

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12771 - L2 Version 2
Chandra X-Ray Center

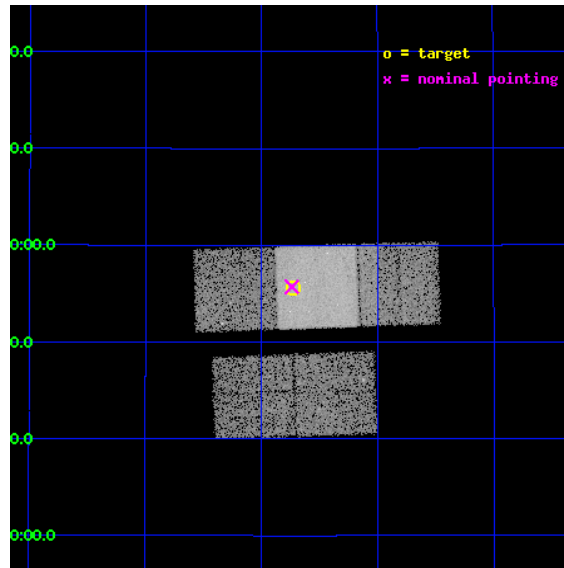
L2 Processing Date : Feb 27 2012

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

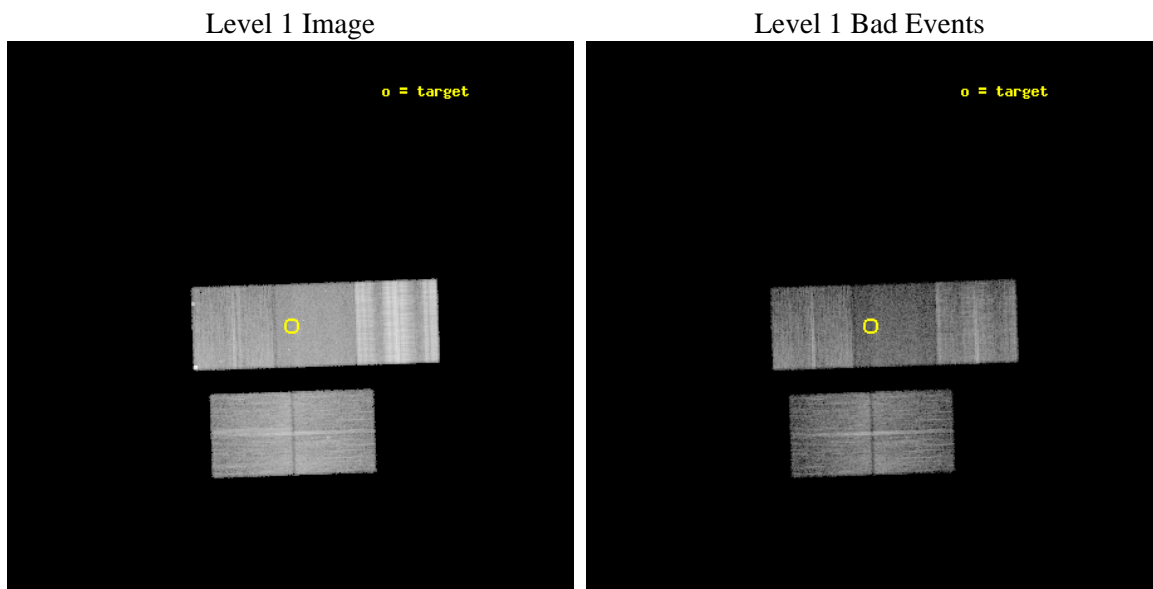
| | | |
|----------|--|---|
| seq_num | 702407 | Sequence number |
| obs_id | 12771 | Observation id |
| title | X-ray Properties of 2MASS Selected BALQSOs | Proposal title |
| observer | Dr. Xinyu Dai | Principal investigator |
| object | SDSSJ162143.78+355533.9 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 245.4325 | Observer's specified target RA [deg] |
| dec_targ | 35.926083 | Observer's specified target Dec [deg] |
| ra_nom | 245.43464020095 | Nominal RA [deg] |
| dec_nom | 35.92860729355 | Nominal Dec [deg] |
| roll_nom | 358.04651621197 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 11541.300088763 | Sum of GTIs [s] |
| livetime | 11390.504506522 | Livetime [s] |
| ontime2 | 11541.300088763 | Sum of GTIs [s] |
| ontime3 | 11538.159128428 | Sum of GTIs [s] |
| ontime6 | 11541.300088763 | Sum of GTIs [s] |
| ontime7 | 11541.300088763 | Sum of GTIs [s] |
| ontime8 | 11541.300088763 | Sum of GTIs [s] |
| l2events | 82201 | Number of level 2 events |



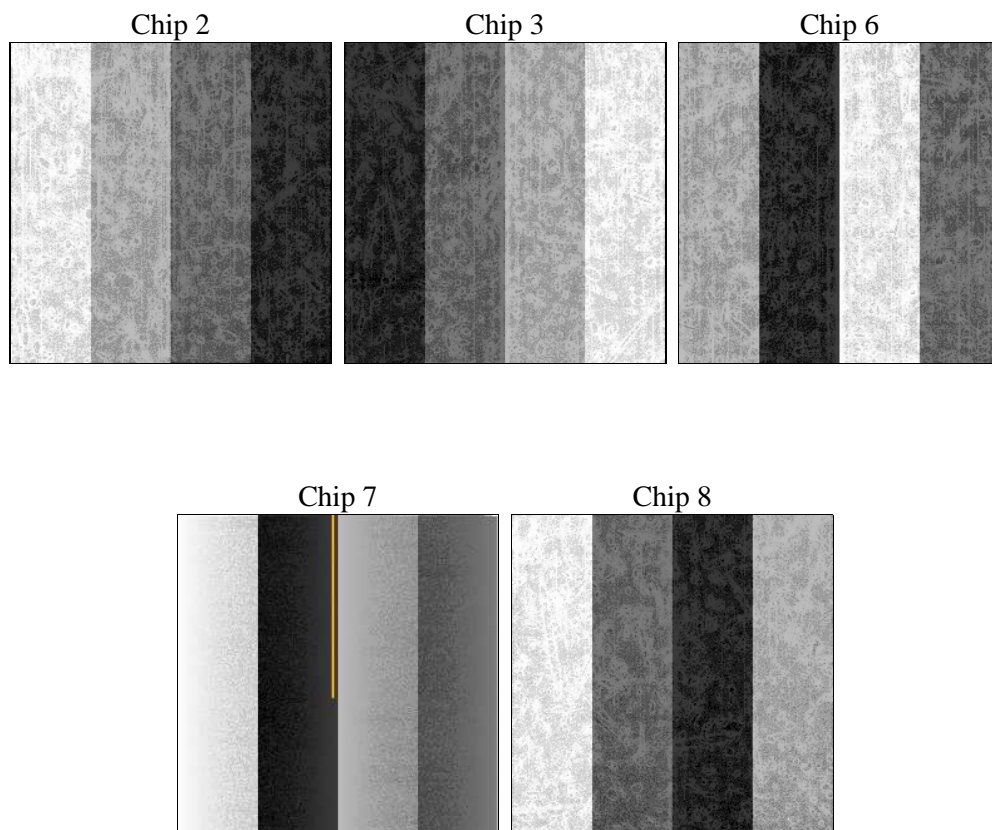
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 11500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3 | Processing system revision | ontime | 11541.300088763 | Sum of GTIs [s] |
| caldsver | 4.4.8 | | ontime2 | 11541.300088763 | Sum of GTIs [s] |
| date | 2012-02-27T12:49:20 | Date and time of file creation | ontime3 | 11538.159128428 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime6 | 11541.300088763 | Sum of GTIs [s] |
| | | | ontime7 | 11541.300088763 | Sum of GTIs [s] |
| | | | ontime8 | 11541.300088763 | Sum of GTIs [s] |
| | | | l1events | 715881 | Number of level 1 events |

2.1.4 Events

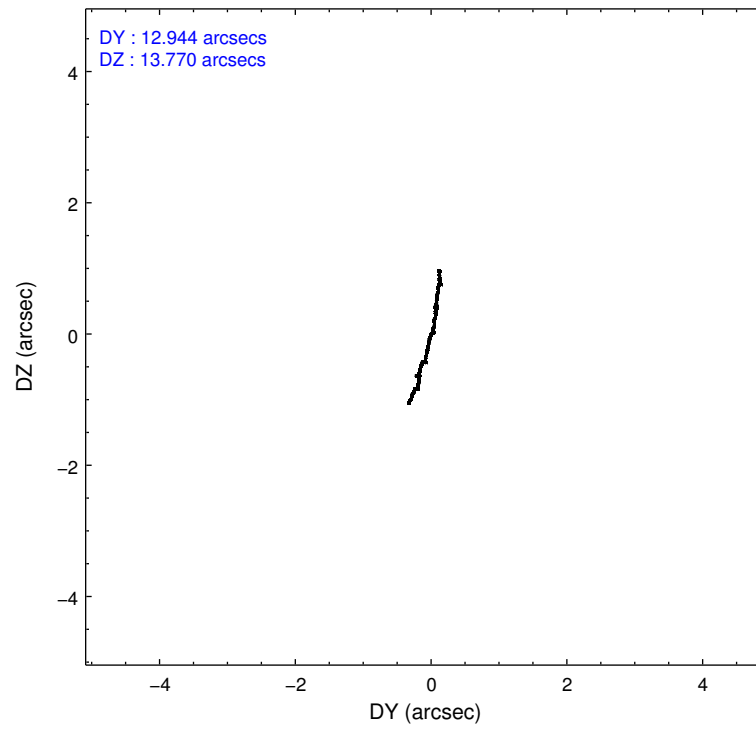
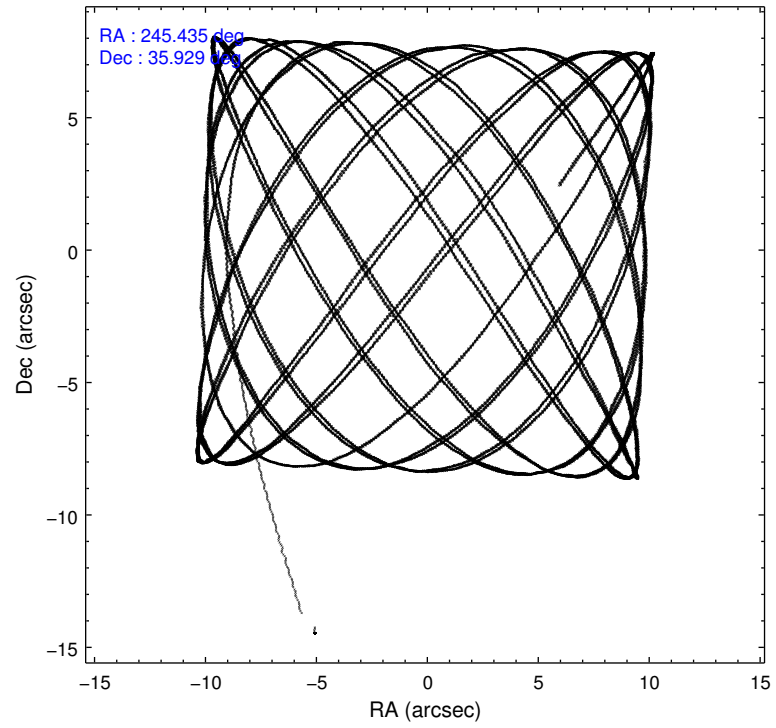
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|-------|--------|--------|--------|
| level 1 events | 101696 | 97644 | 113840 | 105312 | 297389 |
| rejected events | 87350 | 88711 | 96661 | 56856 | 106798 |
| rejected % | 85% | 90% | 84% | 53% | 35% |

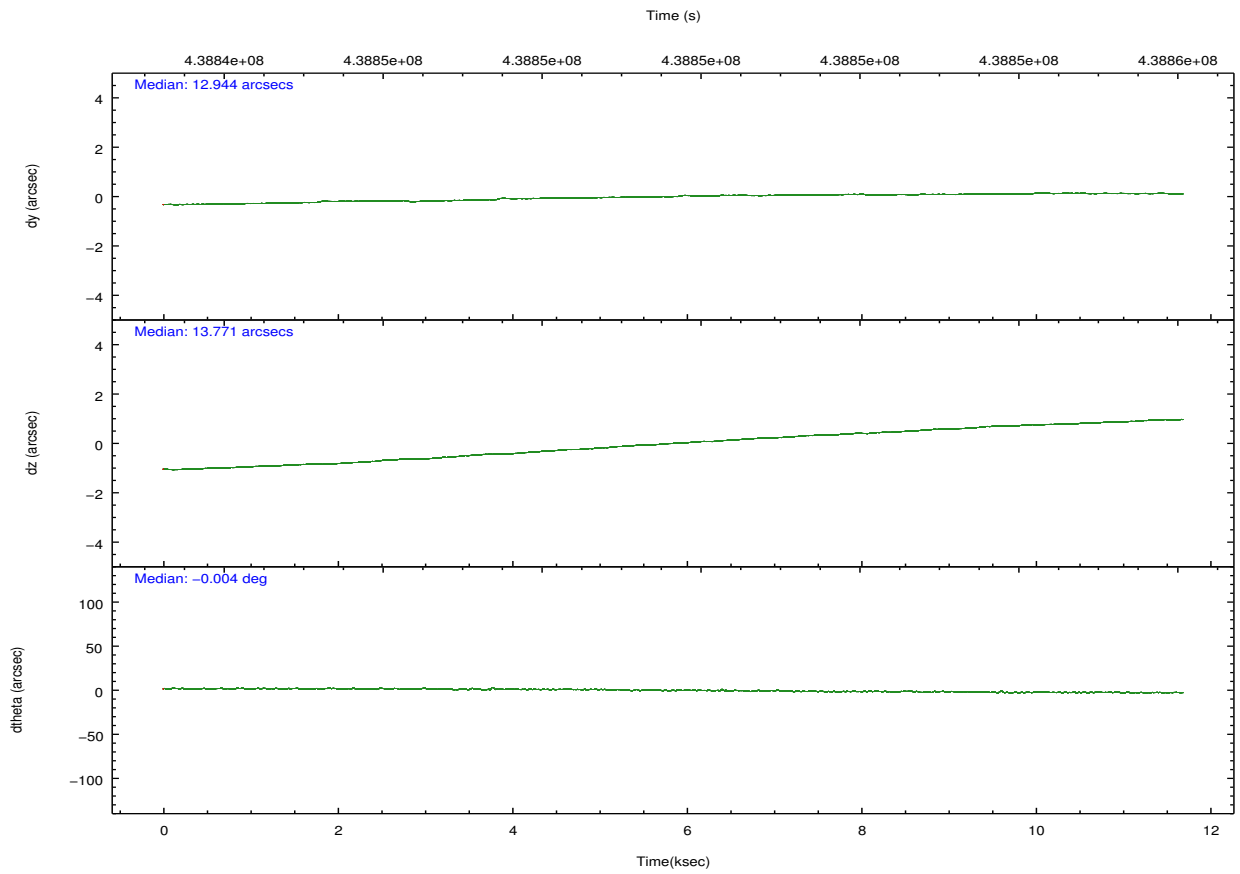
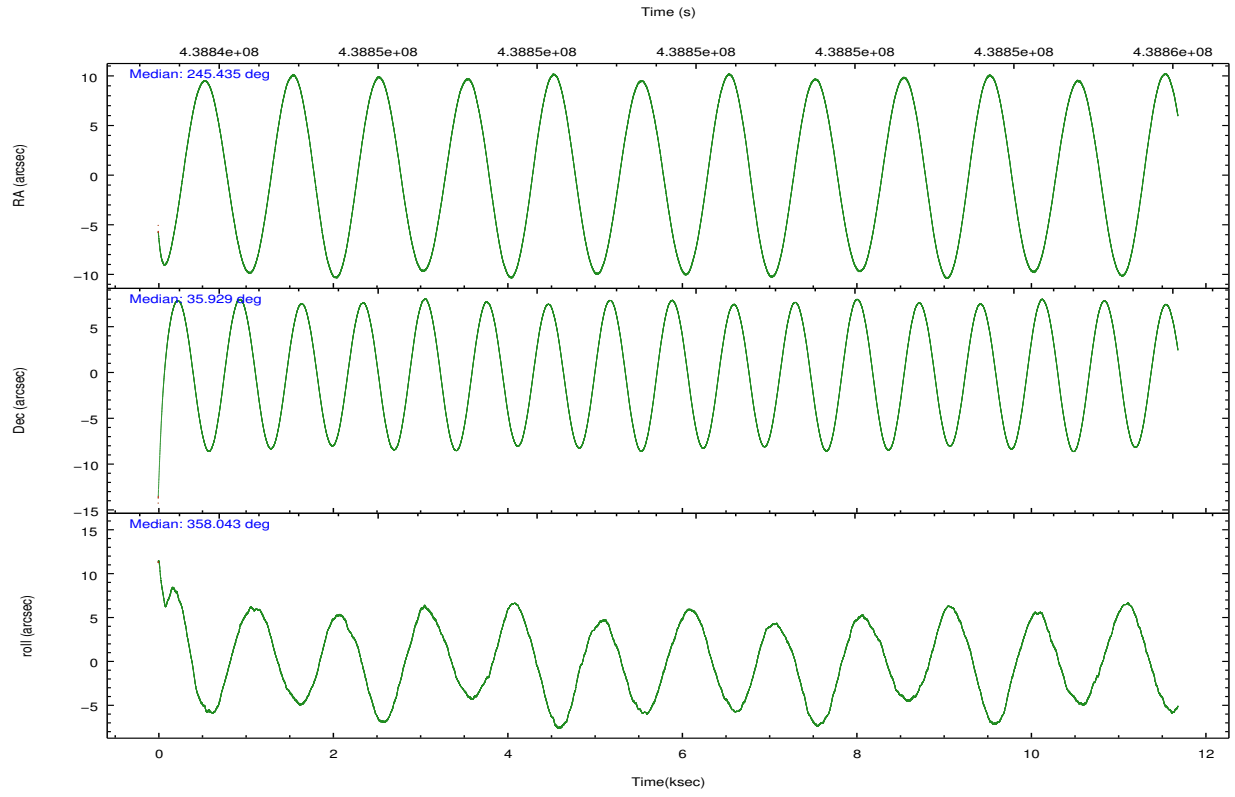
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 6246 | 3421 | 6363 | 4987 | 63626 |
| | 6% | 3% | 5% | 4% | 21% |
| grade 1 events | 83 | 52 | 80 | 209 | 615 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 3943 | 2235 | 7002 | 11460 | 23063 |
| | 3% | 2% | 6% | 10% | 7% |
| grade 3 events | 909 | 818 | 888 | 4306 | 36658 |
| | 0% | 0% | 0% | 4% | 12% |
| grade 4 events | 1423 | 851 | 895 | 4448 | 32794 |
| | 1% | 0% | 0% | 4% | 11% |
| grade 5 events | 2998 | 3534 | 3522 | 10459 | 7043 |
| | 2% | 3% | 3% | 9% | 2% |
| grade 6 events | 1835 | 1612 | 2035 | 23273 | 34517 |
| | 1% | 1% | 1% | 22% | 11% |
| grade 7 events | 84259 | 85121 | 93055 | 46170 | 99073 |
| | 82% | 87% | 81% | 43% | 33% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-23678 | ACIS-23678 | 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 | 245.405033 | 245.4346402009484 | CCD I2 on | O4 | Y |
| [deg] Pointing Dec | 35.915394 | 35.92860729355029 | CCD I3 on | O3 | Y |
| [deg] Pointing Roll | 357.907249 | 358.0465162119693 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | N | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | O2 | 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 | O1 | Y |
| [s] Observation start time (MET) | 438843987.184000 | 438842681.47921 | CCD S5 on | N | N |
| Observation start date | 2011-11-28T05:05:21 | 2011-11-28T04:44:41 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 438855487.184000 | 438856440.56743 | On-chip summing requested | N | N |
| Observation end date | 2011-11-28T08:17:01 | 2011-11-28T08:34:00 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect



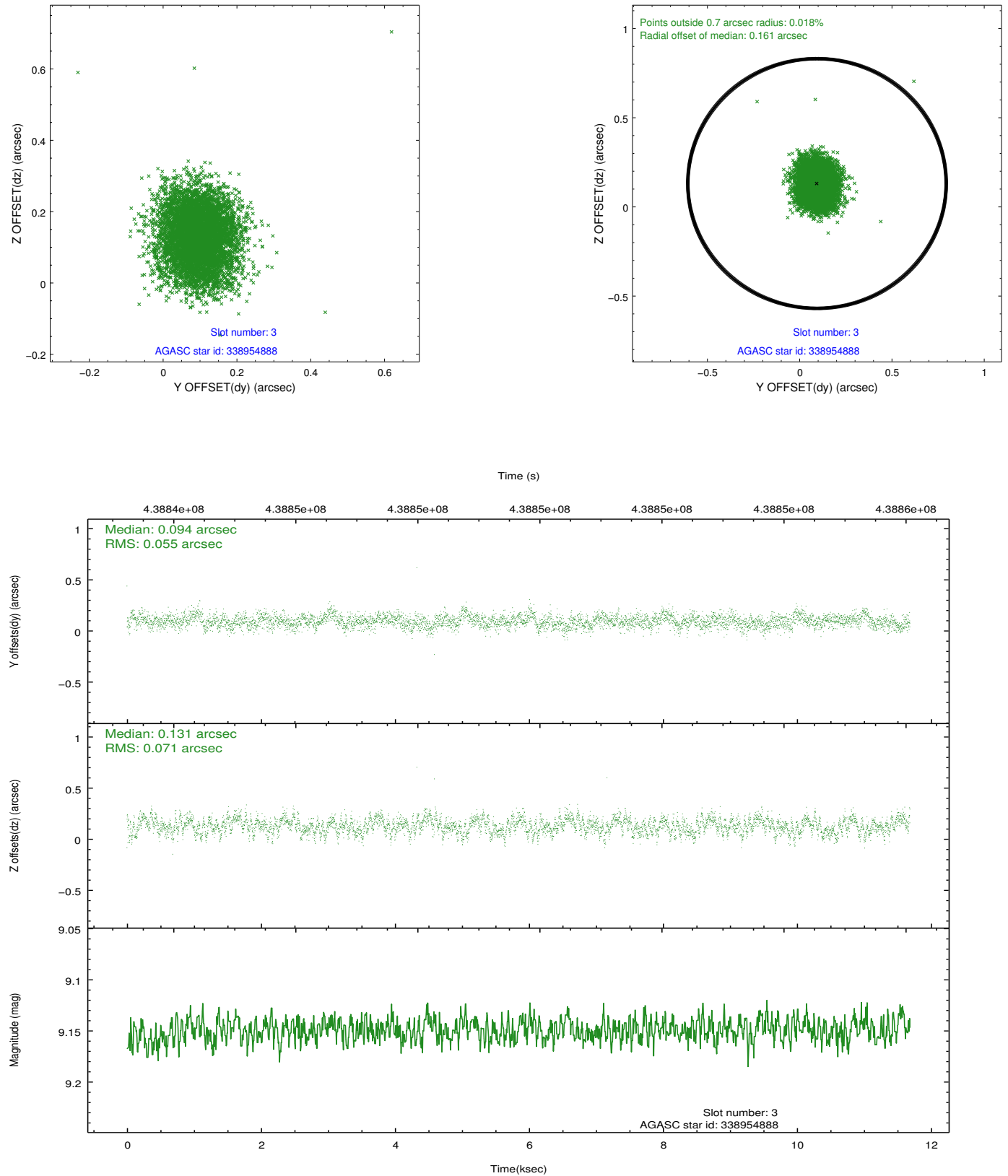


Slot Statistics

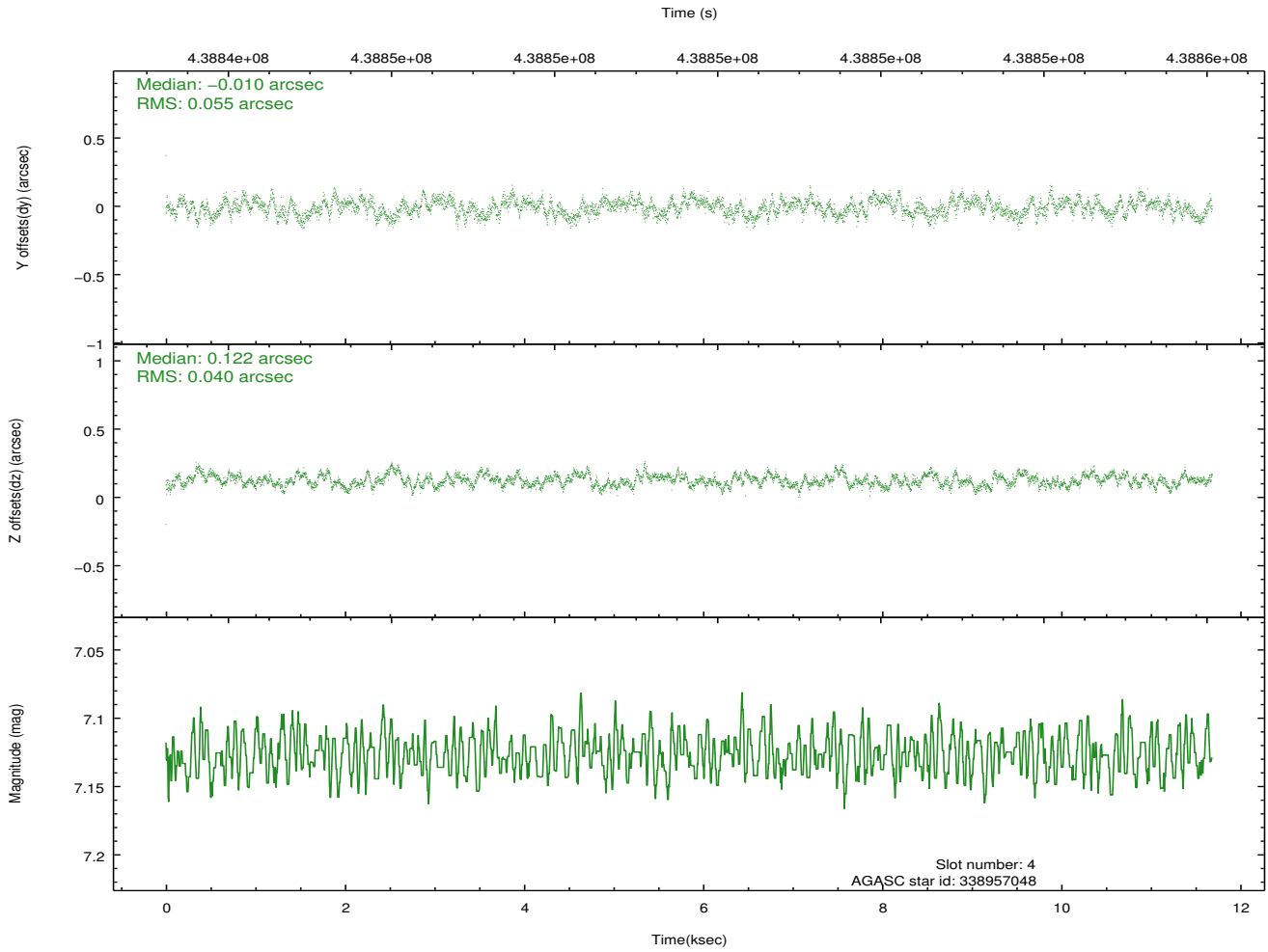
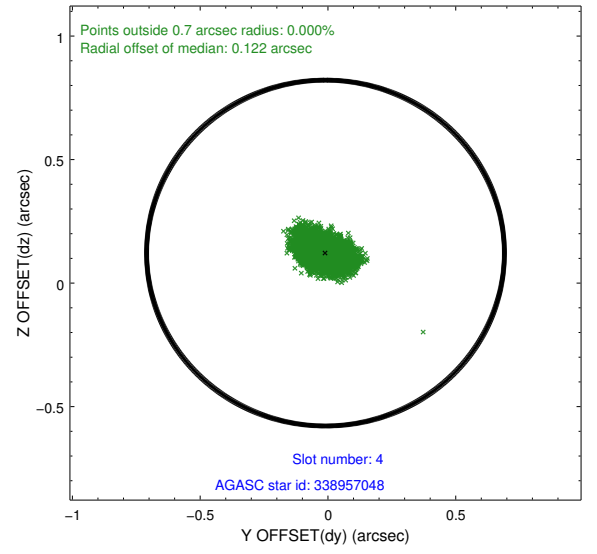
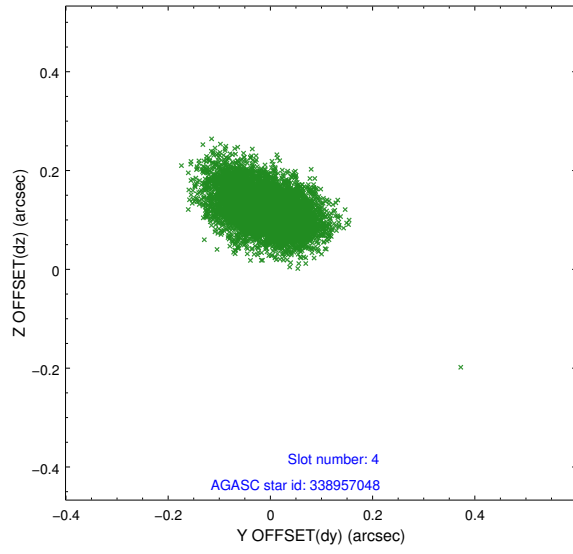
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 6.95 | 2851 | -0.045 | -0.047 | 0.017 | 0.026 | 0.000000 | 0.000000 | -765.87 | -1735.12 |
| 1 | FID | ACIS-S-4 | 7.03 | 2851 | 0.210 | 0.036 | 0.023 | 0.031 | 0.000000 | 0.000000 | 2147.47 | 172.98 |
| 2 | FID | ACIS-S-5 | 7.08 | 2851 | -0.195 | 0.023 | 0.012 | 0.020 | 0.000000 | 0.000000 | -1818.30 | 167.15 |
| 3 | GUIDE | 338954888 | 9.15 | 5696 | 0.094 | 0.131 | 0.095 | 0.154 | 244.962818 | 35.513386 | -1241.76 | -1490.65 |
| 4 | GUIDE | 338957048 | 7.13 | 5702 | -0.010 | 0.122 | 0.072 | 0.117 | 245.823423 | 35.611768 | 1263.82 | -1045.56 |
| 5 | GUIDE | 338962160 | 8.99 | 5701 | 0.053 | -0.019 | 0.097 | 0.155 | 245.557615 | 36.257603 | 398.15 | 1247.44 |
| 6 | GUIDE | 339092784 | 8.31 | 5700 | -0.101 | -0.090 | 0.077 | 0.121 | 246.147421 | 36.027558 | 2144.96 | 491.12 |
| 7 | GUIDE | 338957968 | 9.35 | 5694 | -0.034 | -0.128 | 0.147 | 0.238 | 245.396587 | 36.511983 | -102.52 | 2146.11 |

2.4 Star Slots

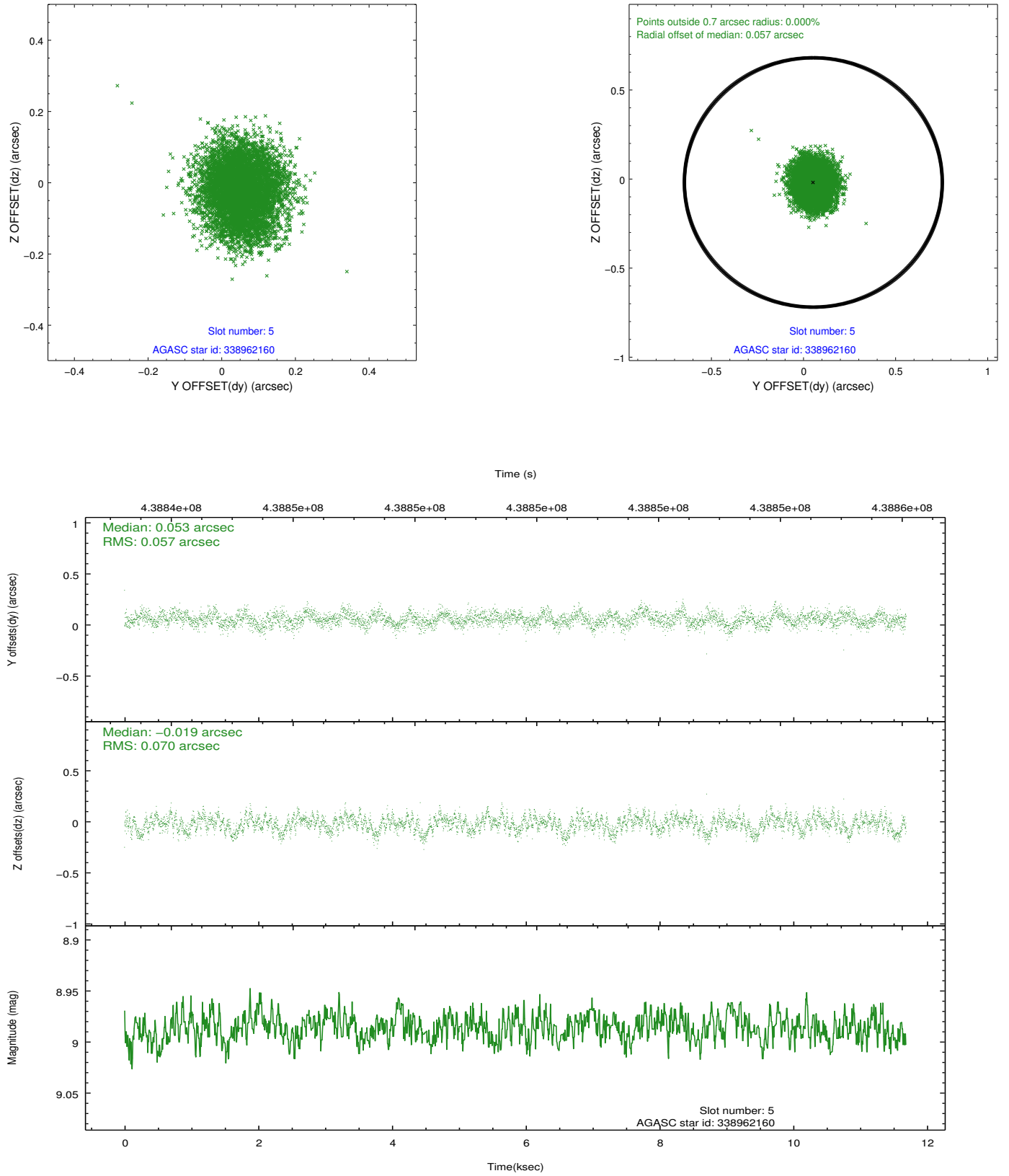
2.4.1 Slot 3



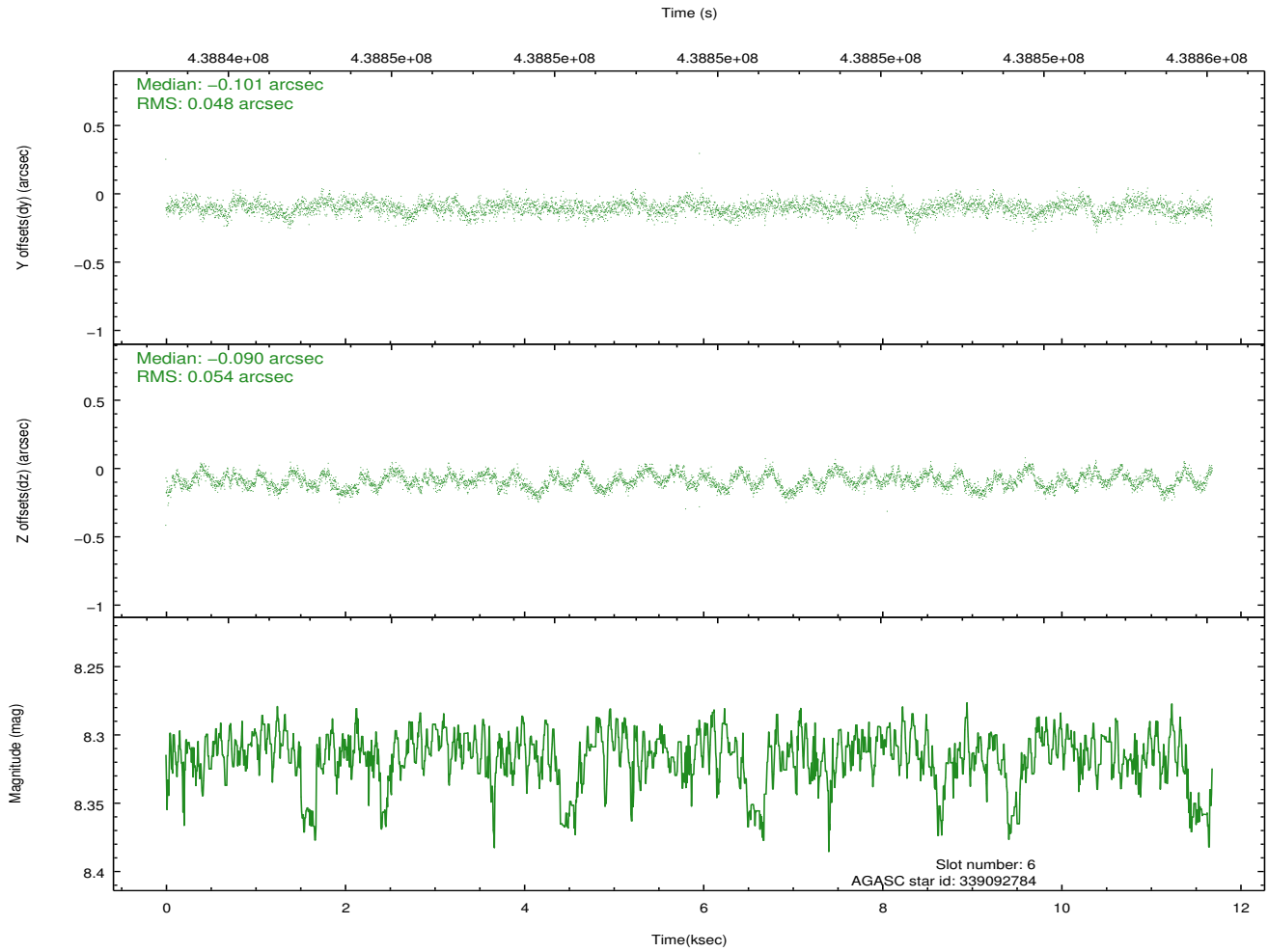
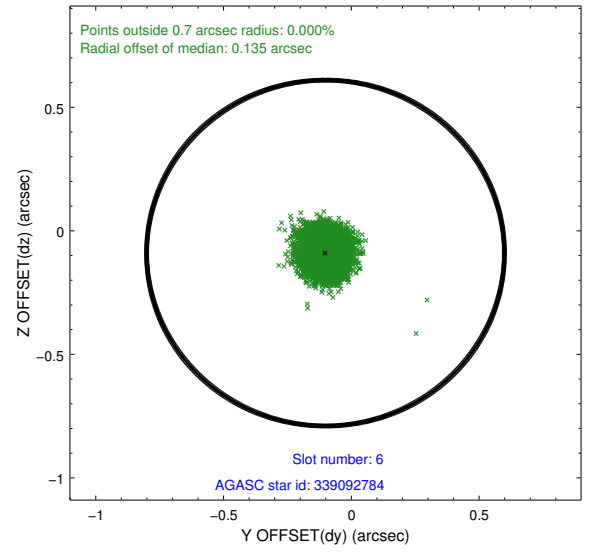
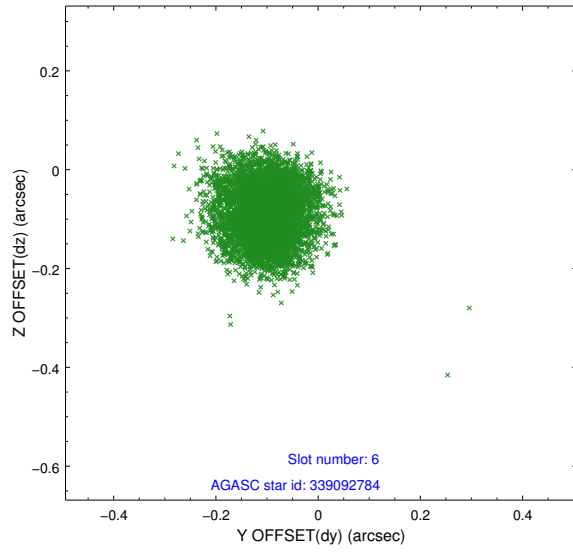
2.4.2 Slot 4



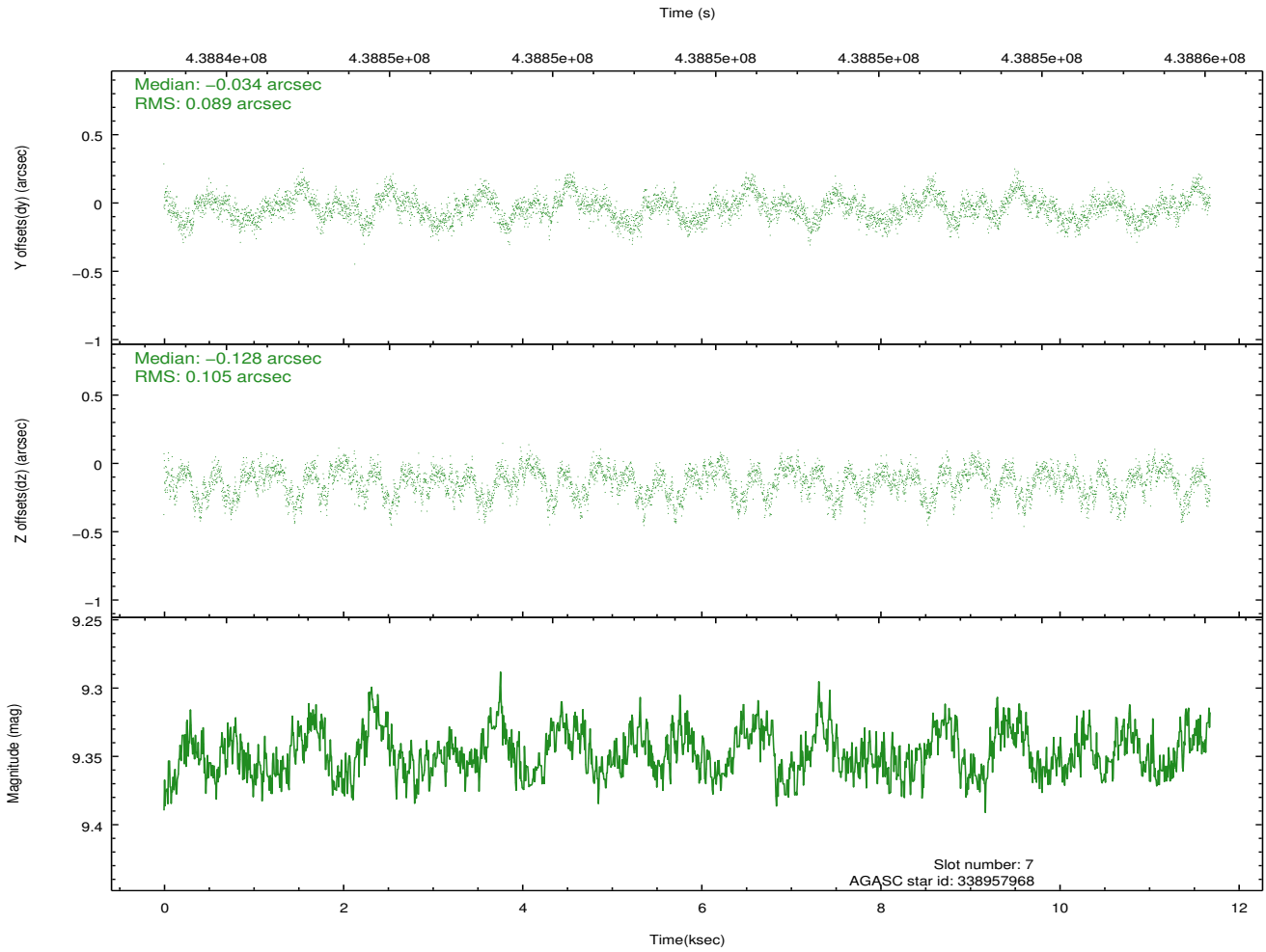
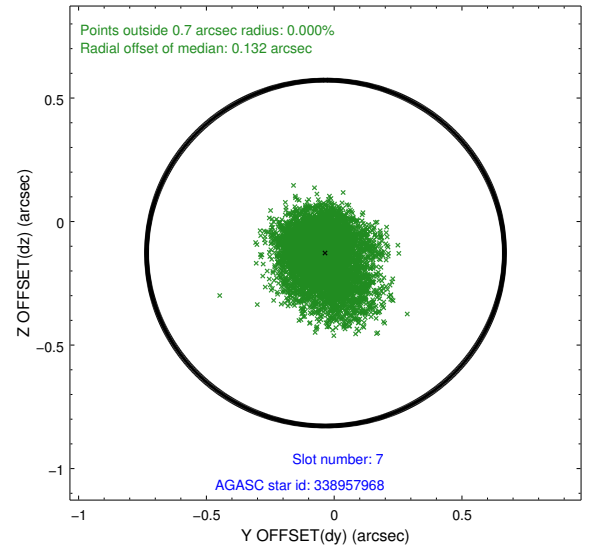
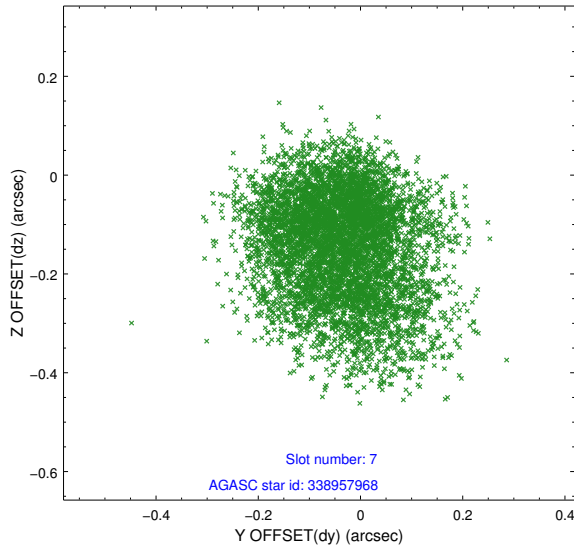
2.4.3 Slot 5



2.4.4 Slot 6

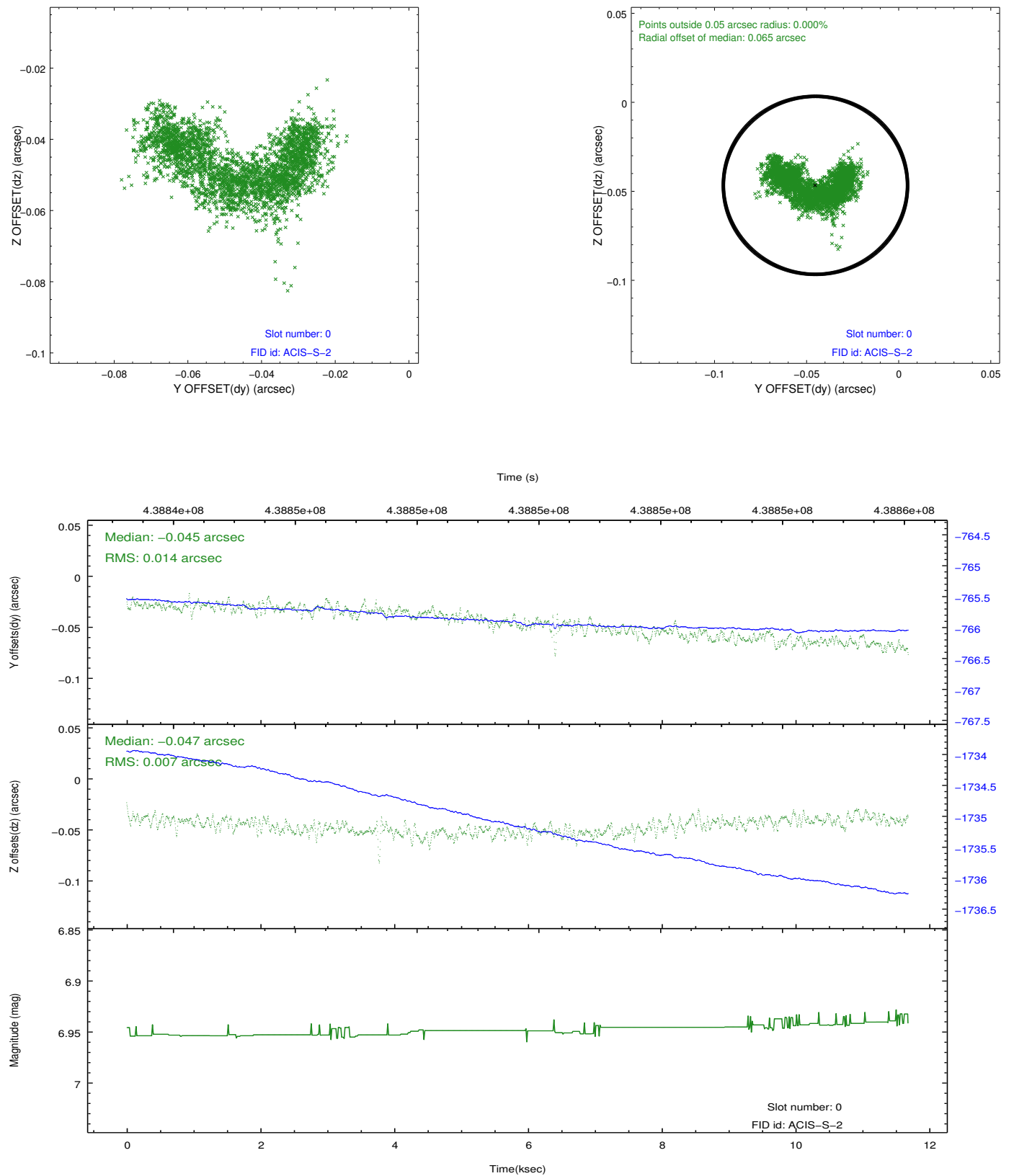


2.4.5 Slot 7

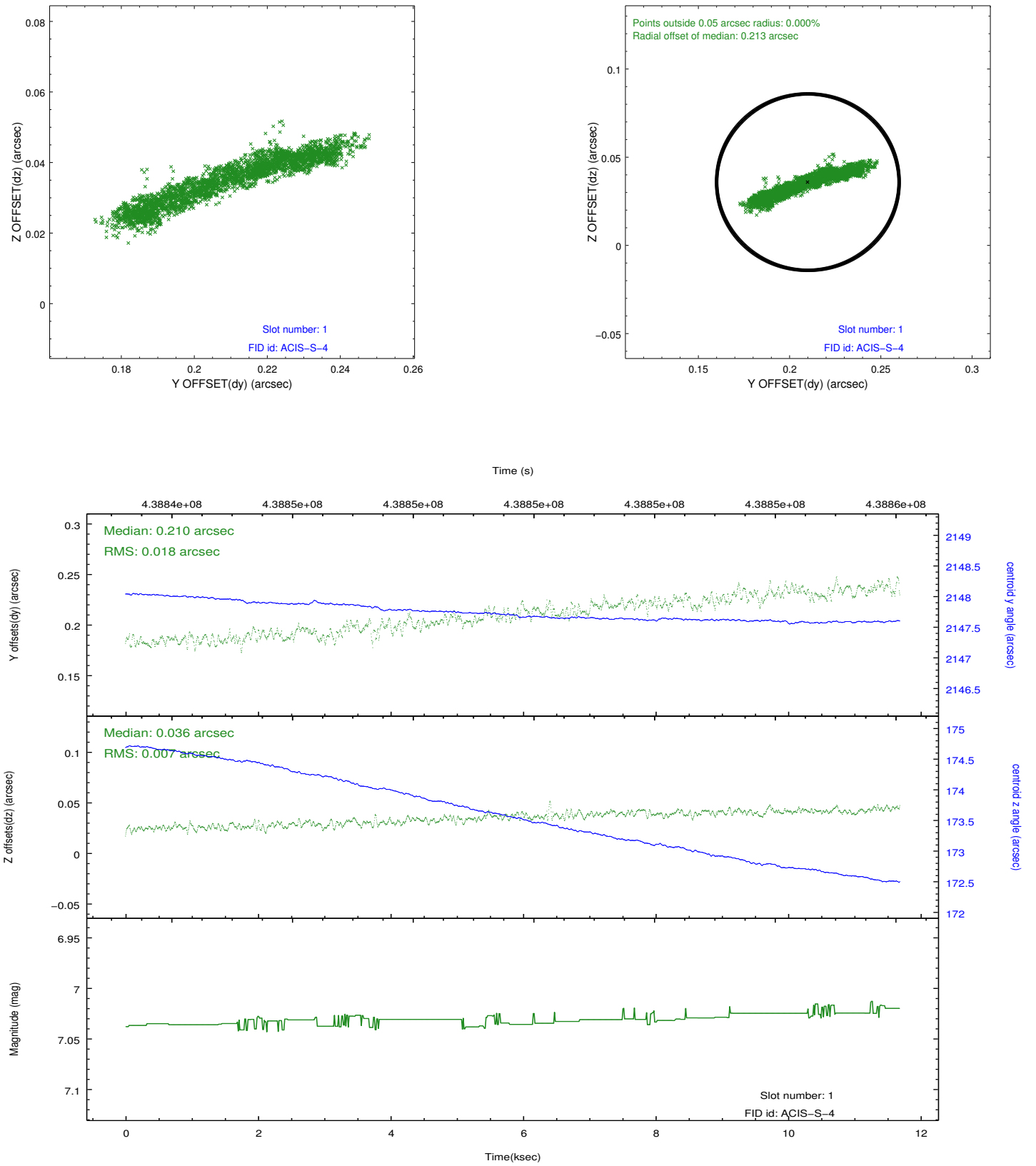


2.5 FID Slots

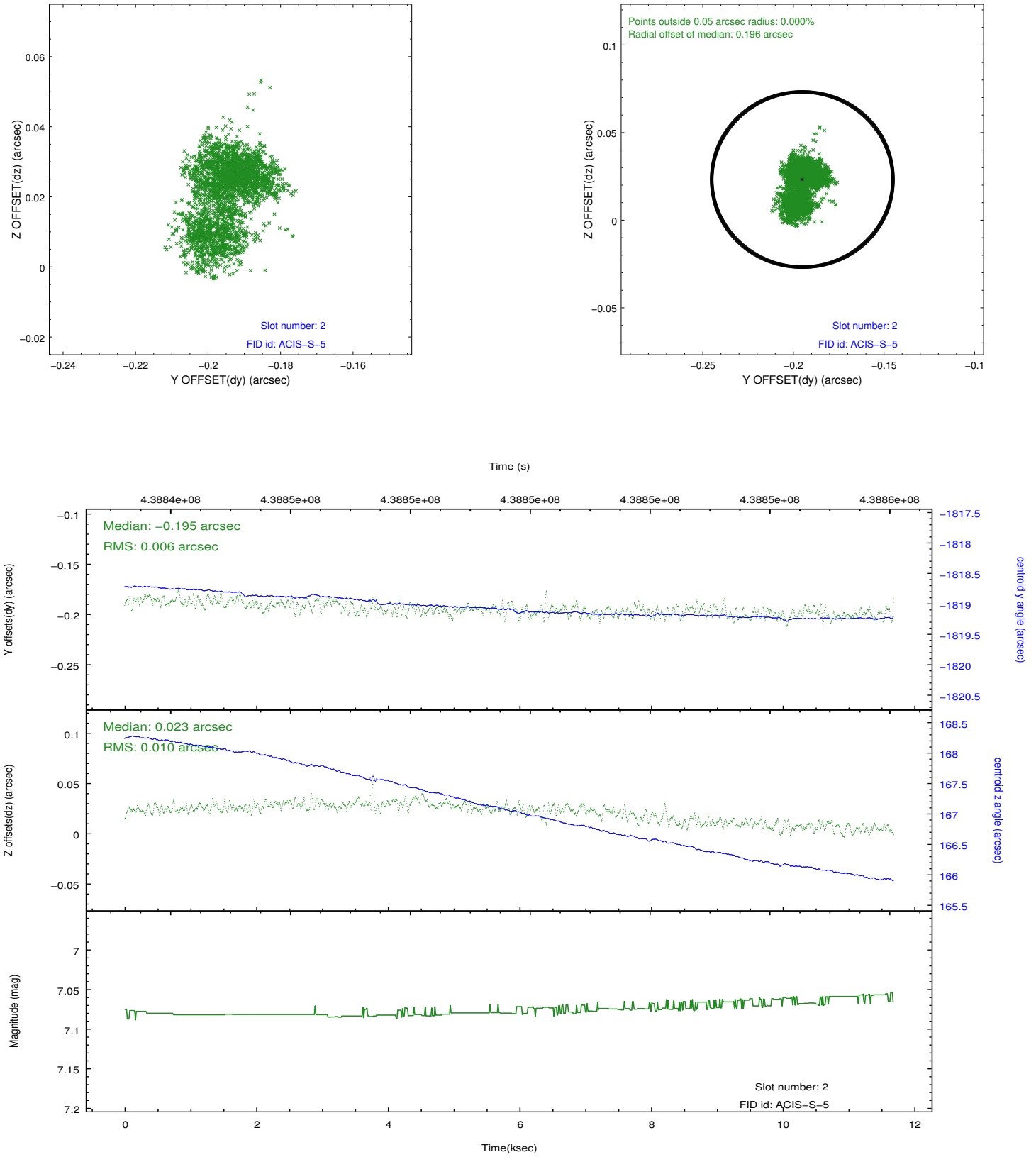
2.5.1 Slot 0



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) | 2012.02.29 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 11.541300088763 |

A.2 Comments