

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 12120 - L2 Version 2
Chandra X-Ray Center

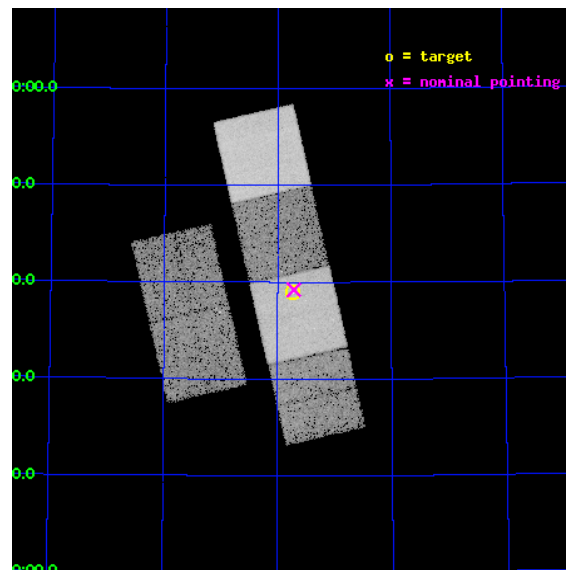
L2 Processing Date : Jun 22 2012

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Bias | 3 |
| 2.1.3 | Parameters | 4 |
| 2.1.4 | Events | 4 |
| 2.2 | Compared Parameters | 5 |
| 2.3 | Aspect | 6 |
| 2.4 | Star Slots | 9 |
| 2.4.1 | Slot 3 | 9 |
| 2.4.2 | Slot 4 | 10 |
| 2.4.3 | Slot 5 | 11 |
| 2.4.4 | Slot 6 | 12 |
| 2.4.5 | Slot 7 | 13 |
| 2.5 | FID Slots | 14 |
| 2.5.1 | Slot 0 | 14 |
| 2.5.2 | Slot 1 | 15 |
| 2.5.3 | Slot 2 | 16 |
| A | Summary | 17 |
| A.1 | Status | 17 |
| A.2 | Comments | 17 |

1 Front

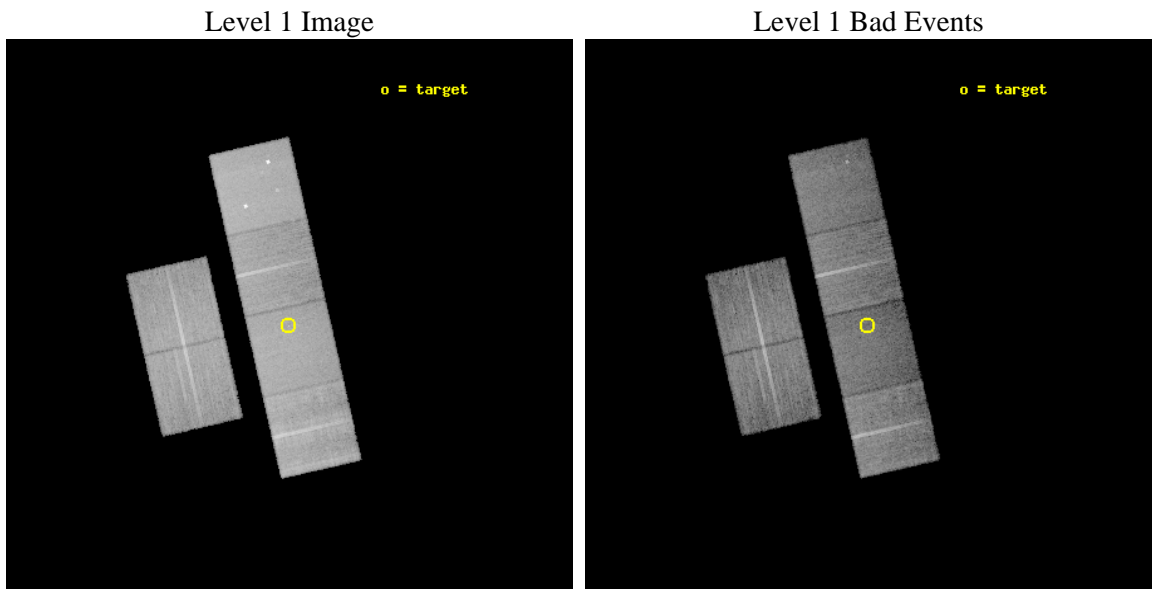
| | | |
|----------|--|---|
| seq_num | 702159 | Sequence number |
| obs_id | 12120 | Observation id |
| title | The environmental and epoch dependence of radio-loud AGN feedback | |
| observer | Dr Judith Croston | Principal investigator |
| object | 7C 1731+6638 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 262.9325 | Observer's specified target RA [deg] |
| dec_targ | 66.649083 | Observer's specified target Dec [deg] |
| ra_nom | 262.92856398419 | Nominal RA [deg] |
| dec_nom | 66.653671551762 | Nominal Dec [deg] |
| roll_nom | 77.160270654346 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 15743.081850708 | Sum of GTIs [s] |
| livetime | 15543.733468968 | Livetime [s] |
| ontime2 | 15743.122890711 | Sum of GTIs [s] |
| ontime3 | 15742.958730698 | Sum of GTIs [s] |
| ontime5 | 15743.040810704 | Sum of GTIs [s] |
| ontime6 | 15742.999770701 | Sum of GTIs [s] |
| ontime7 | 15743.081850708 | Sum of GTIs [s] |
| ontime8 | 15742.917690694 | Sum of GTIs [s] |
| l2events | 205205 | Number of level 2 events |



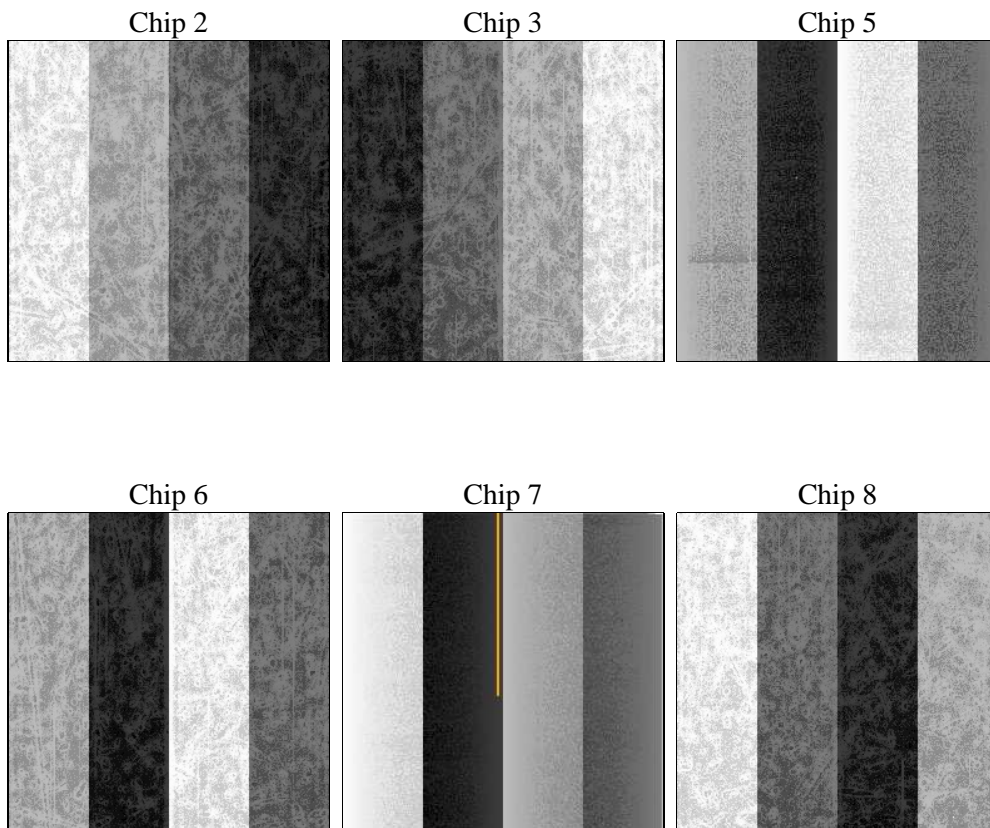
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 15699.526000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 15743.081850708 | Sum of GTIs [s] |
| caldsver | 4.4.10 | | ontime2 | 15743.122890711 | Sum of GTIs [s] |
| date | 2012-06-22T03:32:30 | Date and time of file creation | ontime3 | 15742.958730698 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime5 | 15743.040810704 | Sum of GTIs [s] |
| | | | ontime6 | 15742.999770701 | Sum of GTIs [s] |
| | | | ontime7 | 15743.081850708 | Sum of GTIs [s] |
| | | | ontime8 | 15742.917690694 | Sum of GTIs [s] |
| | | | l1events | 904142 | Number of level 1 events |

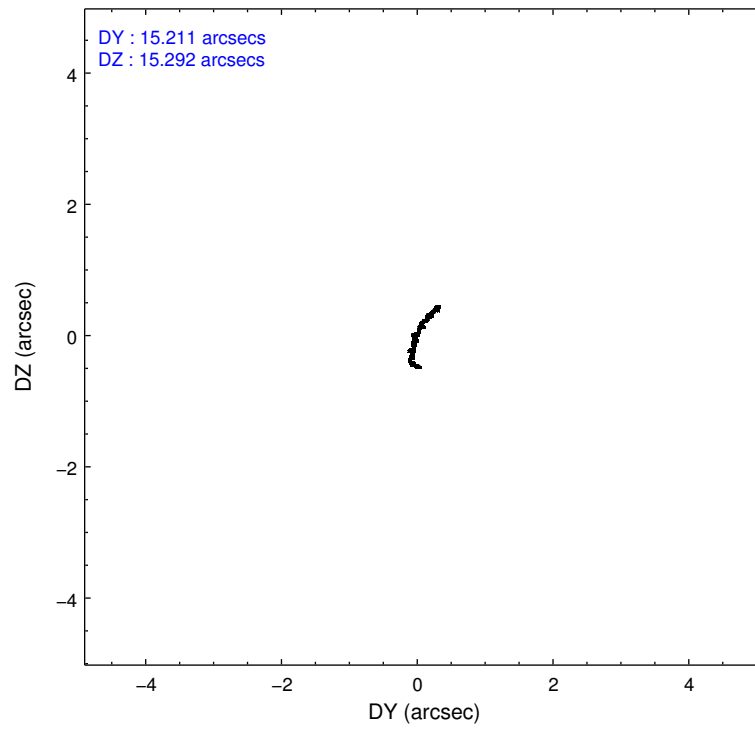
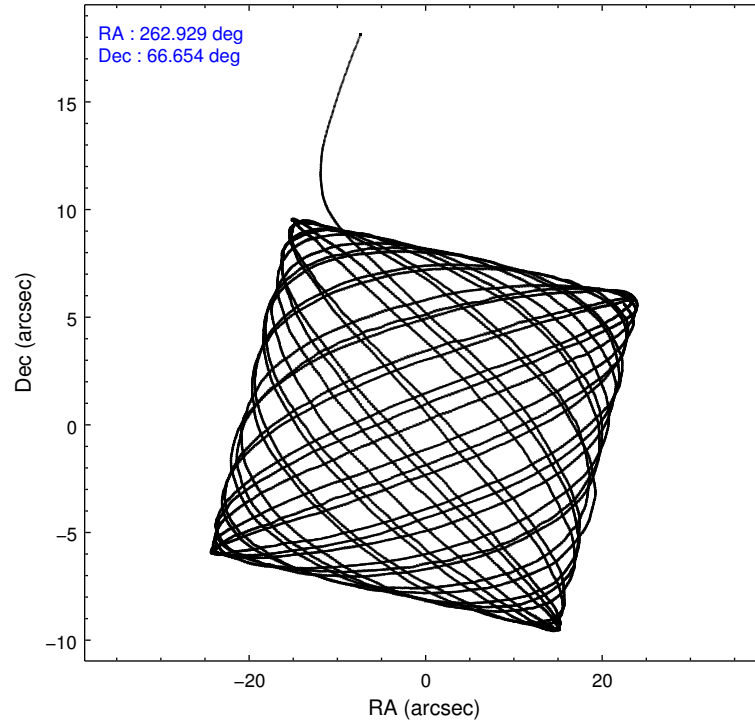
2.1.4 Events

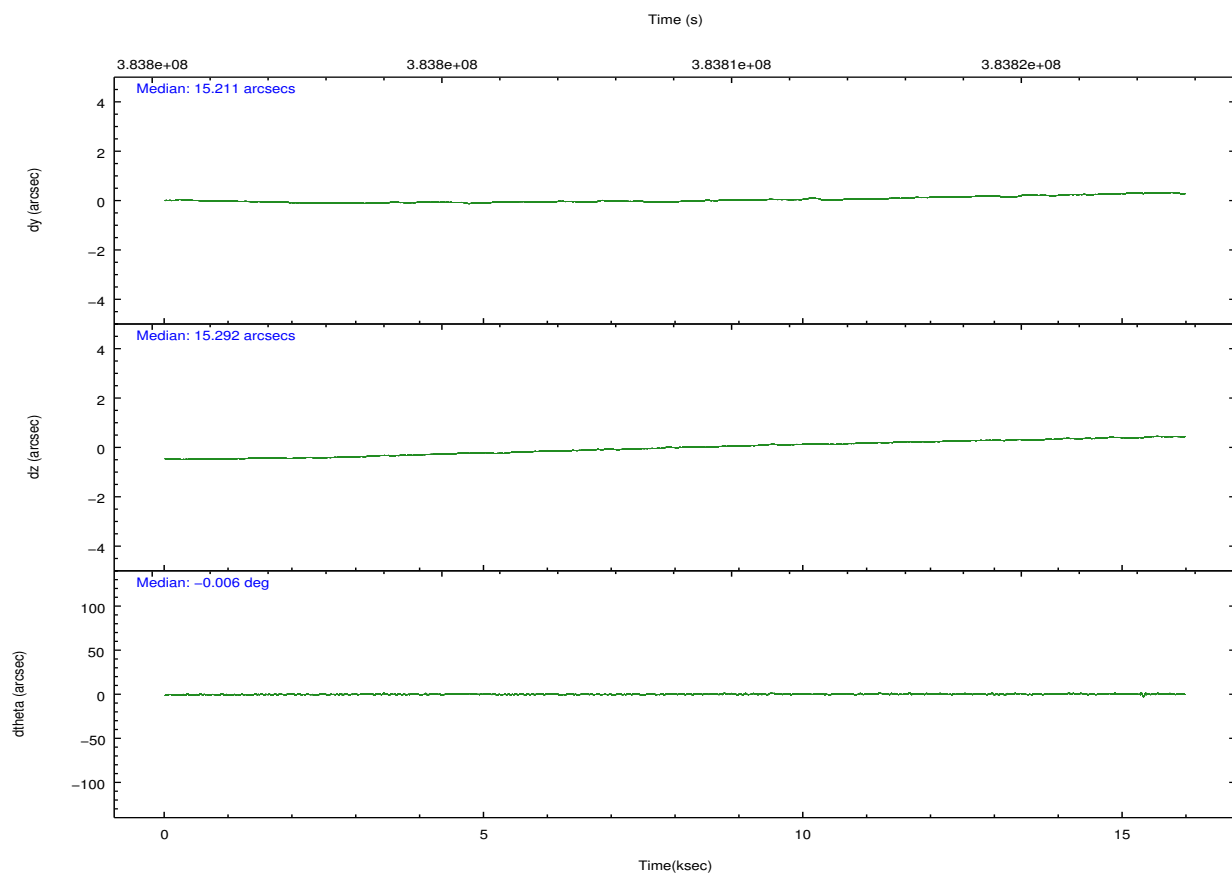
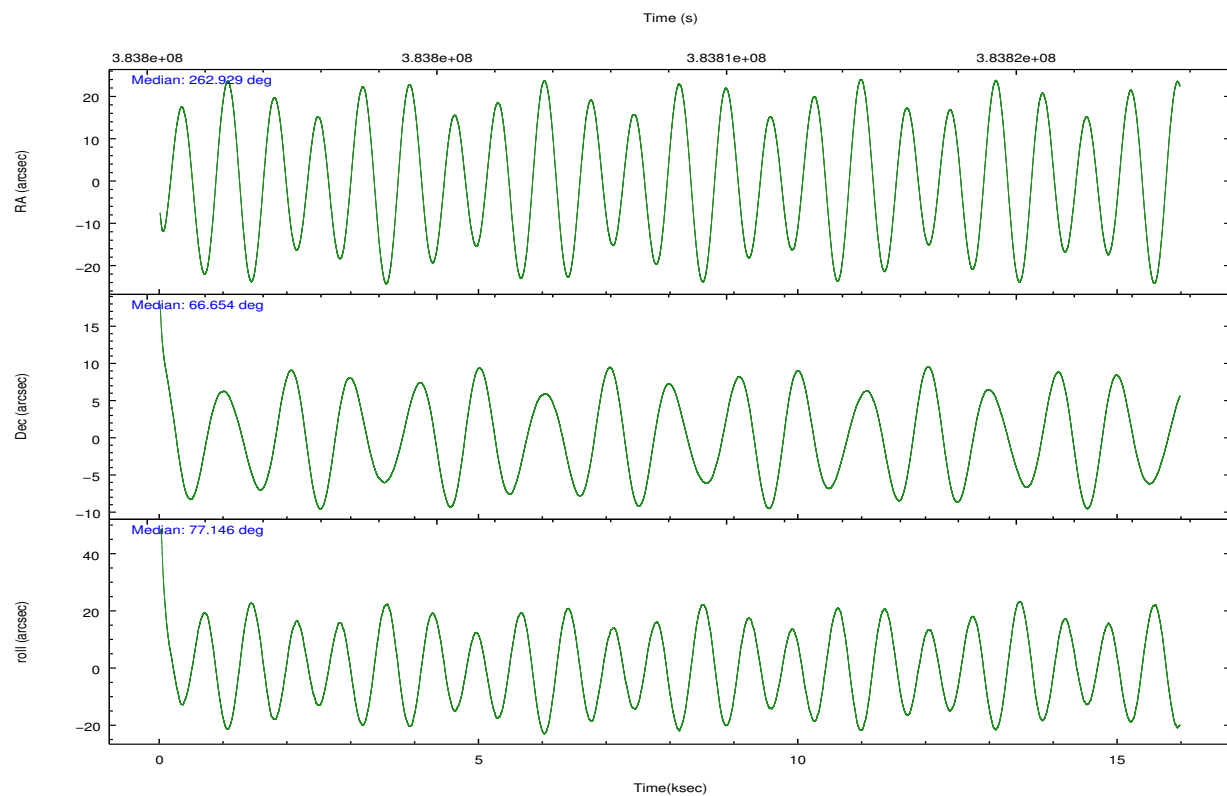
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|-------|--------|-------|--------|
| level 1 events | 130770 | 129599 | 193747 | 128058 | 152689 | 169279 | grade 0 events | 4739 | 4527 | 11297 | 4884 | 6463 | 12535 |
| rejected events | 117412 | 116746 | 95794 | 114132 | 83342 | 126006 | | 3% | 3% | 5% | 3% | 4% | 7% |
| rejected % | 89% | 90% | 49% | 89% | 54% | 74% | grade 1 events | 94 | 79 | 719 | 91 | 202 | 137 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 3264 | 2875 | 29637 | 3088 | 14245 | 10197 |
| | | | | | | | | 2% | 2% | 15% | 2% | 9% | 6% |
| | | | | | | | grade 3 events | 1374 | 1421 | 3701 | 1485 | 6057 | 4727 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 4 events | 1424 | 1389 | 3651 | 1432 | 6194 | 4294 |
| | | | | | | | | 1% | 1% | 1% | 1% | 4% | 2% |
| | | | | | | | grade 5 events | 4921 | 5512 | 14824 | 5597 | 16001 | 8171 |
| | | | | | | | | 3% | 4% | 7% | 4% | 10% | 4% |
| | | | | | | | grade 6 events | 2561 | 2648 | 49708 | 3046 | 36411 | 11537 |
| | | | | | | | | 1% | 2% | 25% | 2% | 23% | 6% |
| | | | | | | | grade 7 events | 112393 | 111148 | 80210 | 108435 | 67116 | 117681 |
| | | | | | | | | 85% | 85% | 41% | 84% | 43% | 69% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-235678 | ACIS-235678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | CCD I0 on | N | N |
| Observation mode | POINTING | POINTING | CCD I1 on | N | N |
| [deg] Pointing RA | 262.949788 | 262.9285639841875 | CCD I2 on | O1 | Y |
| [deg] Pointing Dec | 66.627651 | 66.65367155176224 | CCD I3 on | O2 | Y |
| [deg] Pointing Roll | 76.984139 | 77.16027065434564 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | Y | Y |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | Y | Y |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | CCD S3 on | Y | Y |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | CCD S4 on | Y | Y |
| [s] Observation start time (MET) | 383801309.184000 | 383800246.35794 | CCD S5 on | N | N |
| Observation start date | 2010-03-01T03:27:23 | 2010-03-01T03:10:46 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 383817009.184000 | 383817222.9213 | On-chip summing requested | N | N |
| Observation end date | 2010-03-01T07:49:03 | 2010-03-01T07:53:42 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



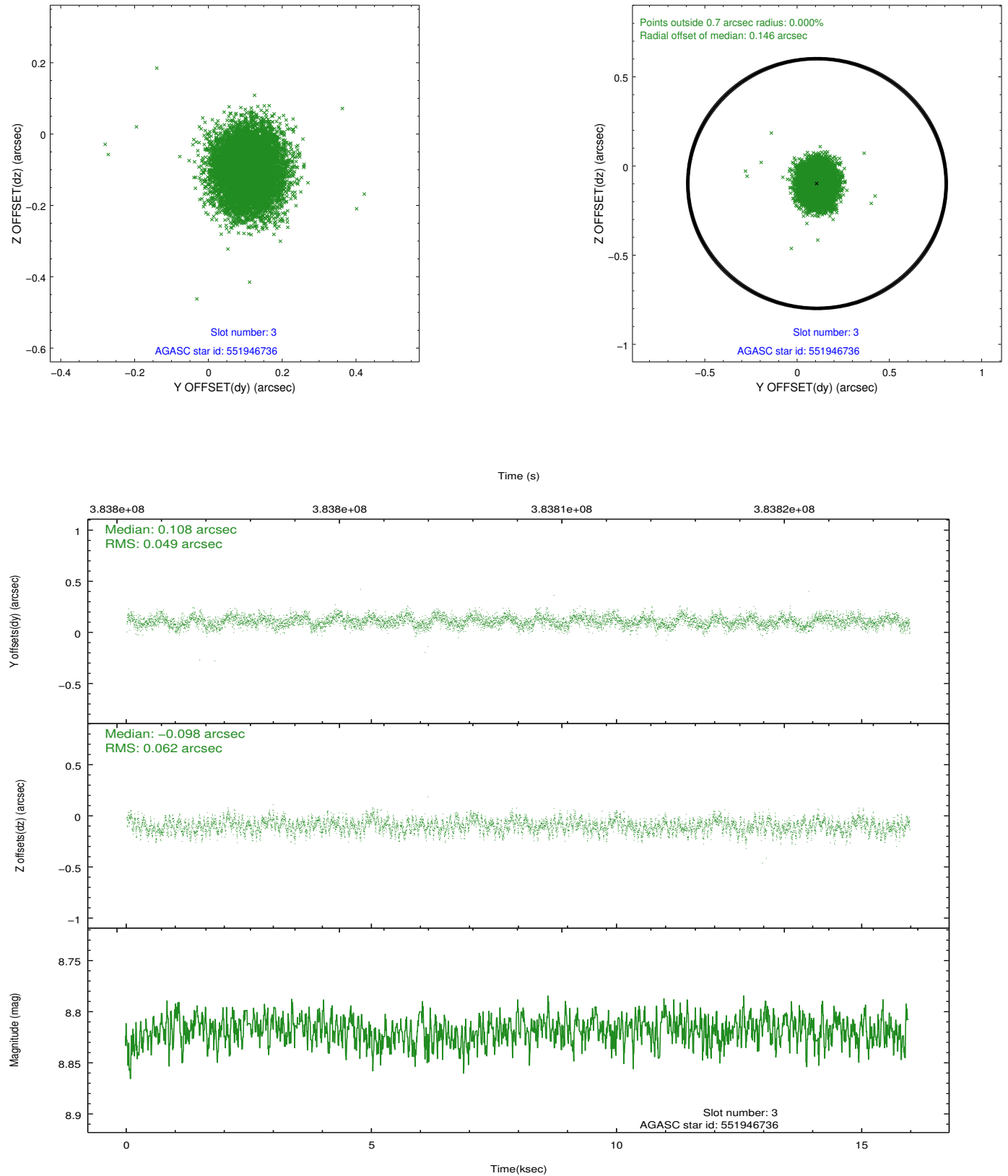


Slot Statistics

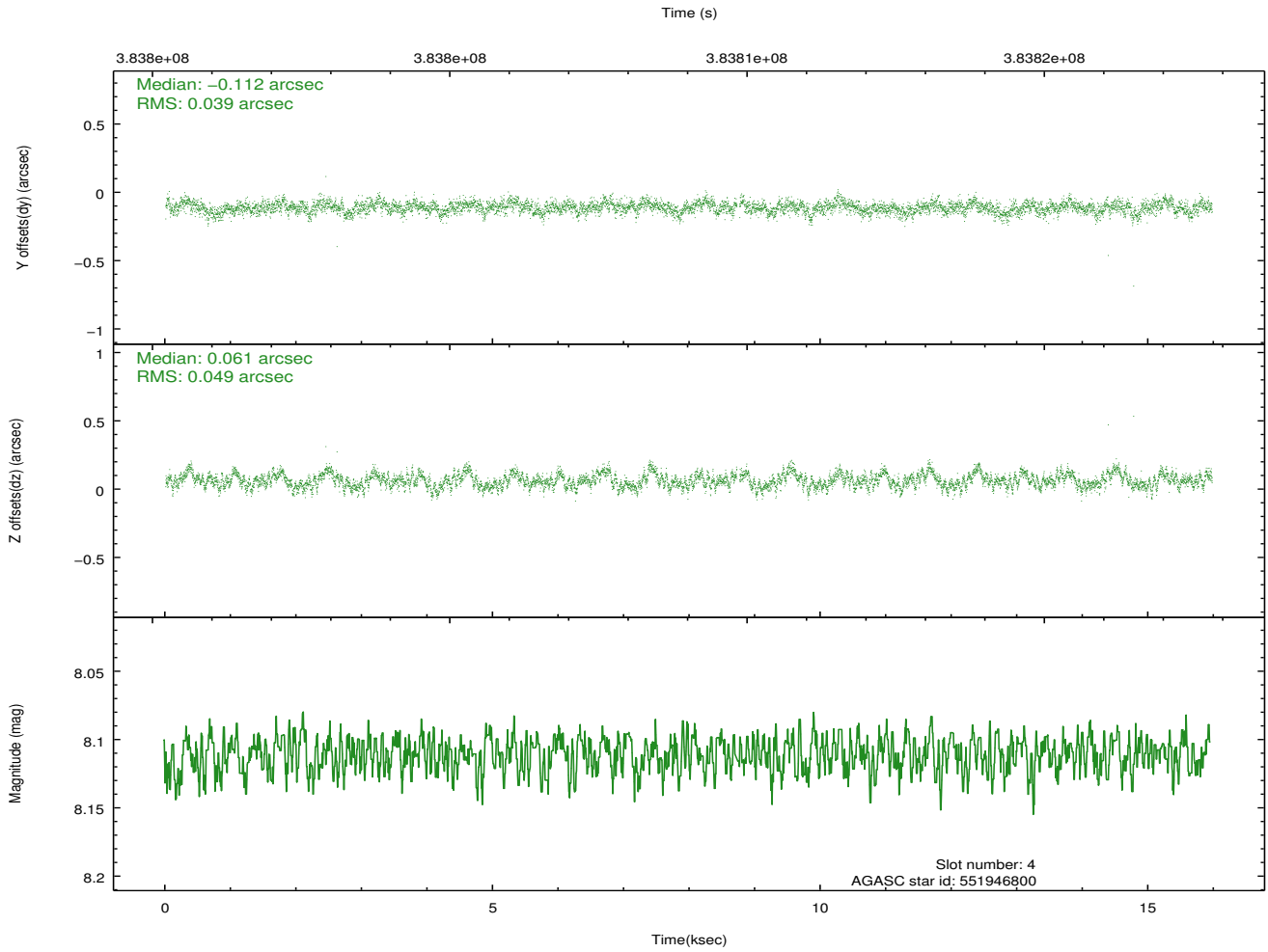
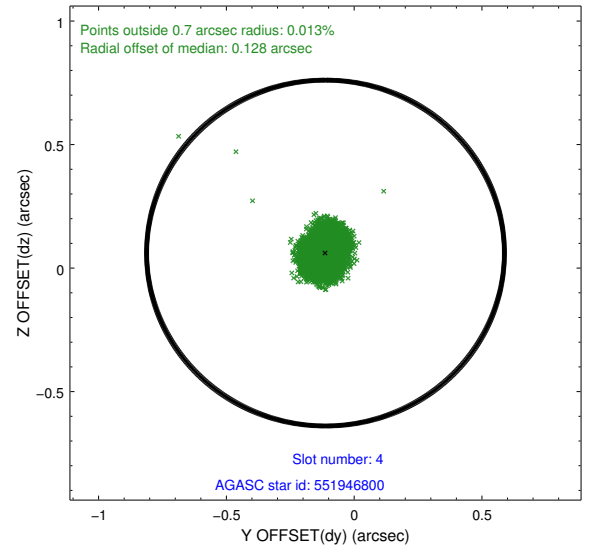
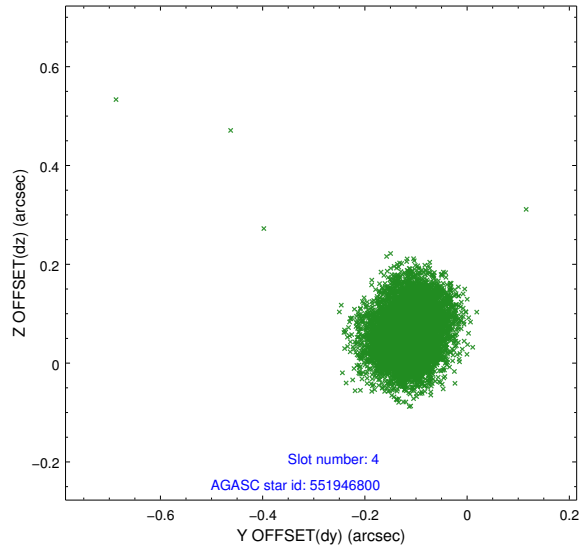
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-1 | 7.01 | 3894 | 0.054 | -0.051 | 0.014 | 0.037 | 0.000000 | 0.000000 | 927.87 | -1732.32 |
| 1 | FID | ACIS-S-5 | 7.06 | 3895 | -0.134 | 0.025 | 0.012 | 0.018 | 0.000000 | 0.000000 | -1821.17 | 165.01 |
| 2 | FID | ACIS-S-6 | 7.17 | 3895 | 0.060 | 0.038 | 0.018 | 0.032 | 0.000000 | 0.000000 | 393.12 | 809.30 |
| 3 | GUIDE | 551946736 | 8.82 | 7788 | 0.108 | -0.098 | 0.084 | 0.133 | 262.530820 | 66.939372 | 962.46 | 828.98 |
| 4 | GUIDE | 551946800 | 8.11 | 7768 | -0.112 | 0.061 | 0.066 | 0.106 | 263.674302 | 66.922822 | 1271.76 | -754.91 |
| 5 | GUIDE | 551947672 | 8.58 | 7787 | -0.117 | 0.076 | 0.065 | 0.105 | 264.350691 | 66.834287 | 1193.98 | -1759.98 |
| 6 | GUIDE | 551949032 | 8.04 | 7788 | 0.169 | 0.078 | 0.075 | 0.117 | 263.510442 | 66.558359 | -57.96 | -837.77 |
| 7 | GUIDE | 551818280 | 9.04 | 7785 | -0.049 | -0.115 | 0.095 | 0.152 | 261.229817 | 66.633852 | -498.74 | 2404.71 |

2.4 Star Slots

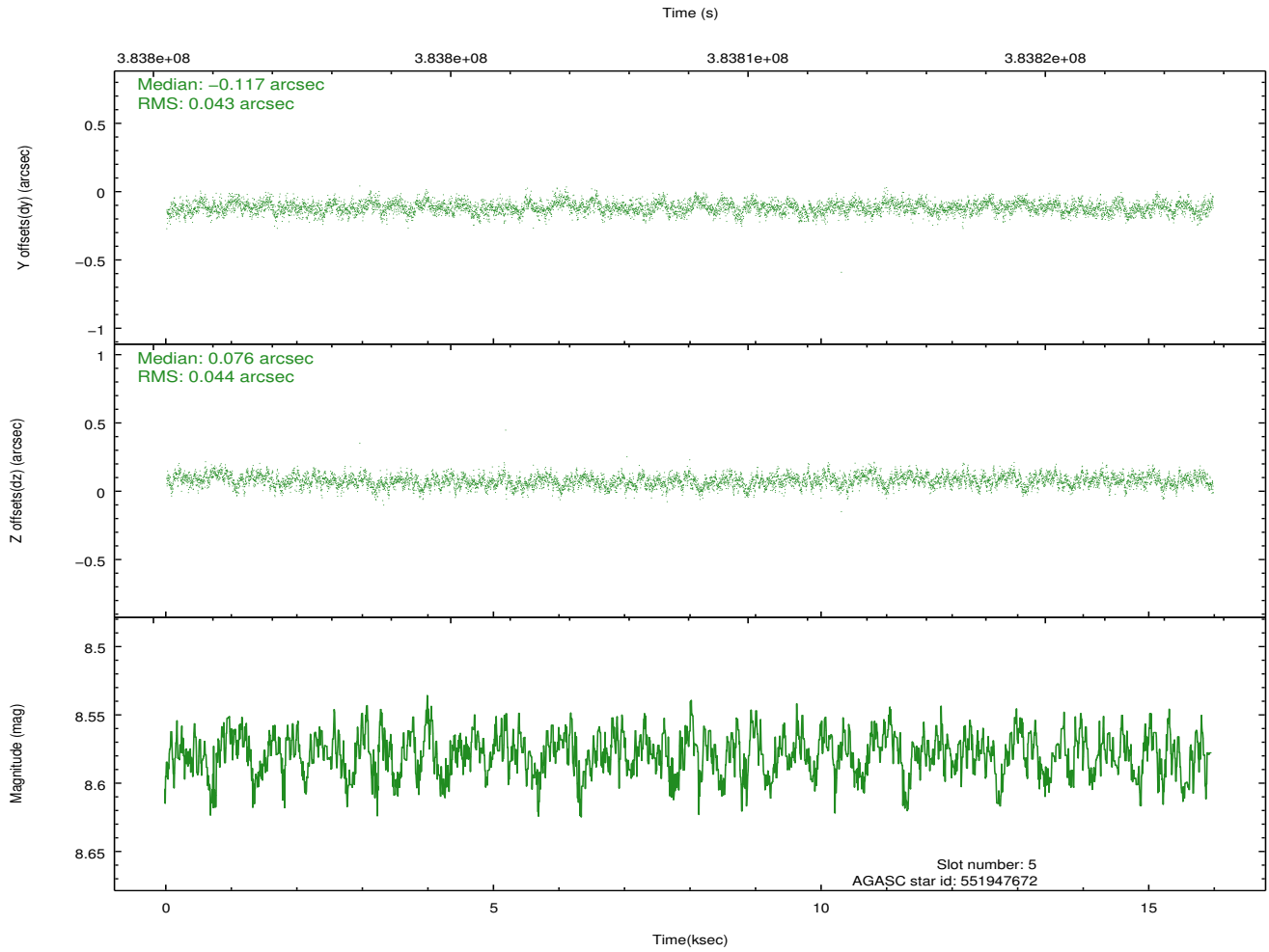
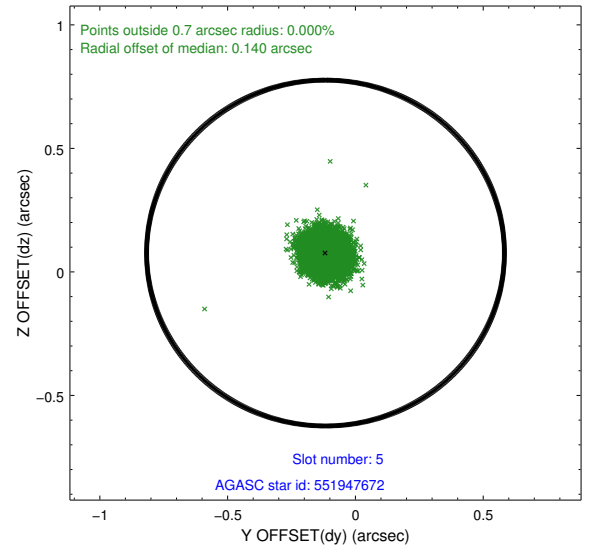
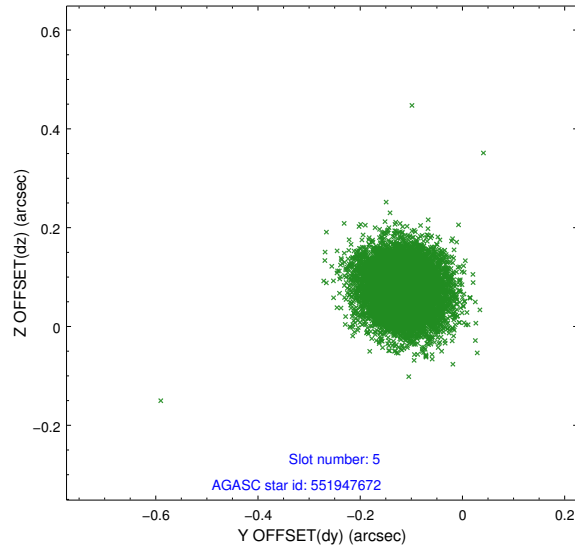
2.4.1 Slot 3



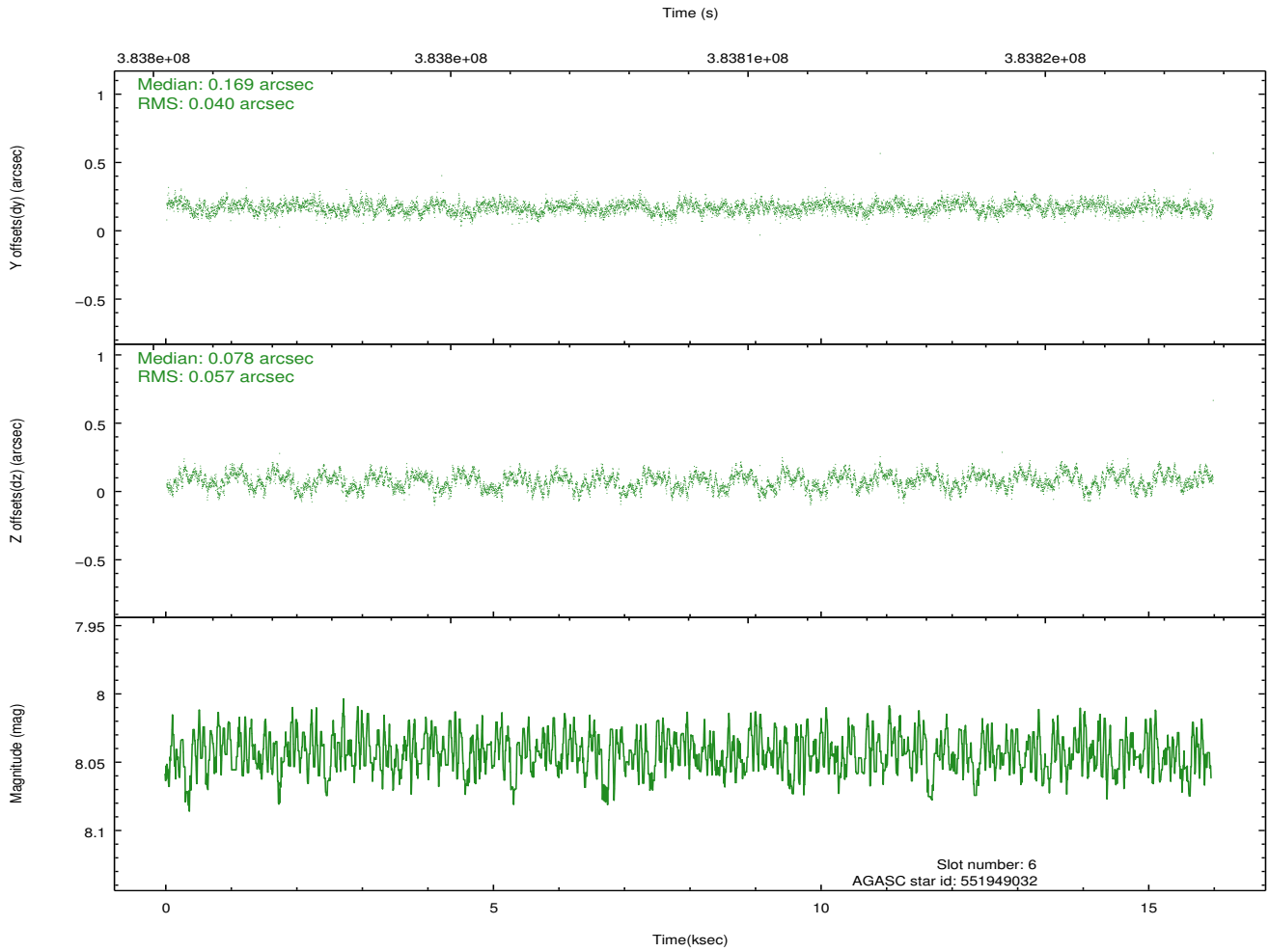
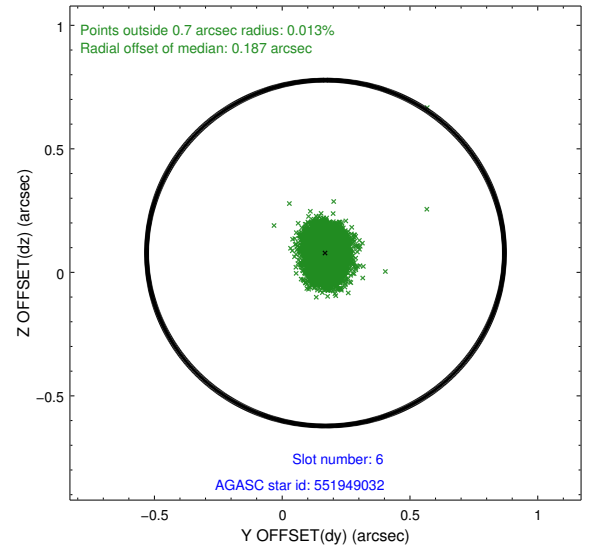
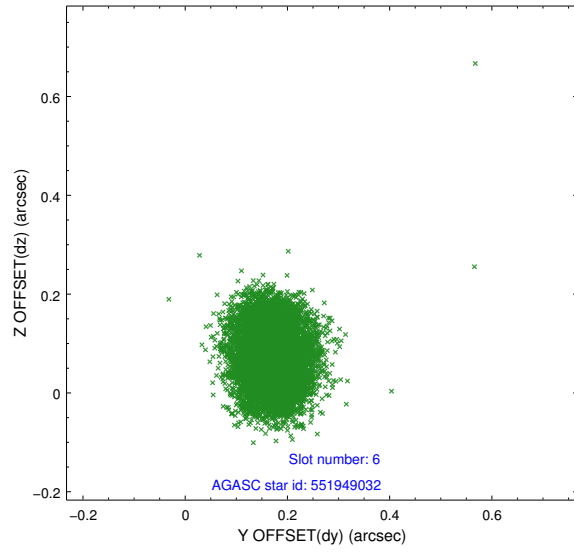
2.4.2 Slot 4



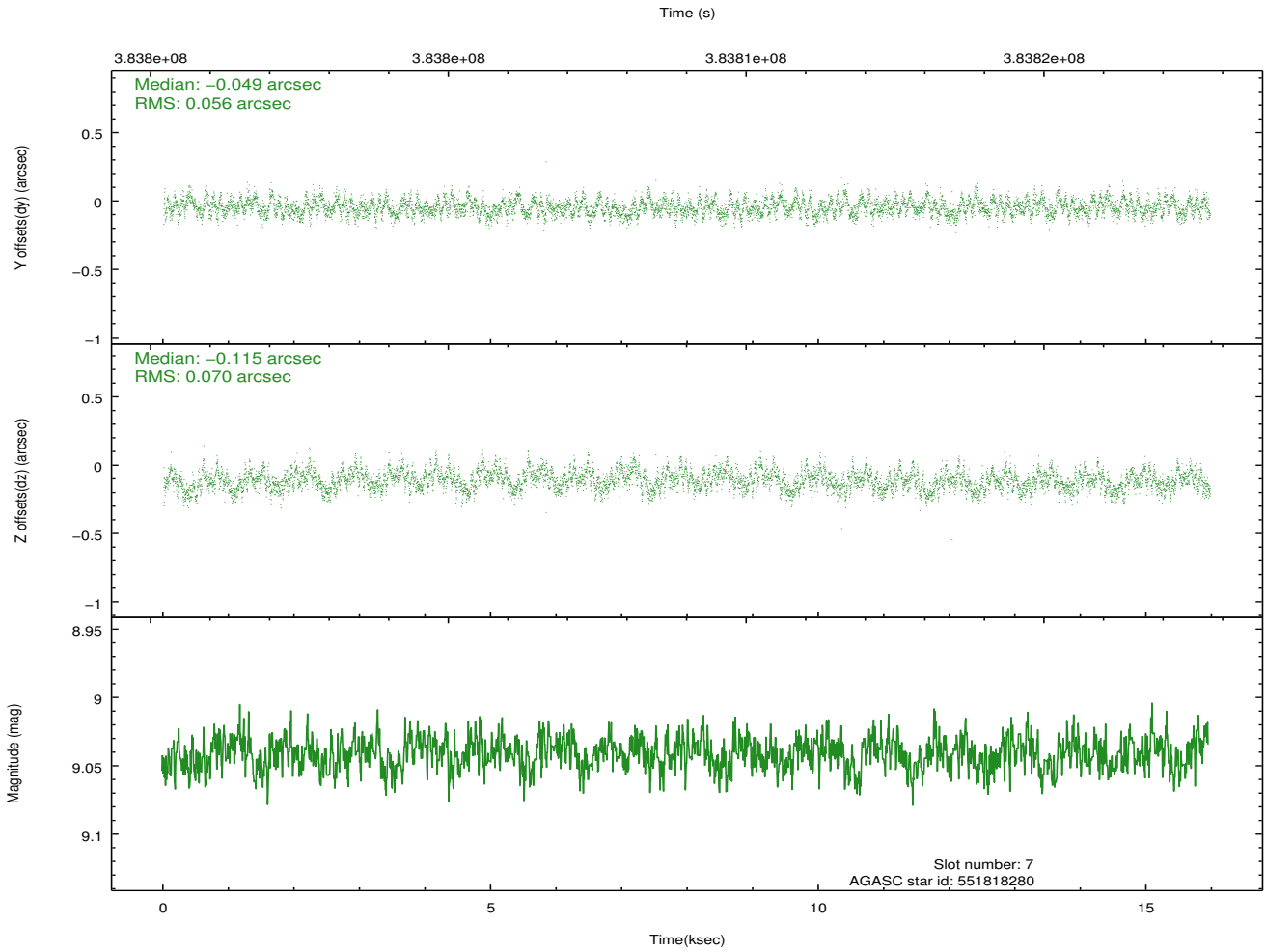
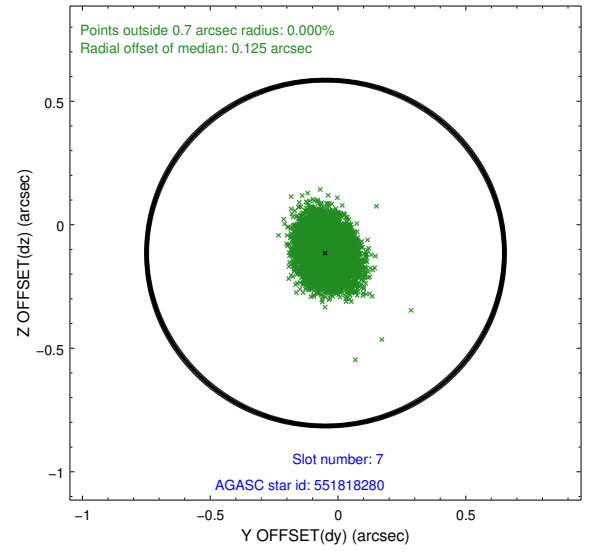
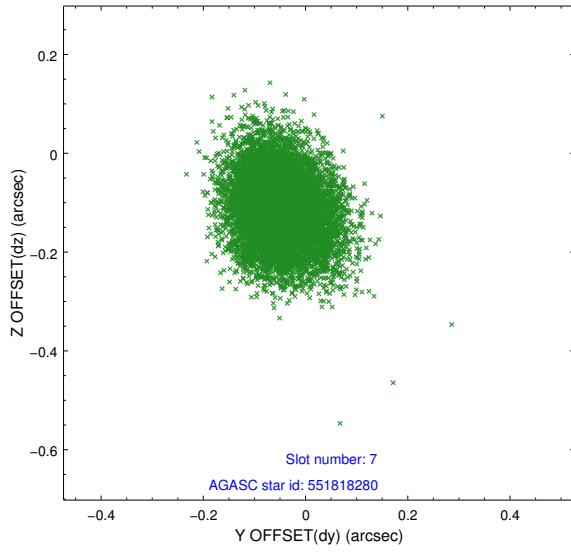
2.4.3 Slot 5



2.4.4 Slot 6

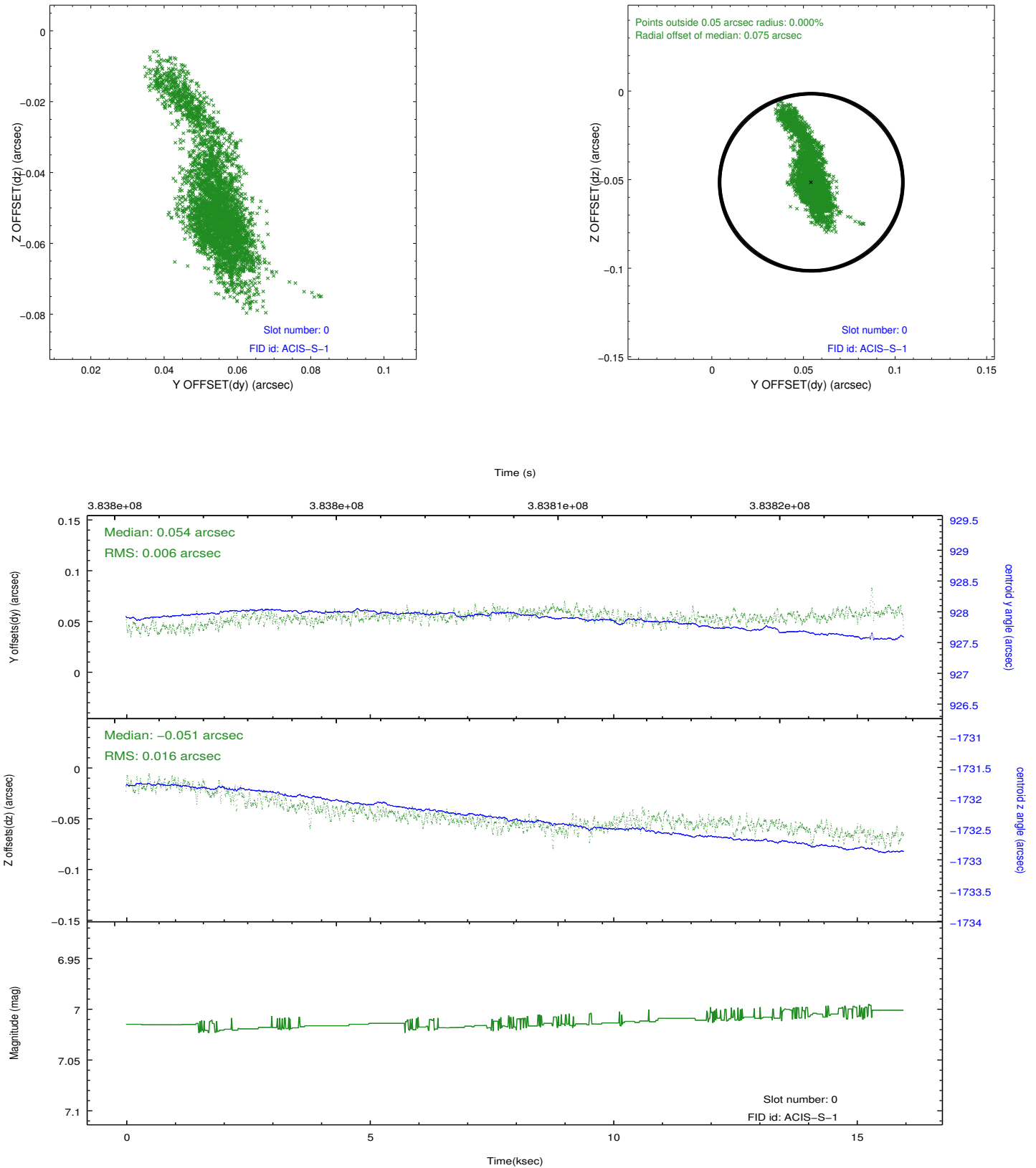


2.4.5 Slot 7

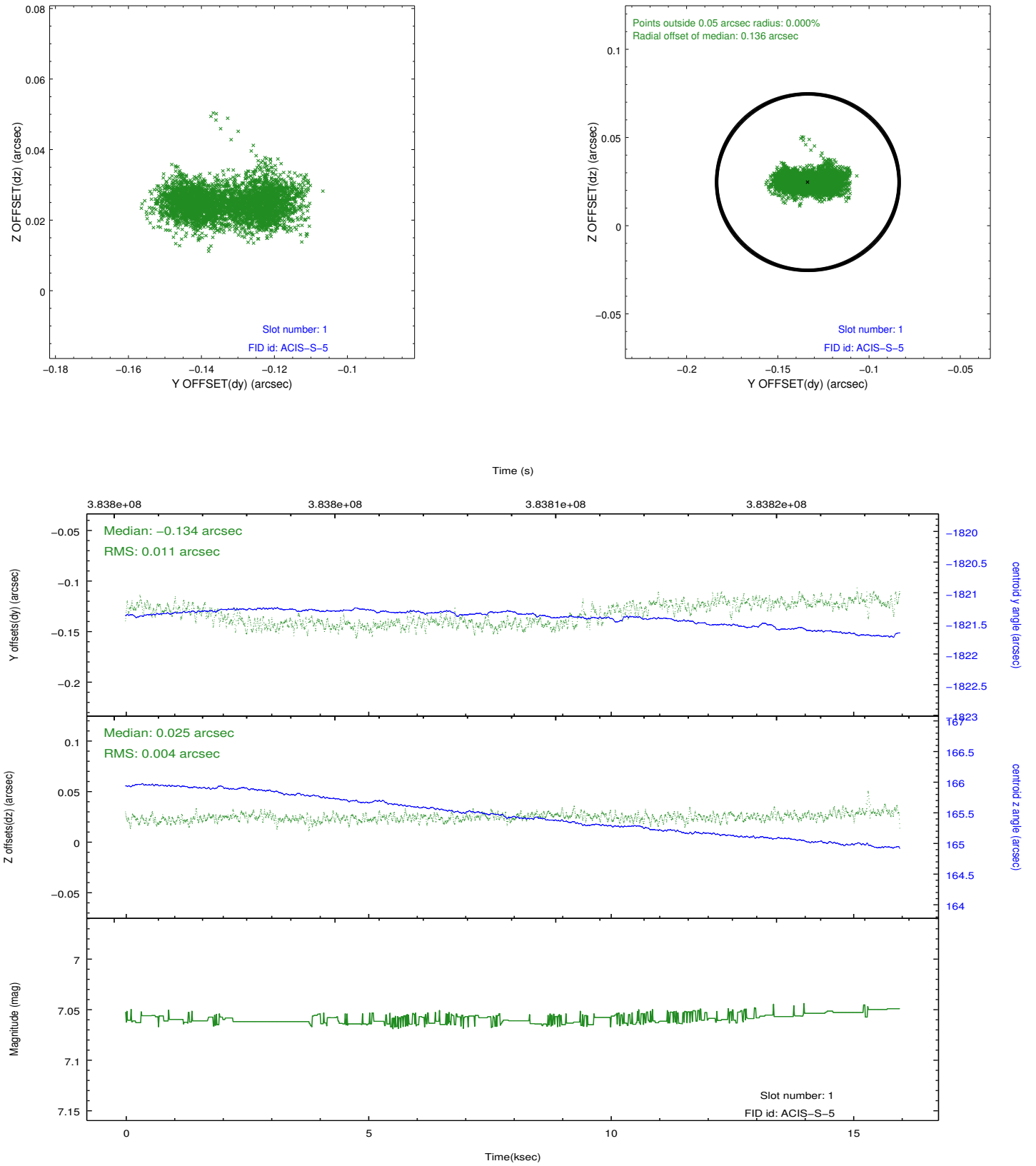


2.5 FID Slots

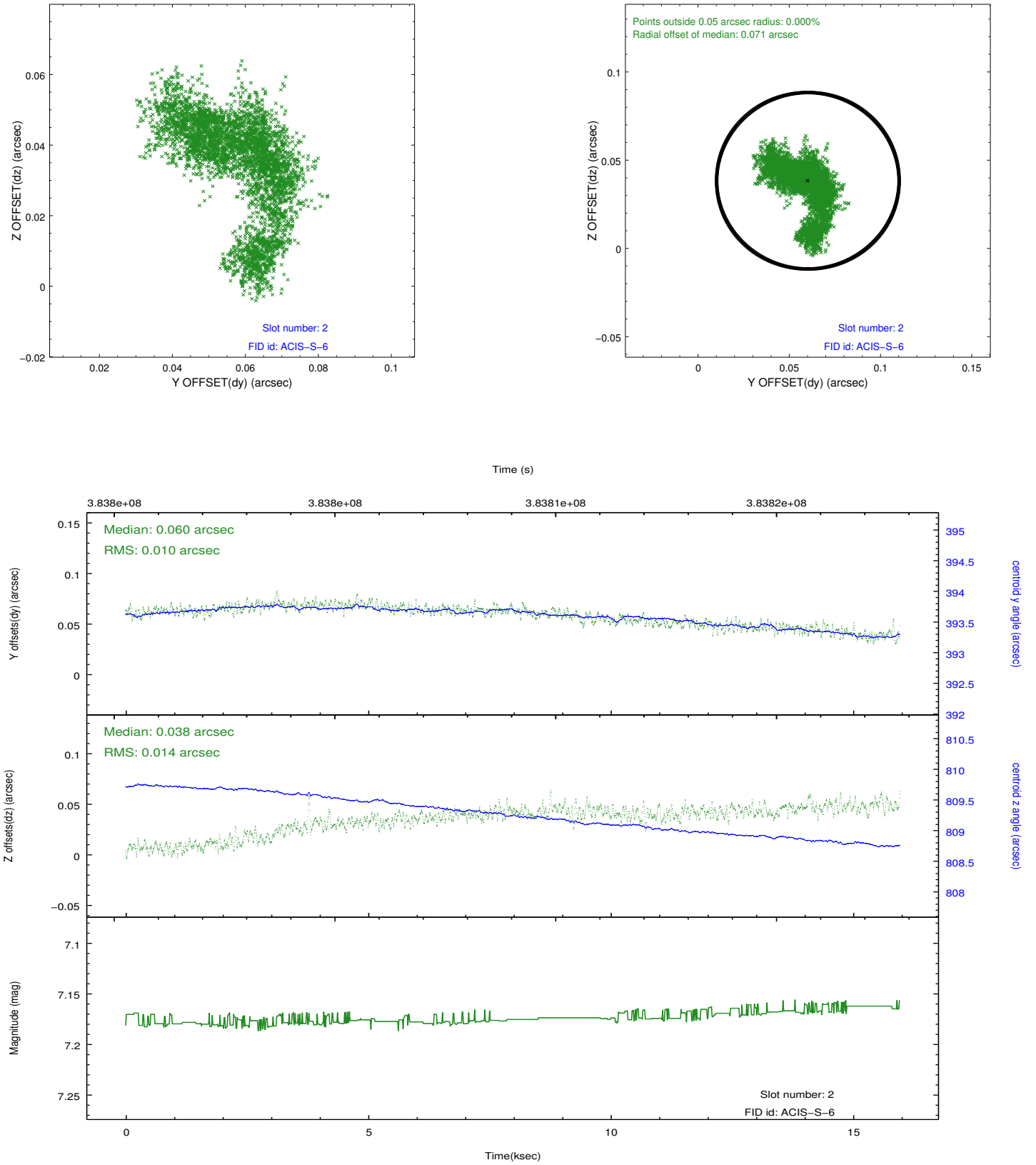
2.5.1 Slot 0



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) | 2012.06.28 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 15.743081843615 |

A.2 Comments