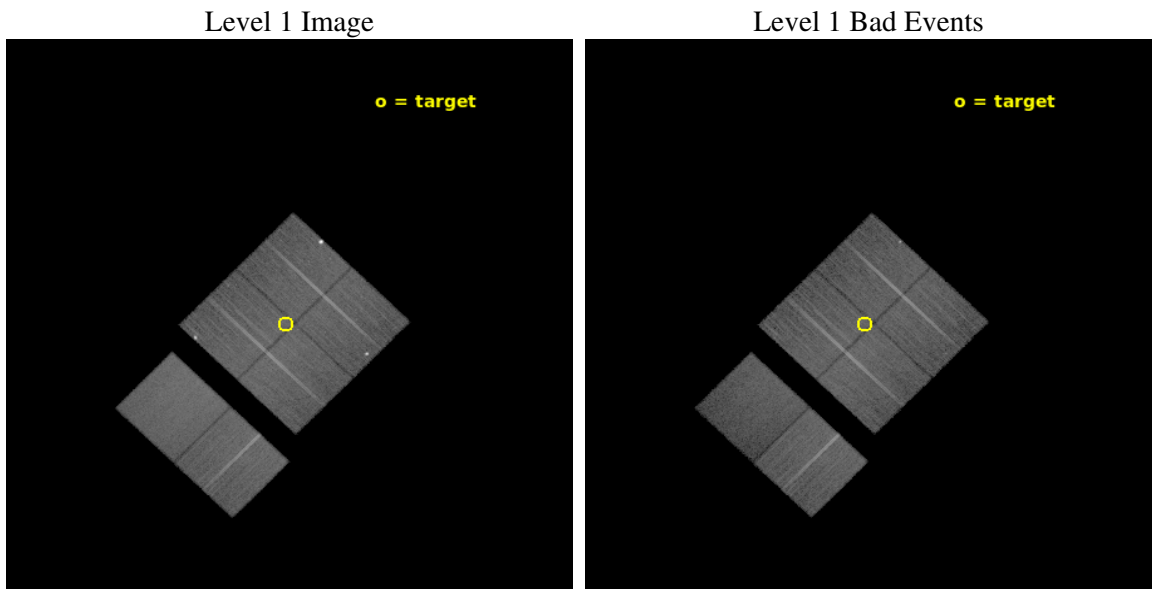
| | | |
|----------|---|---|
| seq_num | 600488 | Sequence number |
| obs_id | 7196 | Observation id |
| title | The Chandra ACIS Survey of M33 (ChASem33): A Deep Survey of the Nearest Face-on Spiral Galaxy | Proposal title |
| observer | Manami Sasaki | Principal investigator |
| object | M33 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 23.532083 | Observer's specified target RA [deg] |
| dec_targ | 30.509111 | Observer's specified target Dec [deg] |
| ra_nom | 23.526121894568 | Nominal RA [deg] |
| dec_nom | 30.510866045218 | Nominal Dec [deg] |
| roll_nom | 224.2124427133 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 23049.599914134 | Sum of GTIs [s] |
| livetime | 22757.732001218 | Livetime [s] |
| ontime0 | 23049.599914134 | Sum of GTIs [s] |
| ontime1 | 23049.599914134 | Sum of GTIs [s] |
| ontime2 | 23036.636002779 | Sum of GTIs [s] |
| ontime3 | 23049.599914134 | Sum of GTIs [s] |
| ontime6 | 23049.599914134 | Sum of GTIs [s] |
| ontime7 | 23049.599914134 | Sum of GTIs [s] |
| l2events | 161863 | Number of level 2 events |



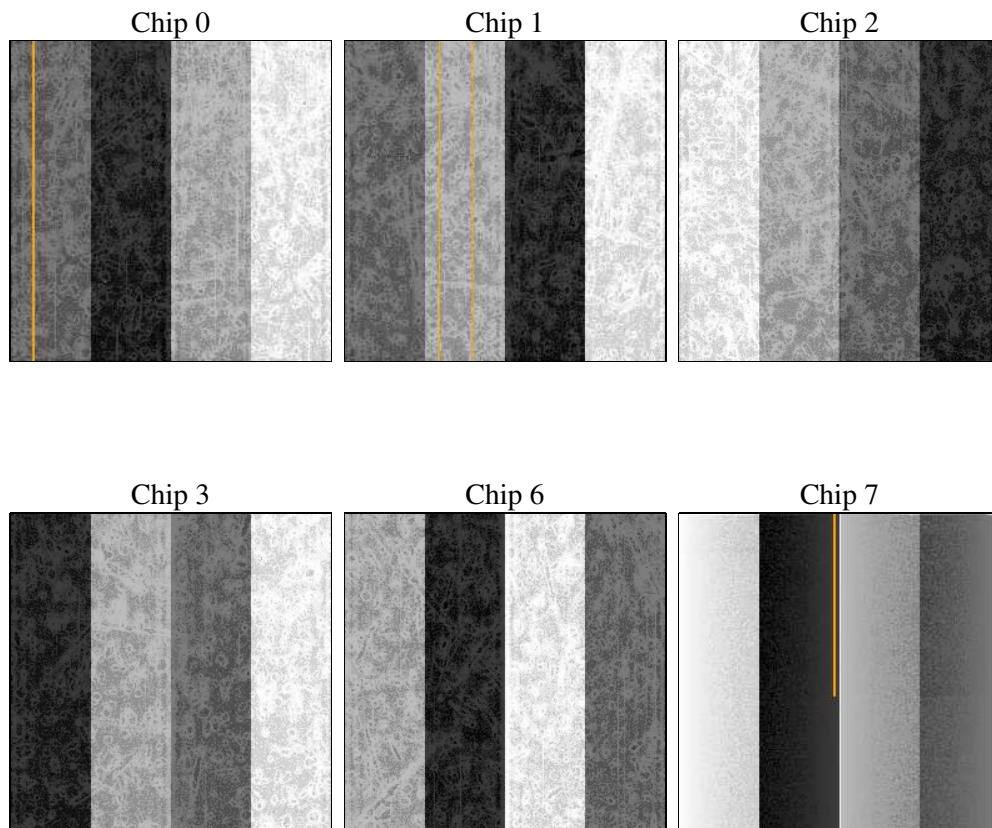
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 23000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 23049.599914134 | Sum of GTIs [s] |
| caldsver | 4.9.2 | | ontime0 | 23049.599914134 | Sum of GTIs [s] |
| date | 2020-10-11T14:27:54 | Date and time of file creation | ontime1 | 23049.599914134 | Sum of GTIs [s] |
| revision | 4 | Processing version of data | ontime2 | 23036.636002779 | Sum of GTIs [s] |
| | | | ontime3 | 23049.599914134 | Sum of GTIs [s] |
| | | | ontime6 | 23049.599914134 | Sum of GTIs [s] |
| | | | ontime7 | 23049.599914134 | Sum of GTIs [s] |
| | | | l1events | 951116 | Number of level 1 events |

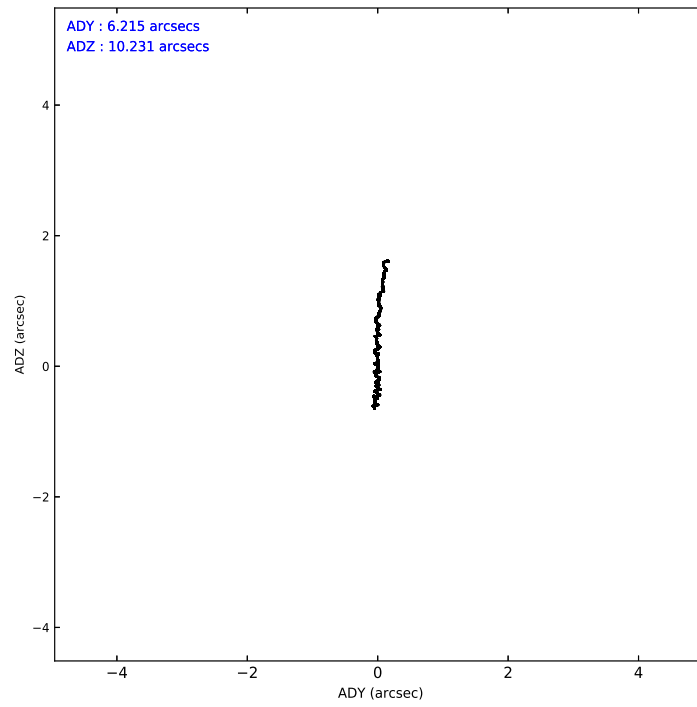
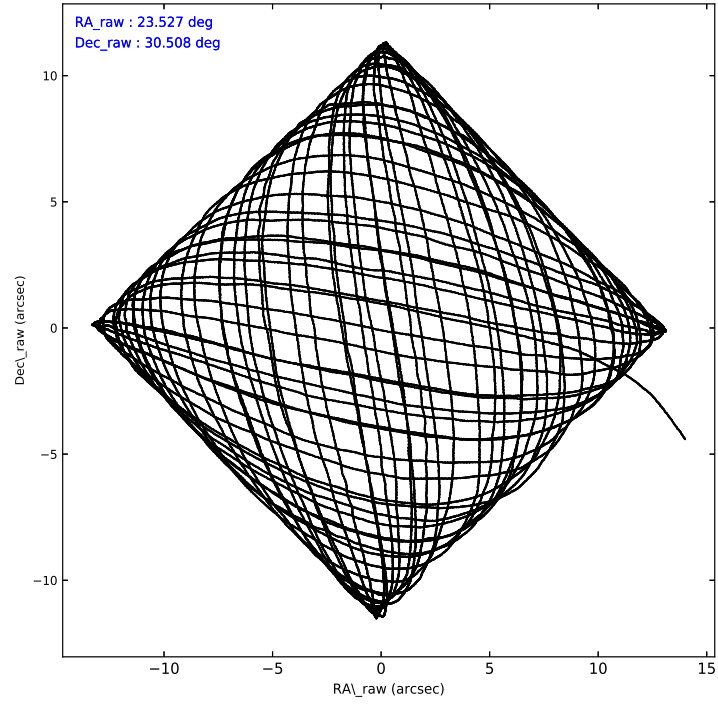
2.1.4 Events

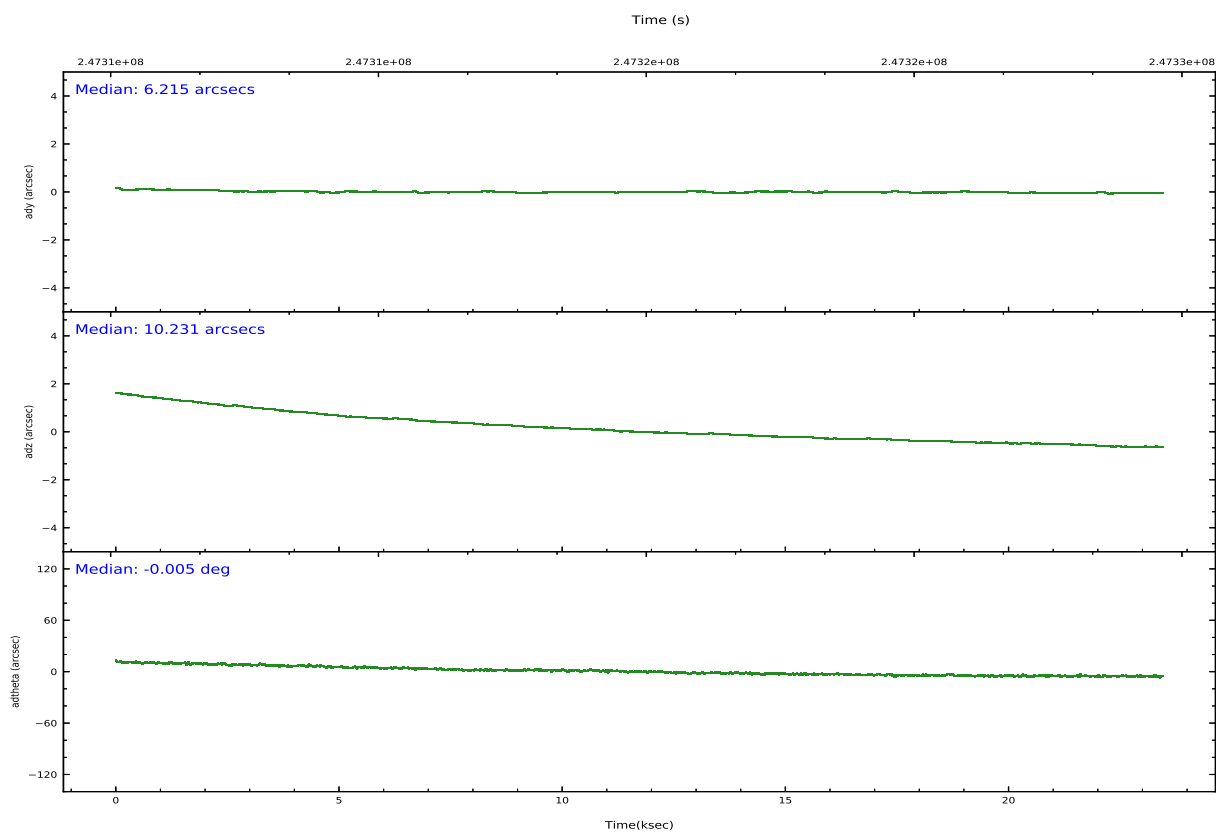
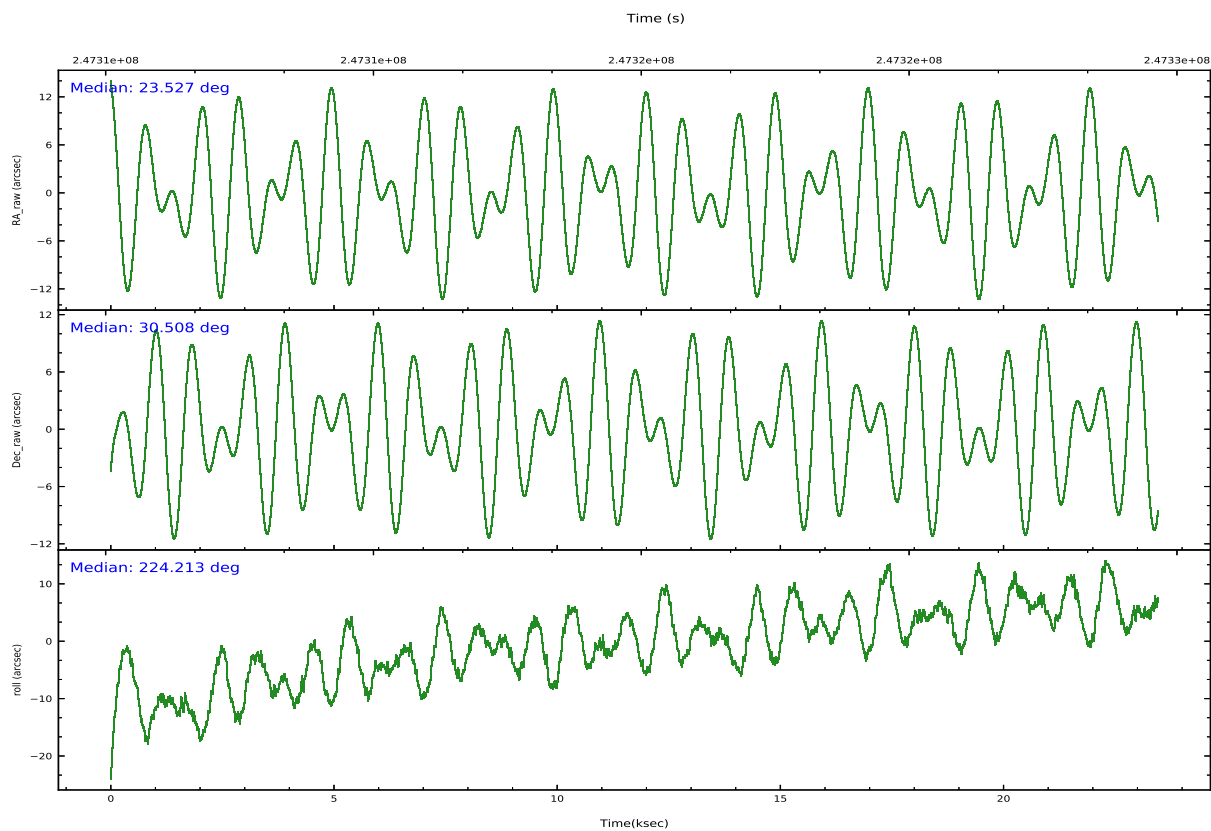
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|-------|
| level 1 events | 147155 | 162804 | 158721 | 155739 | 157463 | 169234 | grade 0 events | 9381 | 23135 | 5149 | 8402 | 5251 | 6082 |
| rejected events | 126924 | 124290 | 144262 | 137214 | 141889 | 94450 | | 6% | 14% | 3% | 5% | 3% | 3% |
| rejected % | 86% | 76% | 90% | 88% | 90% | 55% | grade 1 events | 107 | 399 | 99 | 104 | 75 | 136 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 4133 | 6113 | 3396 | 3541 | 3404 | 14834 |
| | | | | | | | | 2% | 3% | 2% | 2% | 2% | 8% |
| | | | | | | | grade 3 events | 1998 | 2586 | 1568 | 1798 | 1760 | 6936 |
| | | | | | | | | 1% | 1% | 0% | 1% | 1% | 4% |
| | | | | | | | grade 4 events | 1765 | 2600 | 1630 | 1773 | 1745 | 6861 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 5 events | 5113 | 6057 | 4776 | 6160 | 6224 | 18075 |
| | | | | | | | | 3% | 3% | 3% | 3% | 3% | 10% |
| | | | | | | | grade 6 events | 2957 | 4086 | 2718 | 3012 | 3414 | 40078 |
| | | | | | | | | 2% | 2% | 1% | 1% | 2% | 23% |
| | | | | | | | grade 7 events | 121701 | 117828 | 139385 | 130949 | 135590 | 76232 |
| | | | | | | | | 82% | 72% | 87% | 84% | 86% | 45% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| Detector | ACIS-012367 | ACIS-012367 | 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 | 23.535589 | 23.526121894568 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 30.533805 | 30.510866045218 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 223.998215 | 224.2124427133 | [s] Primary exposure time | 0.000000 | 3.2 |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | | | |
| [mm] SIM defocus | 0 | 0.001439871863259334 | | | |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | | | |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | | | |
| [s] Observation start time (MET) | 247306579.184000 | 247305430.79016 | | | |
| Observation start date | 2005-11-02T08:15:15 | 2005-11-02T07:57:10 | | | |
| [s] Observation end time (MET) | 247329579.184000 | 247330284.4788 | | | |
| Observation end date | 2005-11-02T14:38:35 | 2005-11-02T14:51:24 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



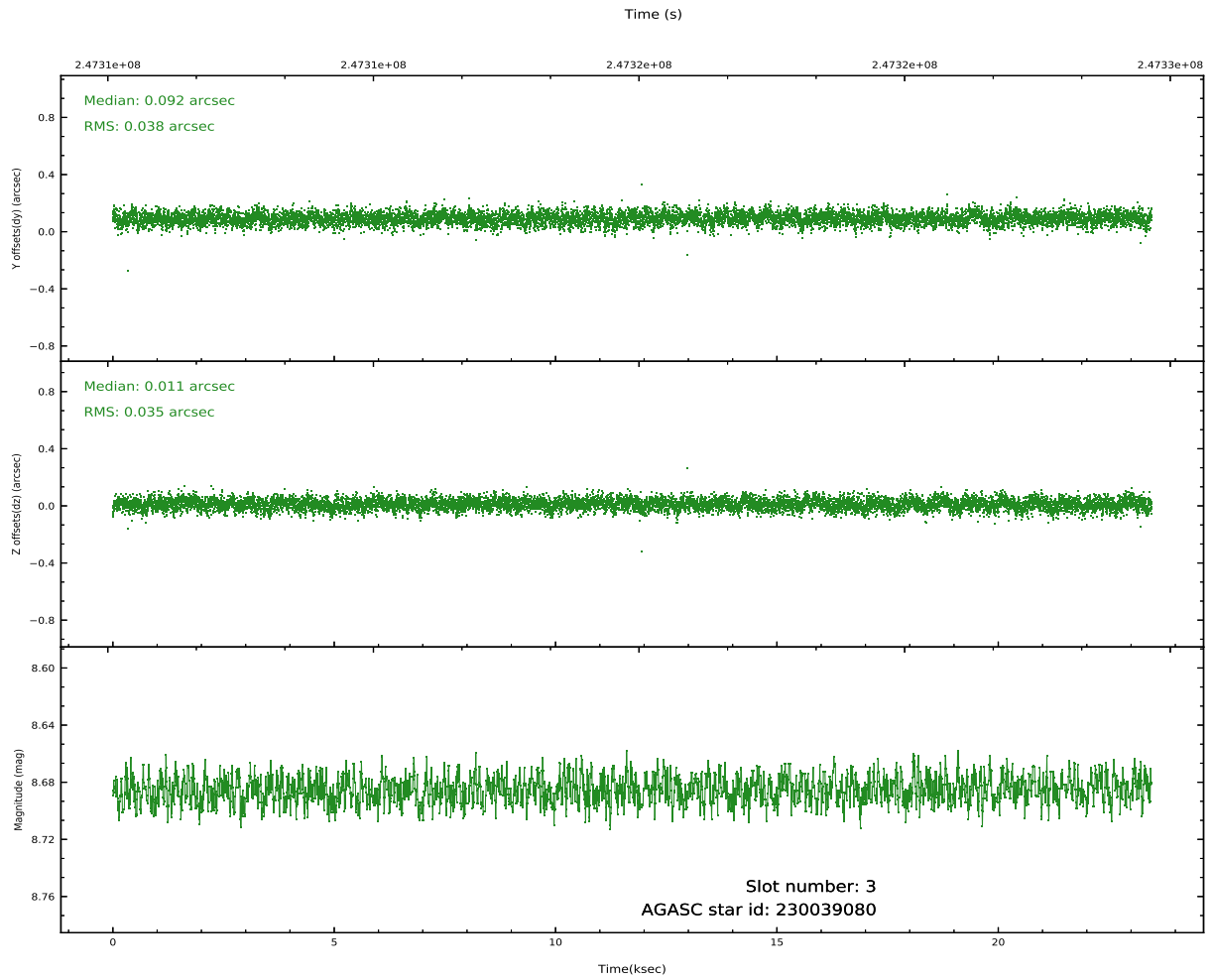
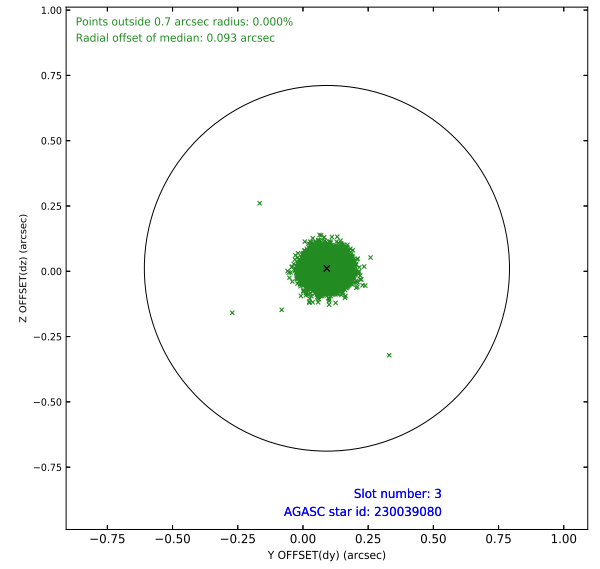
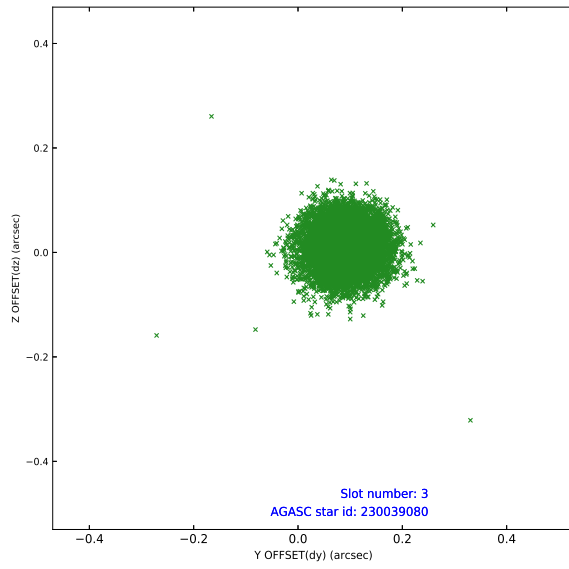


Slot Statistics

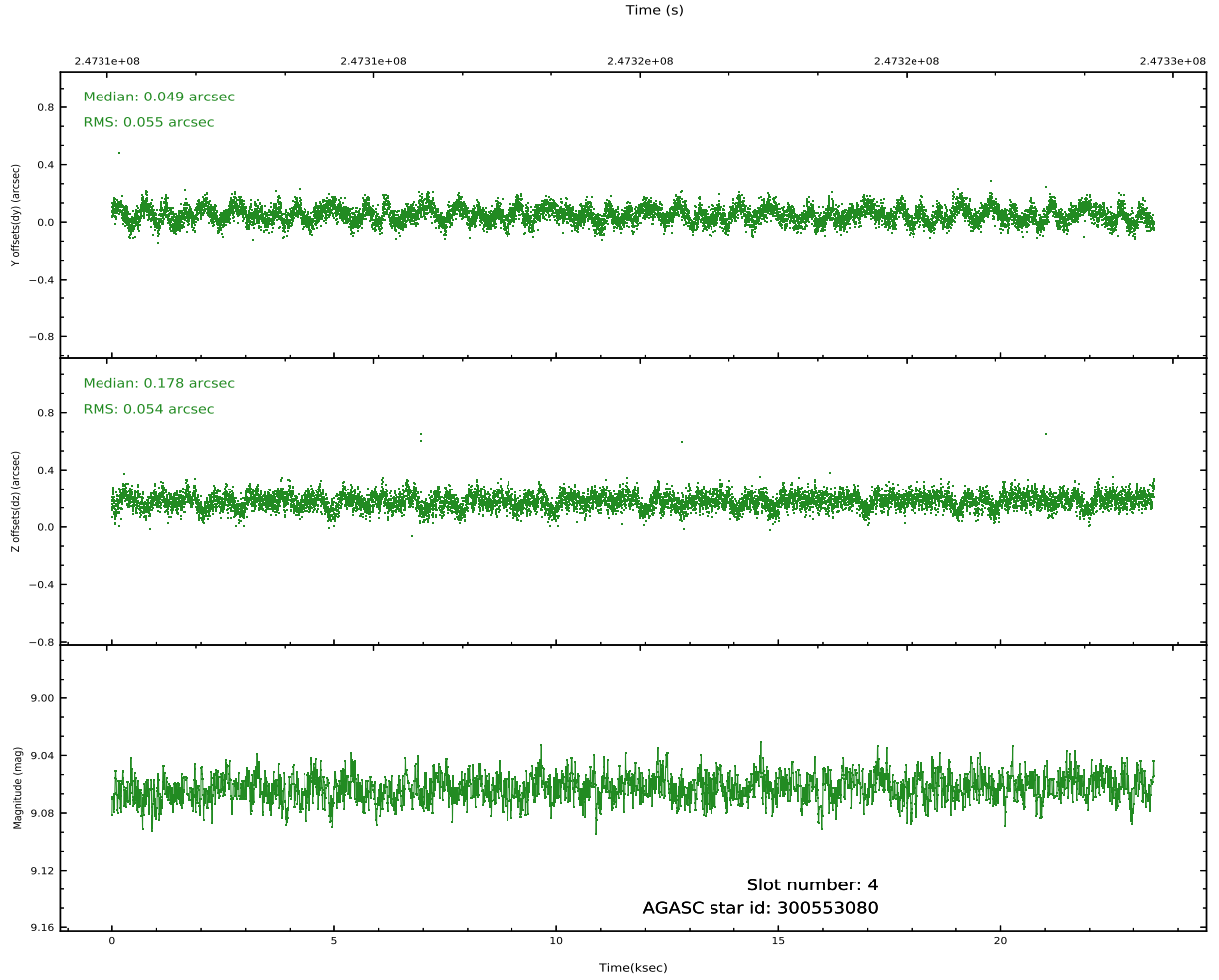
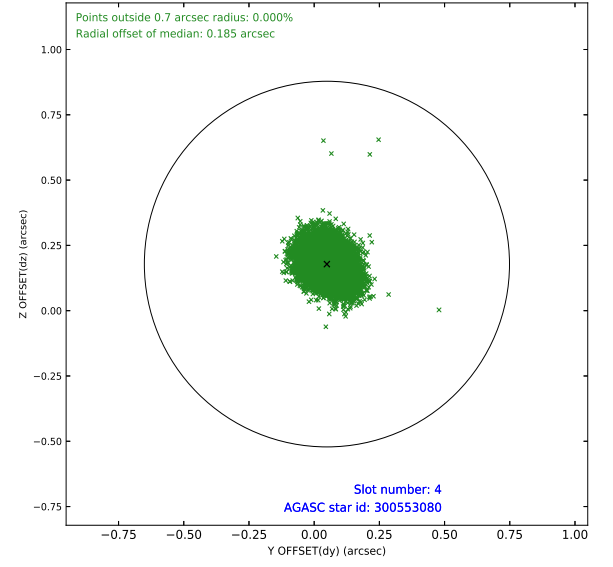
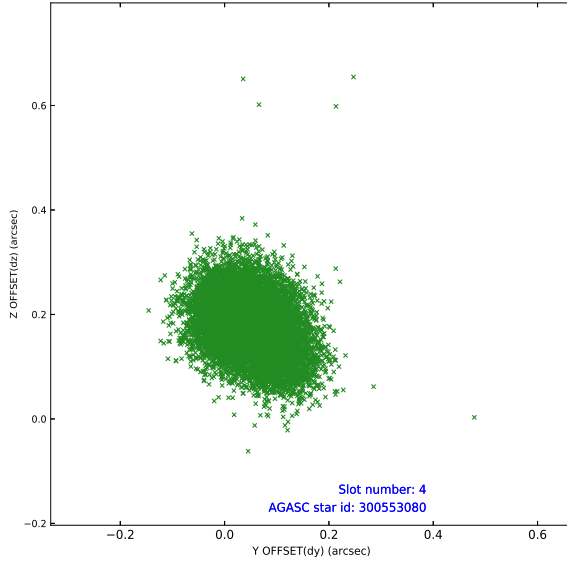
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|-----------|-----------|----------|-------|
| 0 | FID | | ACIS-I-1 | 7.25 | 5723 | 1.000 | 0.010 | 0.007 | 0.010 | 0.016 | 0.000000 | 0.000000 | 933.54 | -833 |
| 1 | FID | | ACIS-I-2 | 7.14 | 5723 | 1.000 | -0.100 | -0.052 | 0.016 | 0.032 | 0.000000 | 0.000000 | -760.58 | -840 |
| 2 | FID | | ACIS-I-6 | 7.25 | 5722 | 1.000 | -0.000 | 0.113 | 0.019 | 0.030 | 0.000000 | 0.000000 | 398.98 | 1708 |
| 3 | GUIDE | used | 230039080 | 8.69 | 11439 | 1.000 | 0.092 | 0.011 | 0.055 | 0.090 | 23.320866 | 29.887774 | 2097.48 | 1207 |
| 4 | GUIDE | used | 300553080 | 9.06 | 11441 | 1.000 | 0.049 | 0.178 | 0.082 | 0.133 | 23.777101 | 30.773227 | -1136.24 | -101 |
| 5 | GUIDE | used | 300559160 | 9.40 | 11409 | 1.000 | -0.046 | -0.122 | 0.100 | 0.169 | 24.161026 | 30.632205 | -1643.39 | 1087 |
| 6 | GUIDE | used | 300559832 | 7.87 | 11446 | 1.000 | -0.036 | -0.039 | 0.054 | 0.088 | 24.407732 | 30.552794 | -1999.83 | 1821 |
| 7 | GUIDE | used | 300559960 | 7.88 | 11441 | 1.000 | -0.058 | -0.023 | 0.063 | 0.100 | 22.944463 | 30.624765 | 1086.48 | -1510 |

2.4 Star Slots

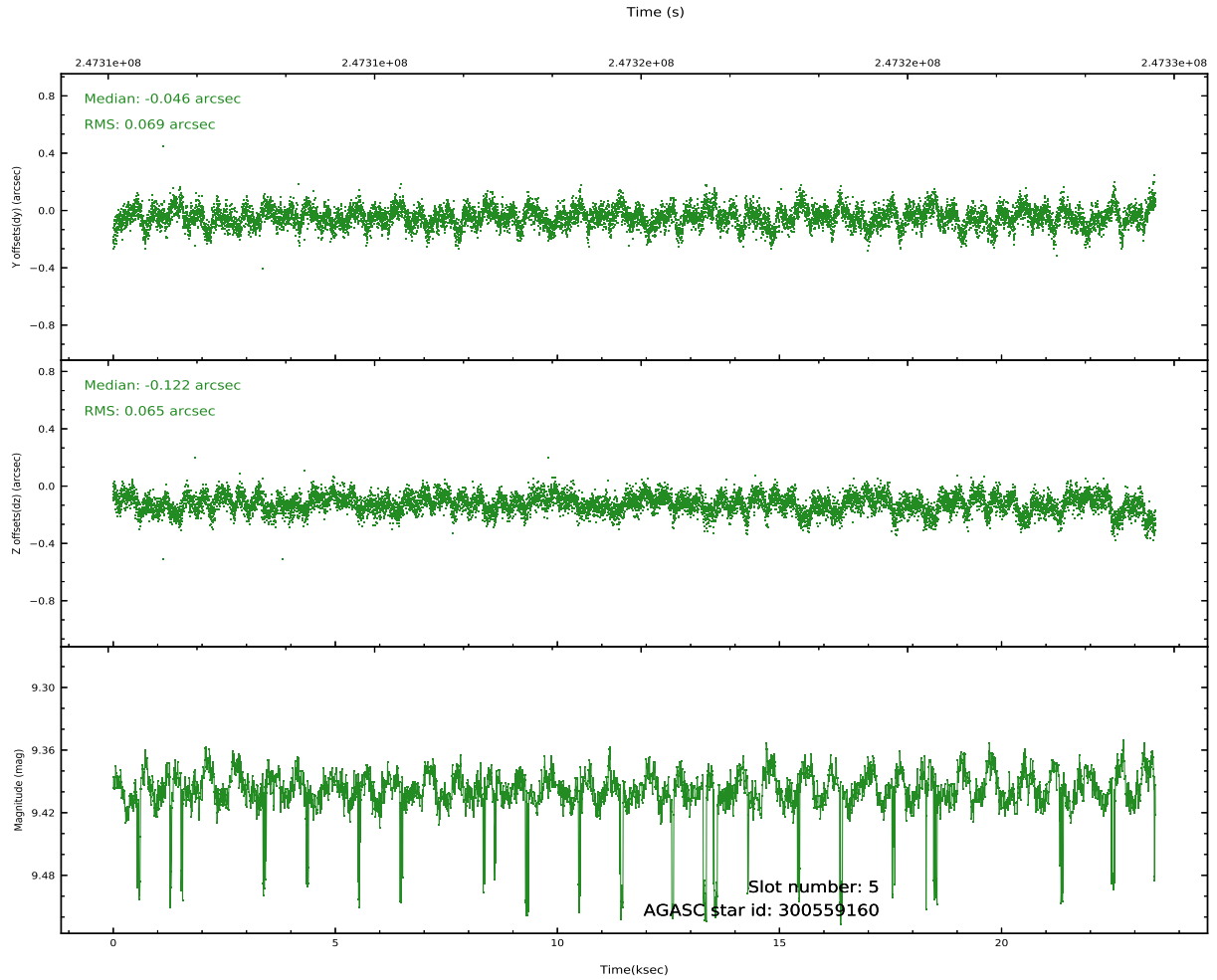
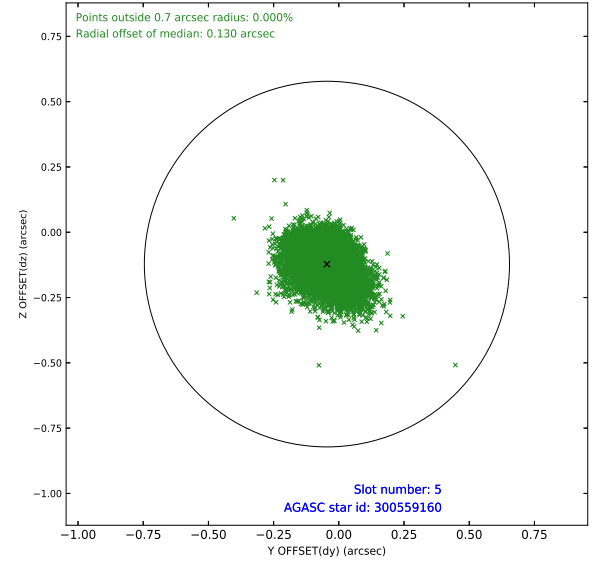
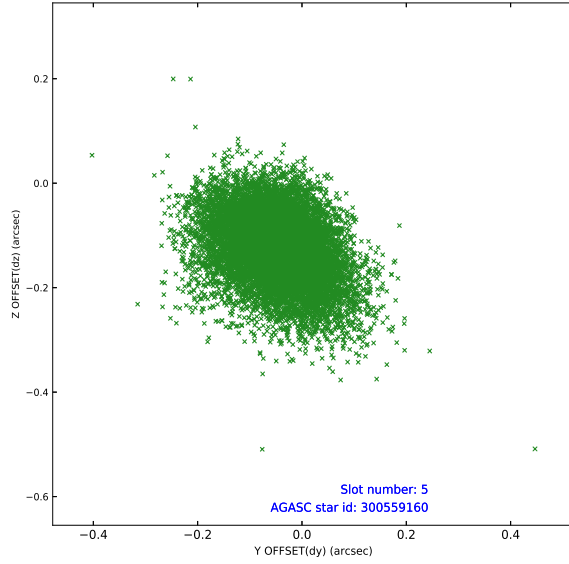
2.4.1 Slot 3



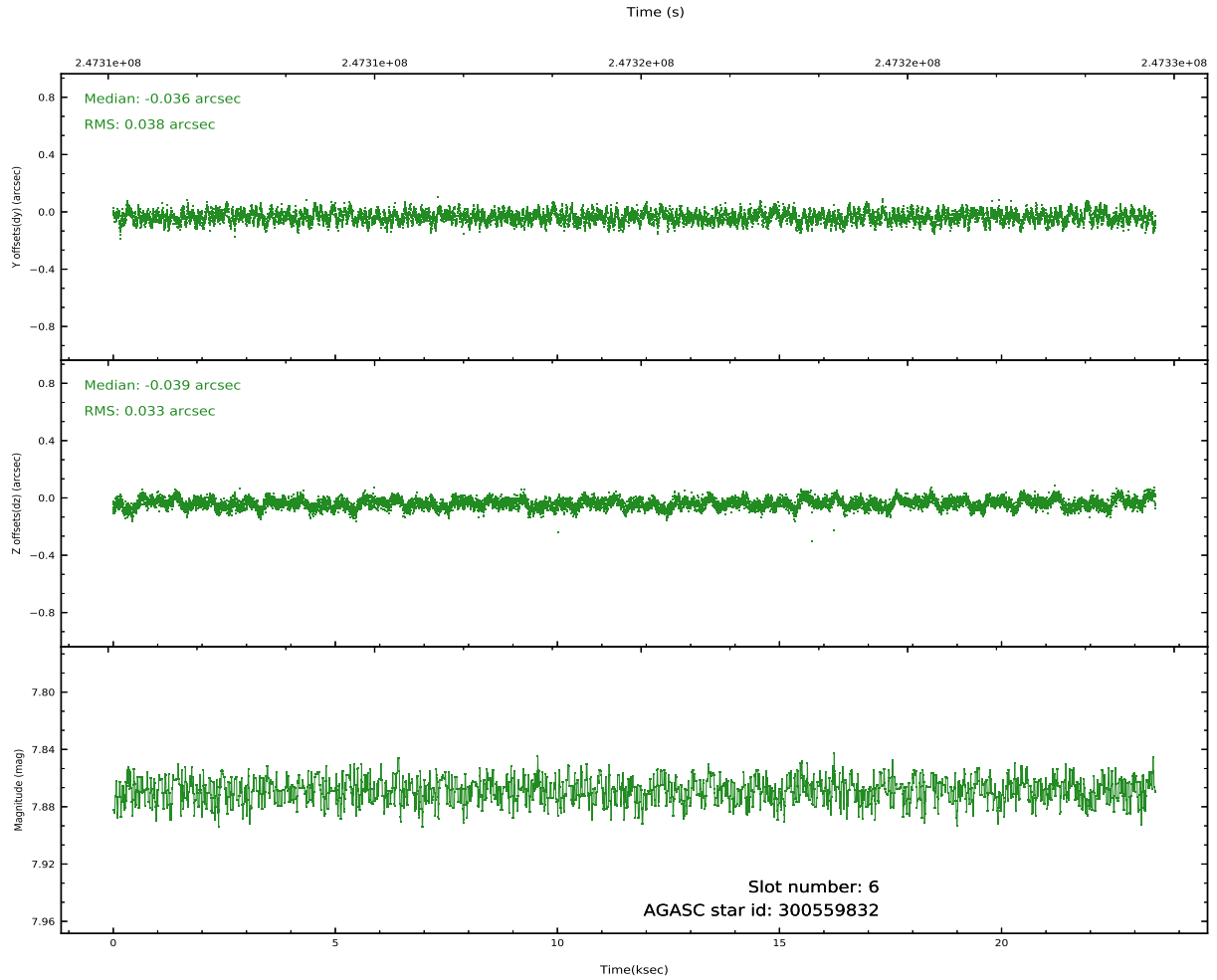
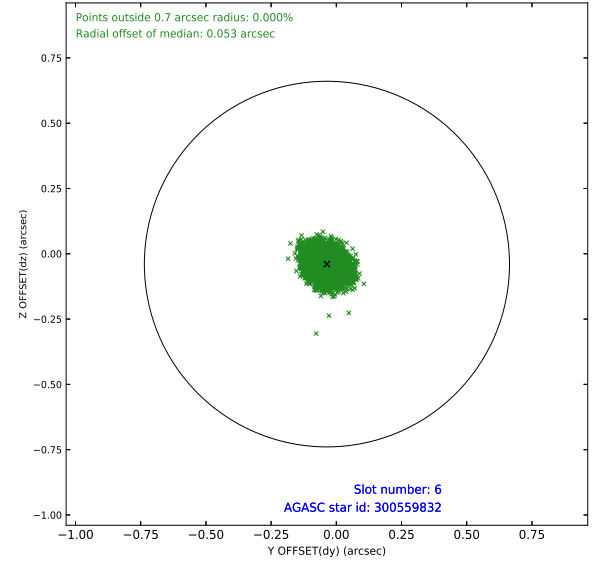
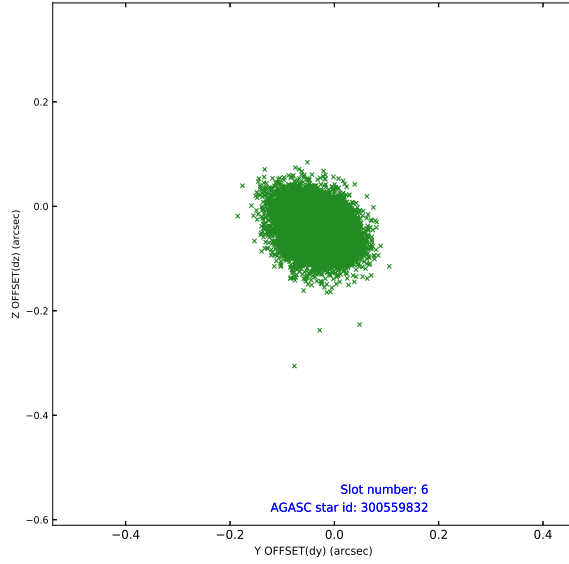
2.4.2 Slot 4



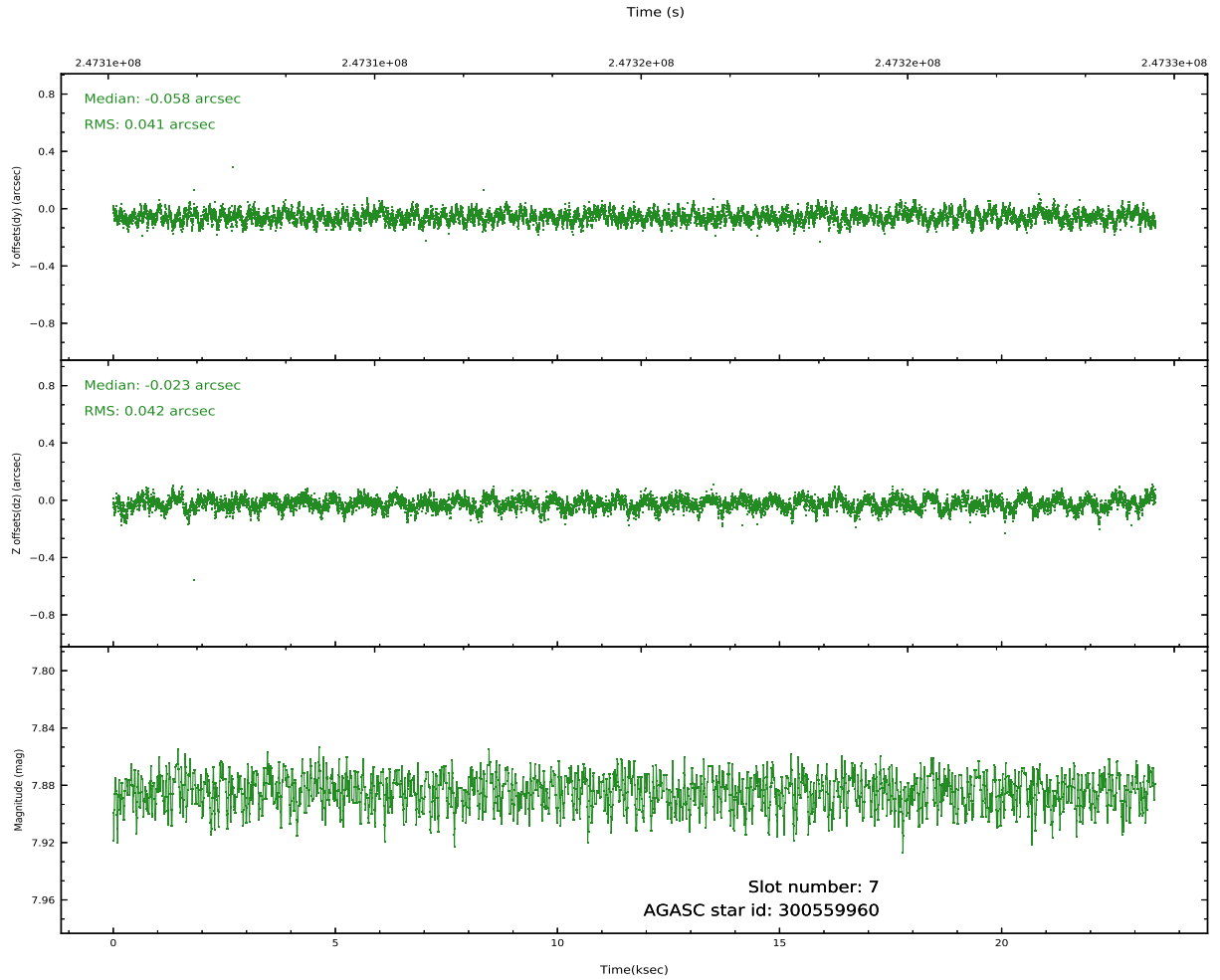
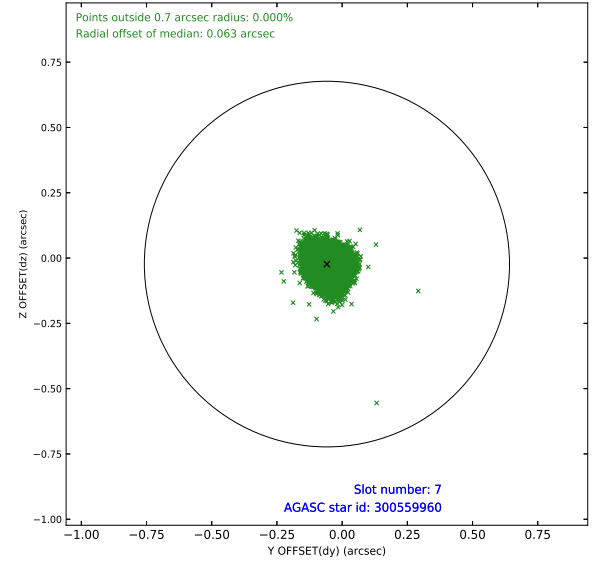
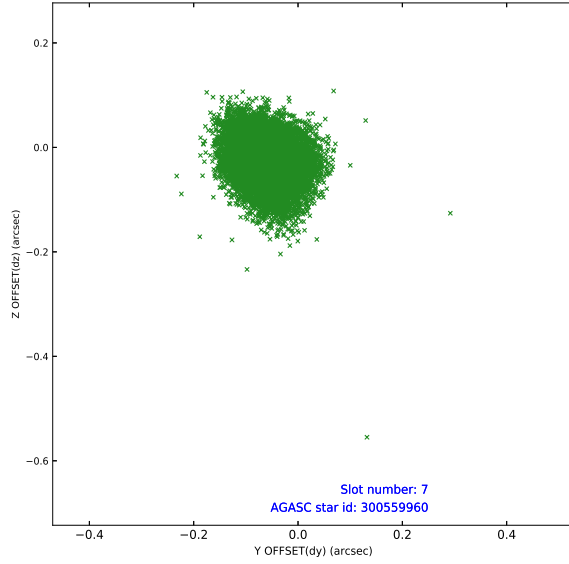
2.4.3 Slot 5



2.4.4 Slot 6

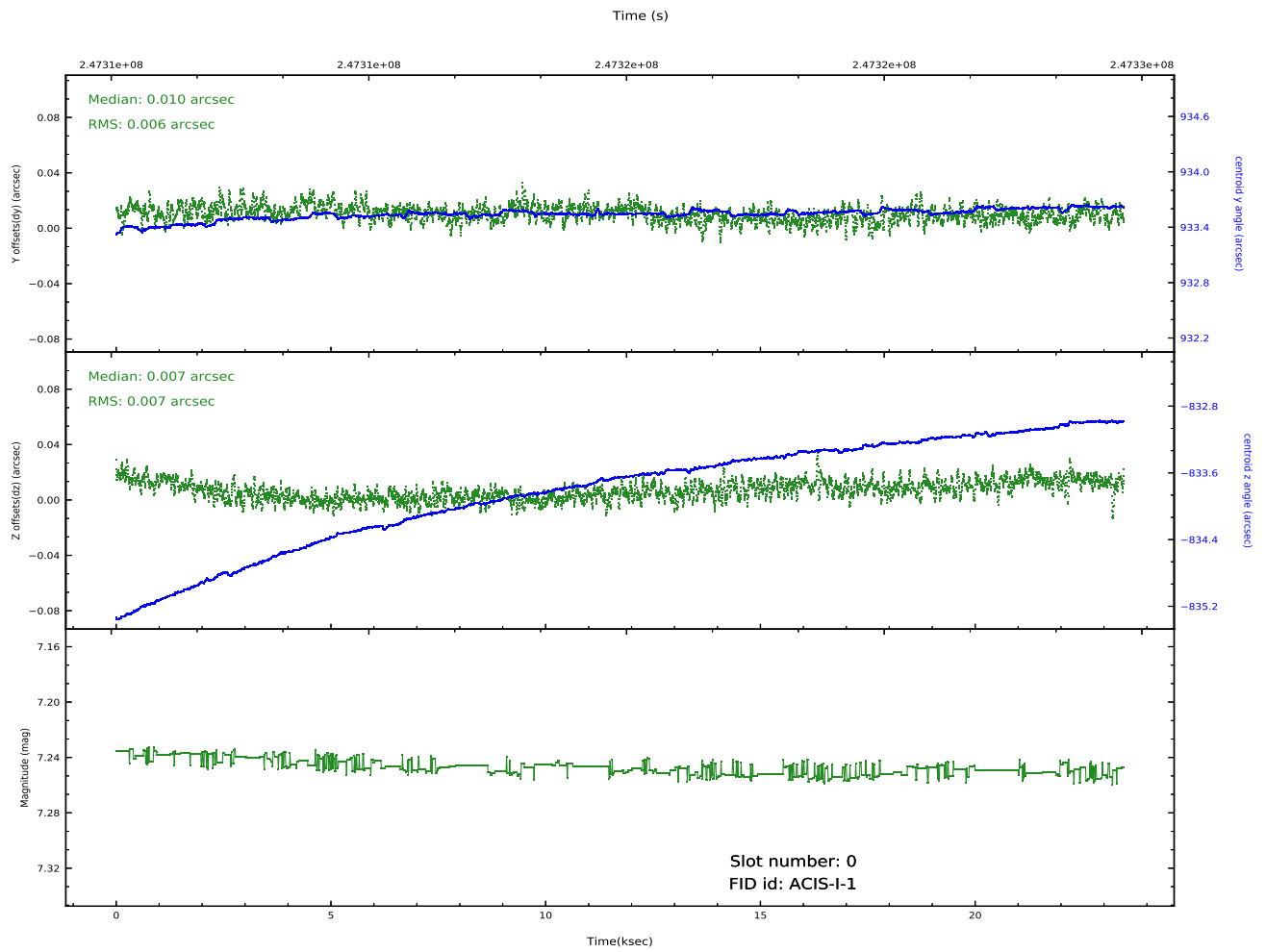
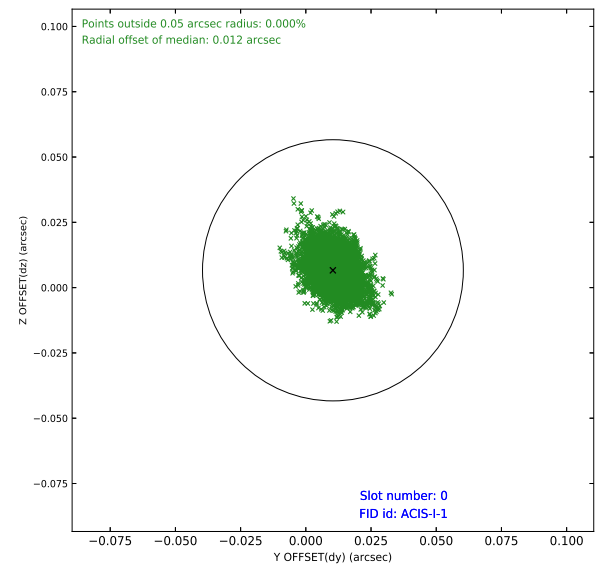
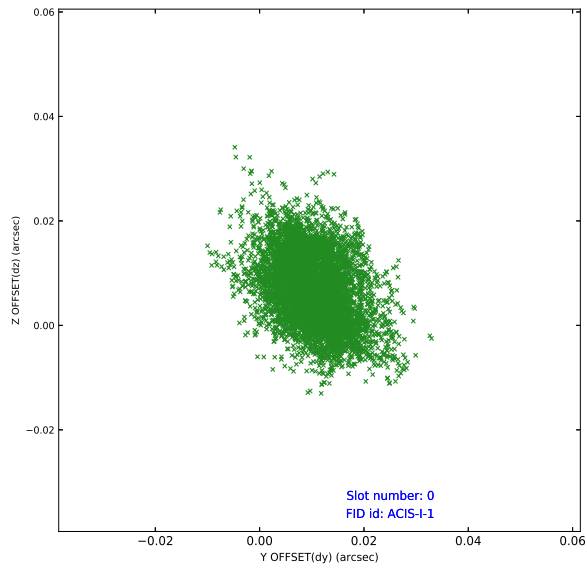


2.4.5 Slot 7

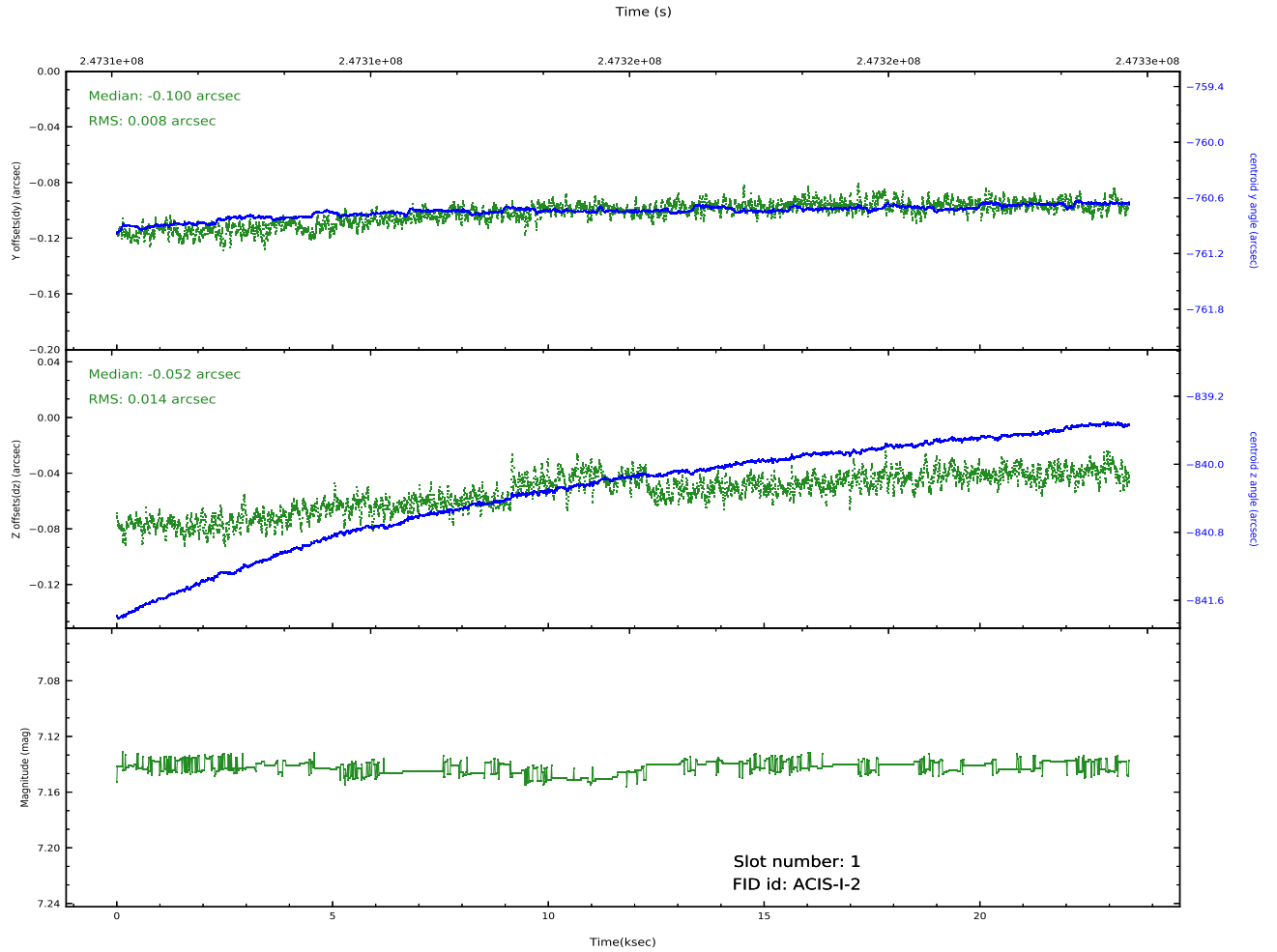
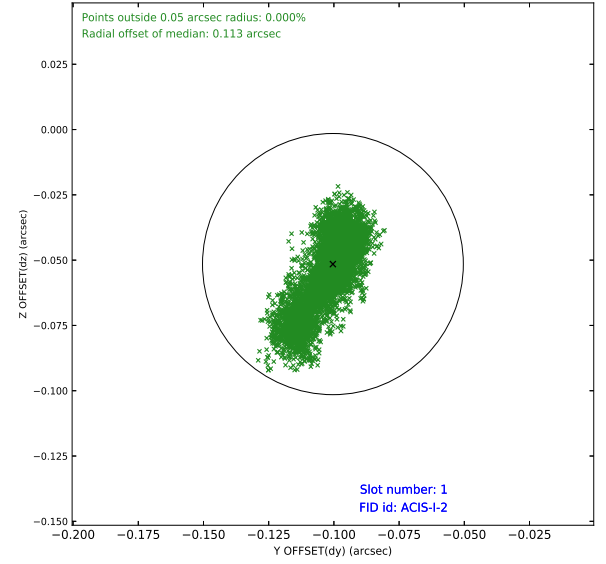
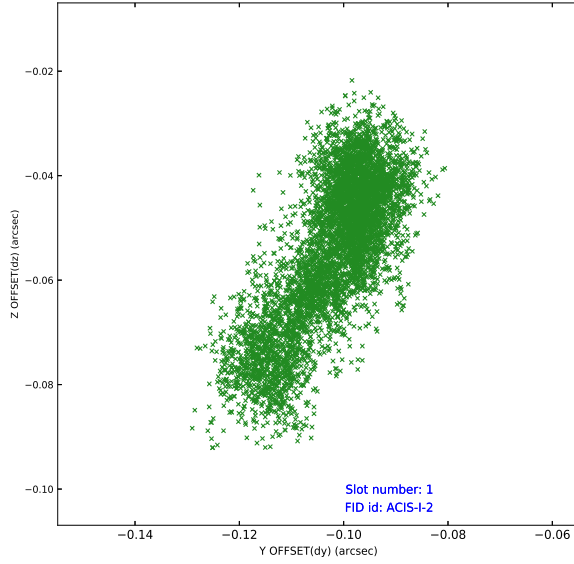


2.5 FID Slots

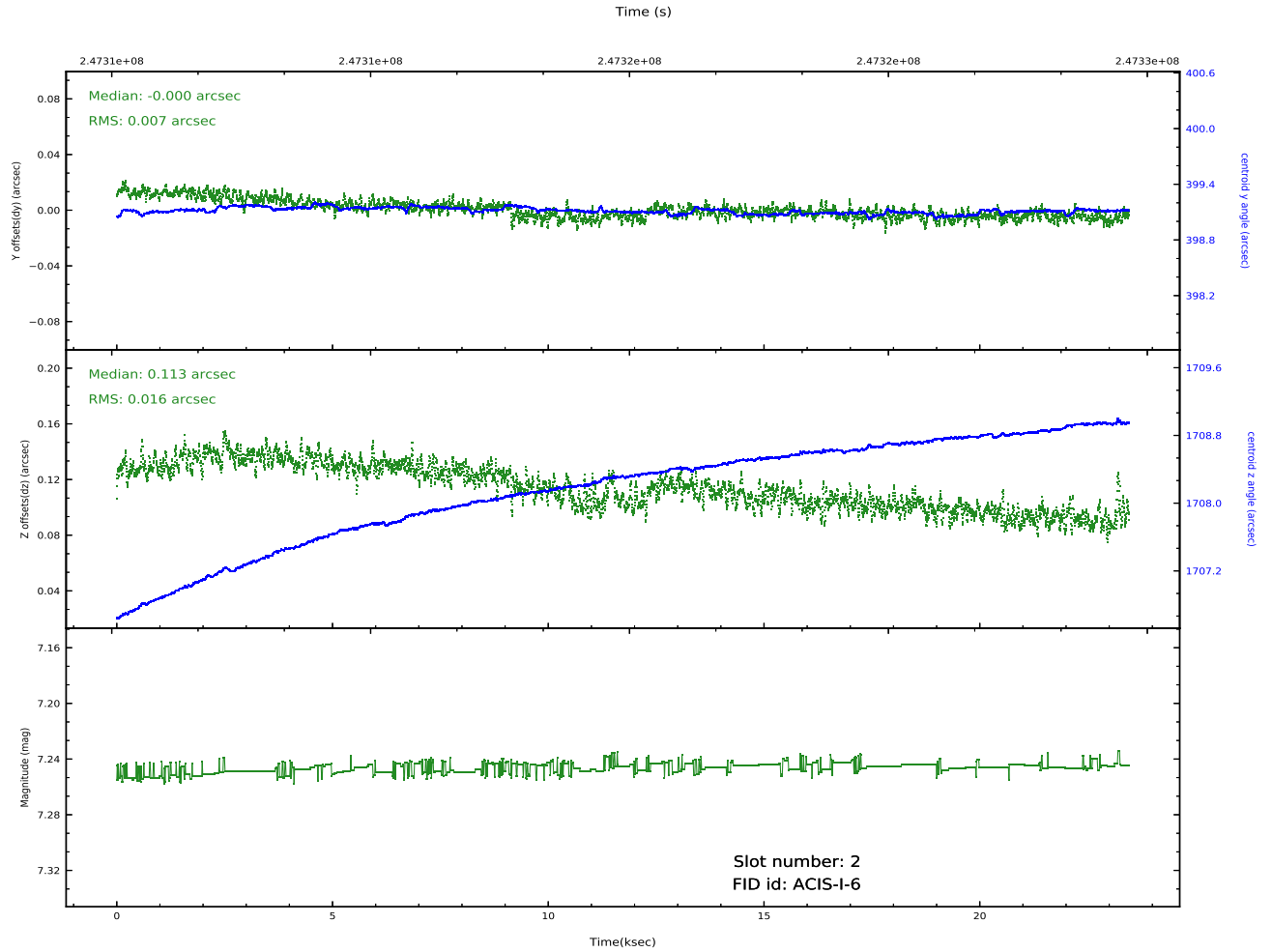
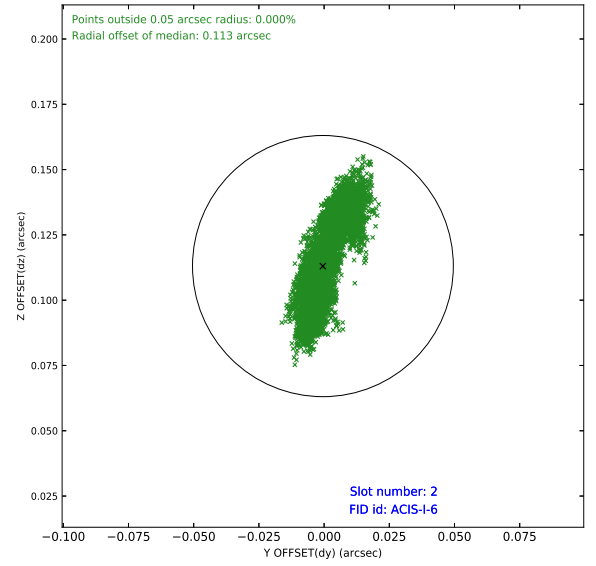
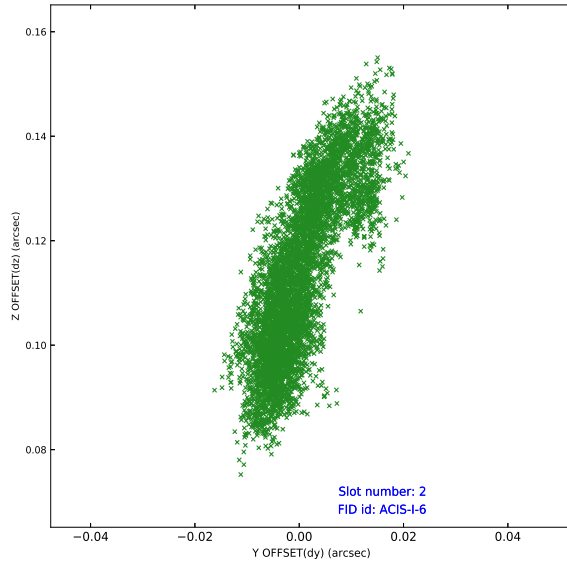
2.5.1 Slot 0



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) | 2020.10.15 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 23.04959 |

A.2 Comments

Roll preference met.