

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 18314 - L2 Version 1
Chandra X-Ray Center

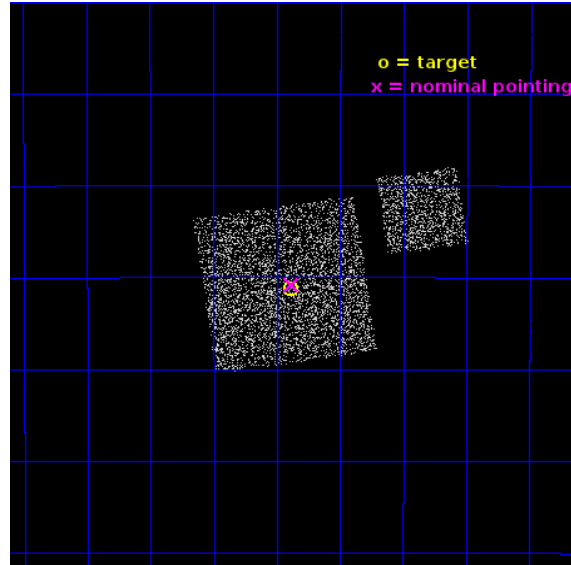
L2 Processing Date : May 11 2016

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1 Front

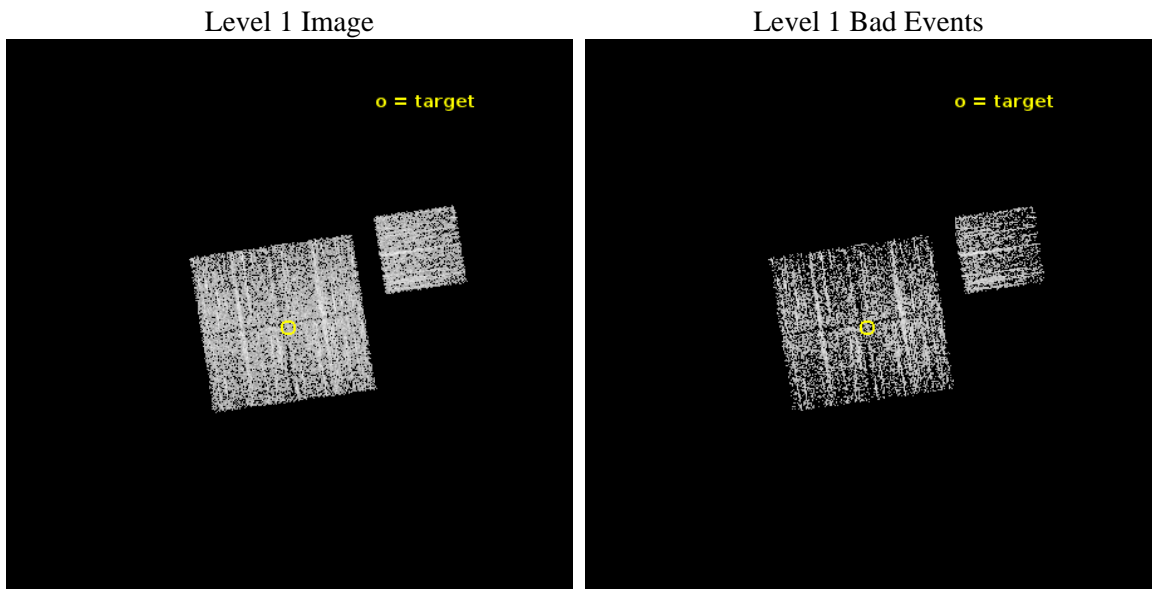
| | | |
|----------|--|---|
| seq_num | 300345 | Sequence number |
| obs_id | 18314 | Observation id |
| title | X-raying the Galactic center/bulge interface | Proposal title |
| observer | Q. Daniel Wang | Principal investigator |
| object | GC-GB interface | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 265.09774 | Observer's specified target RA [deg] |
| dec_targ | -28.02048 | Observer's specified target Dec [deg] |
| ra_nom | 265.09622535342 | Nominal RA [deg] |
| dec_nom | -28.01341626372 | Nominal Dec [deg] |
| roll_nom | 81.508081684793 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 1955.4393211603 | Sum of GTIs [s] |
| livetime | 1929.8900668559 | Livetime [s] |
| ontime0 | 1955.31620121 | Sum of GTIs [s] |
| ontime1 | 1955.3572411537 | Sum of GTIs [s] |
| ontime2 | 1955.3982812166 | Sum of GTIs [s] |
| ontime3 | 1955.4393211603 | Sum of GTIs [s] |
| ontime6 | 1955.2751611471 | Sum of GTIs [s] |
| l2events | 6642 | Number of level 2 events |



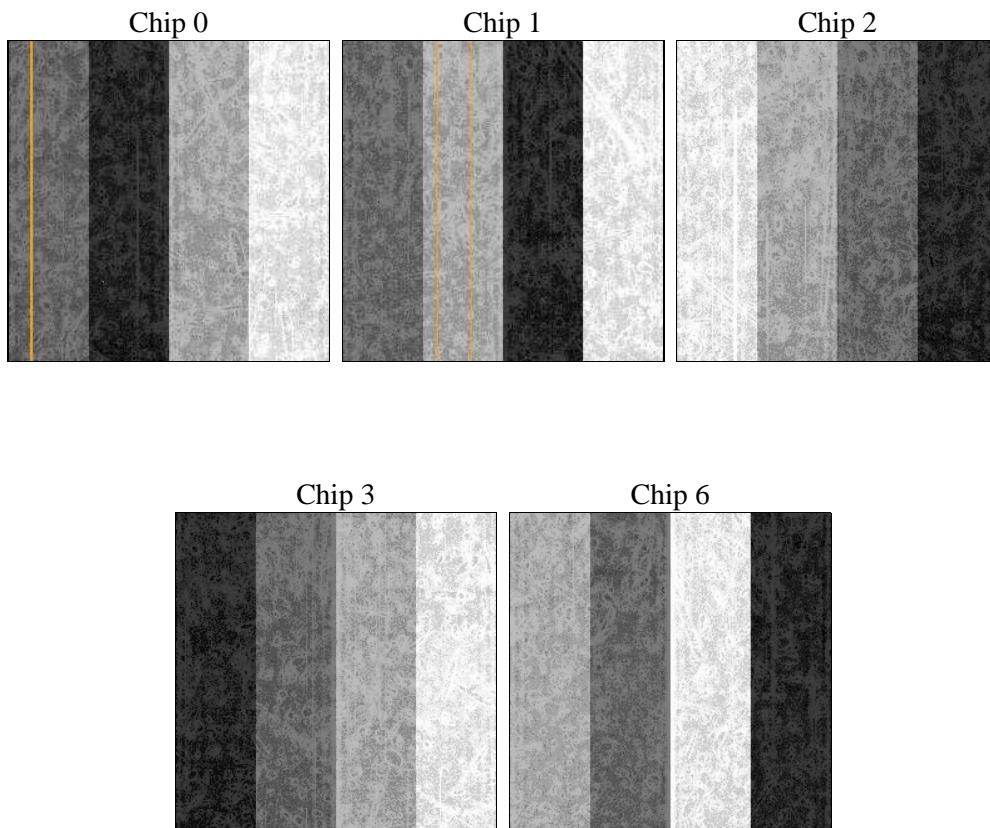
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 2180.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.4.3.1 | Processing system revision | ontime | 1955.4393211603 | Sum of GTIs [s] |
| caldsver | 4.7.1 | | ontime0 | 1955.31620121 | Sum of GTIs [s] |
| date | 2016-05-11T15:41:41 | Date and time of file creation | ontime1 | 1955.3572411537 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime2 | 1955.3982812166 | Sum of GTIs [s] |
| | | | ontime3 | 1955.4393211603 | Sum of GTIs [s] |
| | | | ontime6 | 1955.2751611471 | Sum of GTIs [s] |
| | | | l1events | 59647 | Number of level 1 events |

2.1.4 Events

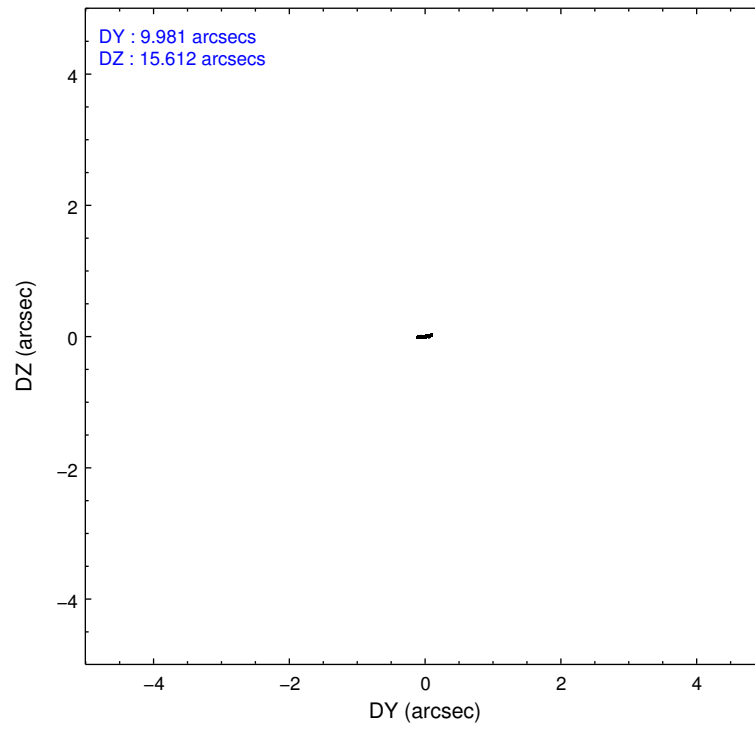
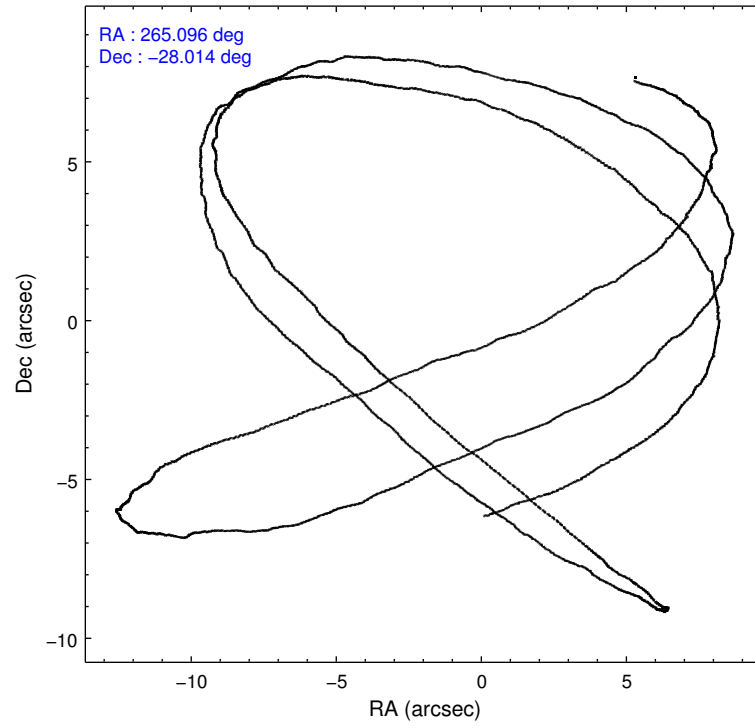
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|-------|-------|-------|-------|-------|
| level 1 events | 11845 | 11190 | 12048 | 12638 | 11926 |
| rejected events | 10304 | 9486 | 10567 | 11108 | 10420 |
| rejected % | 86% | 84% | 87% | 87% | 87% |

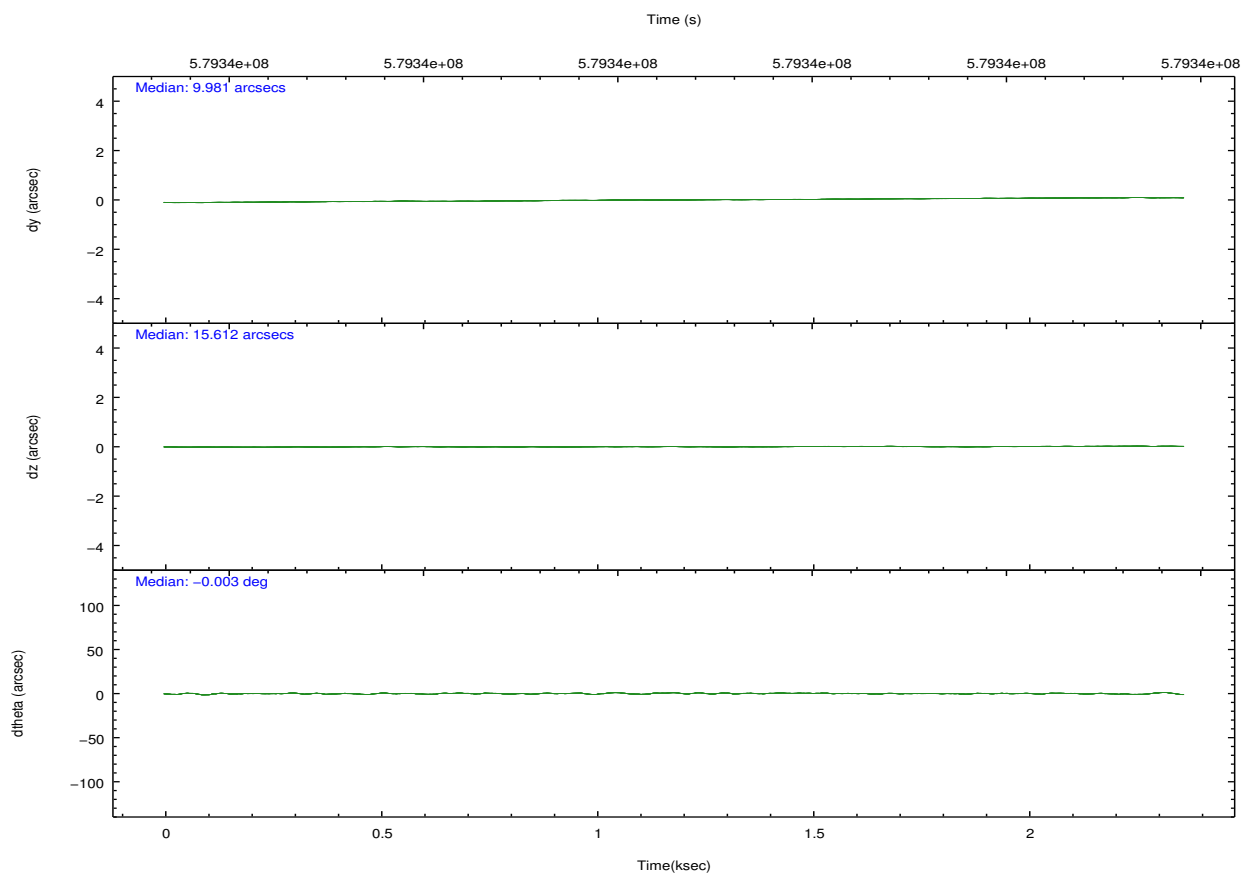
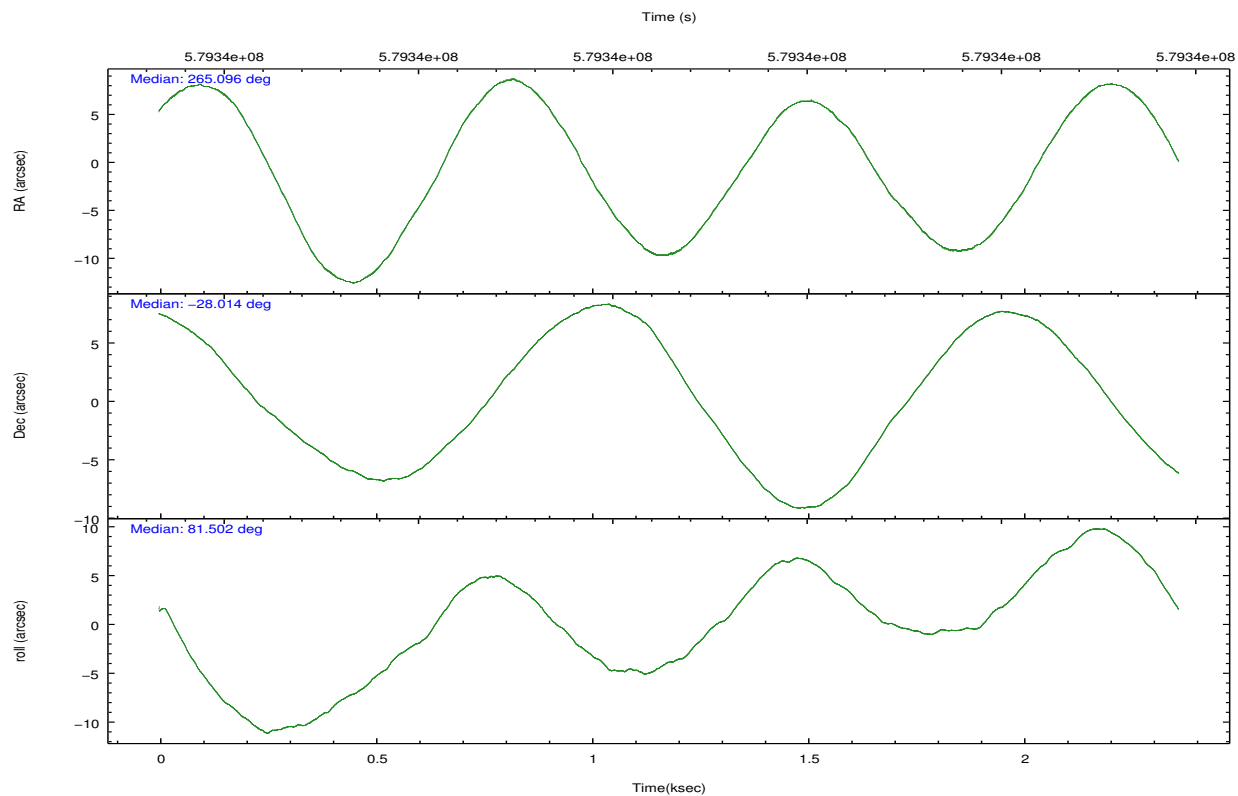
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 603 | 701 | 591 | 606 | 579 |
| | 5% | 6% | 4% | 4% | 4% |
| grade 1 events | 3 | 4 | 4 | 11 | 5 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 382 | 392 | 364 | 342 | 360 |
| | 3% | 3% | 3% | 2% | 3% |
| grade 3 events | 138 | 129 | 131 | 138 | 132 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 122 | 163 | 142 | 153 | 133 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 569 | 572 | 486 | 621 | 517 |
| | 4% | 5% | 4% | 4% | 4% |
| grade 6 events | 302 | 321 | 256 | 293 | 308 |
| | 2% | 2% | 2% | 2% | 2% |
| grade 7 events | 9726 | 8908 | 10074 | 10474 | 9892 |
| | 82% | 79% | 83% | 82% | 82% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-01236 | ACIS-01236 | 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 | 265.107649 | 265.0962253534187 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | -28.039135 | -28.01341626371996 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 81.304721 | 81.50808168479287 | 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 | O1 | Y |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | CCD S3 on | N | N |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 579337136.184000 | 579336760.05933 | CCD S5 on | N | N |
| Observation start date | 2016-05-11T06:57:48 | 2016-05-11T06:52:40 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 579339316.184000 | 579339450.17199 | On-chip summing requested | N | N |
| Observation end date | 2016-05-11T07:34:08 | 2016-05-11T07:37:30 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect



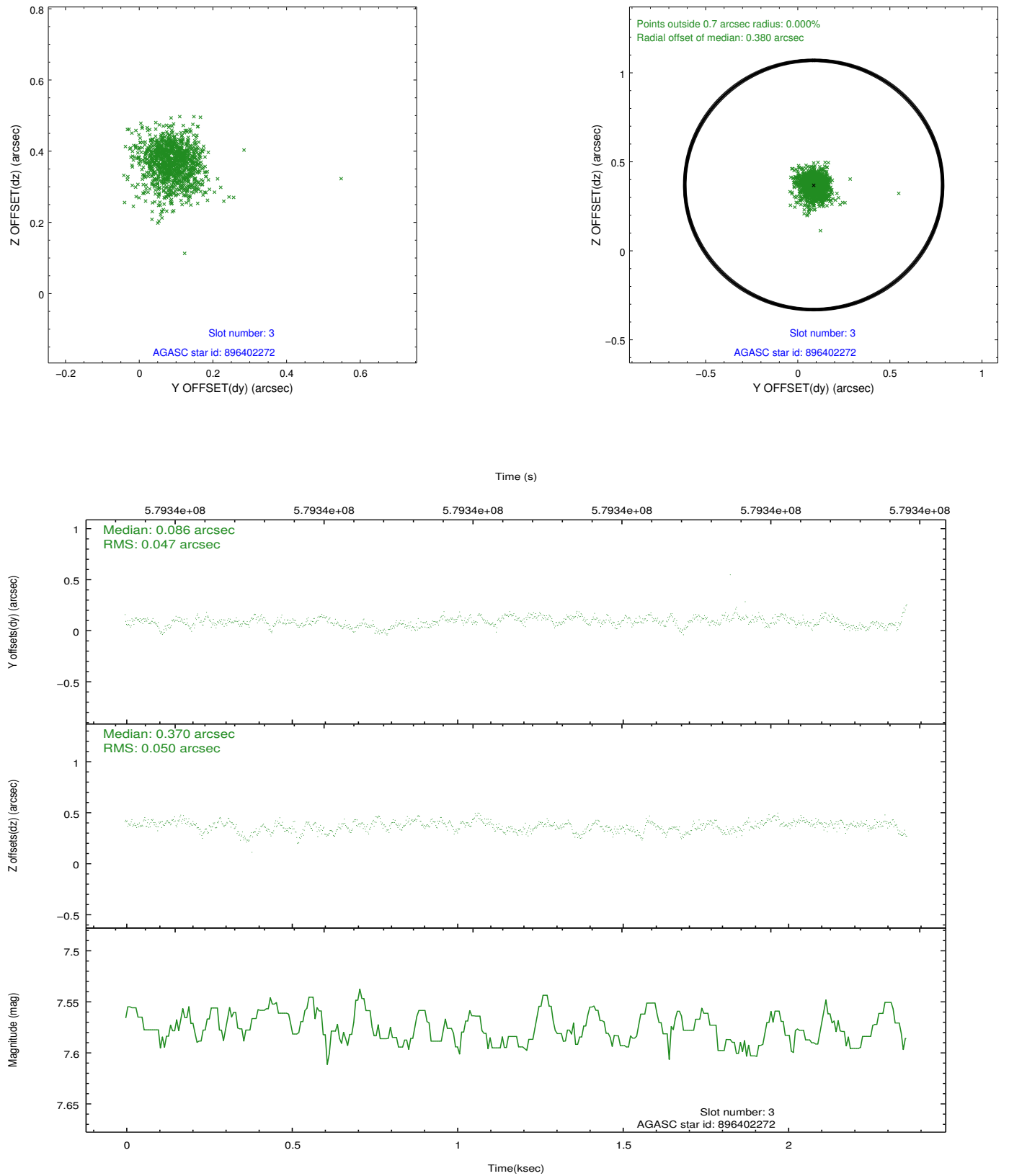


Slot Statistics

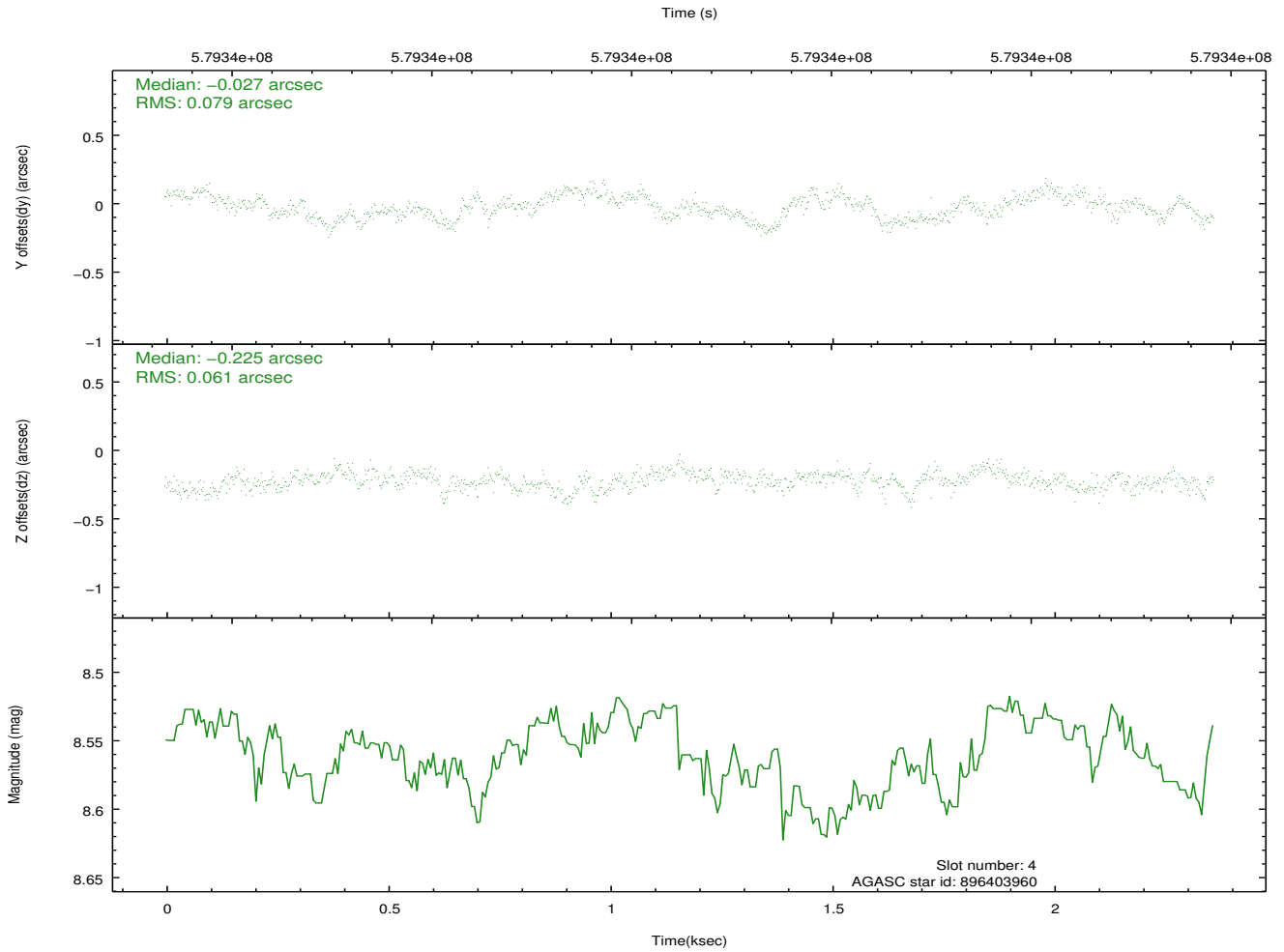
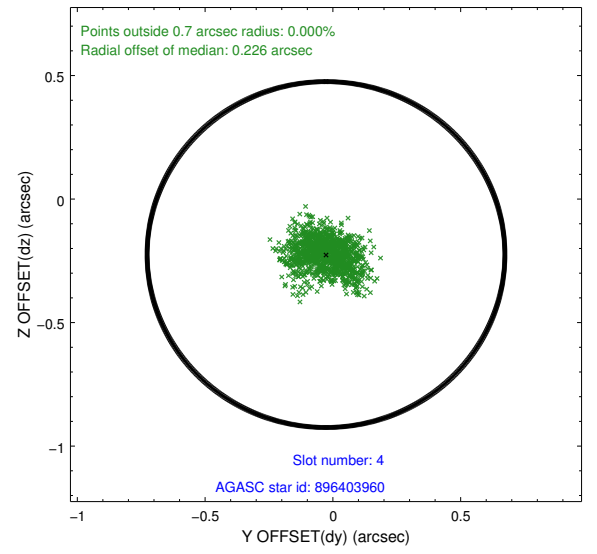
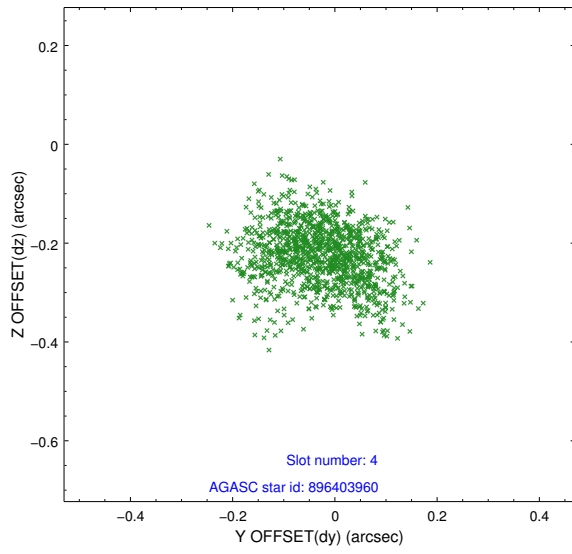
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | | ACIS-I-1 | 7.26 | 576 | 0.106 | -0.126 | 0.006 | 0.010 | 0.000000 | 0.000000 | 929.74 | -839.35 |
| 1 | FID | | ACIS-I-5 | 7.24 | 576 | -0.320 | 0.061 | 0.006 | 0.012 | 0.000000 | 0.000000 | -1817.30 | 1056.91 |
| 2 | FID | | ACIS-I-6 | 7.25 | 576 | 0.123 | 0.136 | 0.006 | 0.010 | 0.000000 | 0.000000 | 392.28 | 1704.64 |
| 3 | GUIDE | used | 896402272 | 7.58 | 1153 | 0.086 | 0.370 | 0.070 | 0.121 | 265.637294 | -28.313189 | -724.91 | -1808.22 |
| 4 | GUIDE | used | 896403960 | 8.56 | 1152 | -0.027 | -0.225 | 0.107 | 0.173 | 264.379044 | -28.245612 | -1091.90 | 2169.31 |
| 5 | GUIDE | used | 896404568 | 7.84 | 1153 | 0.161 | 0.453 | 0.070 | 0.118 | 265.687293 | -28.431080 | -1122.38 | -2025.20 |
| 6 | GUIDE | used | 896405048 | 8.27 | 1153 | -0.031 | -0.316 | 0.087 | 0.138 | 264.482575 | -28.152230 | -708.72 | 1897.32 |
| 7 | GUIDE | used | 895879392 | 9.10 | 1152 | -0.194 | -0.277 | 0.114 | 0.180 | 264.792874 | -27.441876 | 1971.12 | 1321.13 |

2.4 Star Slots

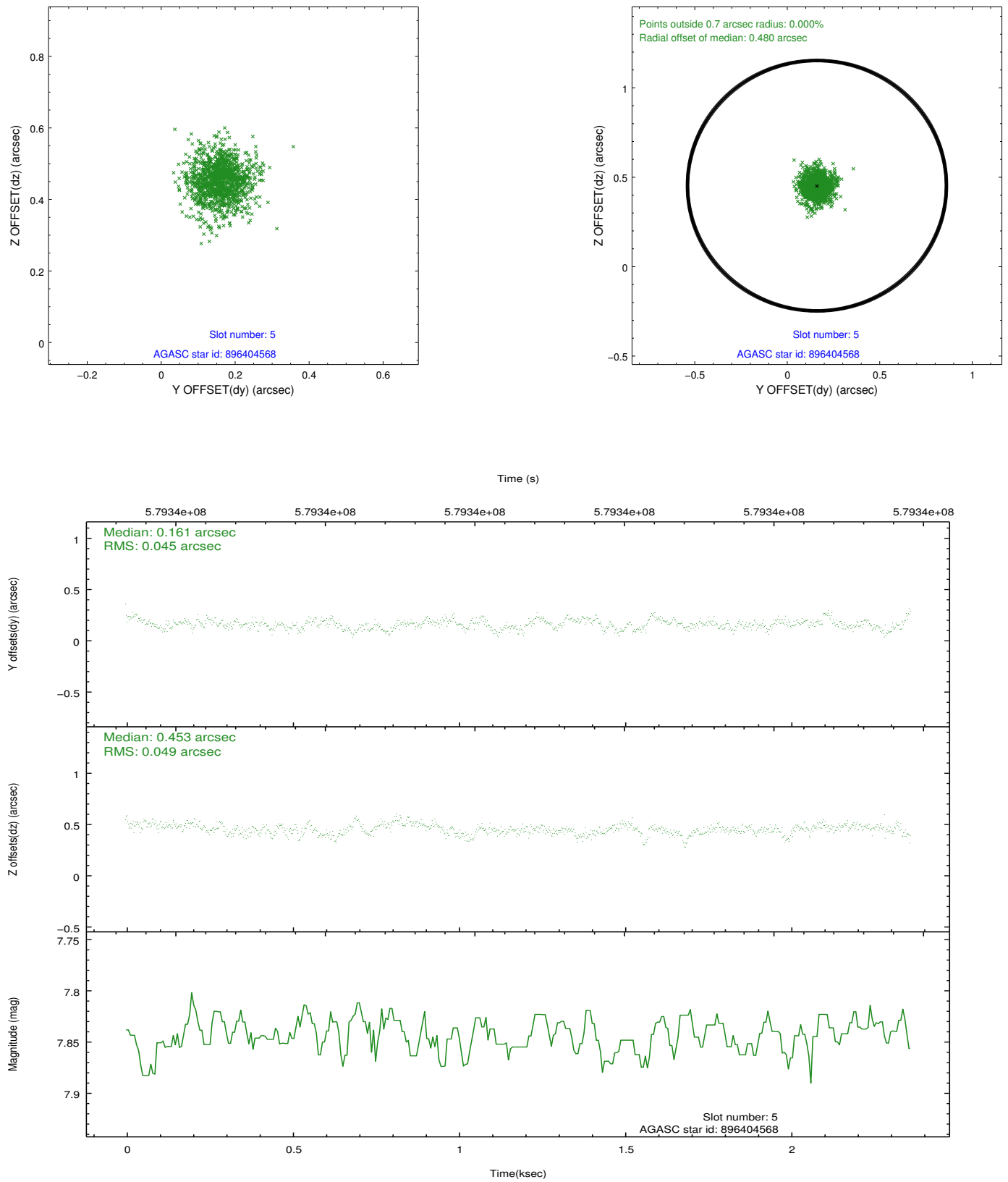
2.4.1 Slot 3



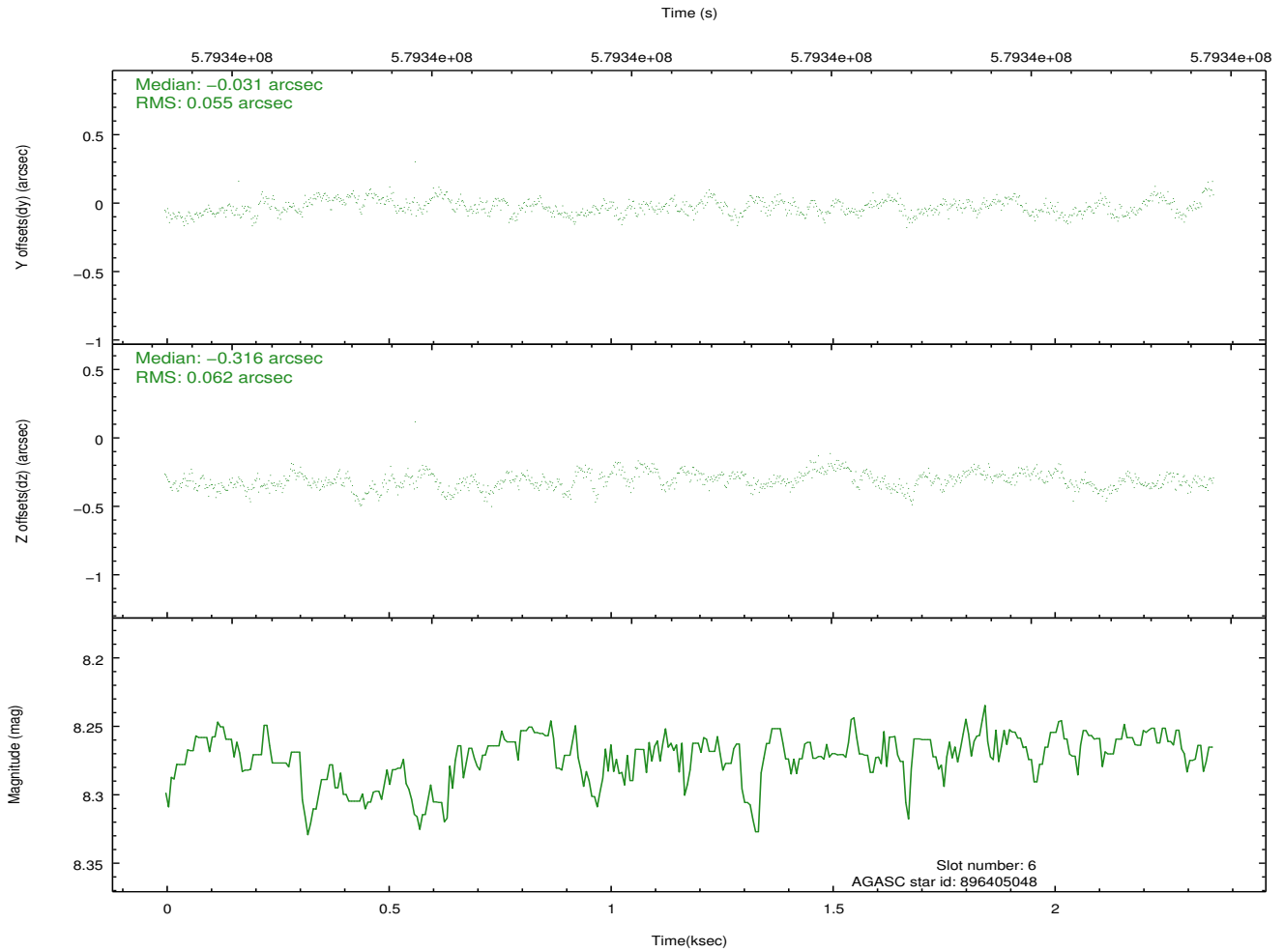
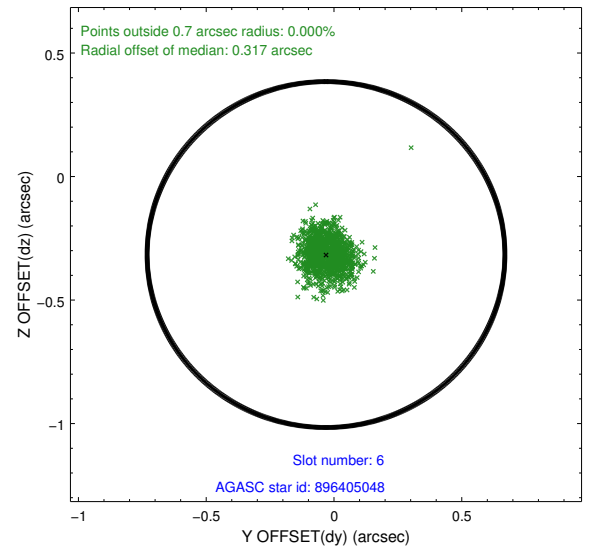
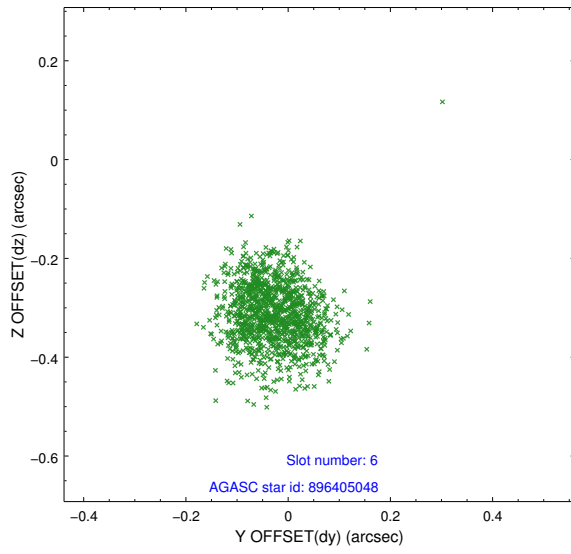
2.4.2 Slot 4



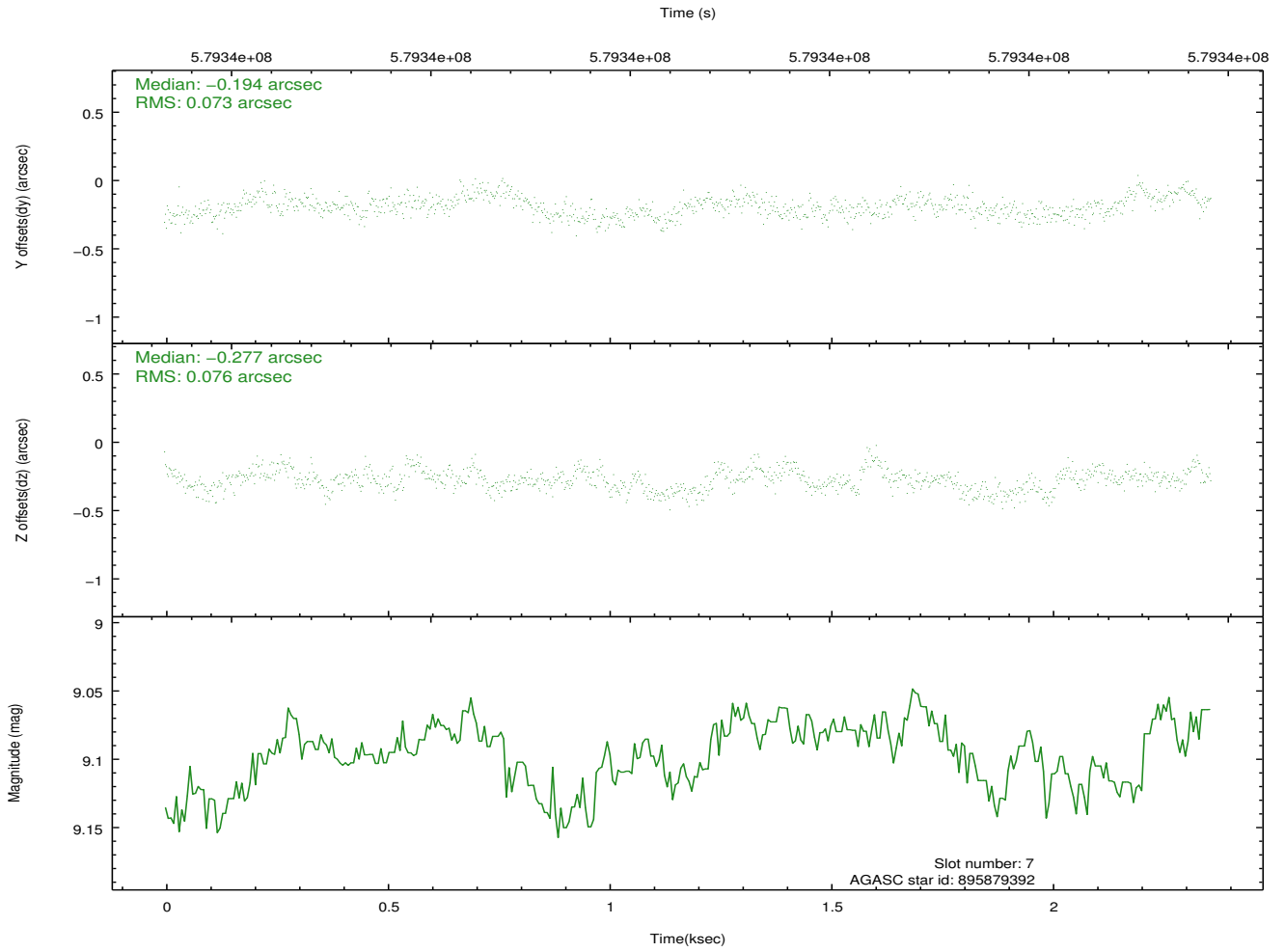
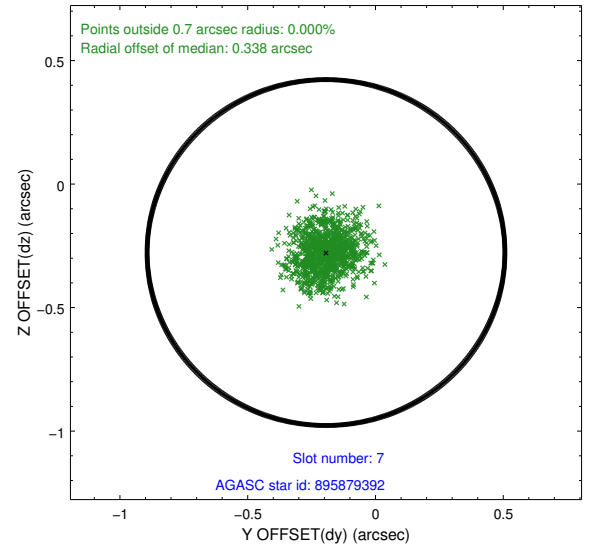
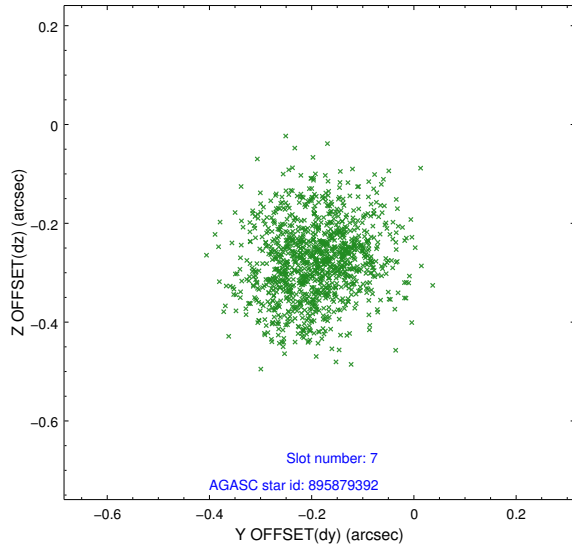
2.4.3 Slot 5



2.4.4 Slot 6

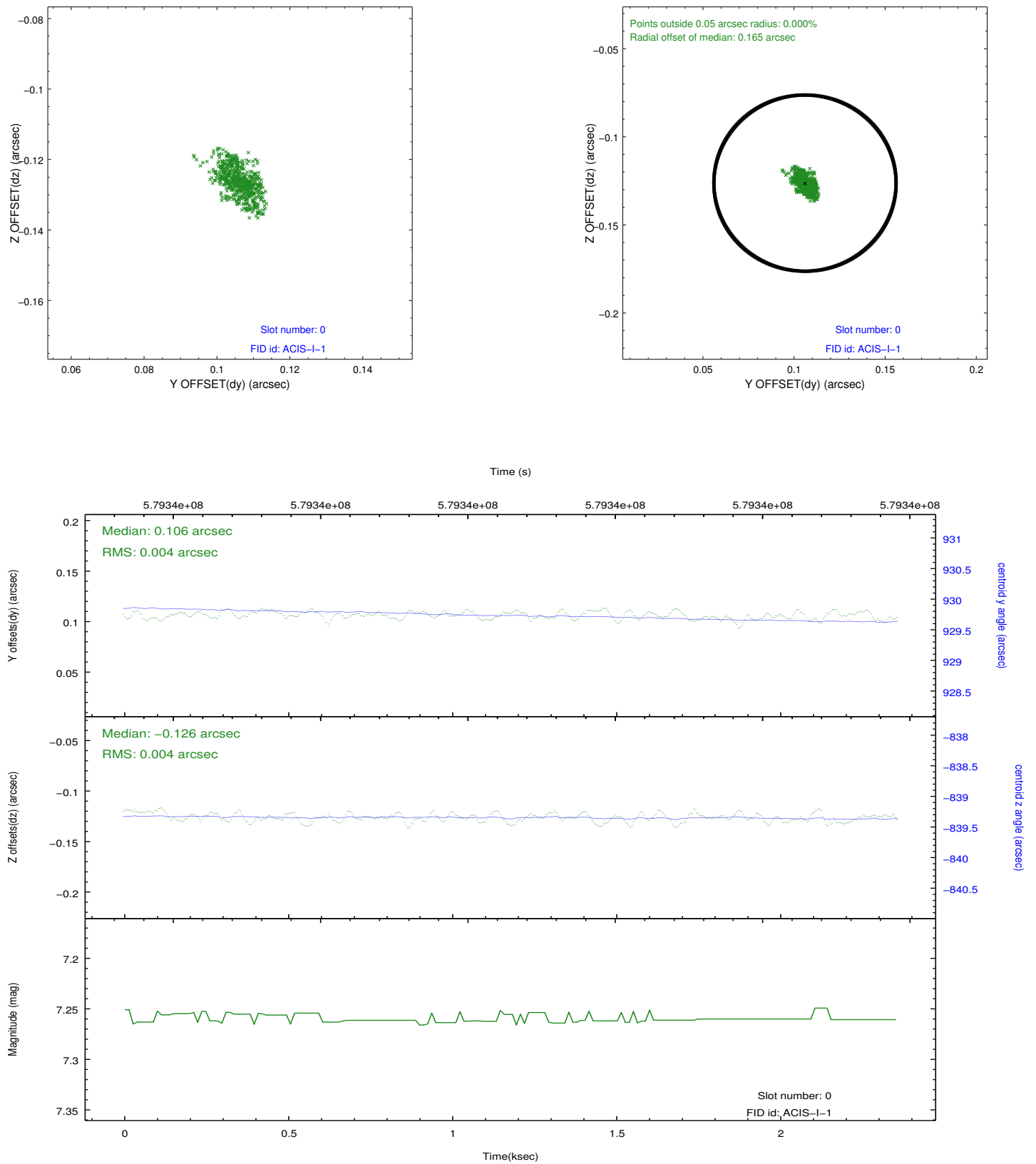


2.4.5 Slot 7

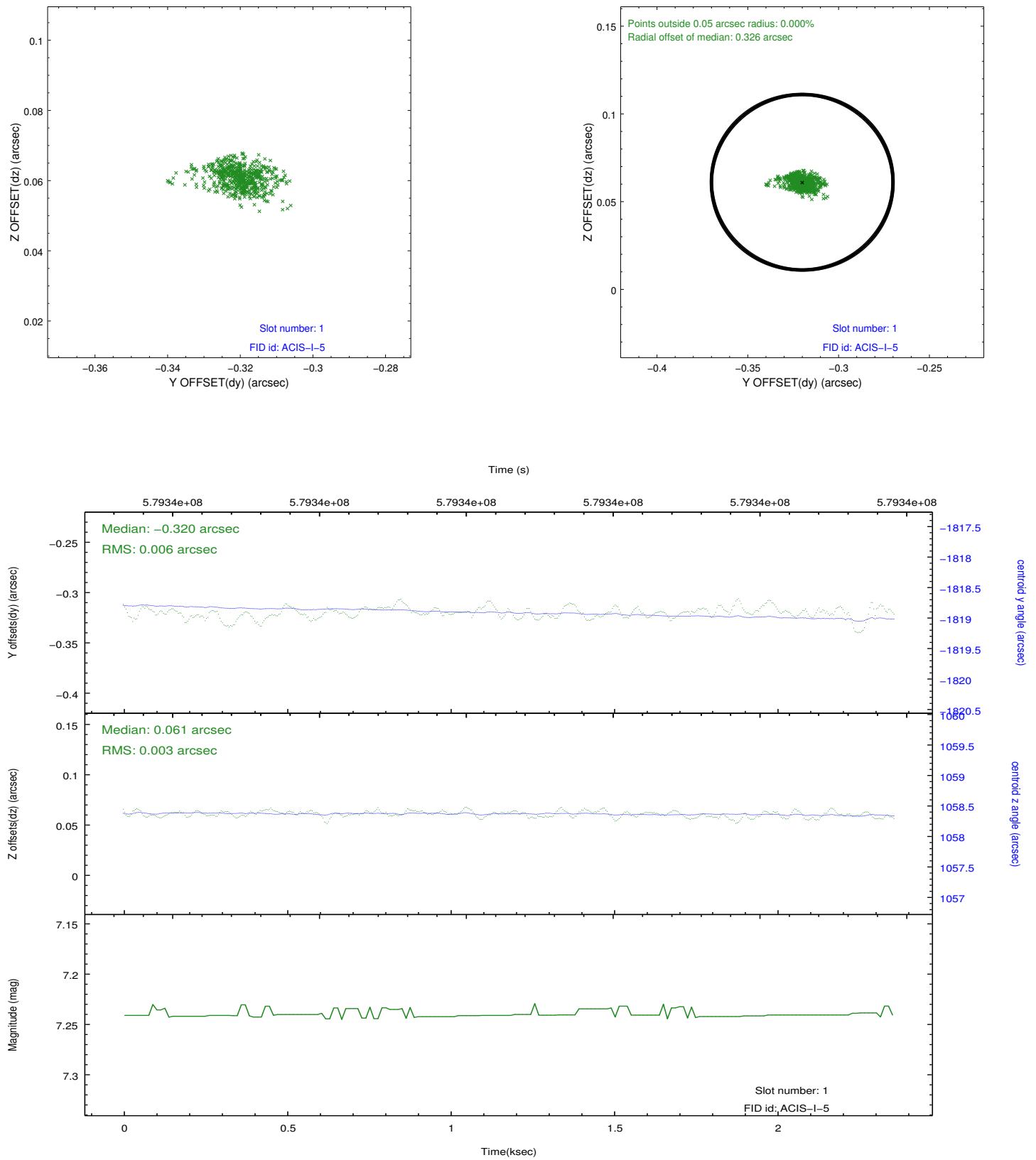


2.5 FID Slots

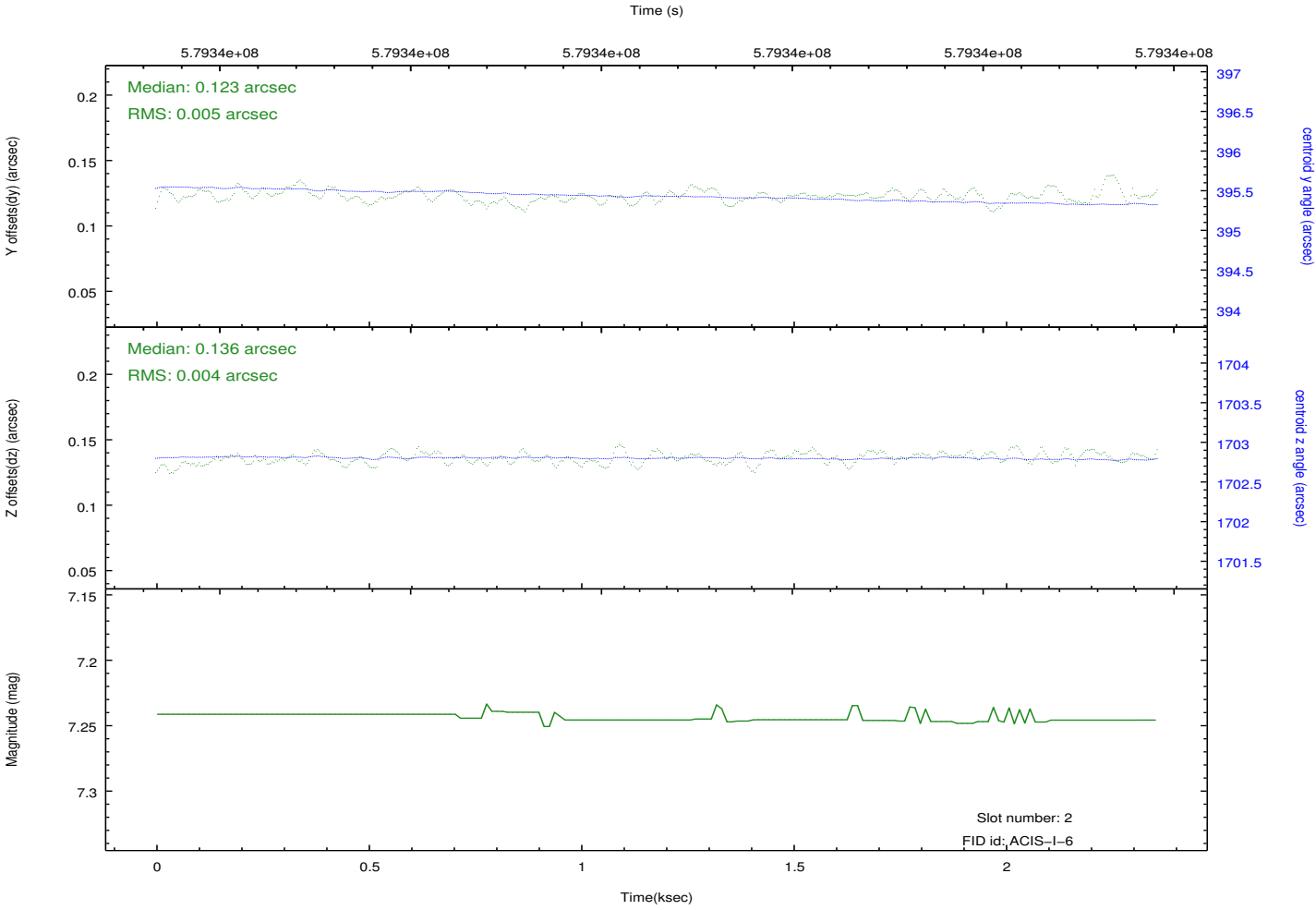
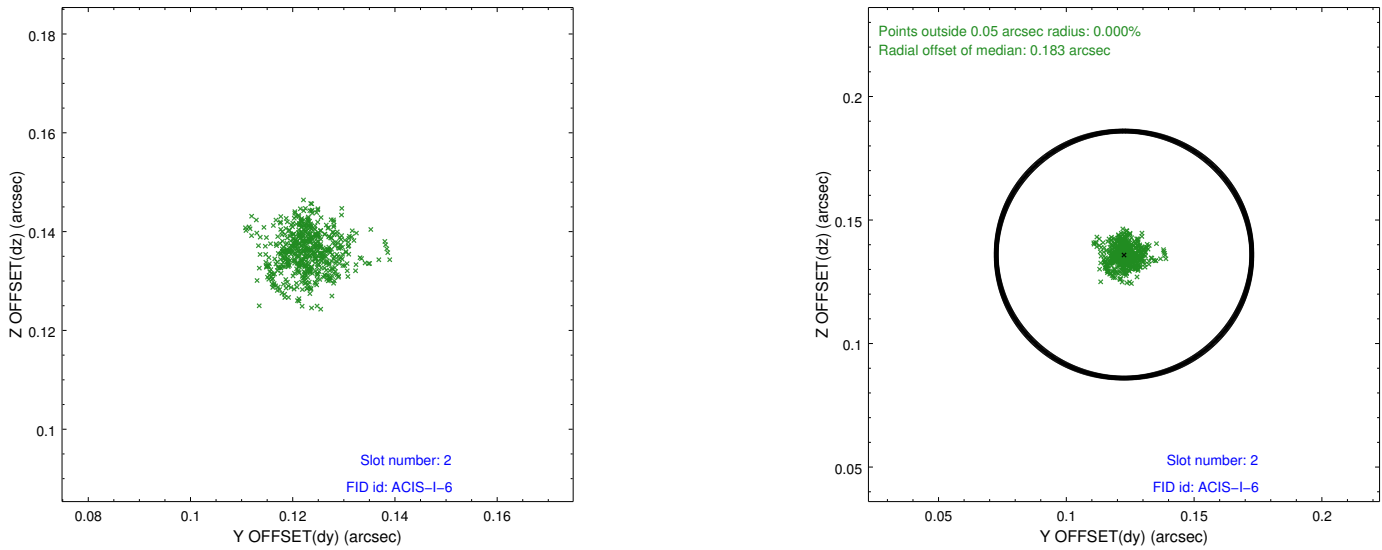
2.5.1 Slot 0



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) | 2016.05.11 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 1.9554393211603 |

A.2 Comments