

V&V Reference Report

L2 ASCDS Version : 10.4

Observation 17665 - L2 Version 1
Chandra X-Ray Center

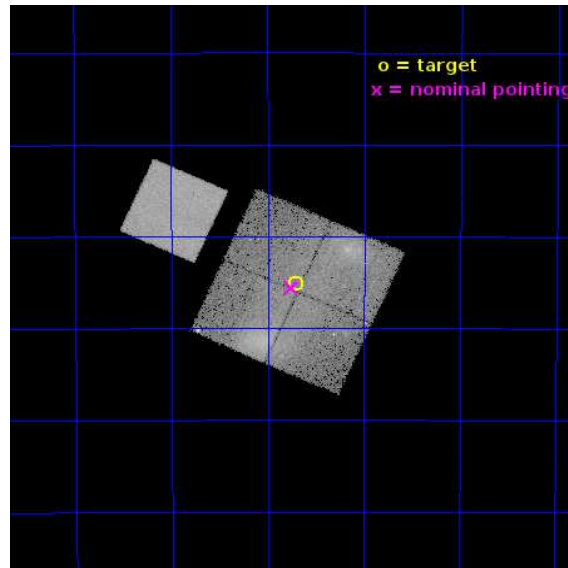
L2 Processing Date : Jun 5 2015

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1 Front

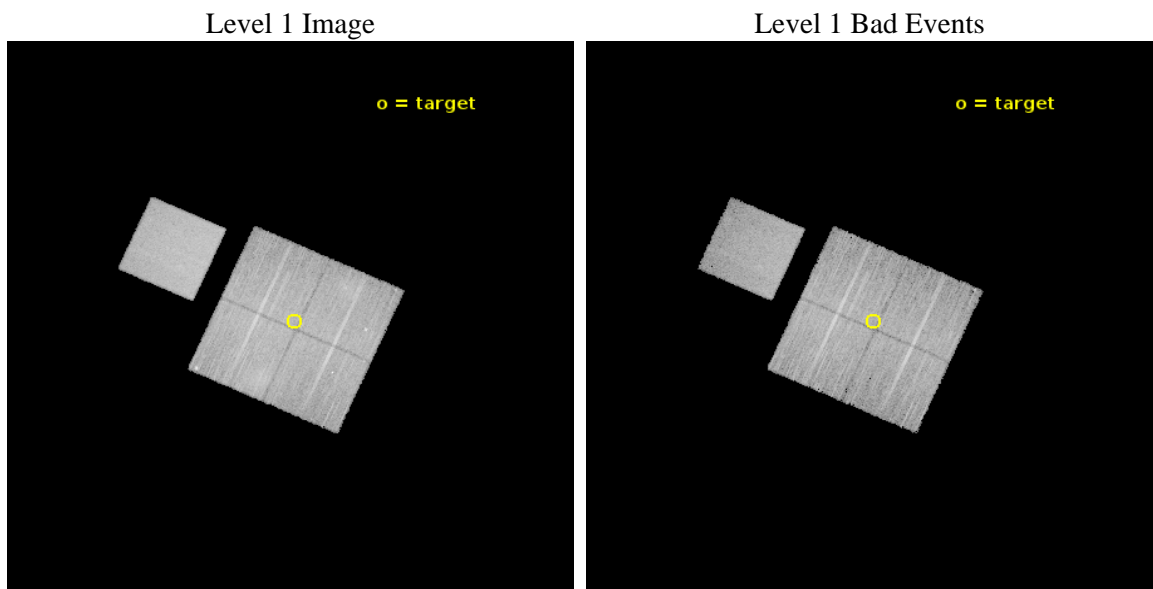
| | | |
|----------|---|---|
| seq_num | 801475 | Sequence number |
| obs_id | 17665 | Observation id |
| title | High-Resolution Imaging of Newborn Shock Fronts in Nearby Early-Phase Merging Cluster CIZA J1358.9-4750 | Proposal title |
| observer | Yuichi Kato | Principal investigator |
| object | CIZA J1358.9-4750 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 209.678333 | Observer's specified target RA [deg] |
| dec_targ | -47.752611 | Observer's specified target Dec [deg] |
| ra_nom | 209.68857329689 | Nominal RA [deg] |
| dec_nom | -47.759891815172 | Nominal Dec [deg] |
| roll_nom | 294.21628059243 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 20044.559184074 | Sum of GTIs [s] |
| livetime | 19782.662261745 | Livetime [s] |
| ontime0 | 20047.700154305 | Sum of GTIs [s] |
| ontime1 | 20041.418133497 | Sum of GTIs [s] |
| ontime2 | 20047.700154305 | Sum of GTIs [s] |
| ontime3 | 20044.559184074 | Sum of GTIs [s] |
| ontime7 | 20047.700154305 | Sum of GTIs [s] |
| l2events | 146878 | Number of level 2 events |



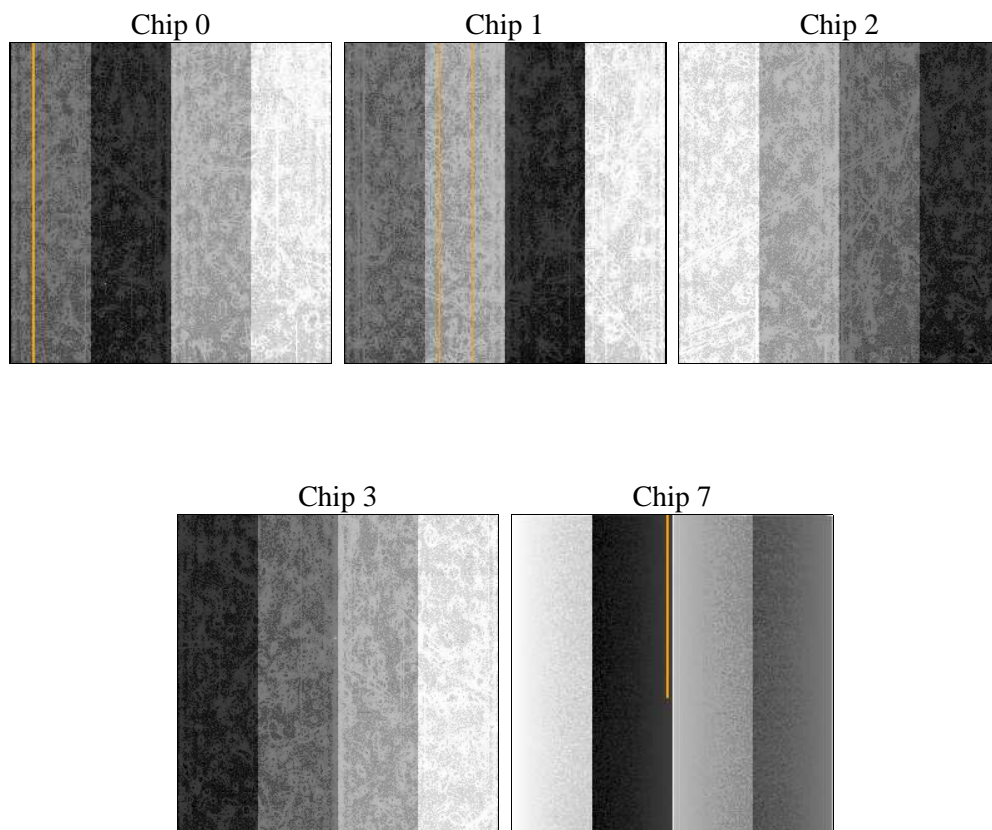
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 20000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.4 | Processing system revision | ontime | 20044.559184074 | Sum of GTIs [s] |
| caldsver | 4.6.7 | | ontime0 | 20047.700154305 | Sum of GTIs [s] |
| date | 2015-06-05T17:02:27 | Date and time of file creation | ontime1 | 20041.418133497 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime2 | 20047.700154305 | Sum of GTIs [s] |
| | | | ontime3 | 20044.559184074 | Sum of GTIs [s] |
| | | | ontime7 | 20047.700154305 | Sum of GTIs [s] |
| | | | l1events | 581951 | Number of level 1 events |

2.1.4 Events

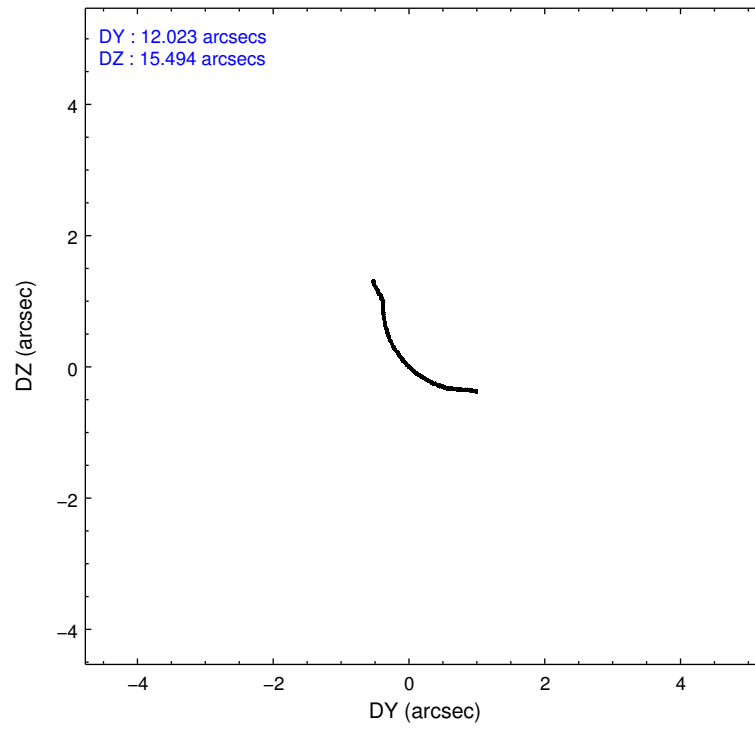
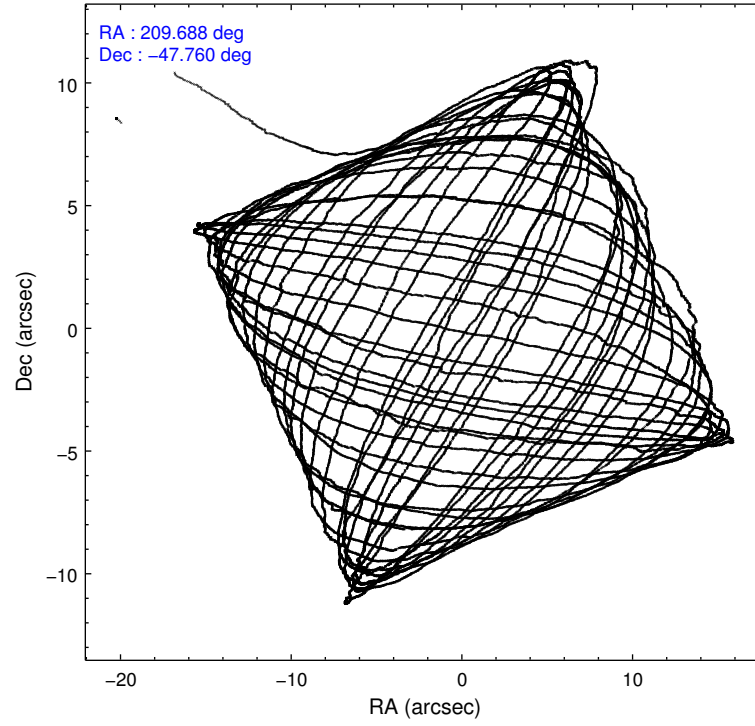
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 102025 | 110836 | 125089 | 105120 | 138881 |
| rejected events | 79483 | 81121 | 94812 | 87782 | 78829 |
| rejected % | 77% | 73% | 75% | 83% | 56% |

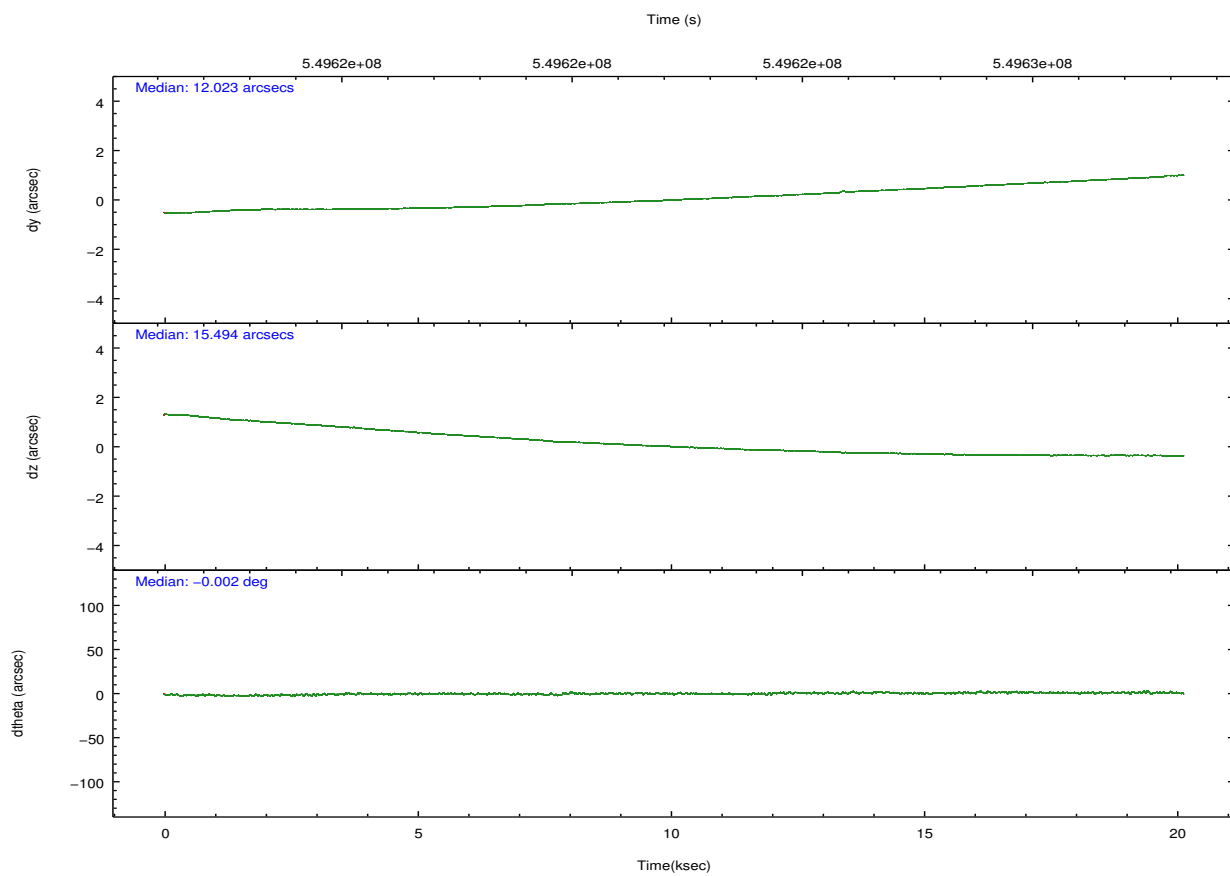
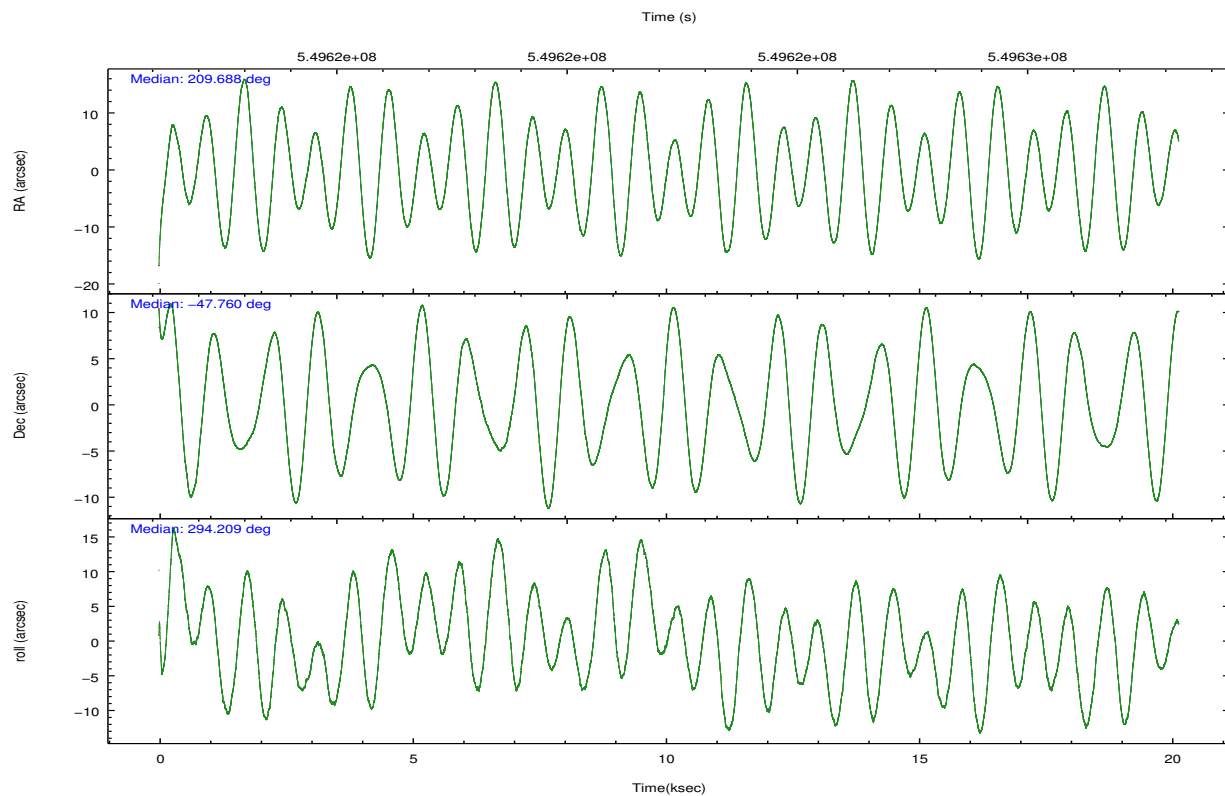
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 7 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 12482 | 17767 | 18674 | 8691 | 5199 |
| | 12% | 16% | 14% | 8% | 3% |
| grade 1 events | 84 | 83 | 99 | 79 | 175 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 4173 | 4966 | 5036 | 3220 | 12233 |
| | 4% | 4% | 4% | 3% | 8% |
| grade 3 events | 1533 | 1812 | 1856 | 1377 | 5107 |
| | 1% | 1% | 1% | 1% | 3% |
| grade 4 events | 1533 | 1871 | 1864 | 1410 | 4984 |
| | 1% | 1% | 1% | 1% | 3% |
| grade 5 events | 4688 | 5224 | 4295 | 5550 | 14160 |
| | 4% | 4% | 3% | 5% | 10% |
| grade 6 events | 2824 | 3303 | 2853 | 2645 | 32546 |
| | 2% | 2% | 2% | 2% | 23% |
| grade 7 events | 74708 | 75810 | 90412 | 82148 | 64477 |
| | 73% | 68% | 72% | 78% | 46% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-01237 | ACIS-01237 | 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 | 209.655176 | 209.6885732968884 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | -47.743848 | -47.75989181517168 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 293.982864 | 294.216280592432 | 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 | Y |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 549612278.184000 | 549611037.58801 | CCD S5 on | N | N |
| Observation start date | 2015-06-02T06:03:31 | 2015-06-02T05:43:57 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 549632278.184000 | 549633014.10175 | On-chip summing requested | N | N |
| Observation end date | 2015-06-02T11:36:51 | 2015-06-02T11:50:14 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect



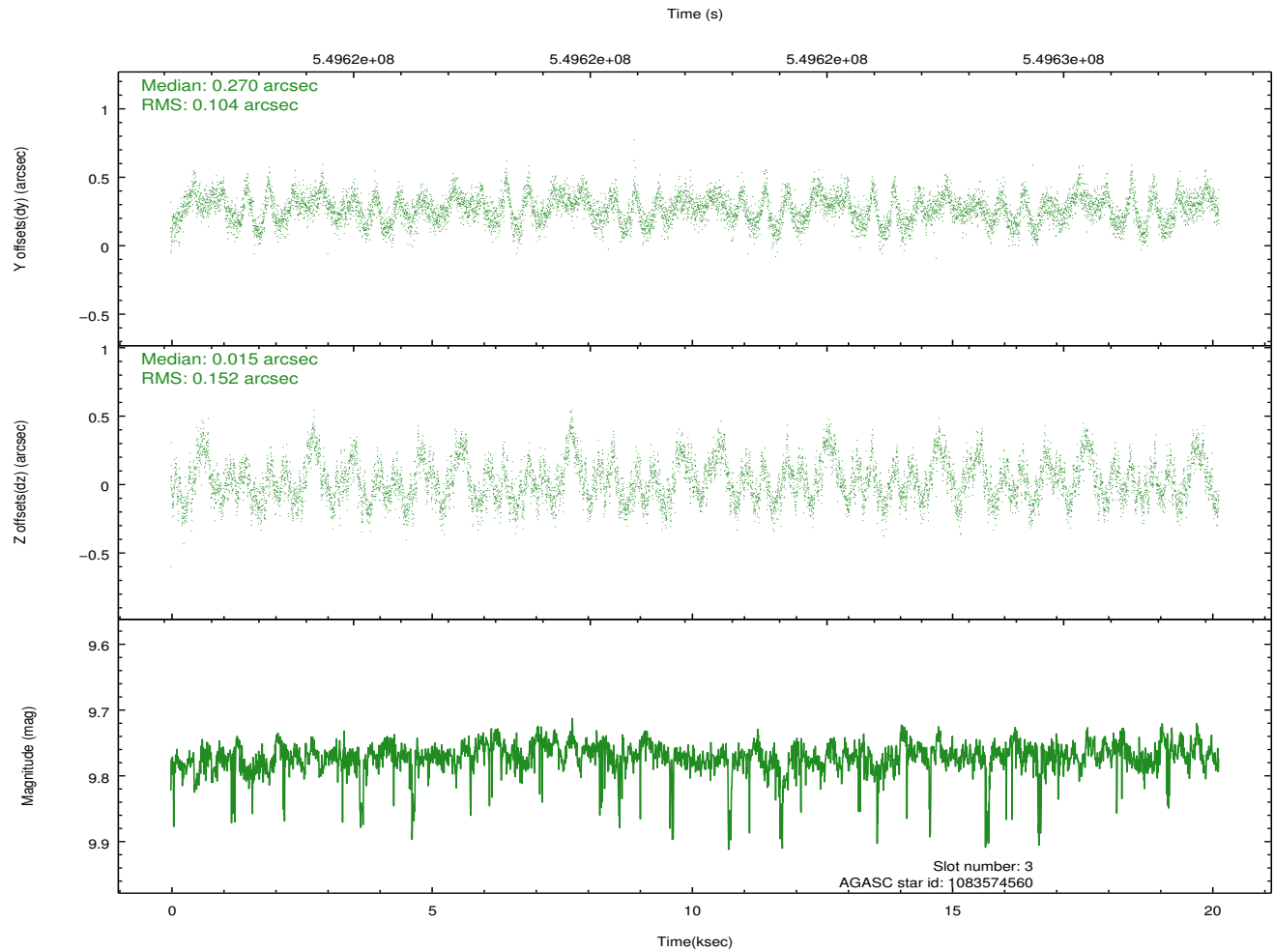
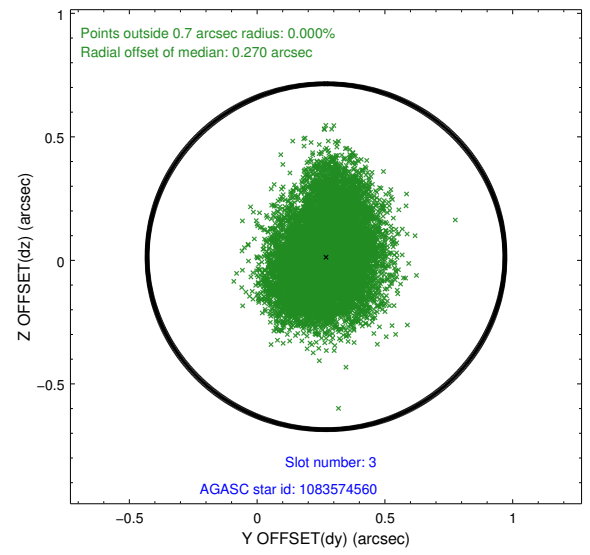
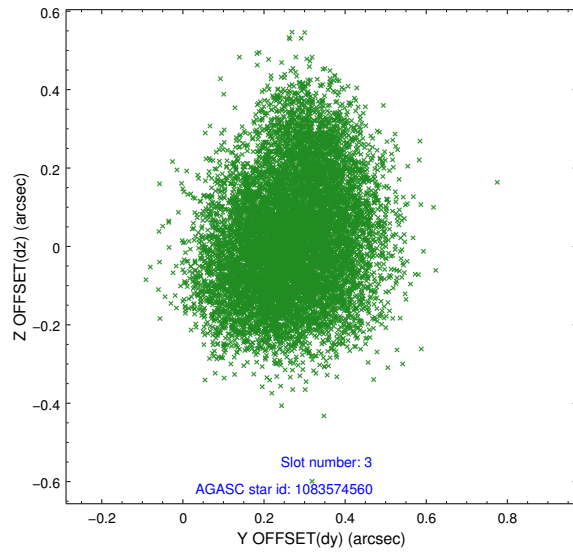


Slot Statistics

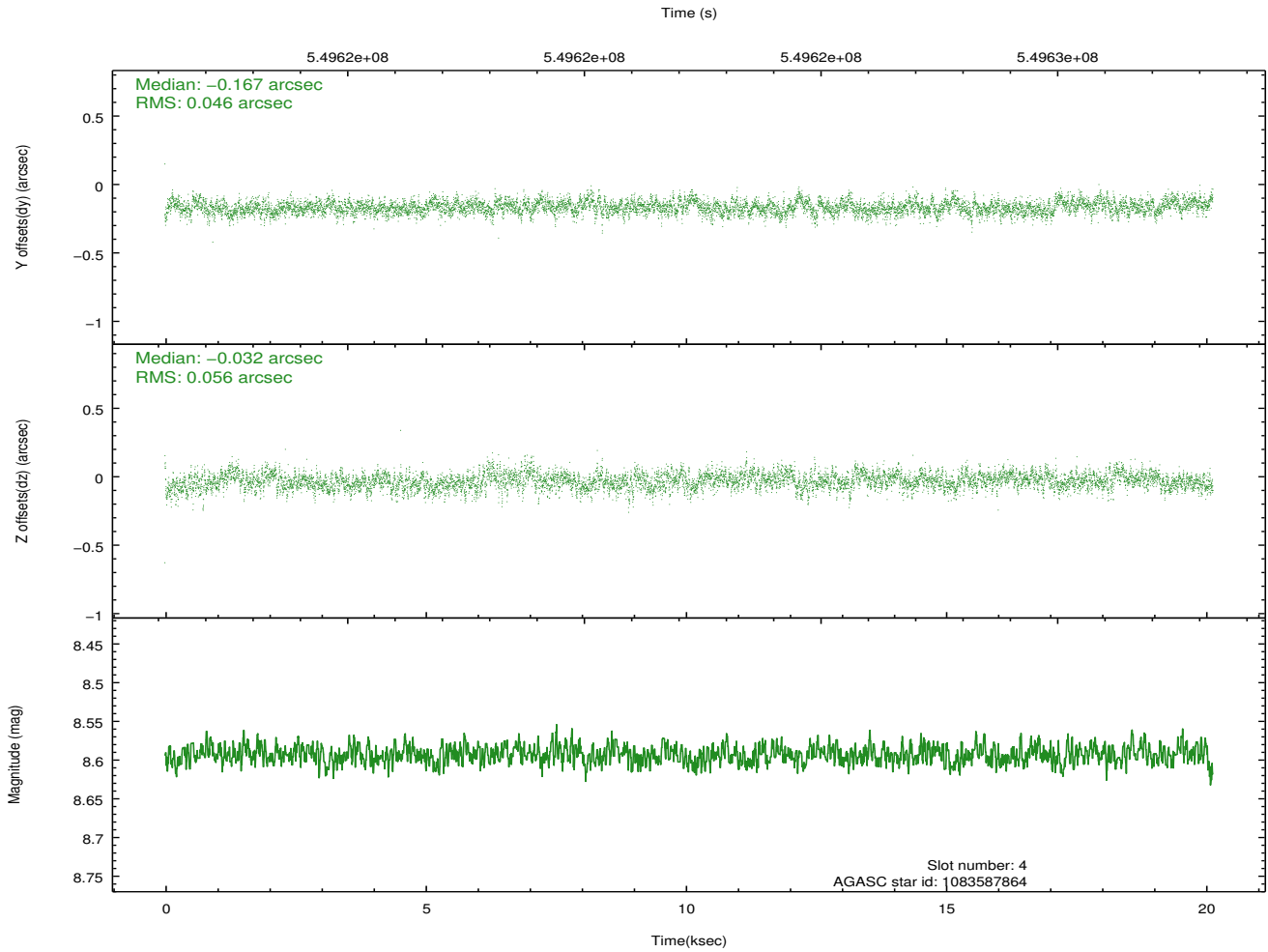
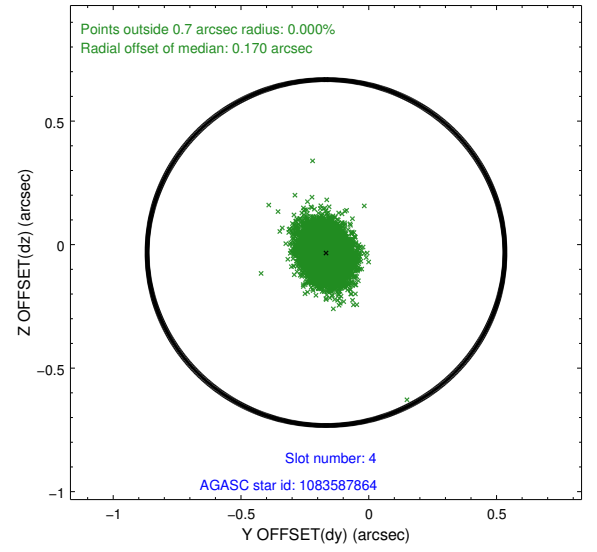
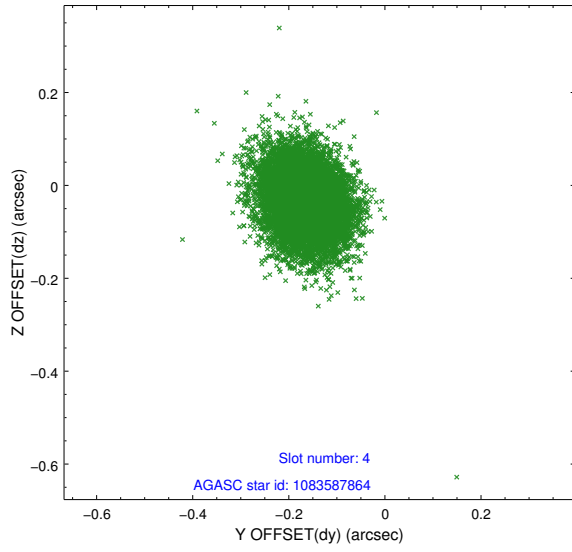
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | | ACIS-I-2 | 6.99 | 4912 | -0.117 | -0.102 | 0.020 | 0.045 | 0.000000 | 0.000000 | -766.87 | -845.75 |
| 1 | FID | | ACIS-I-4 | 7.01 | 4913 | 0.237 | 0.095 | 0.024 | 0.038 | 0.000000 | 0.000000 | 2147.46 | 1060.52 |
| 2 | FID | | ACIS-I-5 | 7.08 | 4912 | -0.222 | 0.076 | 0.028 | 0.046 | 0.000000 | 0.000000 | -1820.56 | 1058.56 |
| 3 | GUIDE | used | 1083574560 | 9.77 | 9806 | 0.270 | 0.015 | 0.199 | 0.311 | 209.731135 | -47.546405 | -573.69 | 457.43 |
| 4 | GUIDE | used | 1083587864 | 8.59 | 9823 | -0.167 | -0.032 | 0.076 | 0.126 | 209.240512 | -47.422825 | -1463.72 | -454.37 |
| 5 | GUIDE | used | 1083595344 | 8.15 | 9824 | -0.005 | 0.316 | 0.079 | 0.129 | 209.371306 | -47.904458 | 251.40 | -861.52 |
| 6 | GUIDE | used | 1083595832 | 9.46 | 9822 | -0.202 | -0.280 | 0.124 | 0.206 | 210.080180 | -47.829377 | 701.55 | 811.86 |
| 7 | GUIDE | used | 1083596136 | 9.48 | 9809 | 0.109 | -0.030 | 0.149 | 0.238 | 209.352399 | -48.392010 | 1839.87 | -1610.14 |

2.4 Star Slots

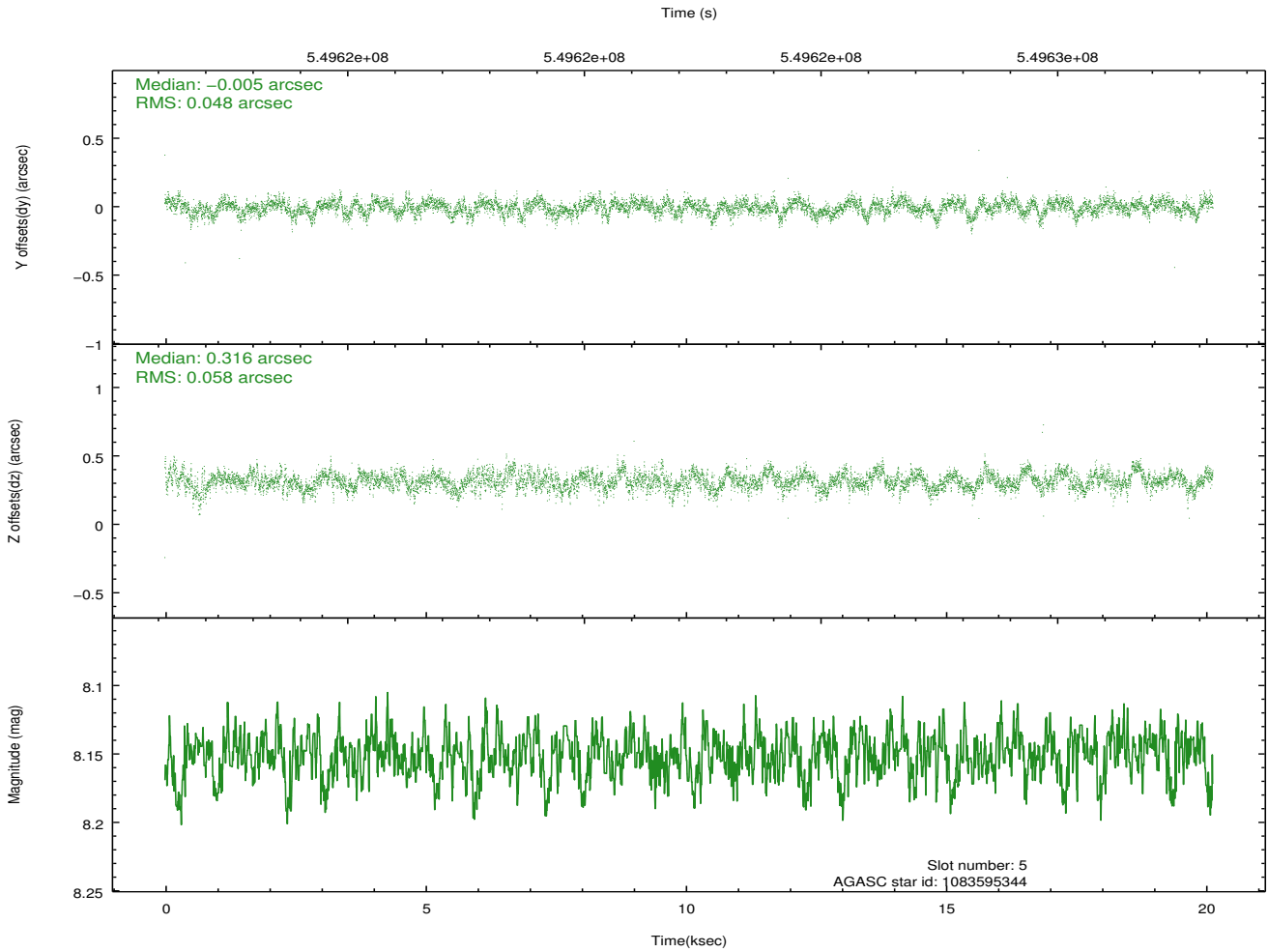
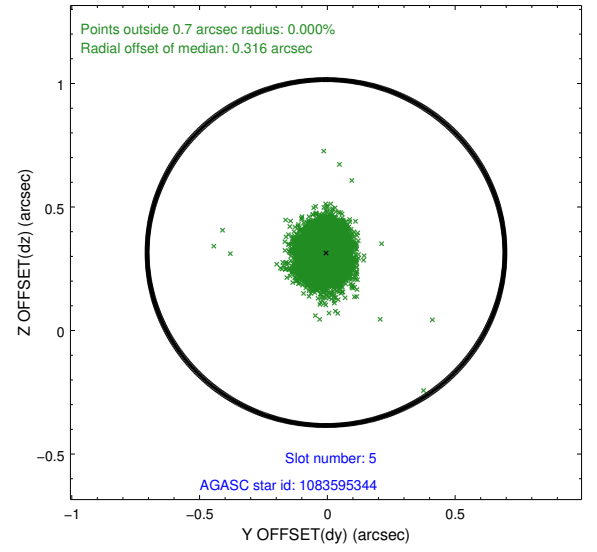
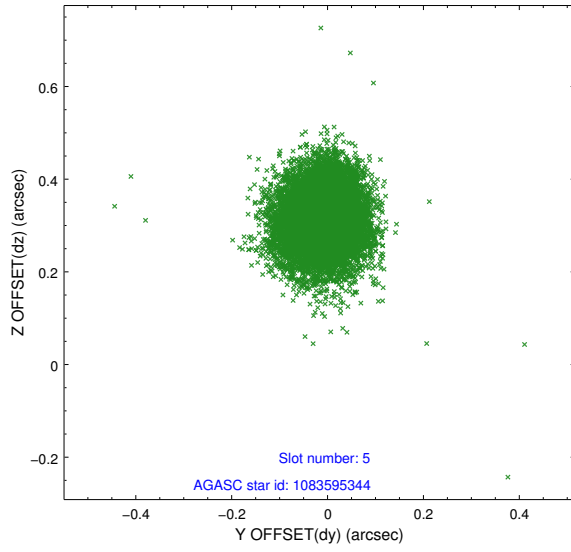
2.4.1 Slot 3



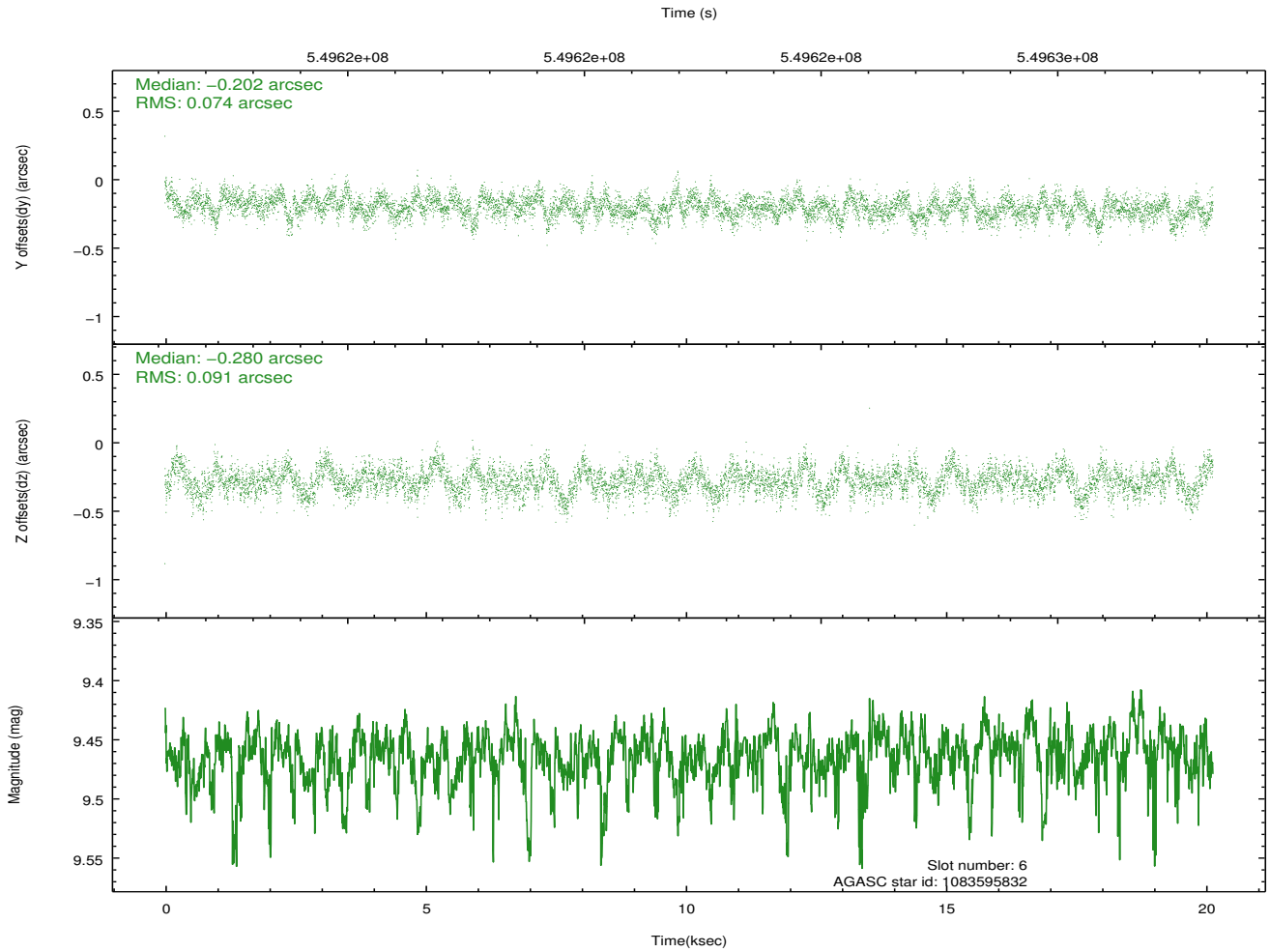
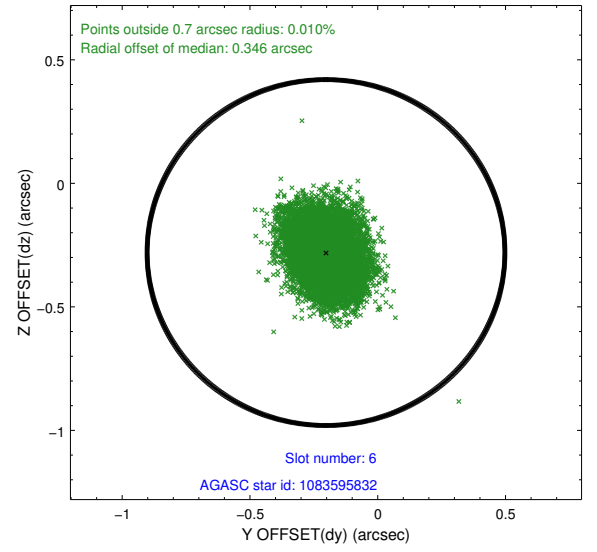
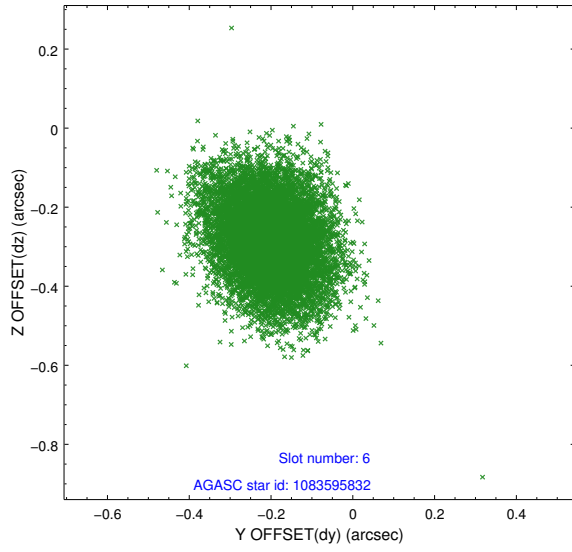
2.4.2 Slot 4



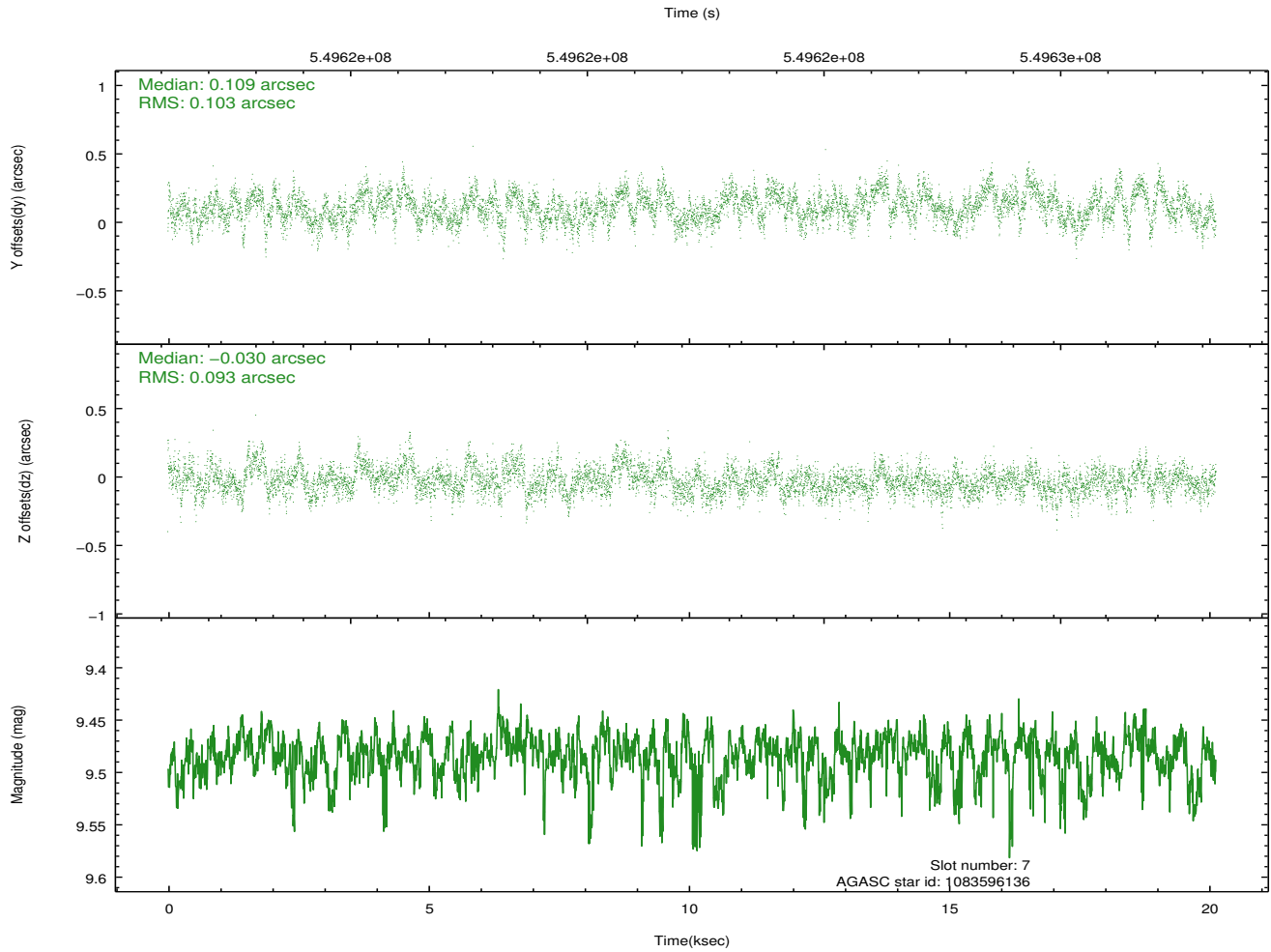
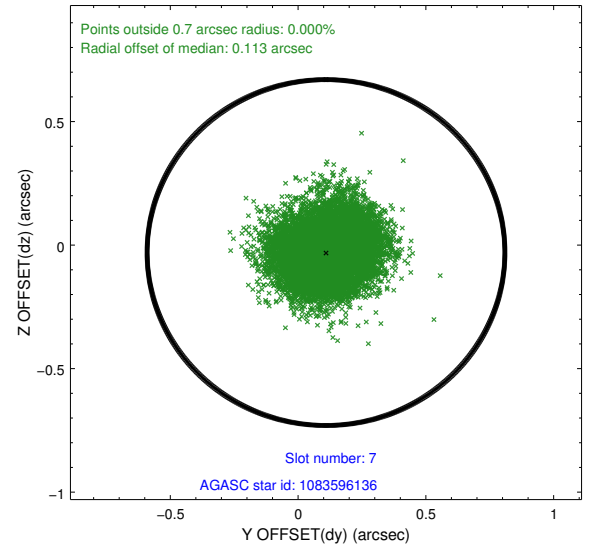
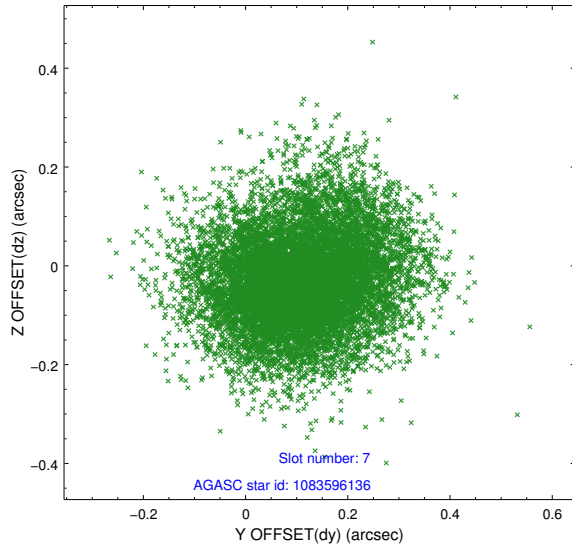
2.4.3 Slot 5



2.4.4 Slot 6

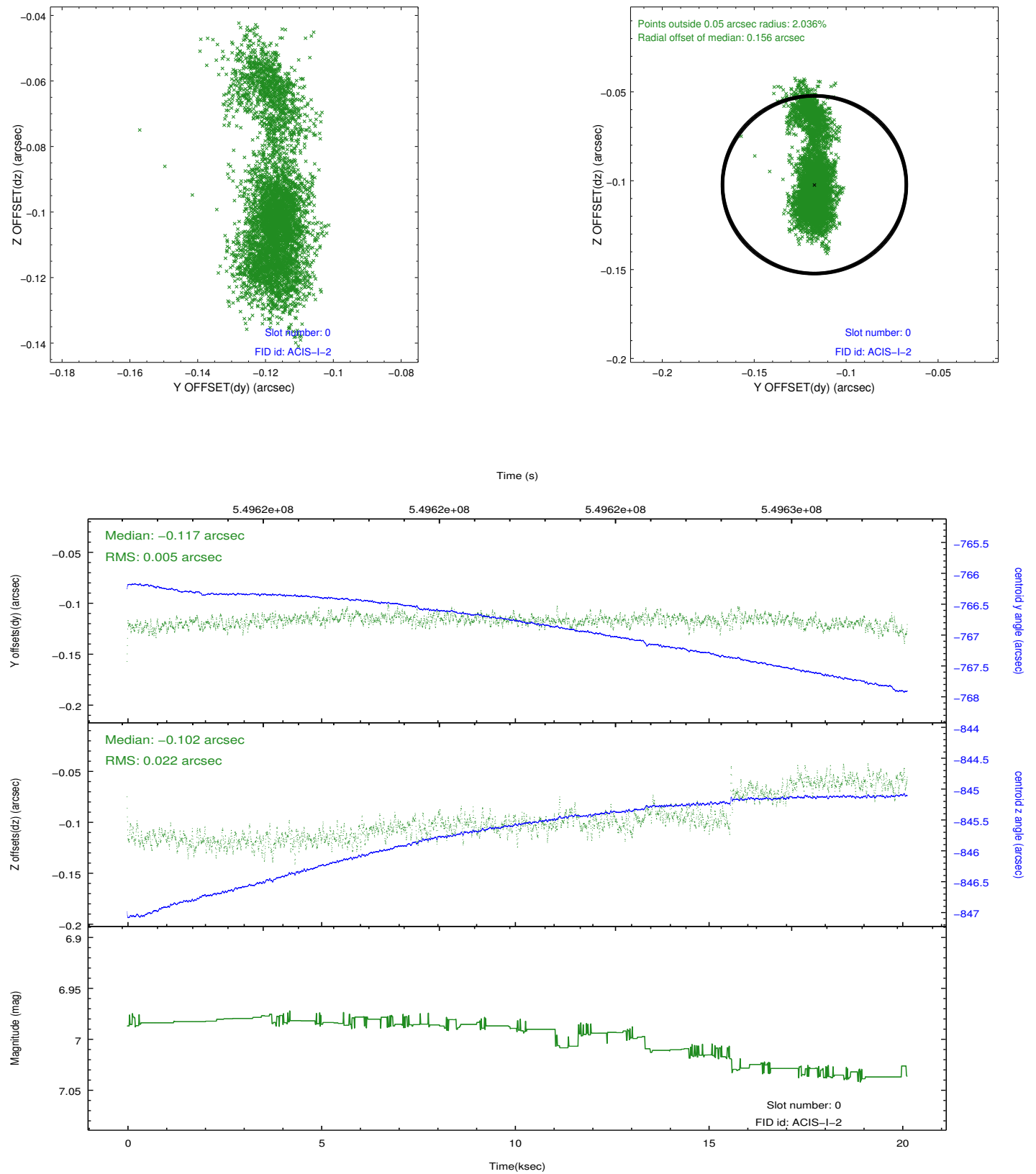


2.4.5 Slot 7

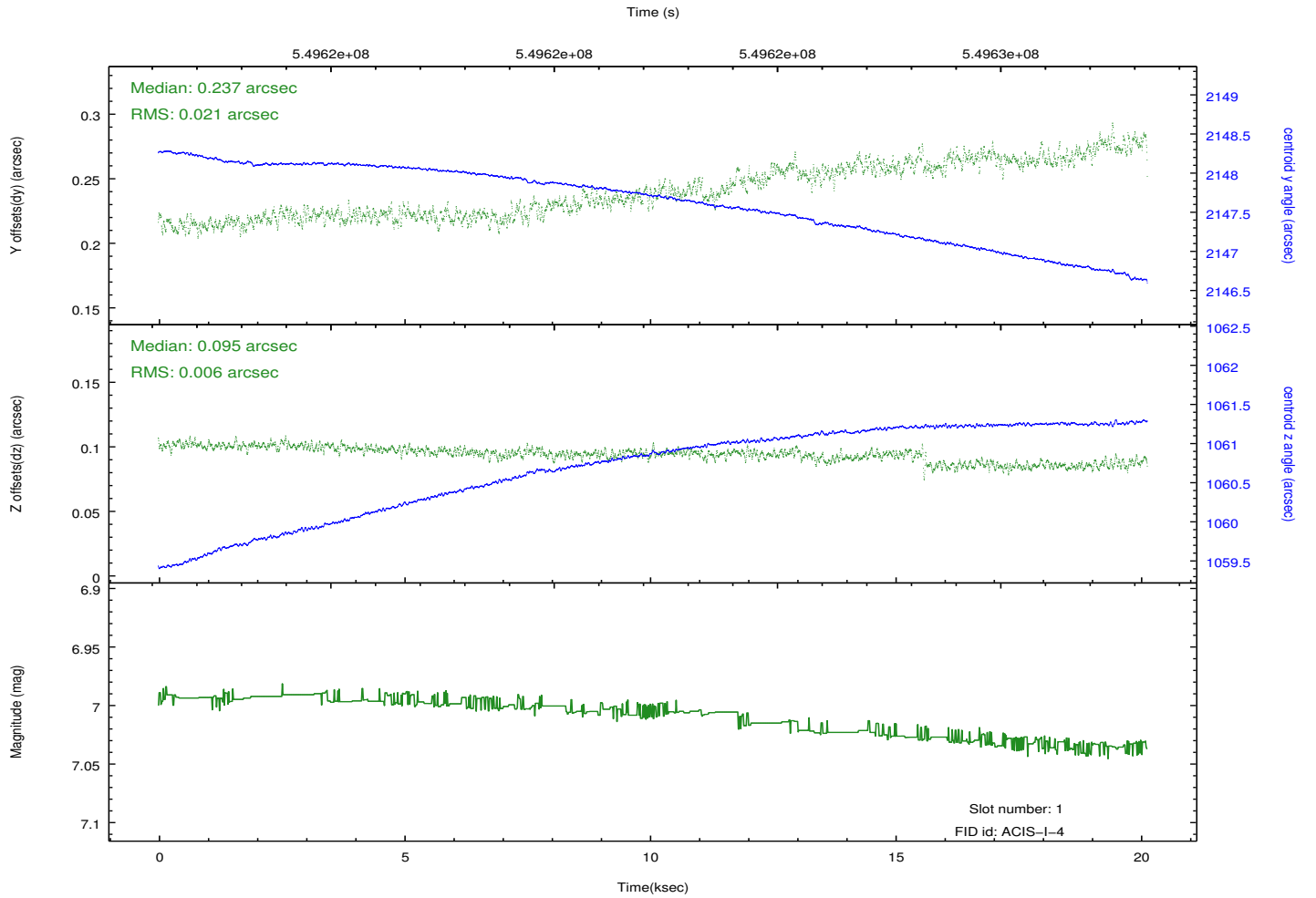
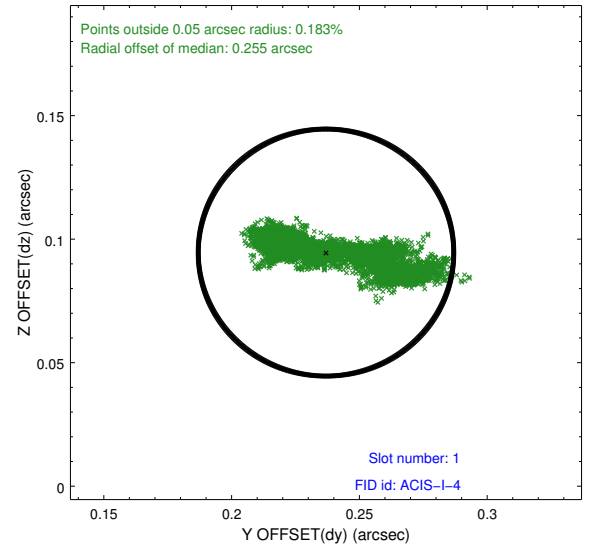
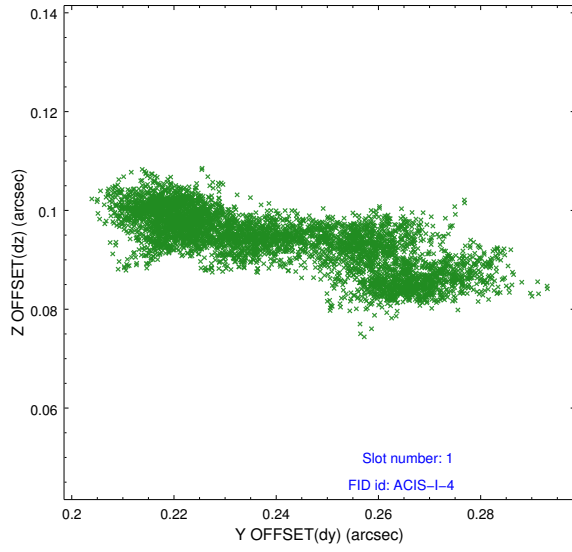


2.5 FID Slots

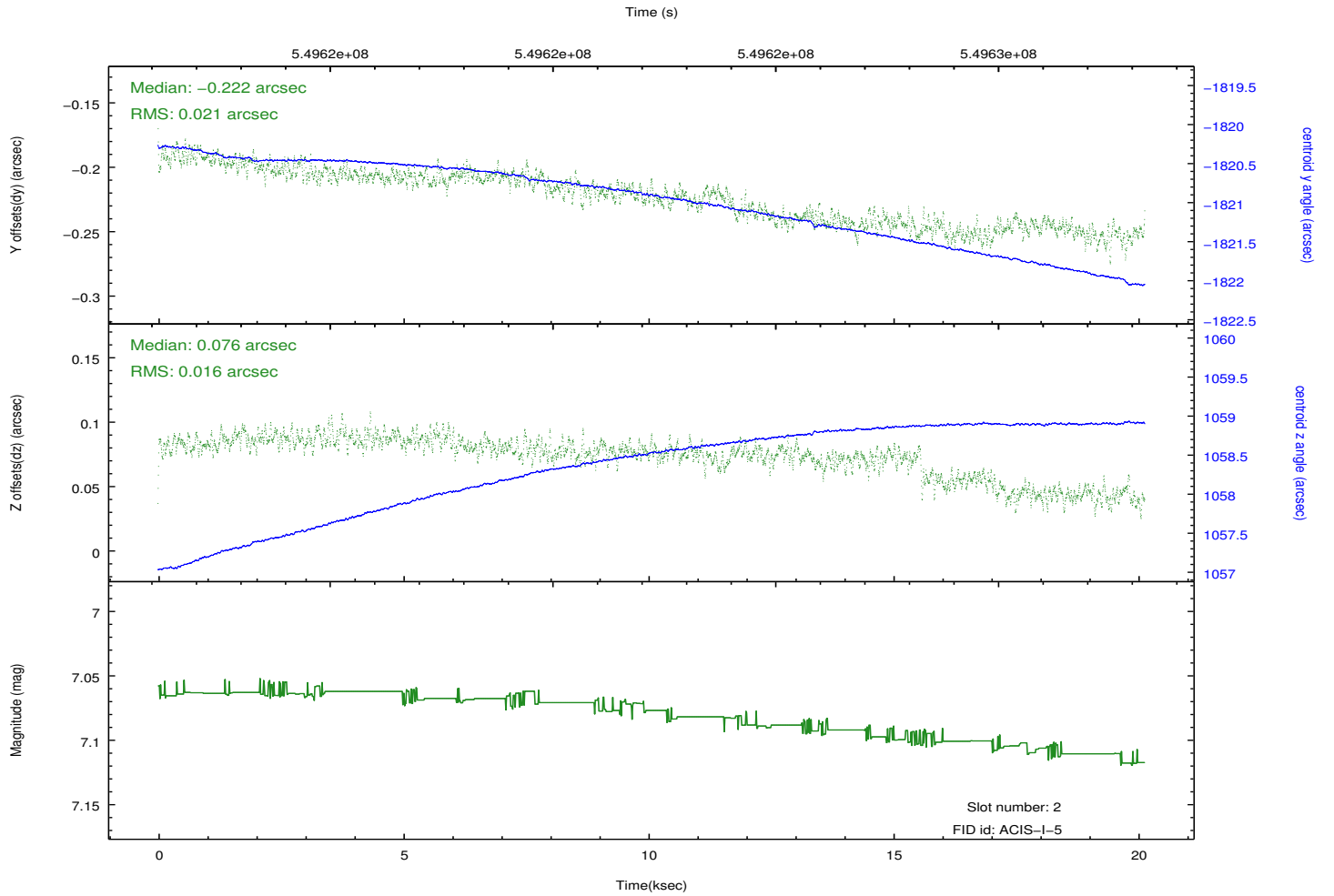
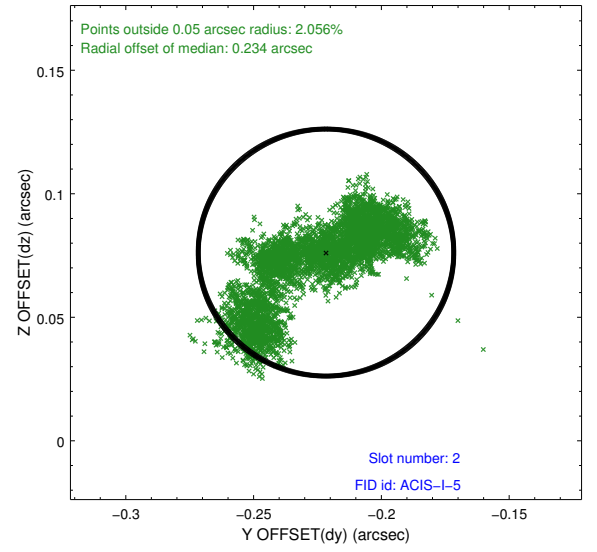
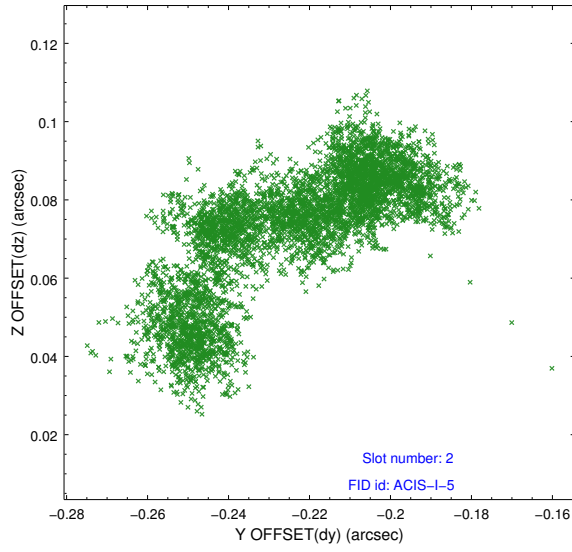
2.5.1 Slot 0



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) | 2015.06.05 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 20.044559184074 |

A.2 Comments