

V&V Reference Report

L2 ASCDS Version : 10.9.2

Observation 20308 - L2 Version 2
Chandra X-Ray Center

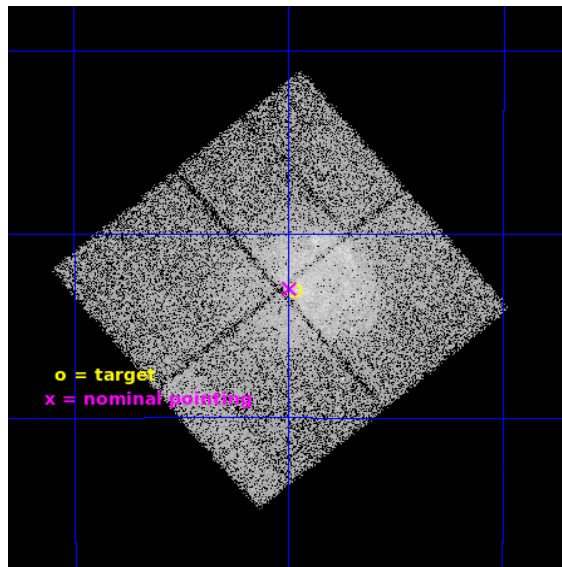
L2 Processing Date : Oct 25 2020

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1 Front

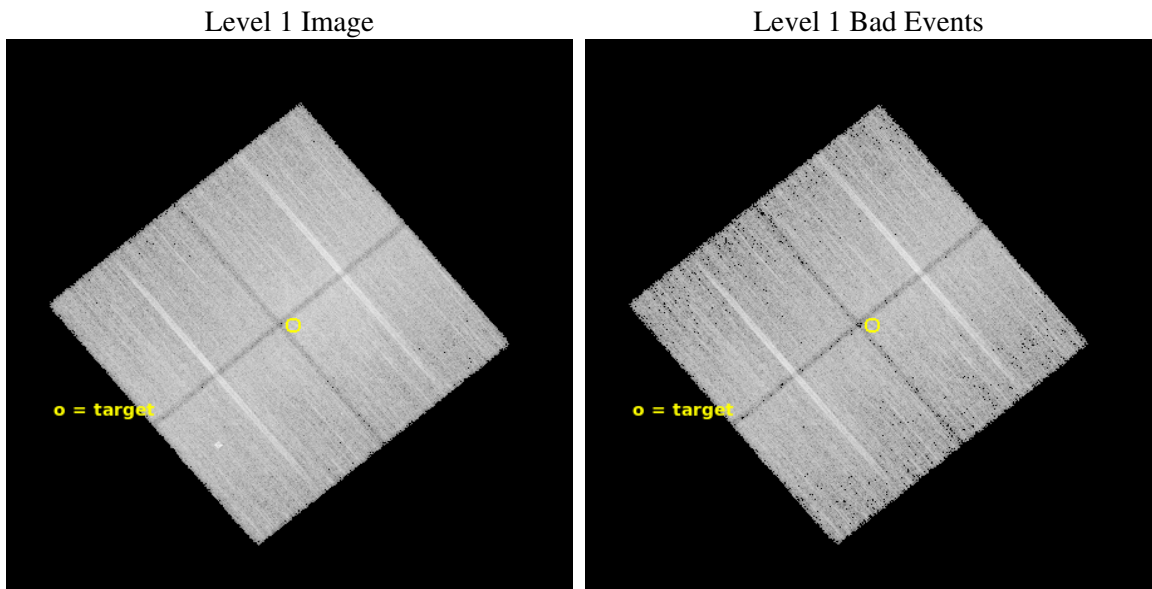
| | | |
|----------|--|---|
| seq_num | 503004 | Sequence number |
| obs_id | 20308 | Observation id |
| title | Elemental Distribution in the Evolved Type Ia SNR G344.7-0.1 | Propo |
| observer | Hiroya Yamaguchi | Principal investigator |
| object | G344.7-0.1 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 255.99375 | Observer's specified target RA [deg] |
| dec_targ | -41.718139 | Observer's specified target Dec [deg] |
| ra_nom | 255.99843120628 | Nominal RA [deg] |
| dec_nom | -41.716419543977 | Nominal Dec [deg] |
| roll_nom | 50.198965491115 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 29532.325228691 | Sum of GTIs [s] |
| livetime | 29146.463658197 | Livetime [s] |
| ontime0 | 29544.766109824 | Sum of GTIs [s] |
| ontime1 | 29541.666089535 | Sum of GTIs [s] |
| ontime2 | 29544.848189831 | Sum of GTIs [s] |
| ontime3 | 29532.325228691 | Sum of GTIs [s] |
| l2events | 110918 | Number of level 2 events |



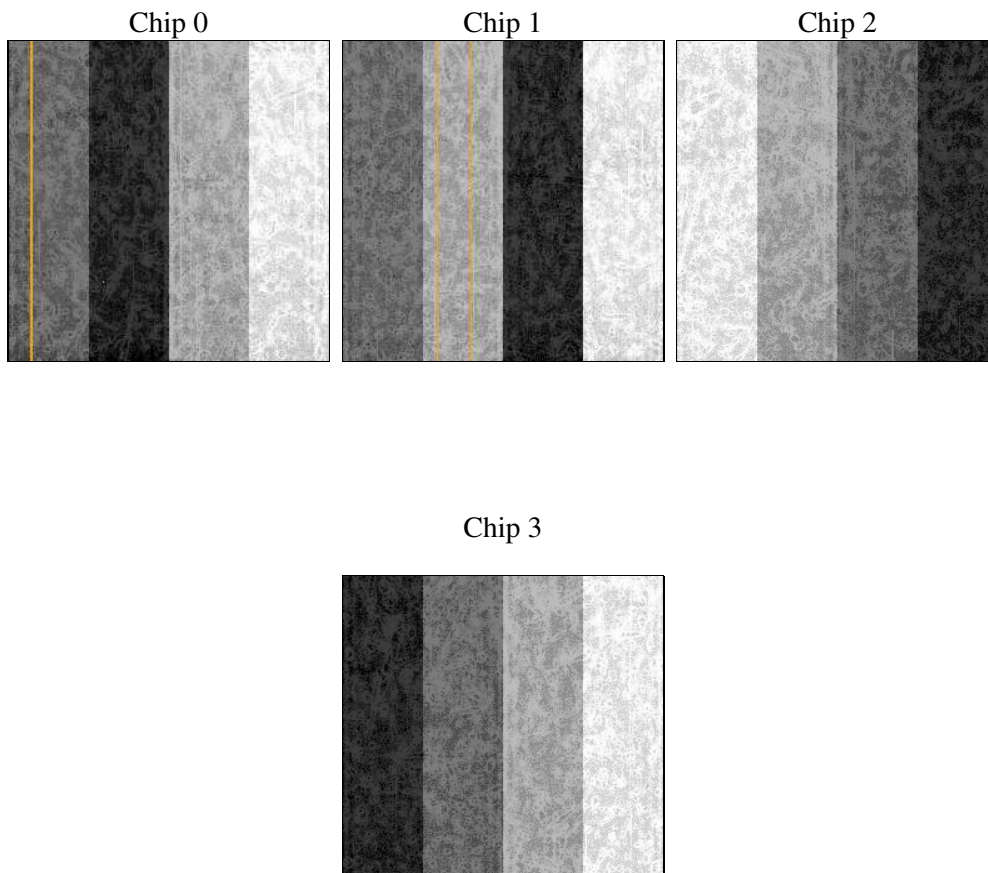
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 29467.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.2 | Processing system revision | ontime | 29532.325228691 | Sum of GTIs [s] |
| caldsver | 4.9.3 | | ontime0 | 29544.766109824 | Sum of GTIs [s] |
| date | 2020-10-25T23:06:15 | Date and time of file creation | ontime1 | 29541.666089535 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 29544.848189831 | Sum of GTIs [s] |
| | | | ontime3 | 29532.325228691 | Sum of GTIs [s] |
| | | | l1events | 863864 | Number of level 1 events |

2.1.4 Events

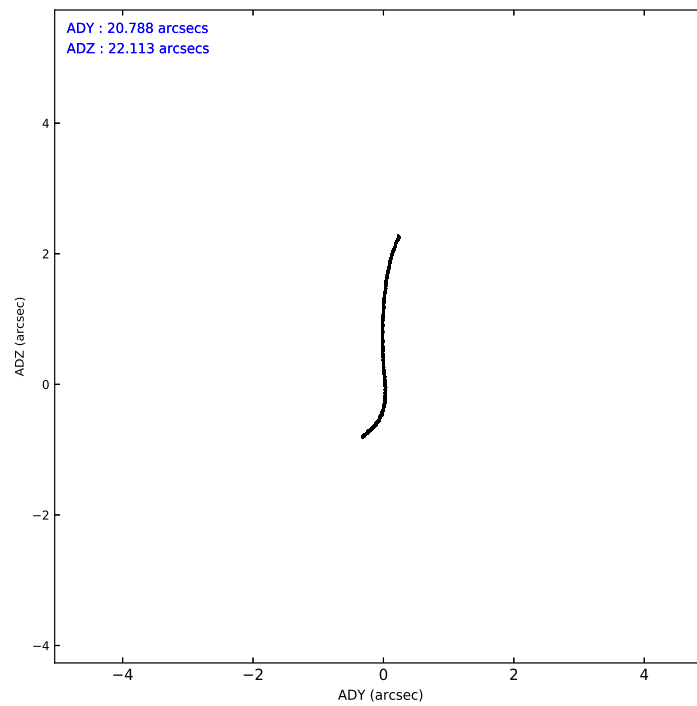
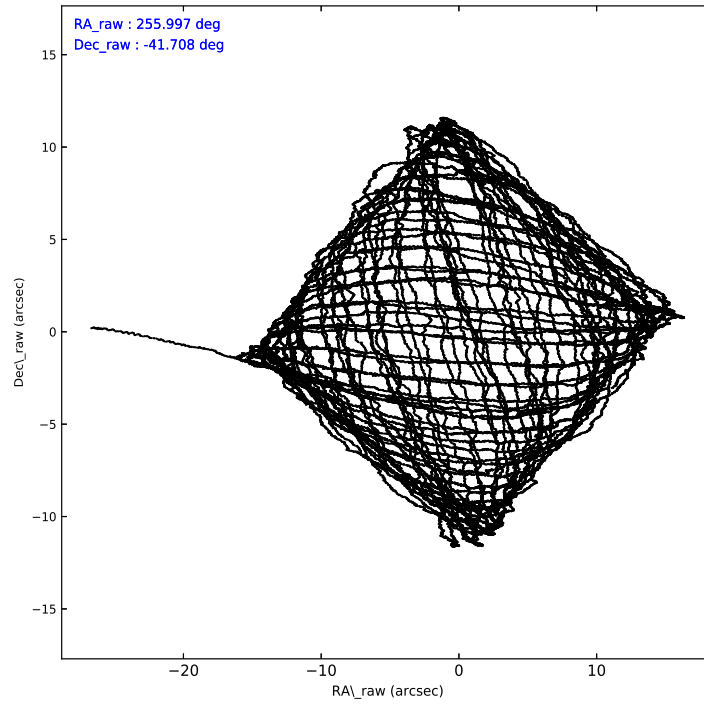
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|-----------------|--------|--------|--------|--------|
| level 1 events | 197443 | 212148 | 224941 | 229332 |
| rejected events | 169788 | 179743 | 192753 | 191459 |
| rejected % | 85% | 84% | 85% | 83% |

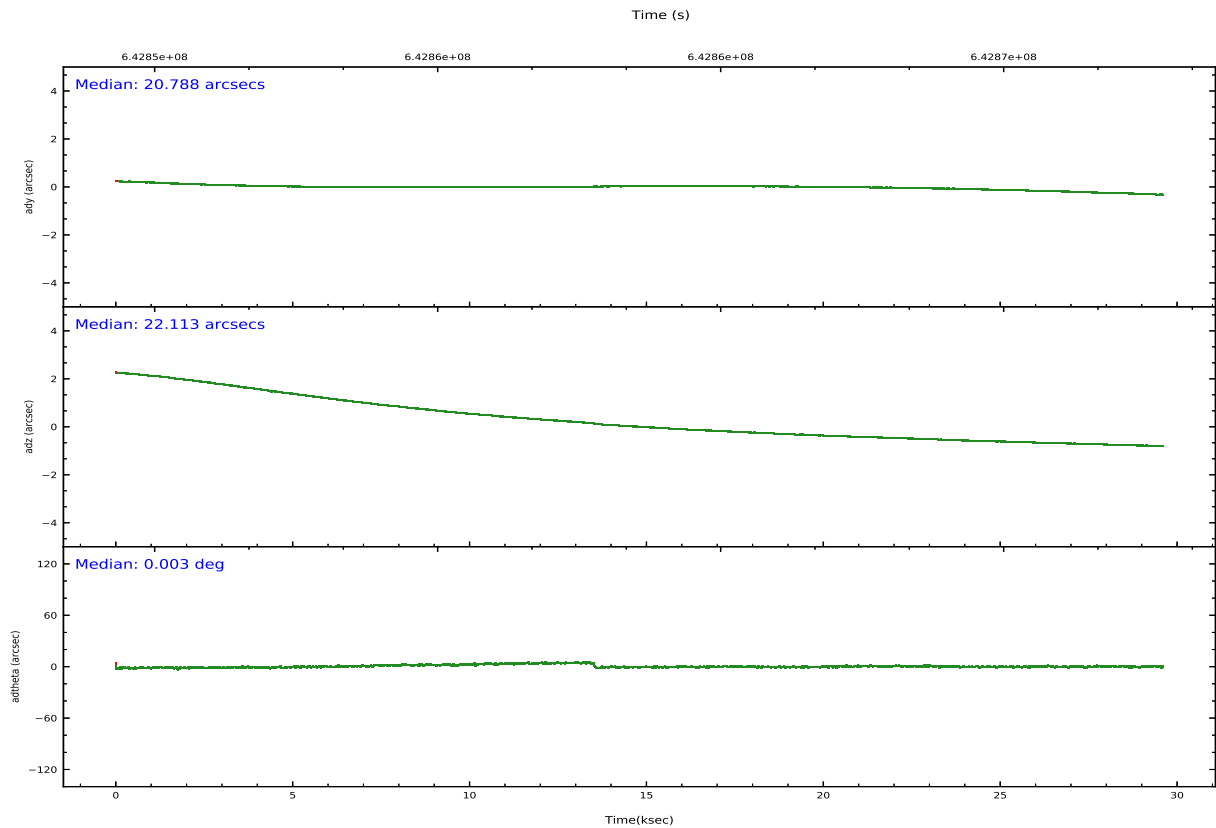
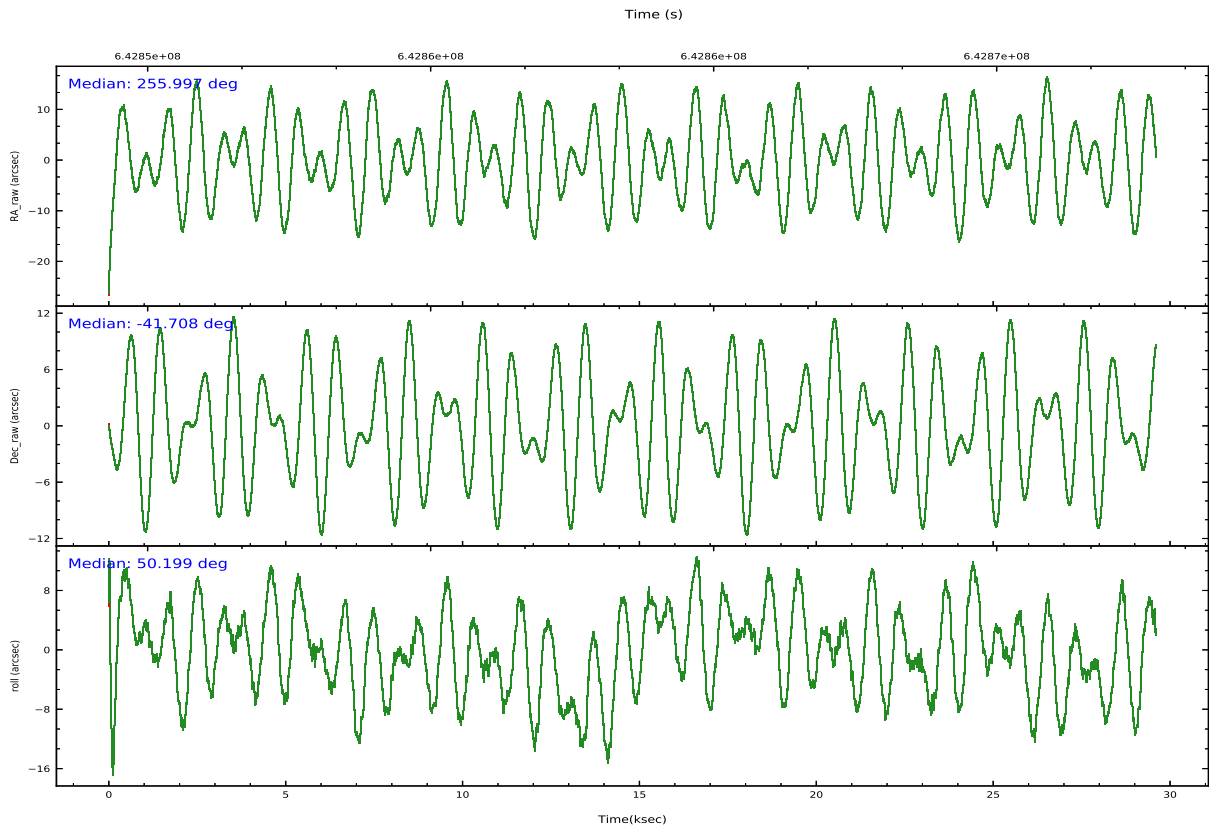
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|----------------|--------|--------|--------|--------|
| grade 0 events | 10757 | 13276 | 14877 | 19887 |
| | 5% | 6% | 6% | 8% |
| grade 1 events | 145 | 150 | 166 | 216 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 6522 | 7400 | 6995 | 6785 |
| | 3% | 3% | 3% | 2% |
| grade 3 events | 2647 | 2797 | 2697 | 2897 |
| | 1% | 1% | 1% | 1% |
| grade 4 events | 2427 | 2726 | 2797 | 2970 |
| | 1% | 1% | 1% | 1% |
| grade 5 events | 9483 | 9848 | 9055 | 10748 |
| | 4% | 4% | 4% | 4% |
| grade 6 events | 5306 | 6210 | 4831 | 5346 |
| | 2% | 2% | 2% | 2% |
| grade 7 events | 160156 | 169741 | 183523 | 180483 |
| | 81% | 80% | 81% | 78% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| Detector | ACIS-0123 | ACIS-0123 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | CCD I0 on | Y | Y |
| Observation mode | POINTING | POINTING | CCD I1 on | Y | Y |
| [deg] Pointing RA | 255.990772 | 255.99843120628 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | -41.734899 | -41.716419543977 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 49.998019 | 50.198965491115 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | CCD S1 on | N | N |
| [mm] SIM defocus | 0 | 0.001439871863259334 | CCD S2 on | N | N |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | CCD S3 on | O1 | N |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 642847042.184000 | 642845754.01647 | CCD S5 on | N | N |
| Observation start date | 2018-05-16T08:36:13 | 2018-05-16T08:15:54 | Number of optional ACIS chips dropped | 1 | 1 |
| [s] Observation end time (MET) | 642876509.184000 | 642878004.10587 | On-chip summing requested | N | N |
| Observation end date | 2018-05-16T16:47:20 | 2018-05-16T17:13:24 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect





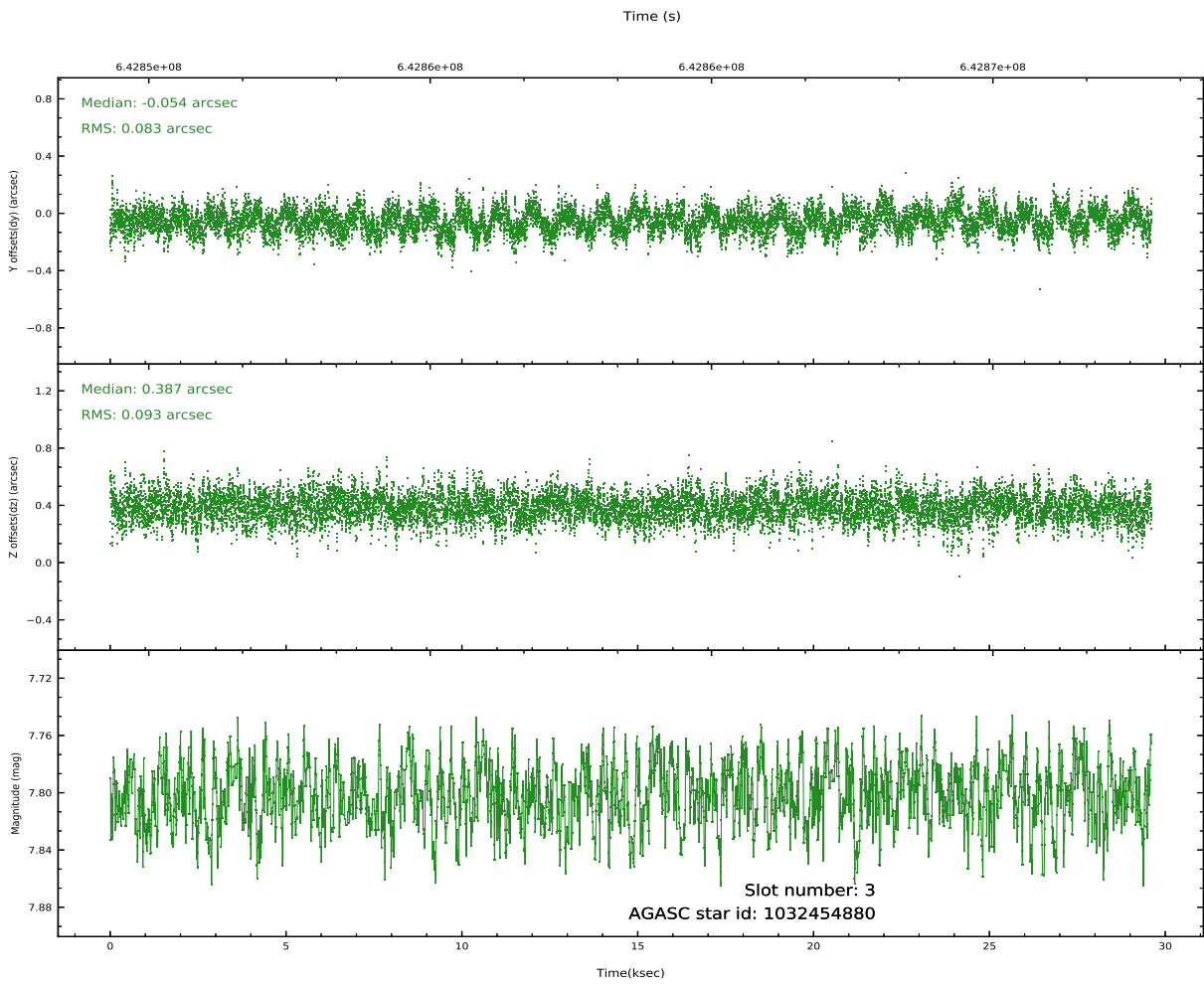
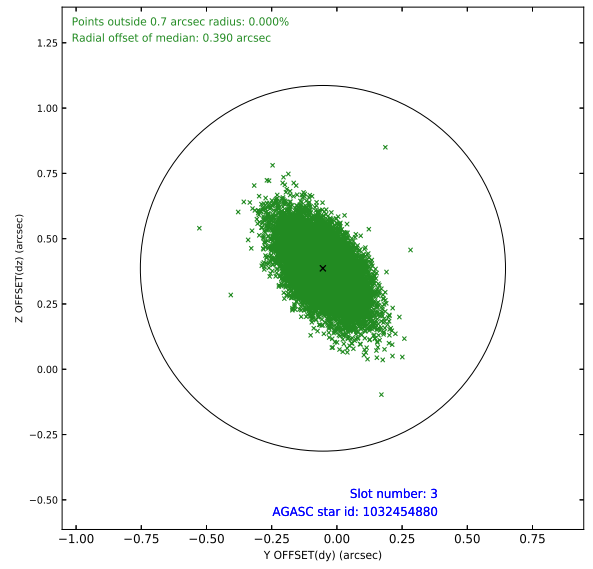
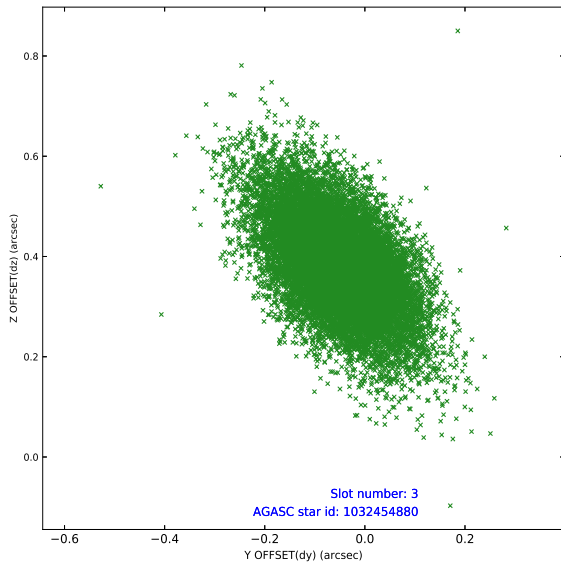
Slot Statistics

| slot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_x |
|------|--------|------|------------|------|-------|----------|--------|--------|-------|-------|------------|------------|----------|--------|
| 0 | FID | | ACIS-I-1 | 7.14 | 7222 | 1.000 | 0.178 | -0.129 | 0.090 | 0.131 | 0.000000 | 0.000000 | 918.61 | -846 |
| 1 | FID | | ACIS-I-4 | 7.10 | 7220 | 1.000 | 0.069 | 0.028 | 0.061 | 0.076 | 0.000000 | 0.000000 | 2138.78 | 1053 |
| 2 | FID | | ACIS-I-5 | 7.12 | 7221 | 1.000 | -0.344 | 0.170 | 0.031 | 0.060 | 0.000000 | 0.000000 | -1829.61 | 1051 |
| 3 | GUIDE | used | 1032454880 | 7.80 | 14437 | 1.000 | -0.054 | 0.387 | 0.128 | 0.225 | 255.805803 | -42.215139 | -1641.50 | -733 |
| 4 | GUIDE | used | 1032456032 | 8.36 | 14434 | 1.000 | 0.065 | 0.038 | 0.146 | 0.240 | 256.011351 | -42.138769 | -1078.04 | -976 |
| 5 | GUIDE | used | 1032341952 | 7.17 | 14443 | 1.000 | -0.147 | -0.278 | 0.136 | 0.237 | 254.946907 | -41.627000 | -1521.17 | 2389 |
| 6 | GUIDE | used | 1032462504 | 9.15 | 14427 | 1.000 | 0.003 | -0.079 | 0.192 | 0.314 | 256.727236 | -41.660593 | 1471.70 | -1350 |
| 7 | GUIDE | used | 1032461400 | 8.85 | 14423 | 1.000 | 0.127 | -0.064 | 0.154 | 0.269 | 256.843727 | -41.417736 | 2347.00 | -1037 |

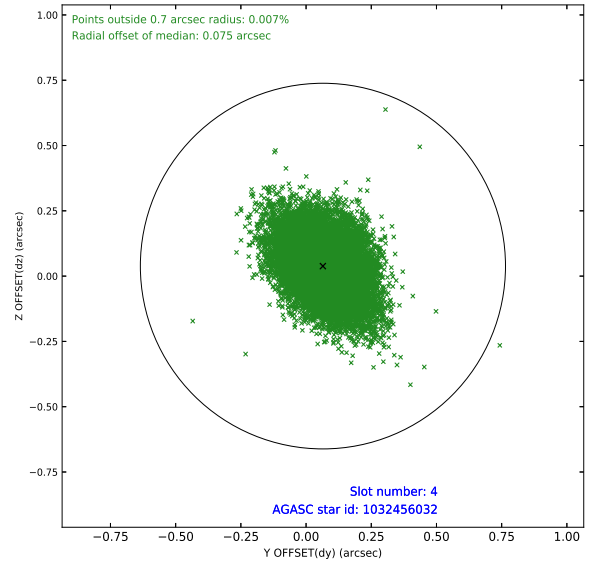
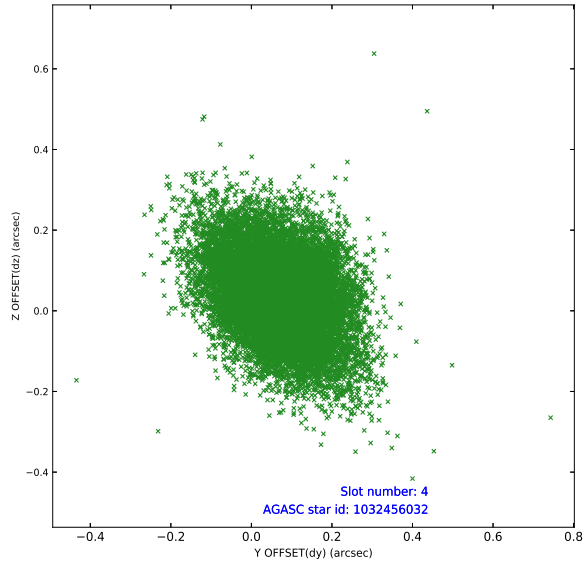
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2.4 Star Slots

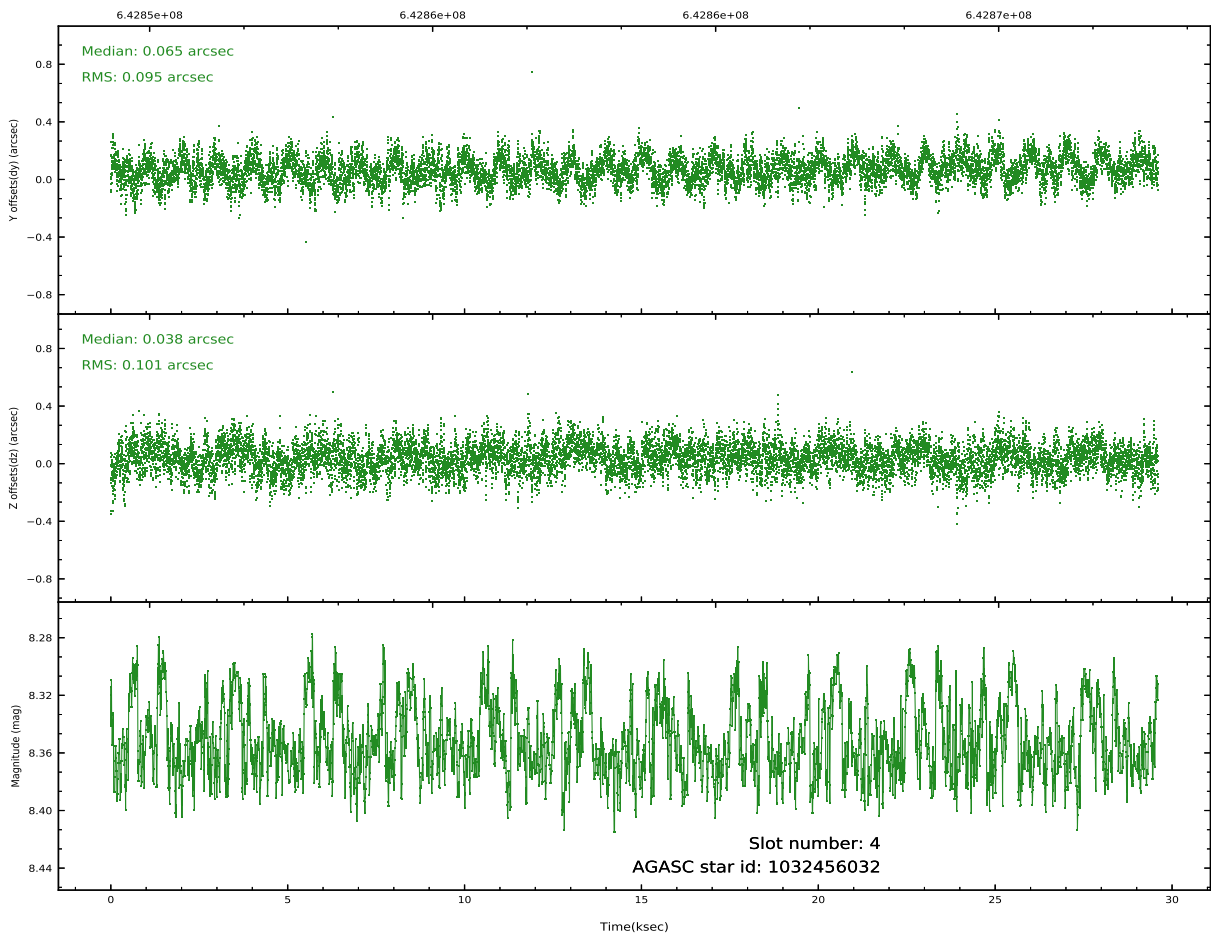
2.4.1 Slot 3



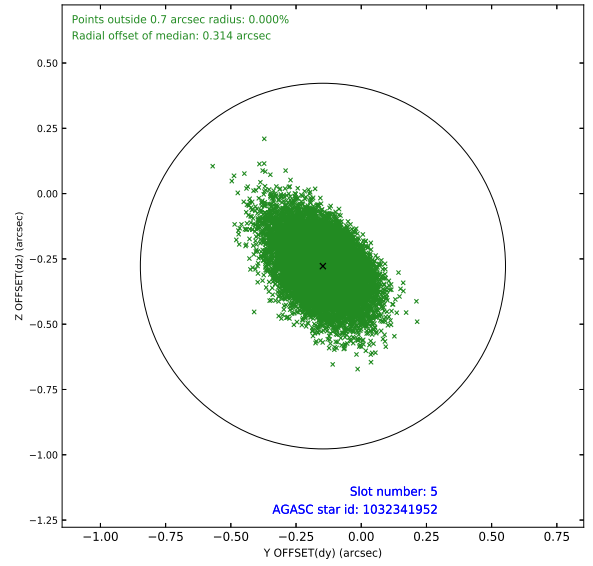
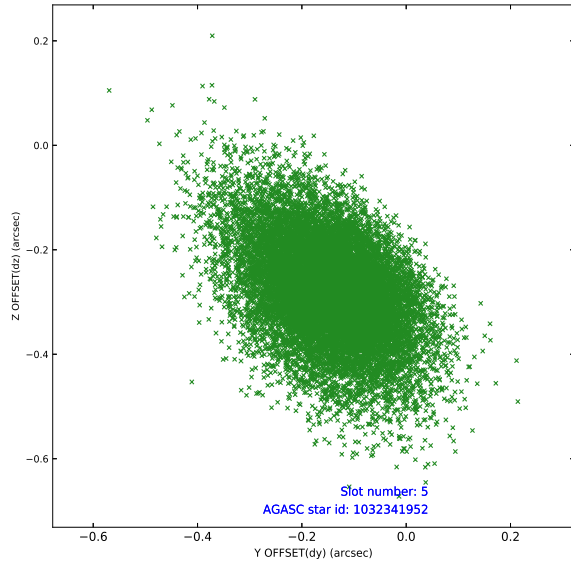
2.4.2 Slot 4



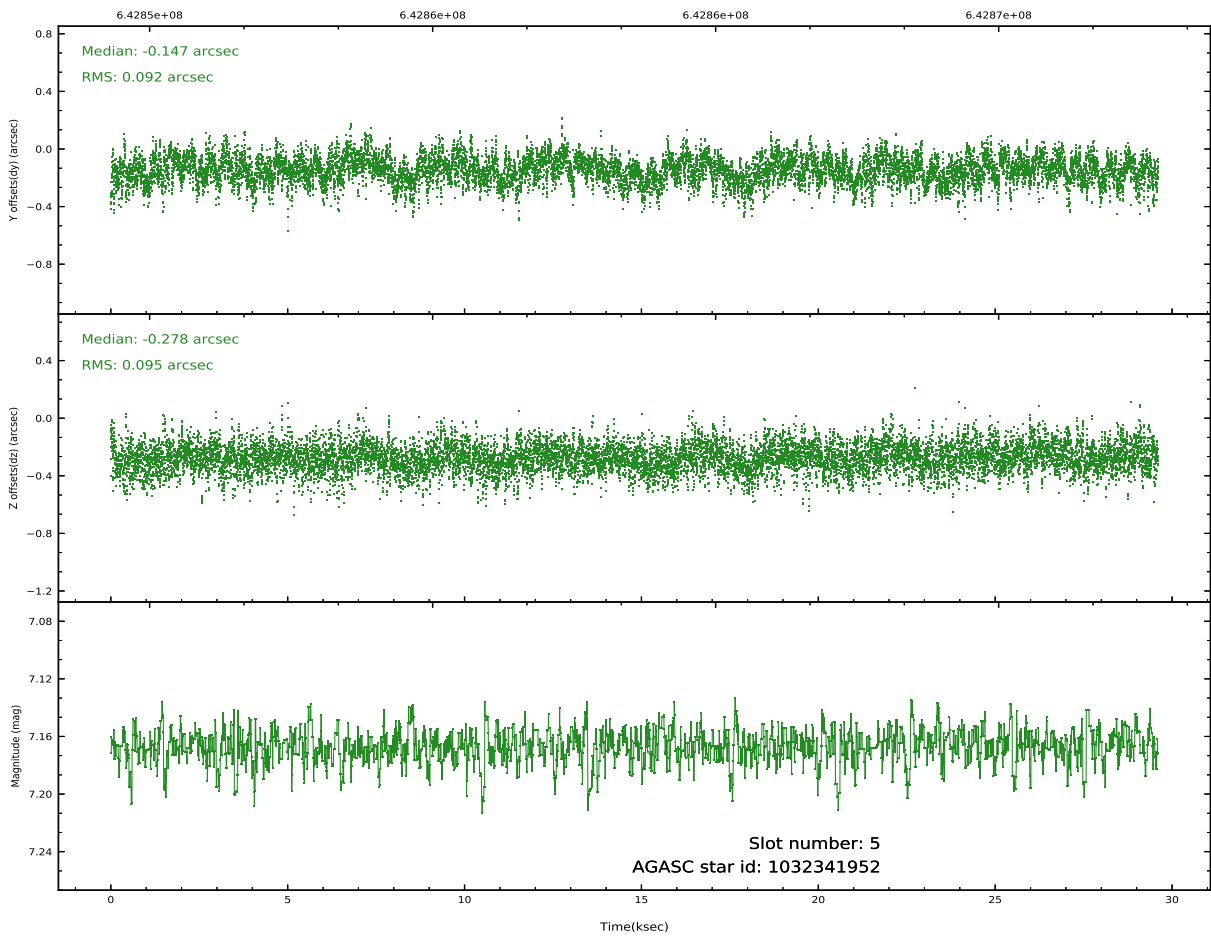
Time (s)



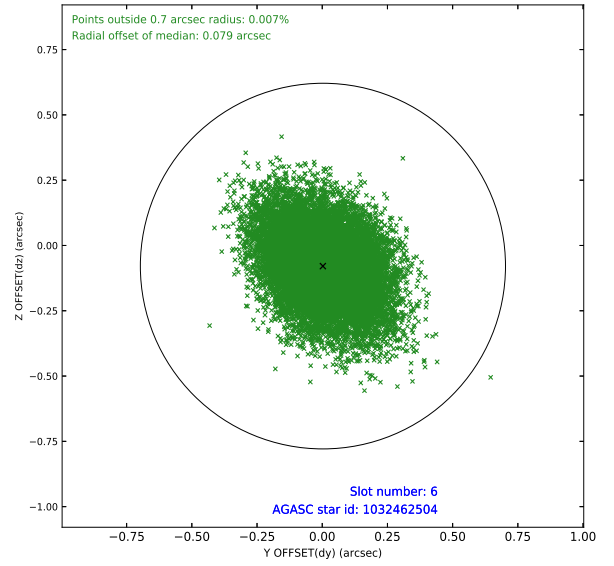
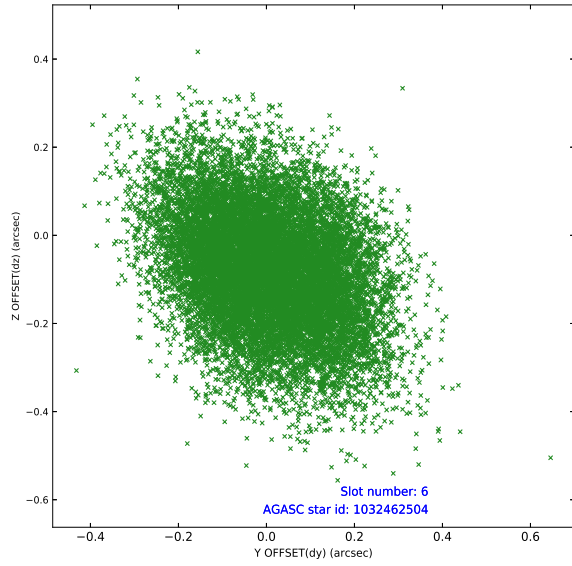
2.4.3 Slot 5



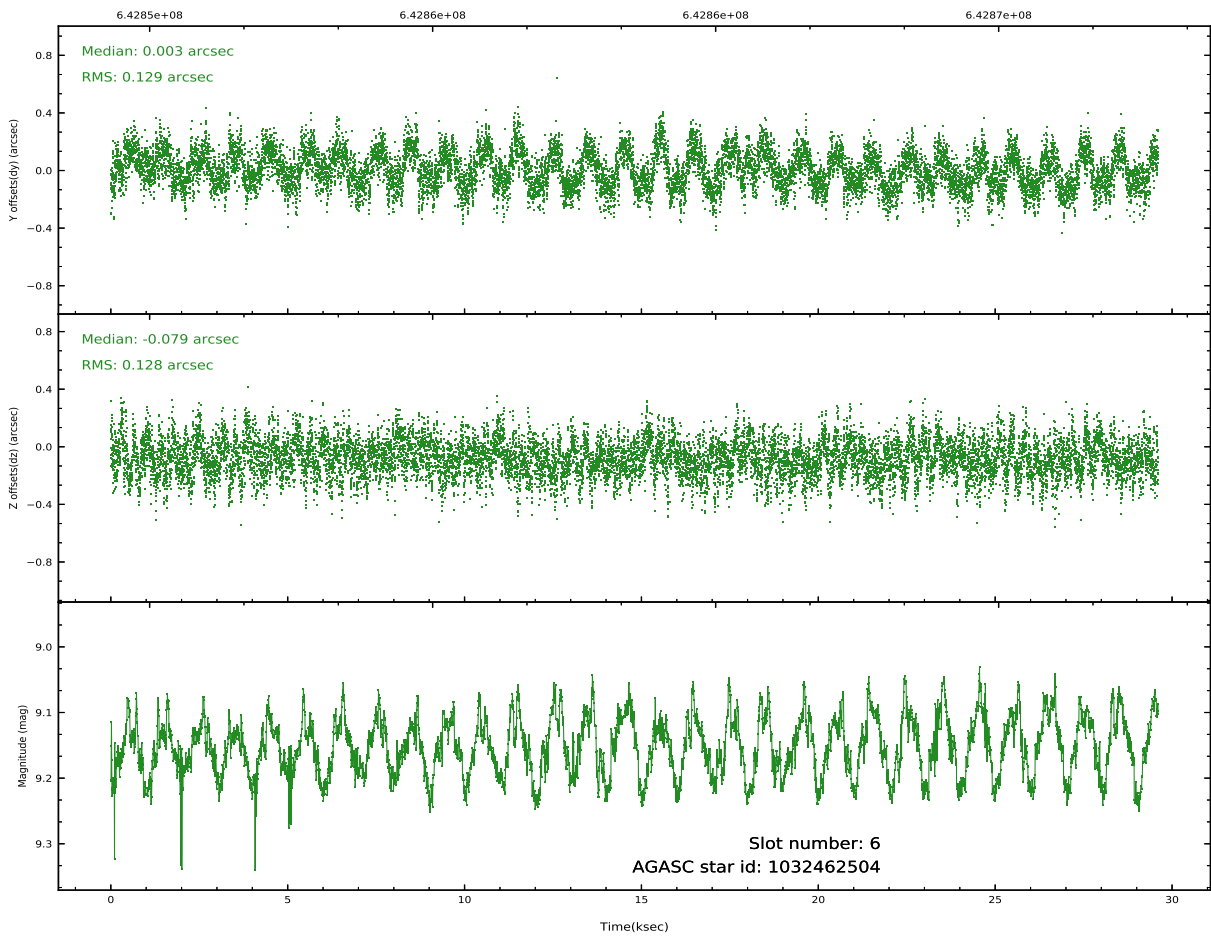
Time (s)



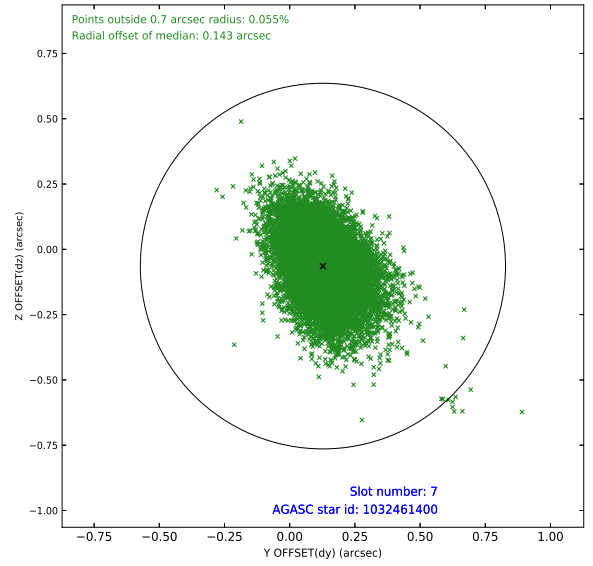
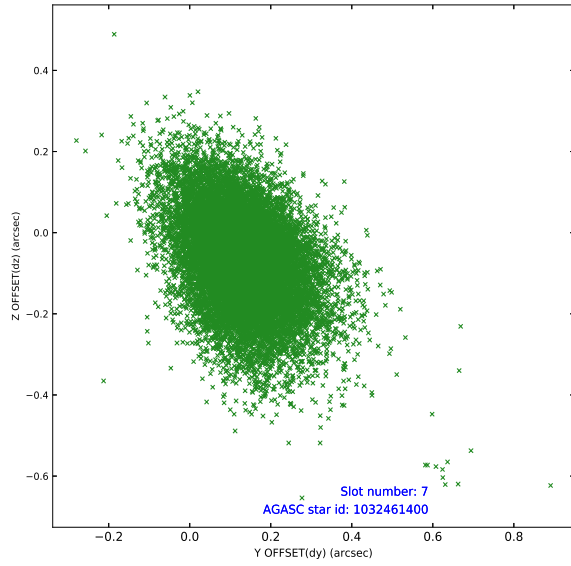
2.4.4 Slot 6



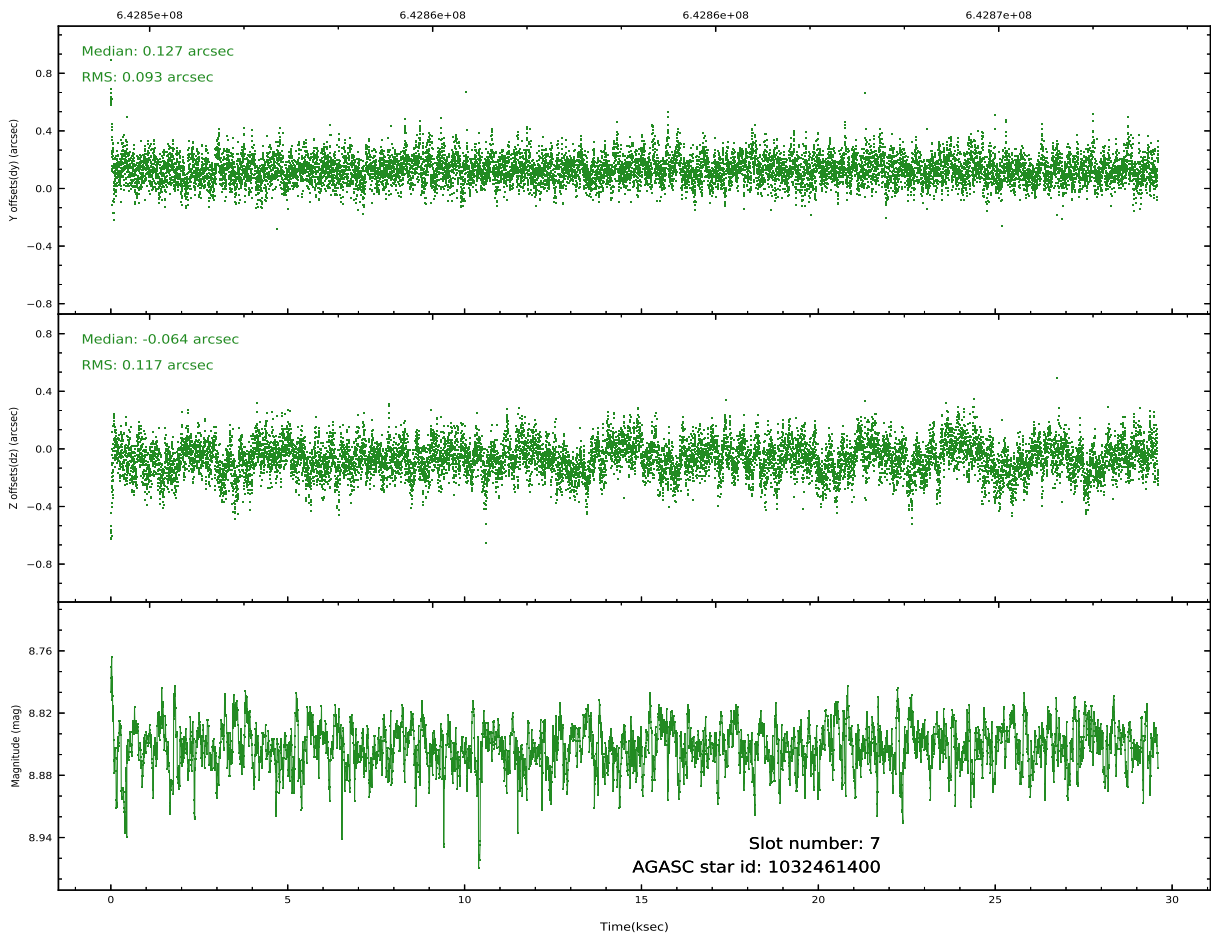
Time (s)



2.4.5 Slot 7

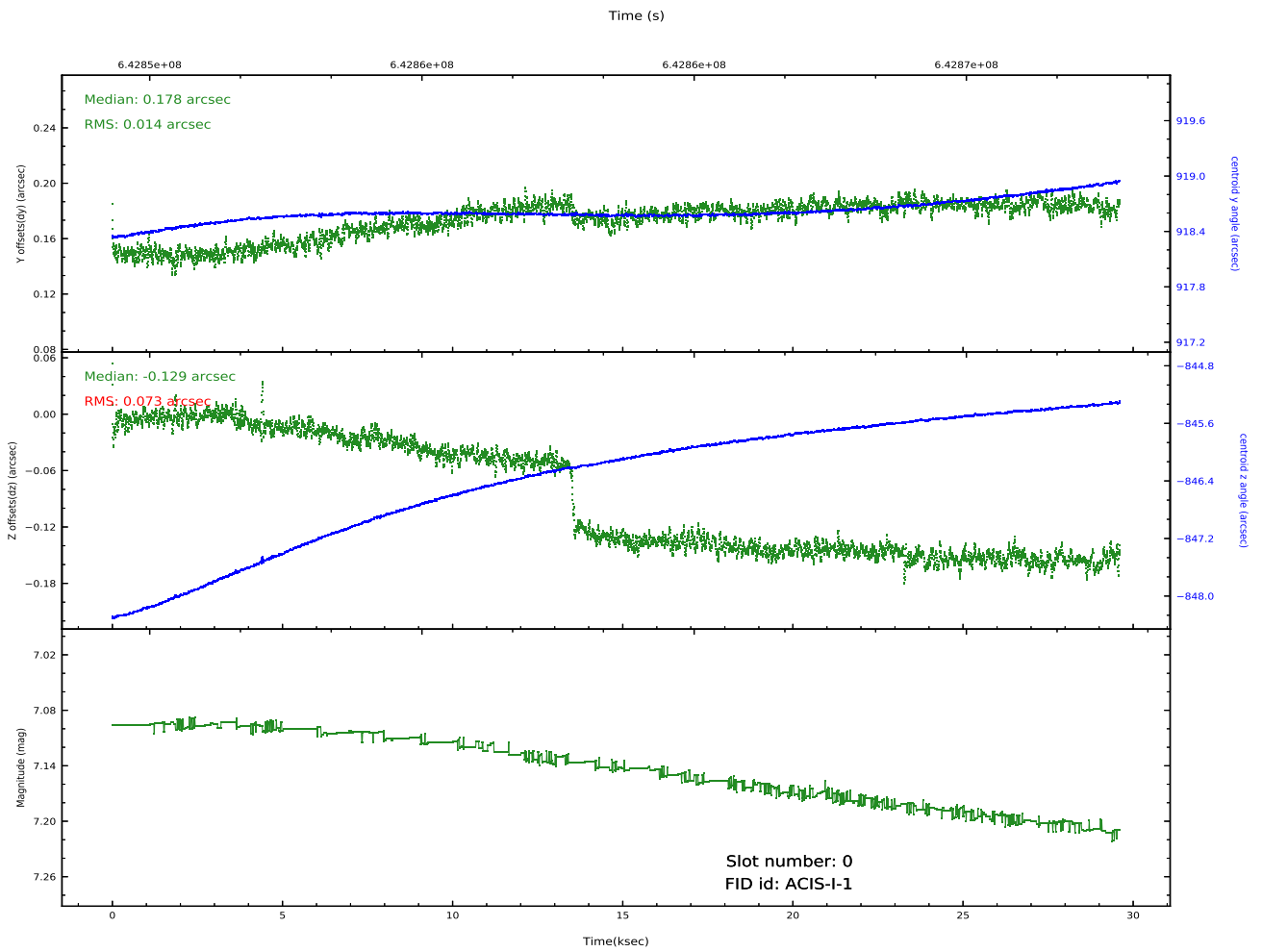
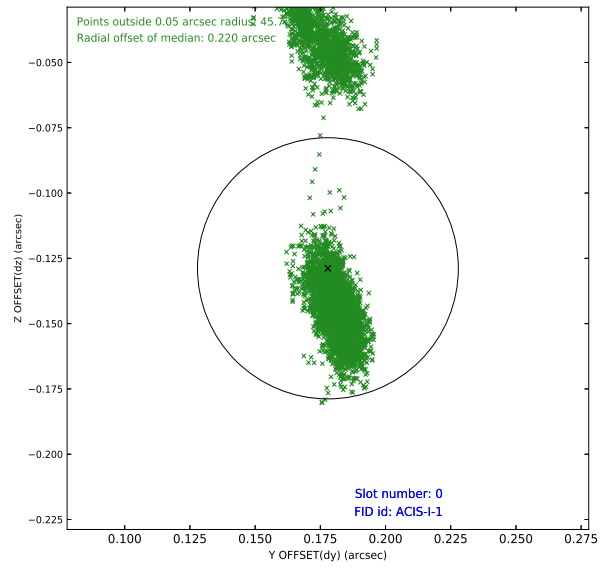
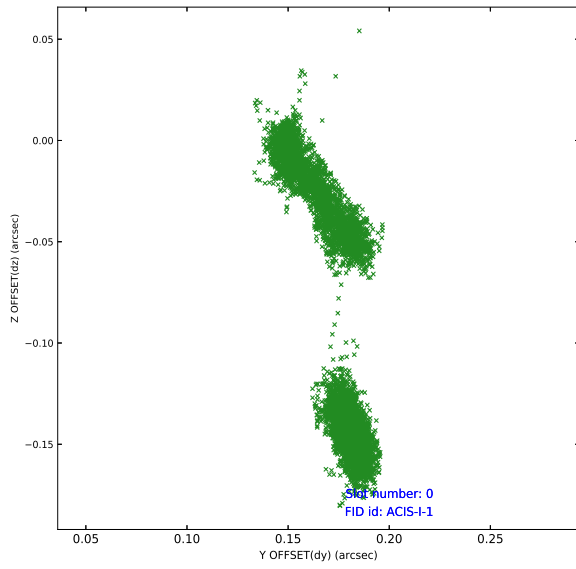


Time (s)

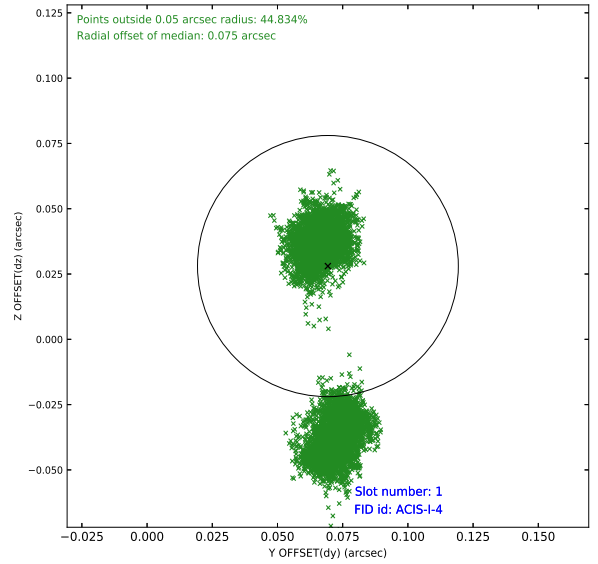
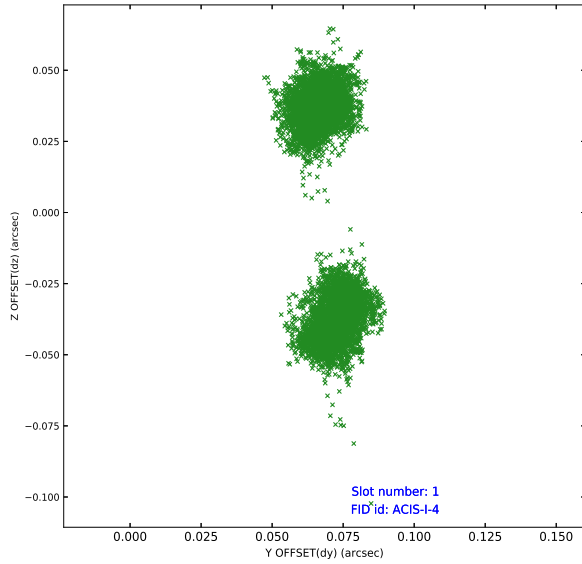


2.5 FID Slots

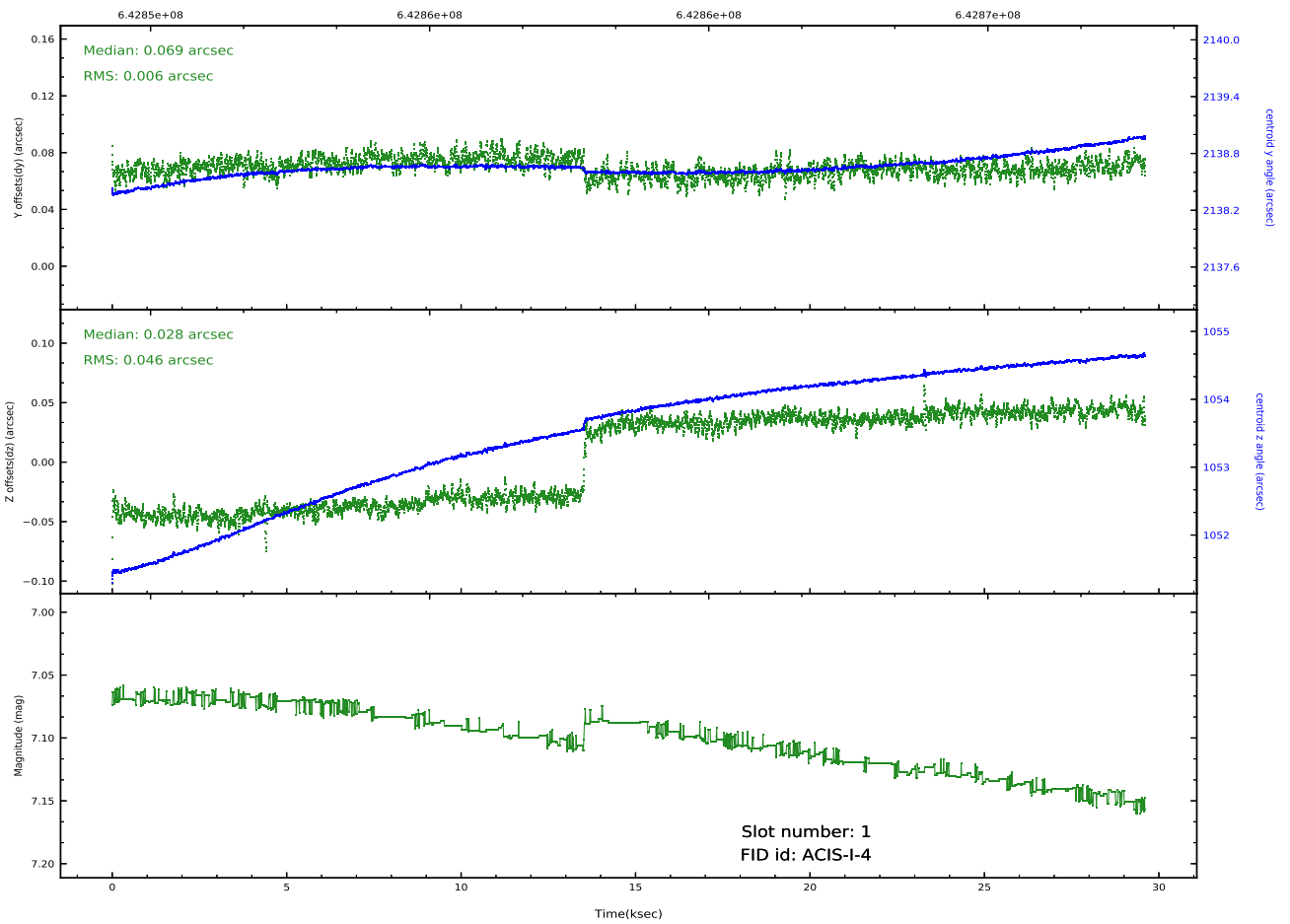
2.5.1 Slot 0



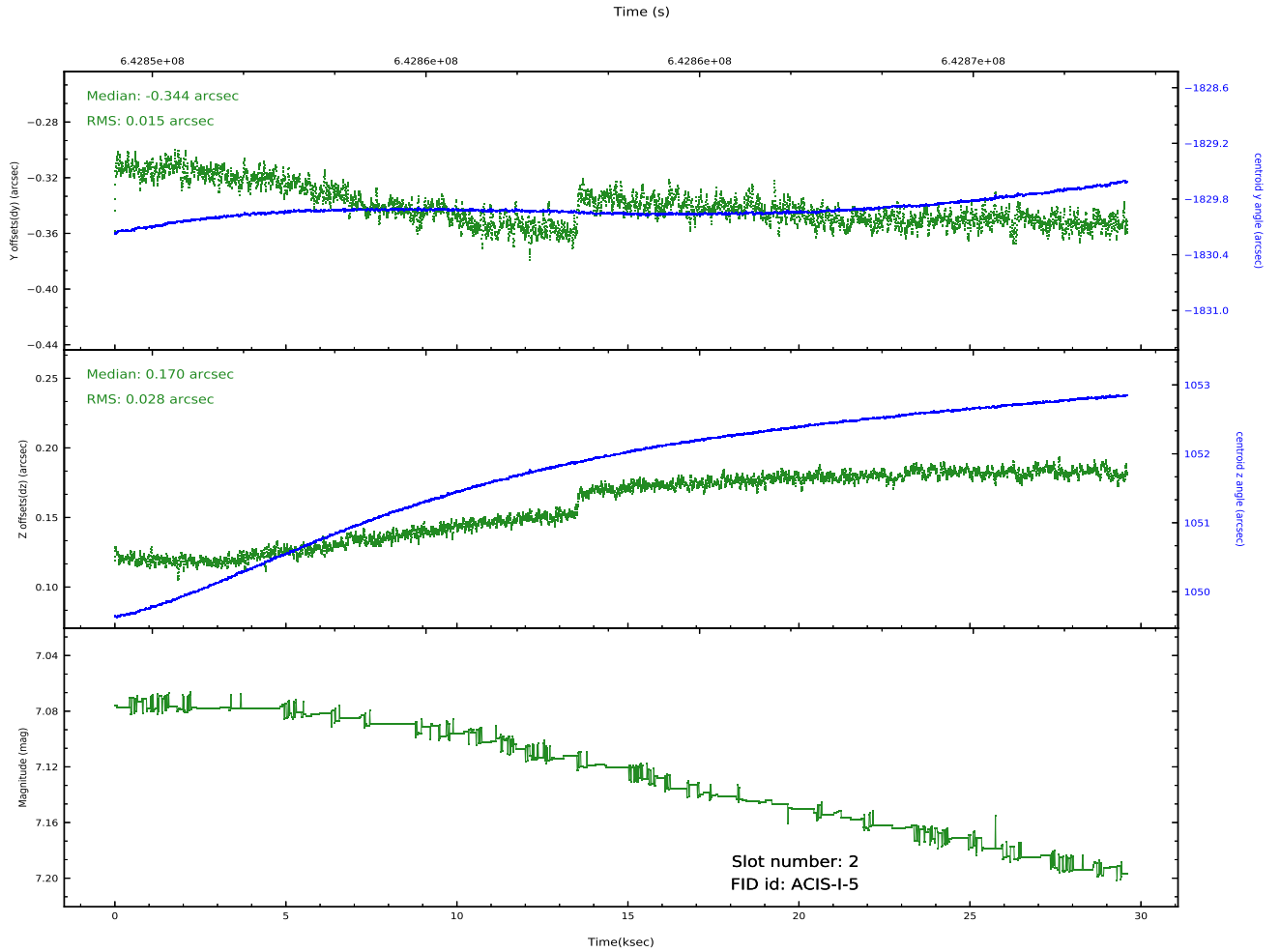
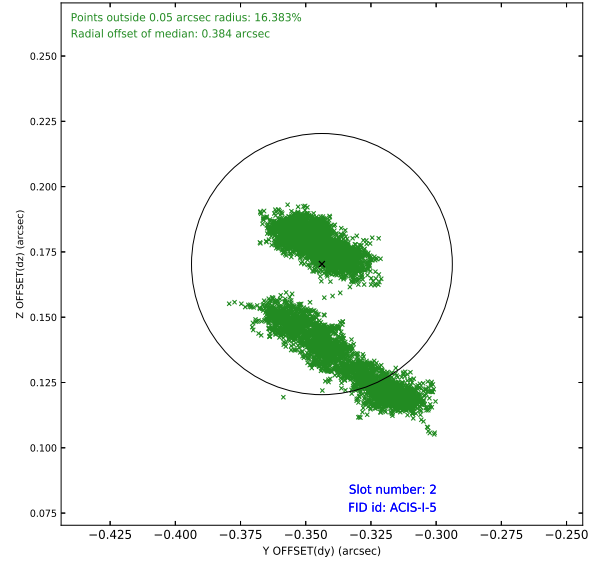
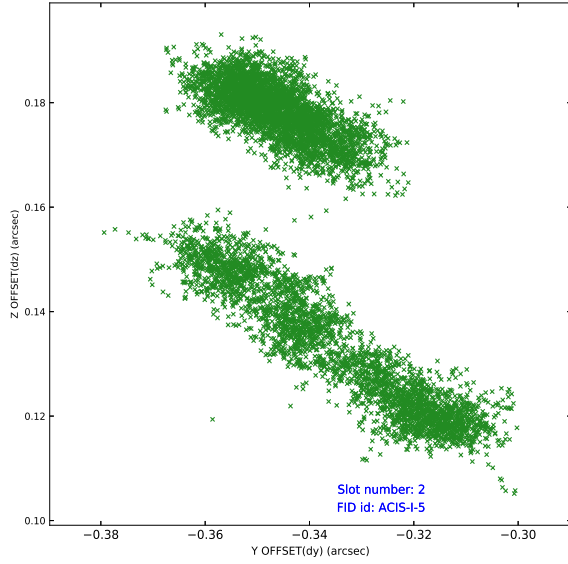
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|----------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2020.10.27 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 29.53232522285 |

A.2 Comments

Optional chip S3 not used.