

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 10904 - L2 Version 2
Chandra X-Ray Center

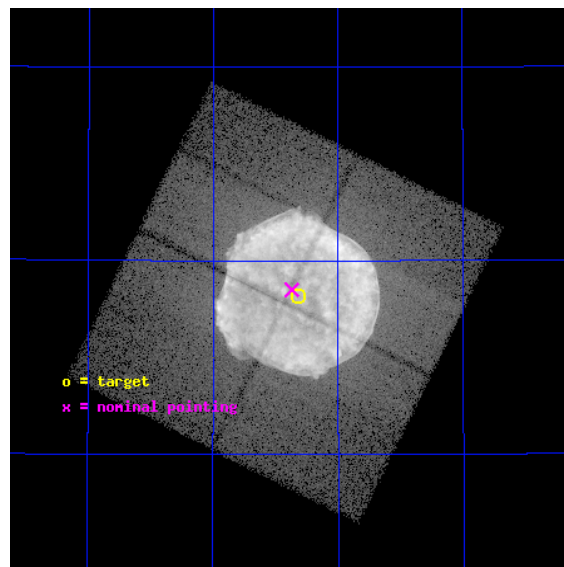
L2 Processing Date : Jun 4 2012

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1 Front

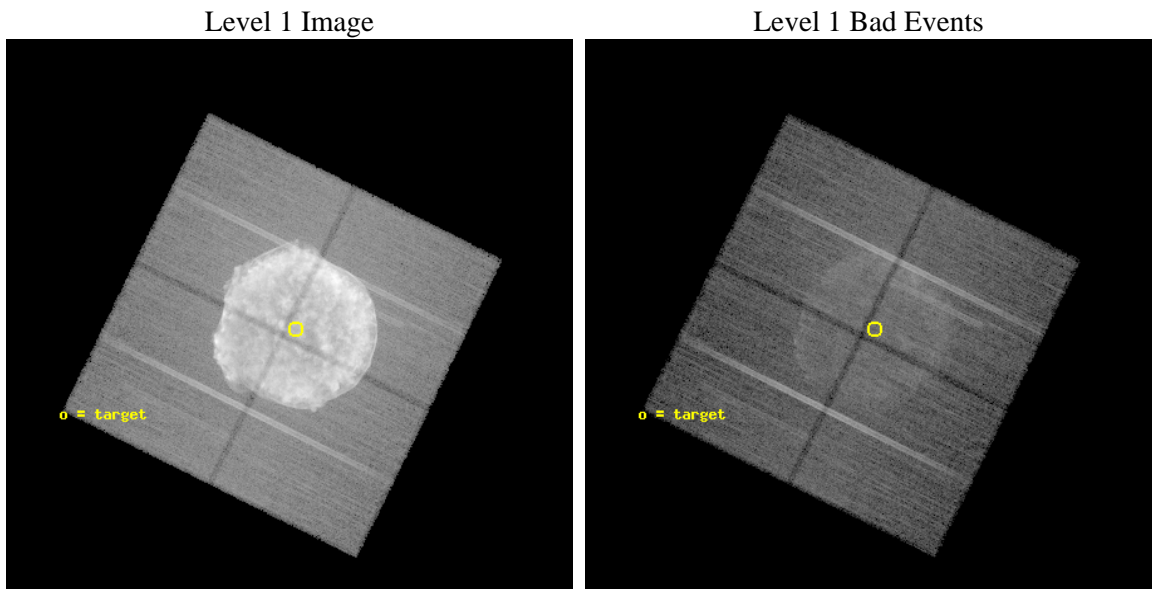
| | | |
|----------|--|---|
| seq_num | 501025 | Sequence number |
| obs_id | 10904 | Observation id |
| title | A Deep Cycle 10 Chandra Observation of the Tycho Supernova Remnant | |
| observer | Prof. John Hughes | Principal investigator |
| object | Tycho's SNR | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 6.329167 | Observer's specified target RA [deg] |
| dec_targ | 64.136111 | Observer's specified target Dec [deg] |
| ra_nom | 6.3425675744862 | Nominal RA [deg] |
| dec_nom | 64.141697229781 | Nominal Dec [deg] |
| roll_nom | 26.346638518982 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 35163.259280264 | Sum of GTIs [s] |
| livetime | 34703.825410953 | Livetime [s] |
| ontime0 | 35166.400270462 | Sum of GTIs [s] |
| ontime1 | 35160.118319809 | Sum of GTIs [s] |
| ontime2 | 35166.400270462 | Sum of GTIs [s] |
| ontime3 | 35163.259280264 | Sum of GTIs [s] |
| l2events | 2353795 | Number of level 2 events |



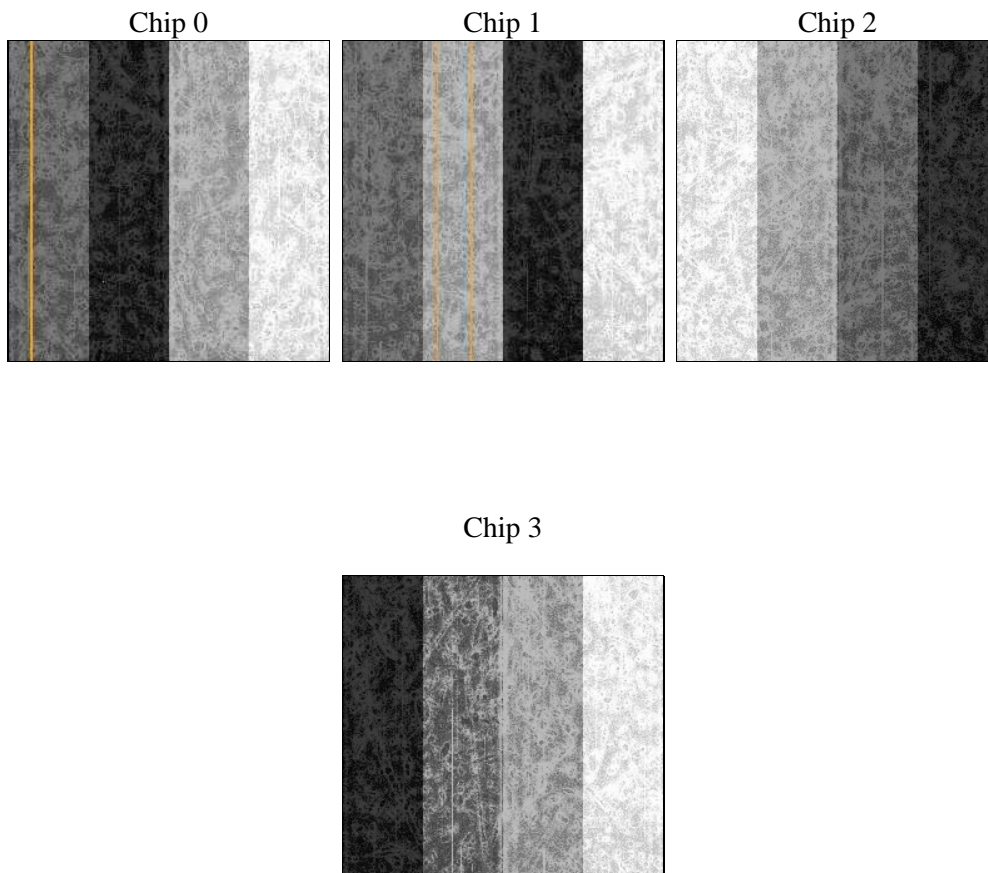
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 35000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.4 | Processing system revision | ontime | 35163.259280264 | Sum of GTIs [s] |
| caldbver | 4.4.9 | | ontime0 | 35166.400270462 | Sum of GTIs [s] |
| date | 2012-06-04T15:56:33 | Date and time of file creation | ontime1 | 35160.118319809 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 35166.400270462 | Sum of GTIs [s] |
| | | | ontime3 | 35163.259280264 | Sum of GTIs [s] |
| | | | l1events | 3576196 | Number of level 1 events |

2.1.4 Events

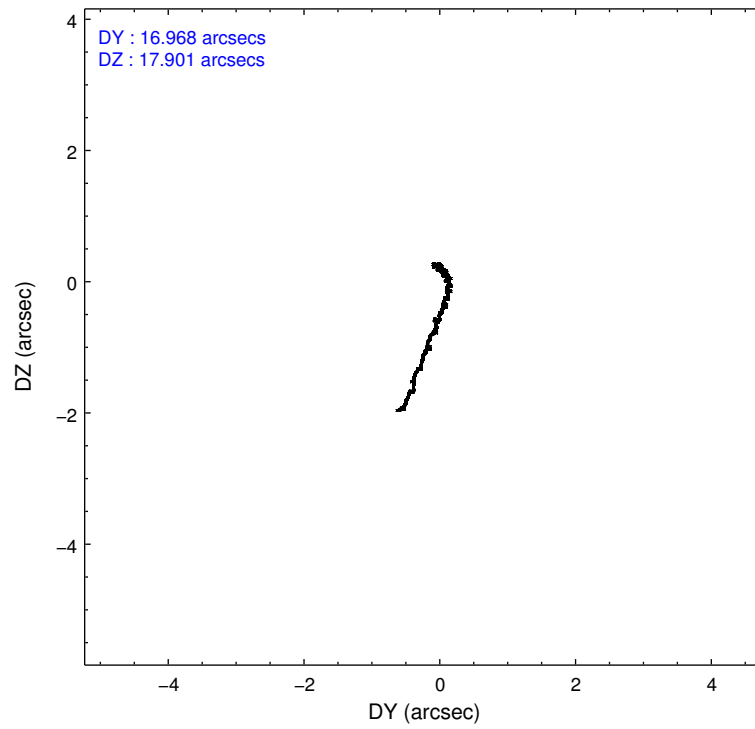
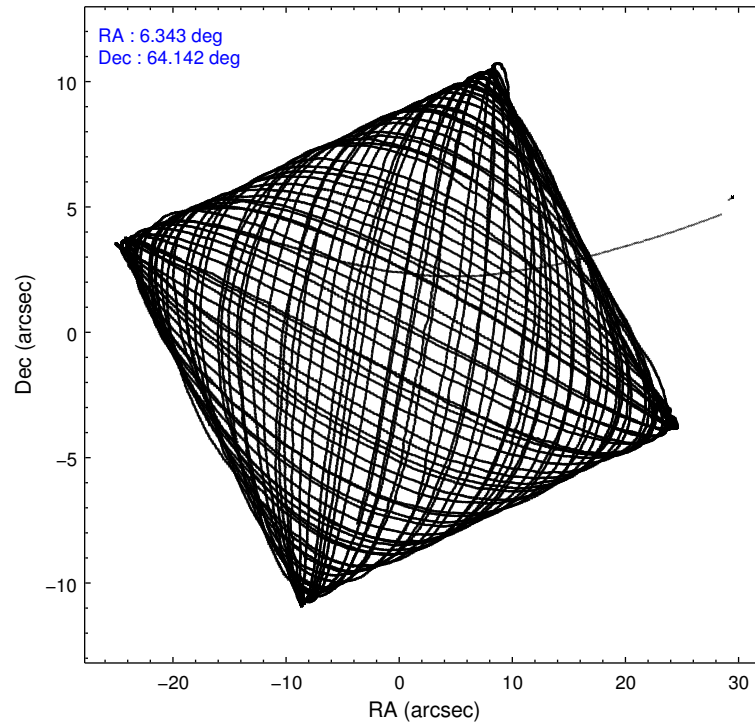
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|-----------------|--------|--------|--------|---------|
| level 1 events | 586575 | 737659 | 988081 | 1263881 |
| rejected events | 245023 | 256731 | 297799 | 295186 |
| rejected % | 41% | 34% | 30% | 23% |

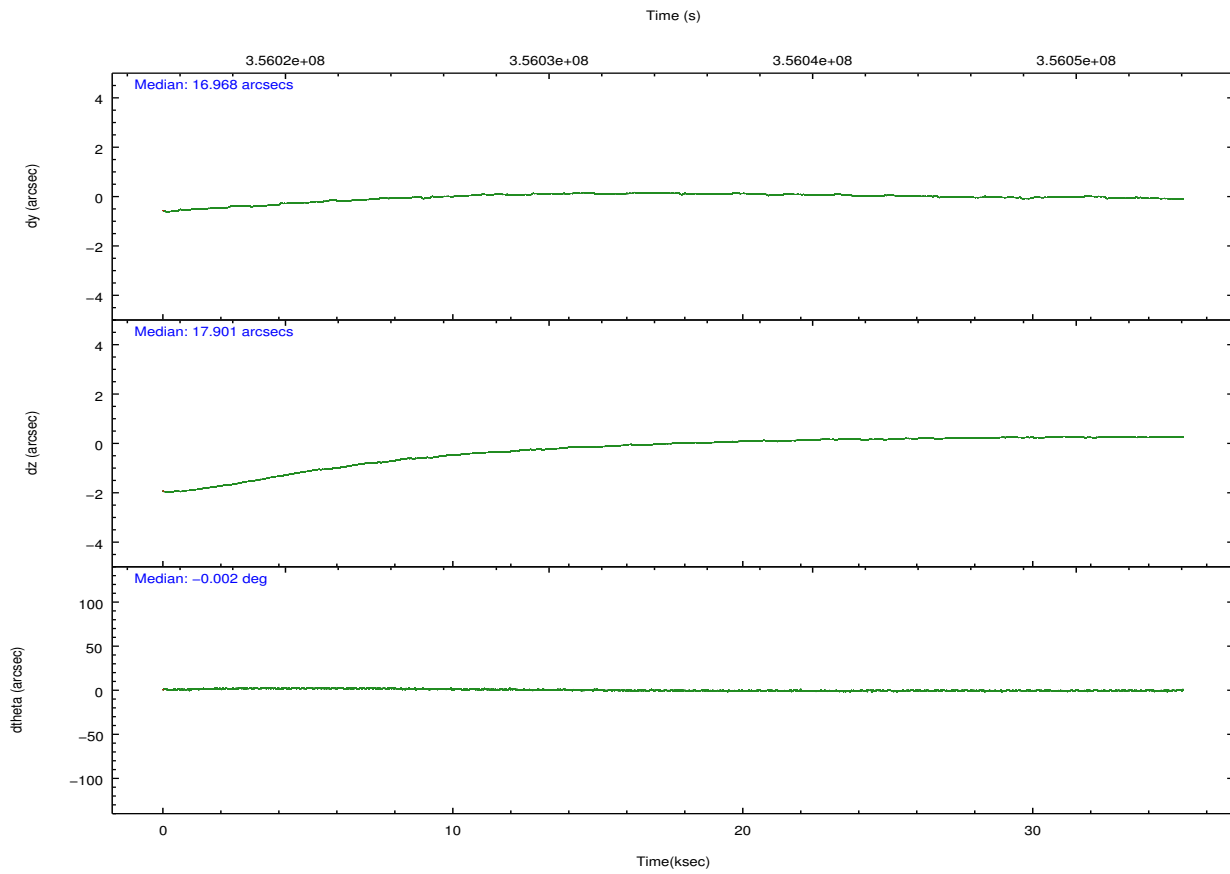
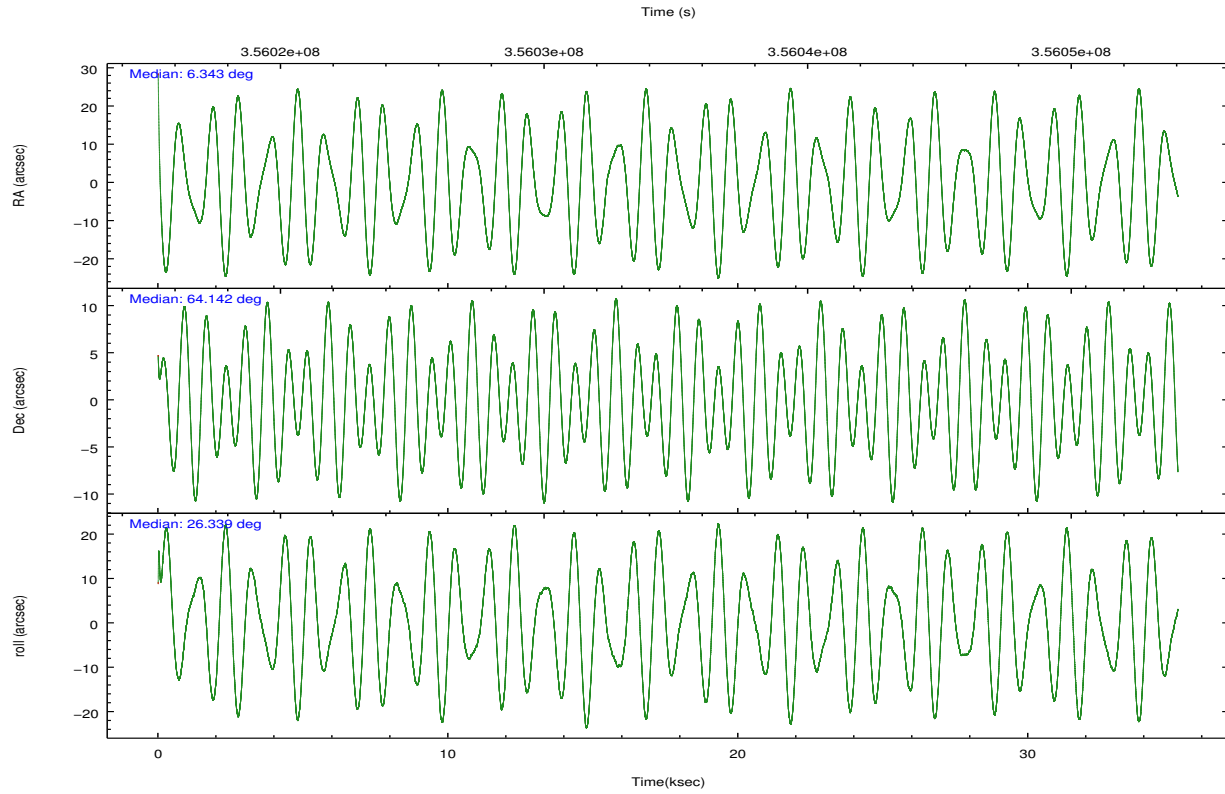
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|----------------|--------|--------|--------|--------|
| grade 0 events | 273225 | 386506 | 573870 | 809354 |
| | 46% | 52% | 58% | 64% |
| grade 1 events | 2042 | 2638 | 5039 | 6805 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 37125 | 51848 | 64499 | 90224 |
| | 6% | 7% | 6% | 7% |
| grade 3 events | 11719 | 15768 | 20047 | 27108 |
| | 1% | 2% | 2% | 2% |
| grade 4 events | 11253 | 15309 | 19986 | 27273 |
| | 1% | 2% | 2% | 2% |
| grade 5 events | 10197 | 11721 | 11490 | 14557 |
| | 1% | 1% | 1% | 1% |
| grade 6 events | 10830 | 14359 | 14448 | 18927 |
| | 1% | 1% | 1% | 1% |
| grade 7 events | 230184 | 239510 | 278702 | 269633 |
| | 39% | 32% | 28% | 21% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-0123 | ACIS-0123 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 6.307882 | 6.342567574486168 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 64.118739 | 64.1416972297815 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 26.169153 | 26.34663851898187 | [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 | -233.592463 | -233.5874344608287 | | | |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | | | |
| [s] Observation start time (MET) | 356017300.184000 | 356016232.11227 | | | |
| Observation start date | 2009-04-13T13:40:34 | 2009-04-13T13:23:52 | | | |
| [s] Observation end time (MET) | 356052300.184000 | 356052498.66408 | | | |
| Observation end date | 2009-04-13T23:23:54 | 2009-04-13T23:28:18 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect





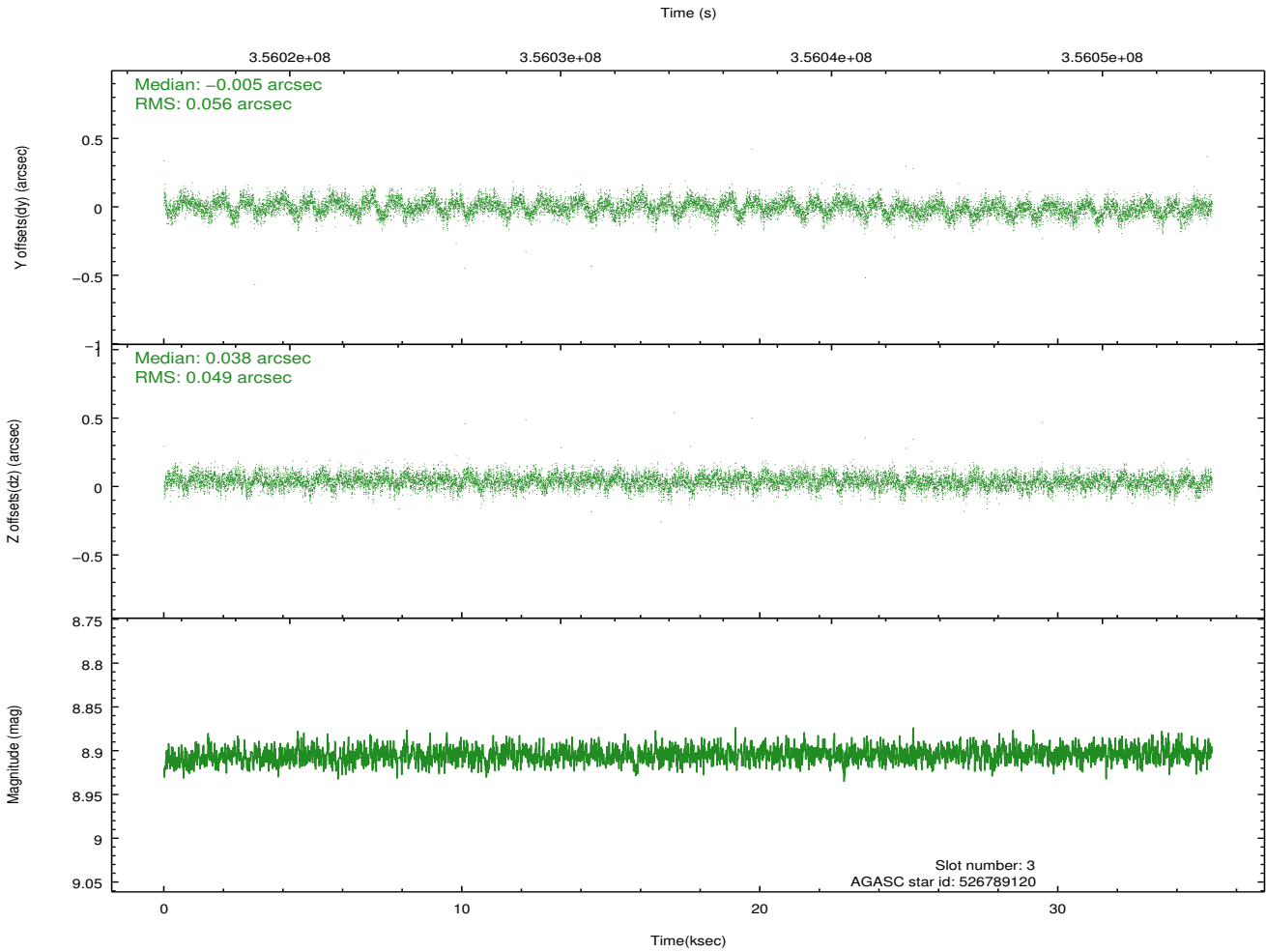
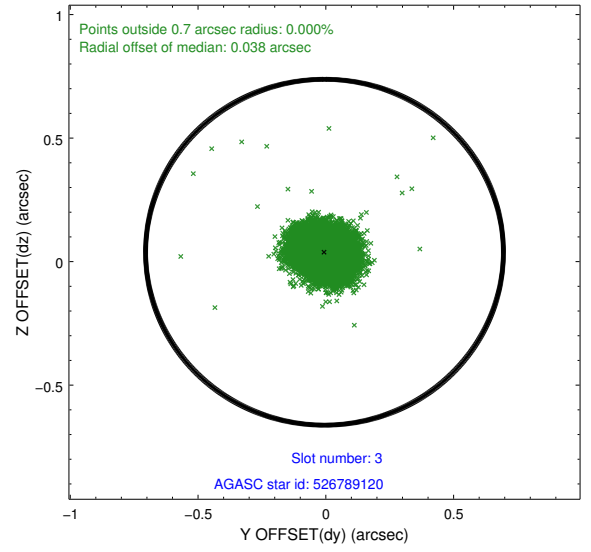
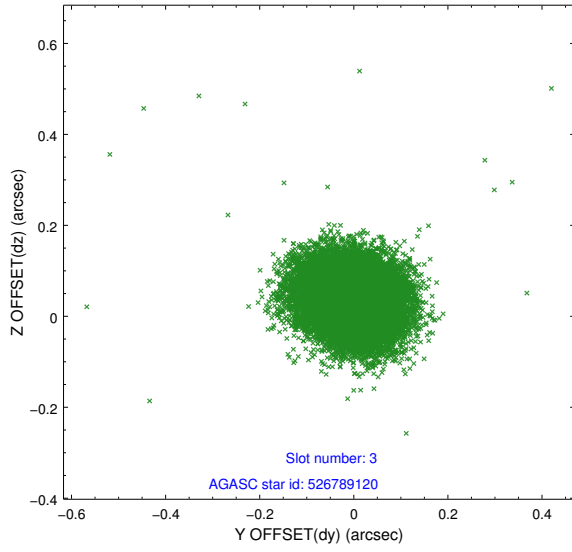
Slot Statistics

| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|----------|-----------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.02 | 8578 | 0.036 | 0.013 | 0.015 | 0.028 | 0.000000 | 0.000000 | 922.51 | -841.27 |
| 1 | FID | ACIS-I-5 | 7.01 | 8579 | -0.204 | 0.048 | 0.008 | 0.015 | 0.000000 | 0.000000 | -1825.81 | 1056.25 |
| 2 | FID | ACIS-I-6 | 7.02 | 8579 | 0.077 | 0.009 | 0.013 | 0.033 | 0.000000 | 0.000000 | 388.06 | 1700.75 |
| 3 | GUIDE | 526789120 | 8.90 | 17138 | -0.005 | 0.038 | 0.077 | 0.126 | 5.233481 | 63.667511 | -2249.46 | -688.45 |
| 4 | GUIDE | 526791328 | 8.62 | 17149 | -0.076 | 0.130 | 0.095 | 0.143 | 7.600207 | 63.681314 | 1166.29 | -2303.81 |
| 5 | GUIDE | 527307888 | 8.45 | 17142 | 0.027 | -0.014 | 0.064 | 0.103 | 4.965121 | 64.287990 | -1603.49 | 1491.36 |
| 6 | GUIDE | 527309096 | 8.30 | 17151 | 0.106 | 0.054 | 0.076 | 0.125 | 7.726277 | 64.064373 | 1929.28 | -1137.64 |
| 7 | GUIDE | 527310400 | 7.74 | 17156 | -0.045 | -0.212 | 0.075 | 0.116 | 6.292387 | 64.638680 | 804.17 | 1690.47 |

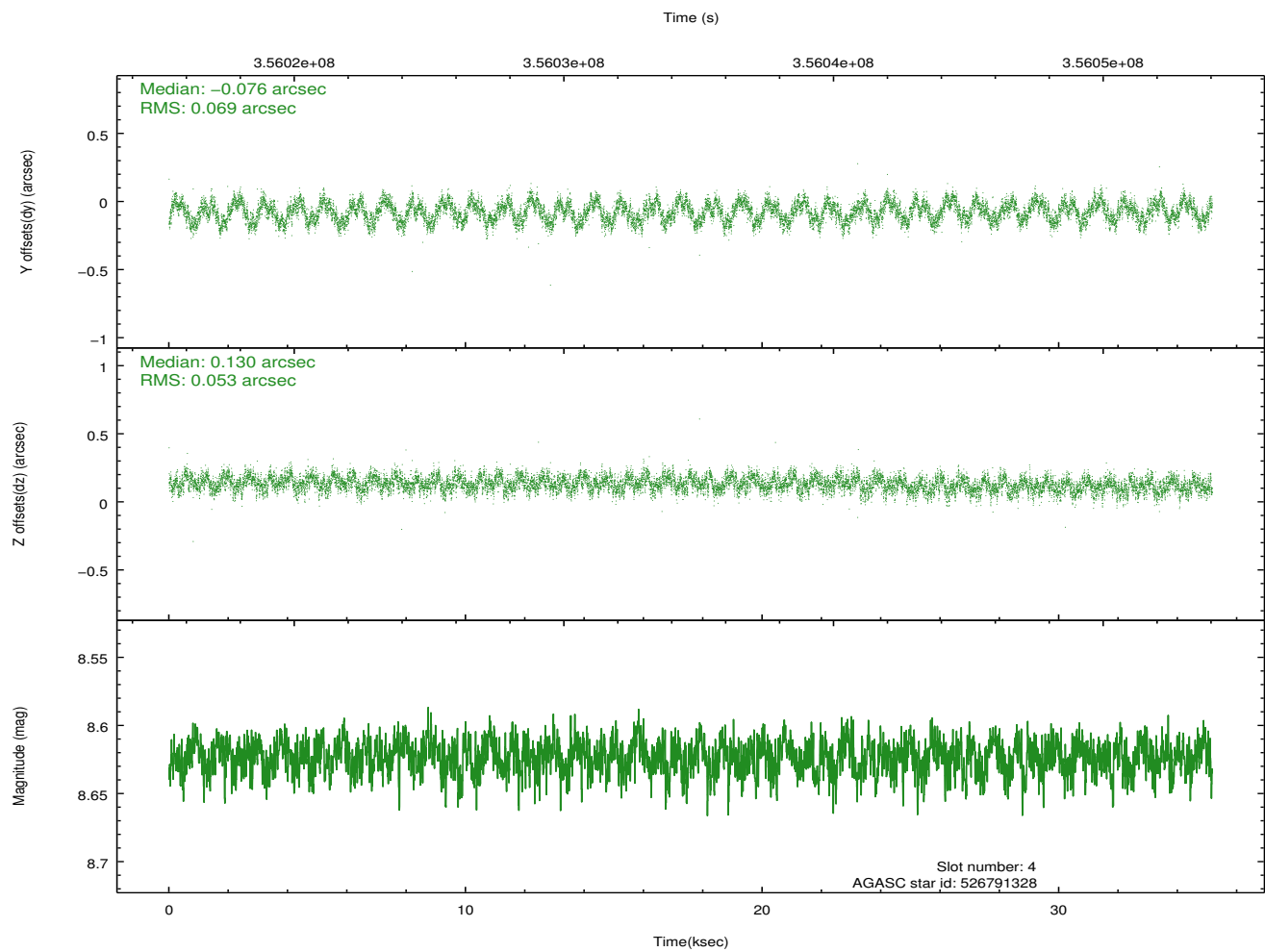
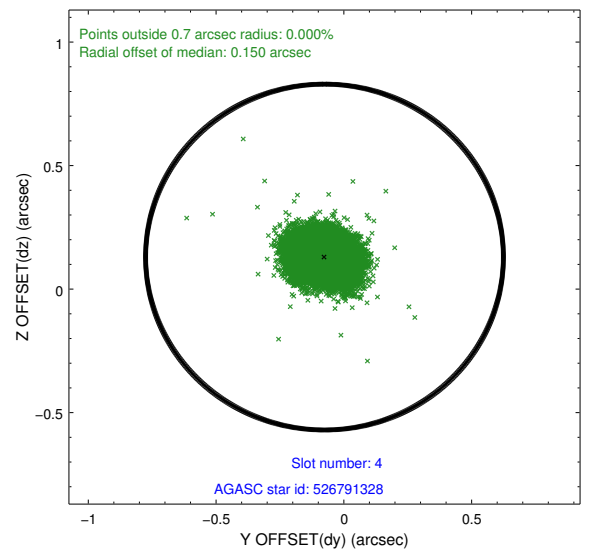
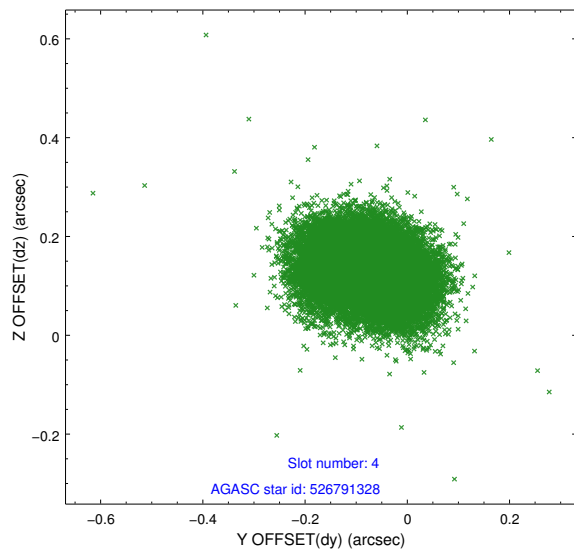
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2.4 Star Slots

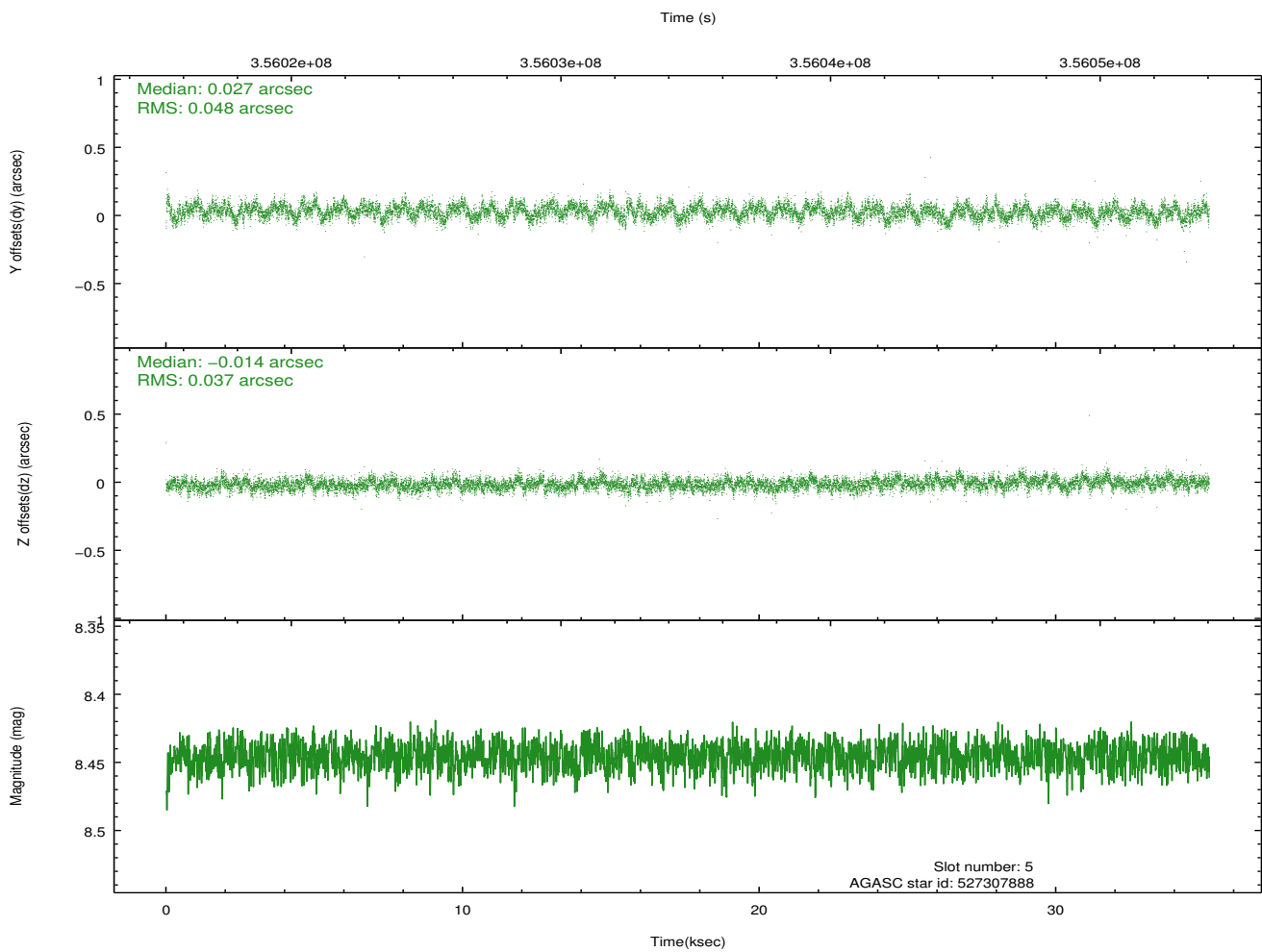
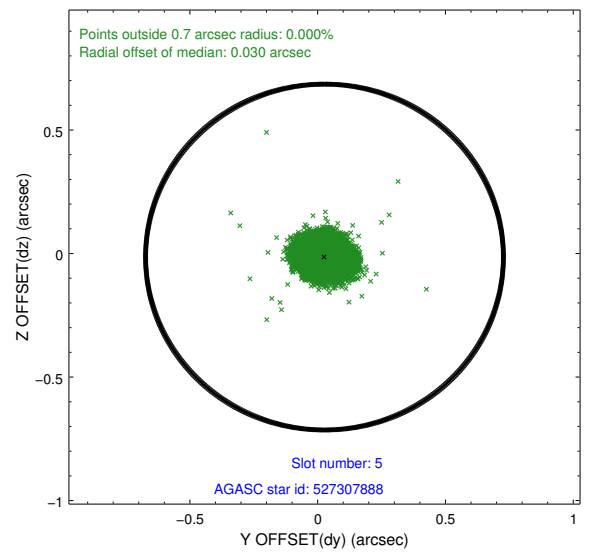
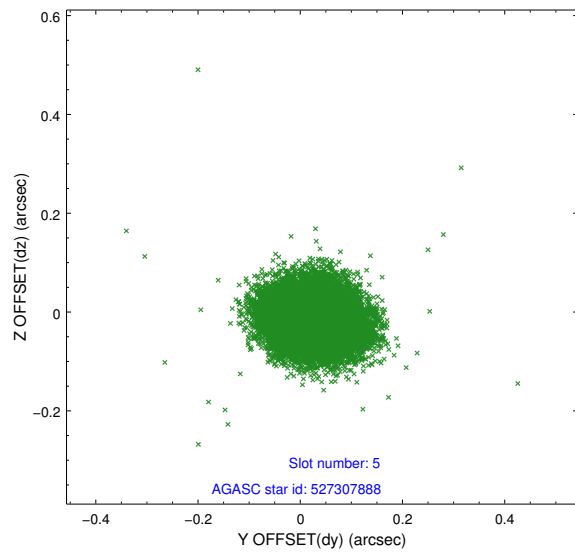
2.4.1 Slot 3



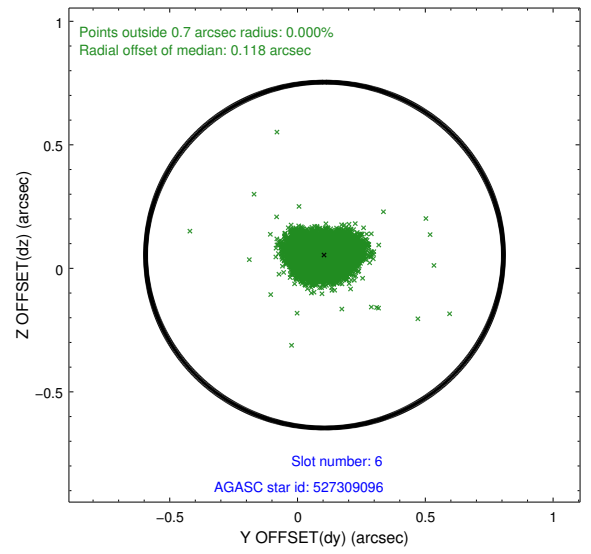
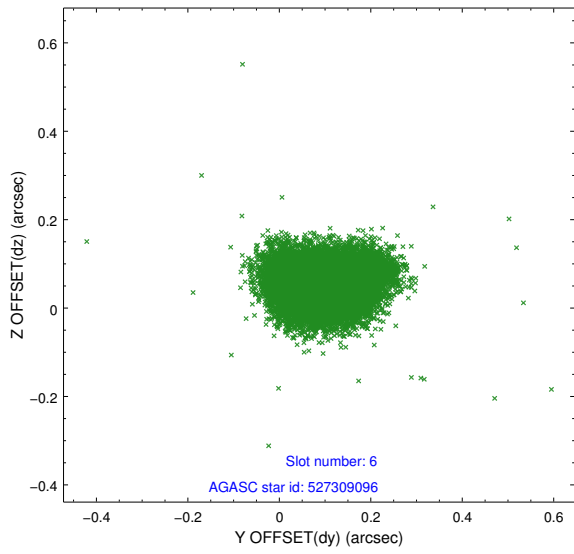
2.4.2 Slot 4



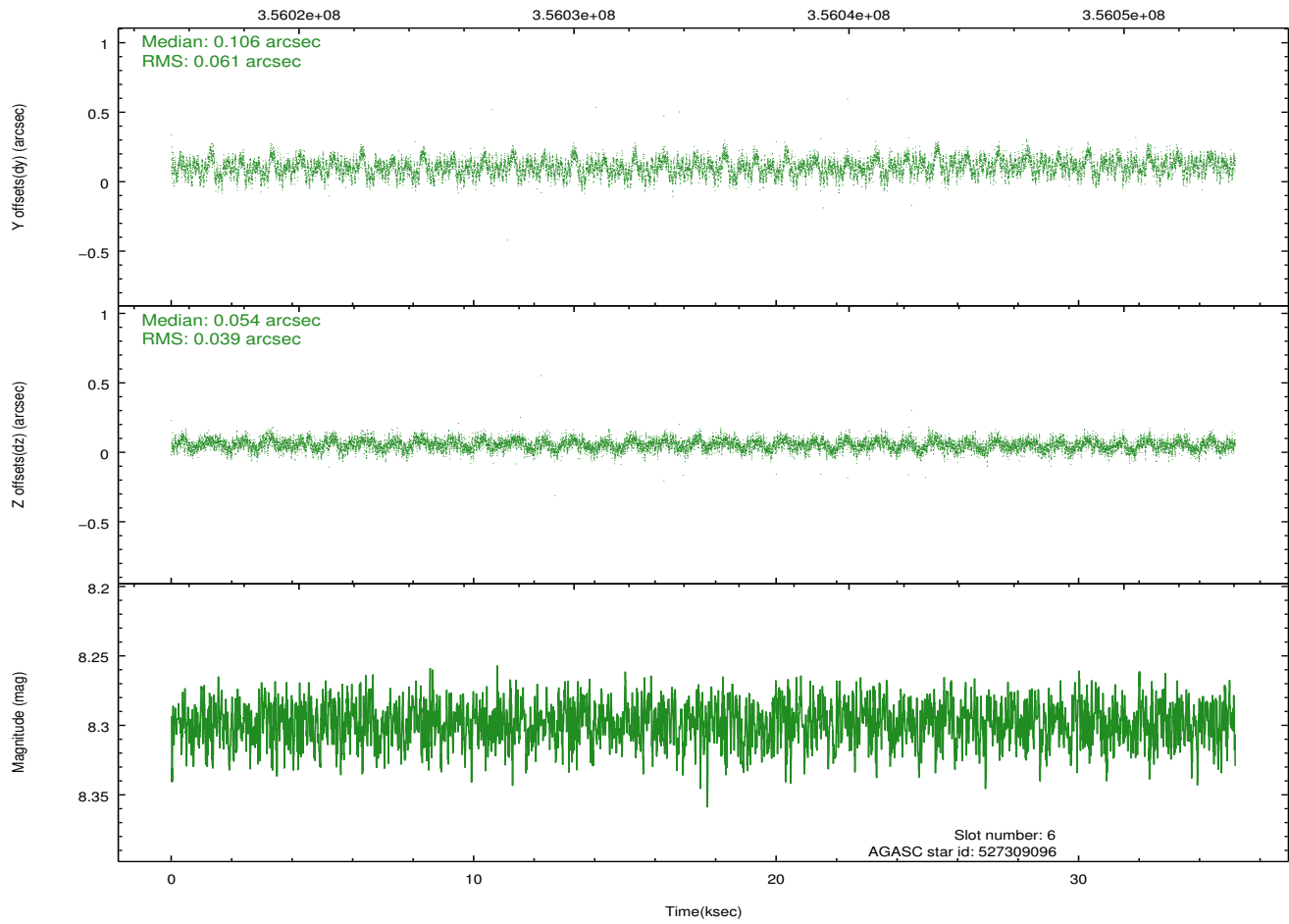
2.4.3 Slot 5



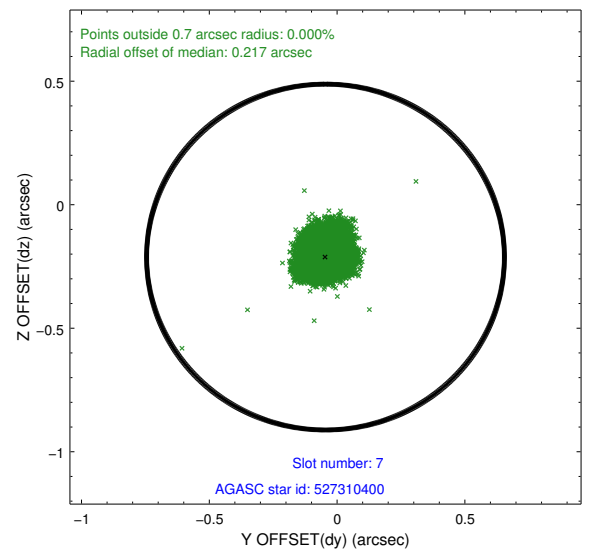
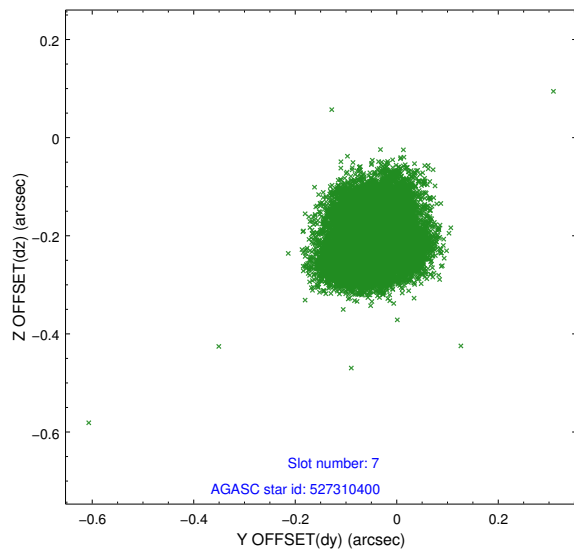
2.4.4 Slot 6



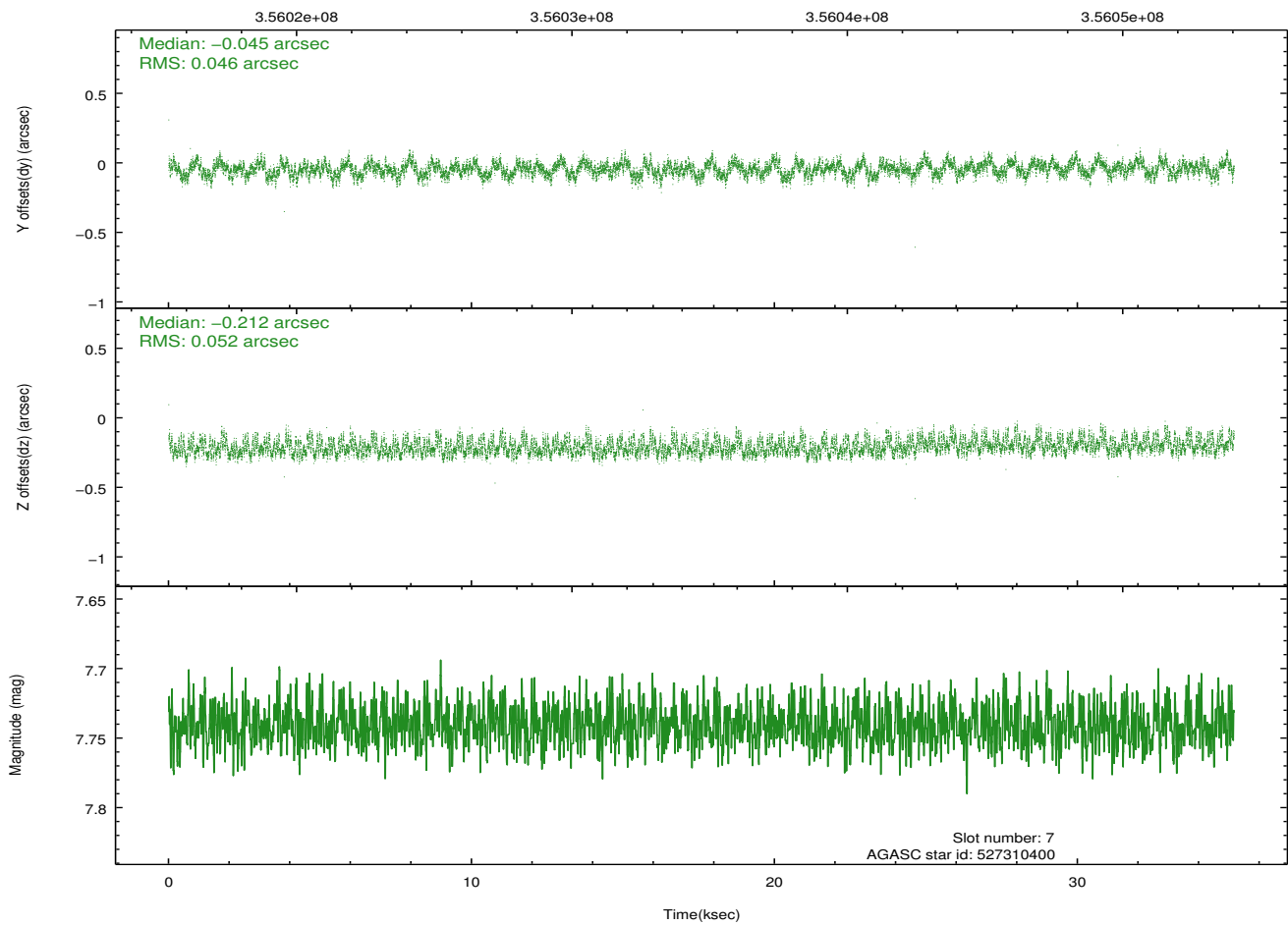
Time (s)



2.4.5 Slot 7

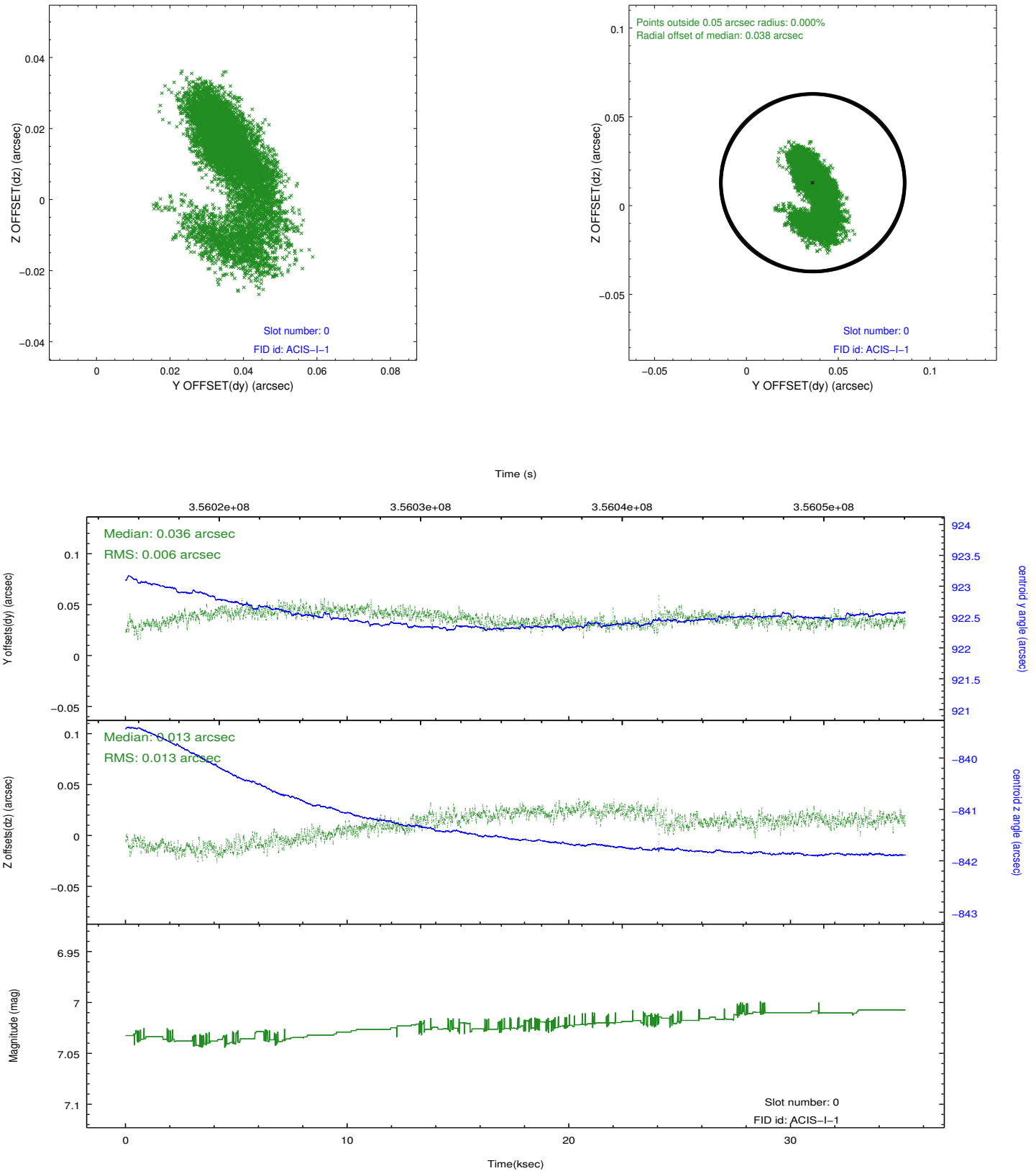


Time (s)

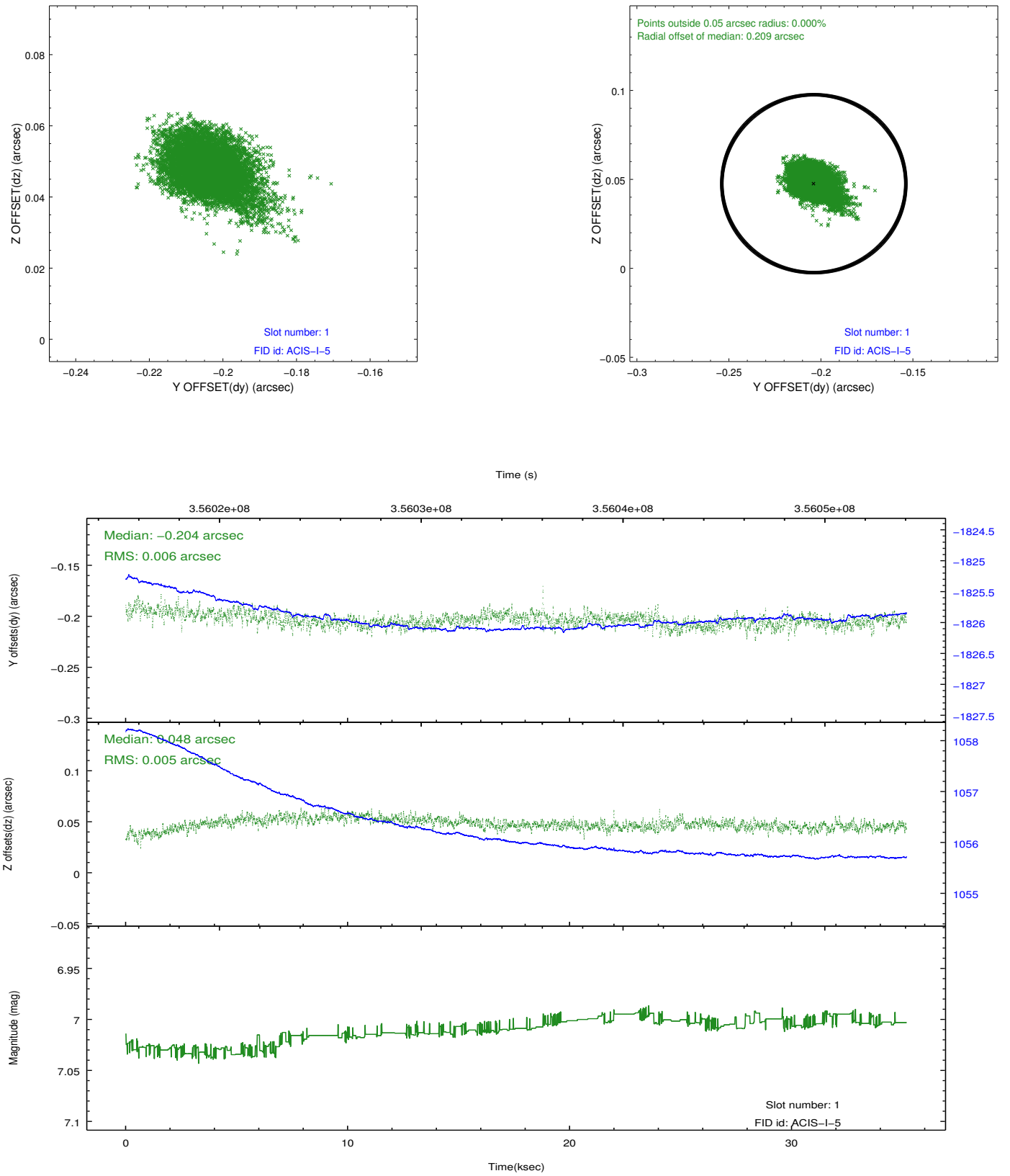


2.5 FID Slots

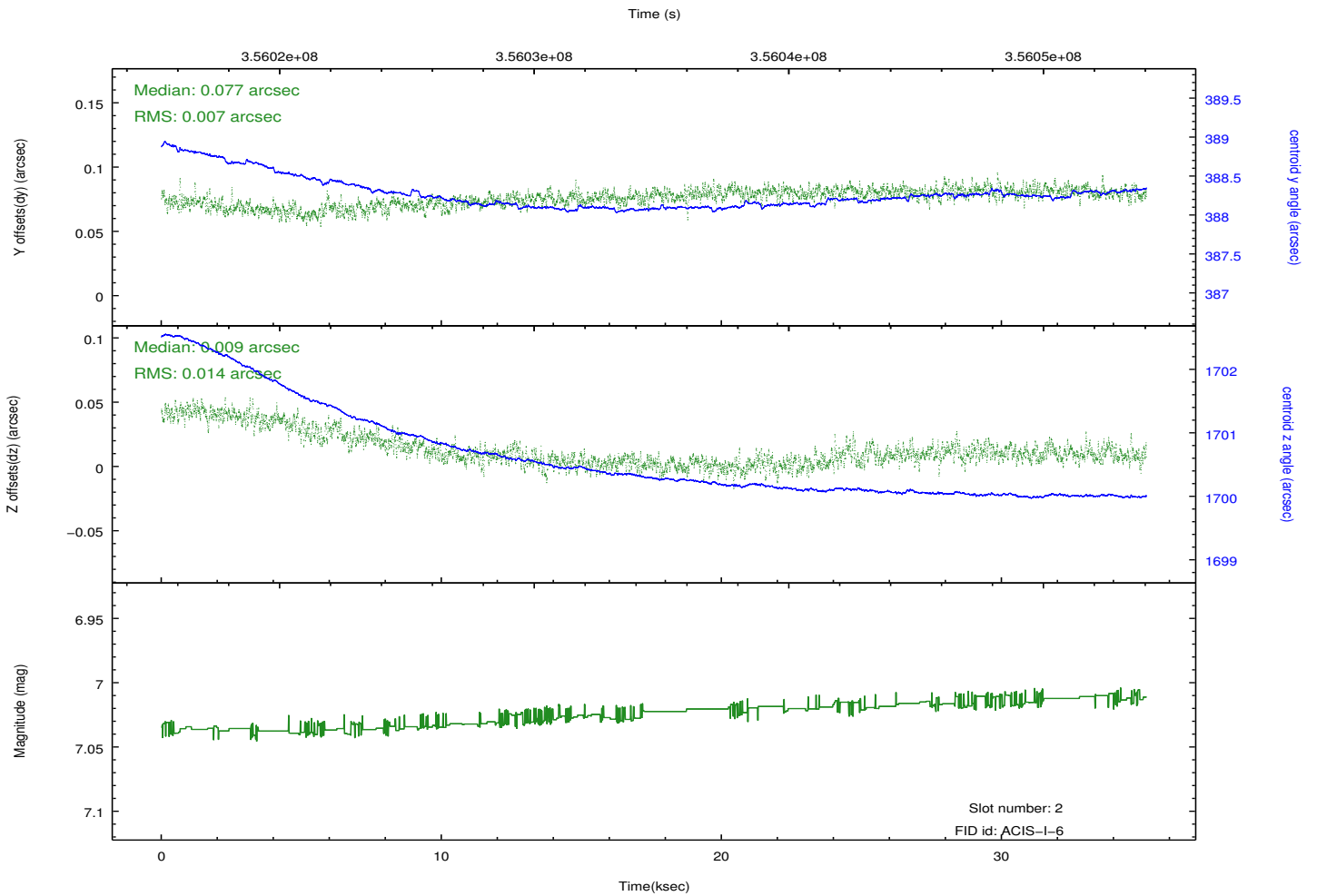
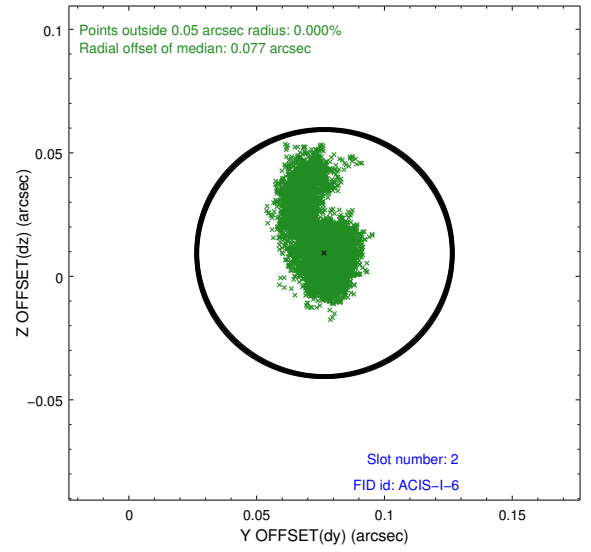
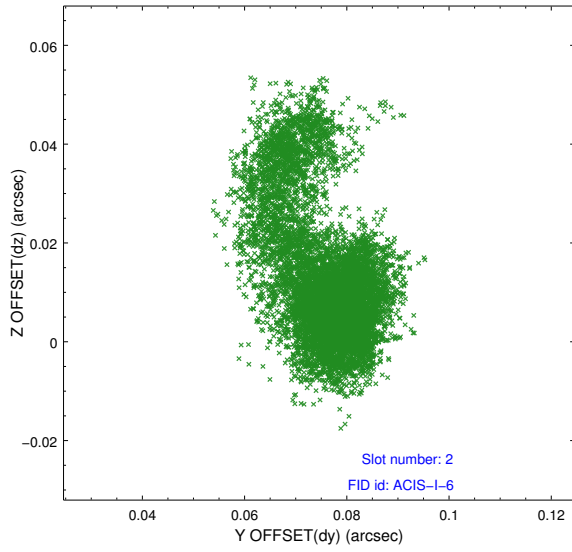
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.06.08 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 35.1632592 |

A.2 Comments

Roll preference not met.