

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13378 - L2 Version 1
Chandra X-Ray Center

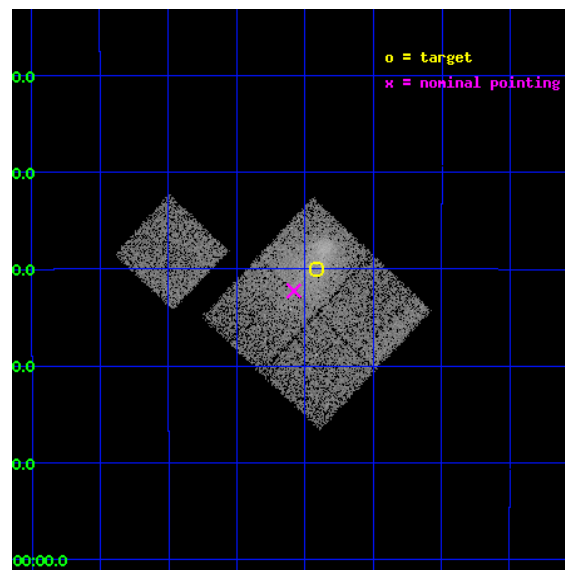
L2 Processing Date : Feb 25 2012

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

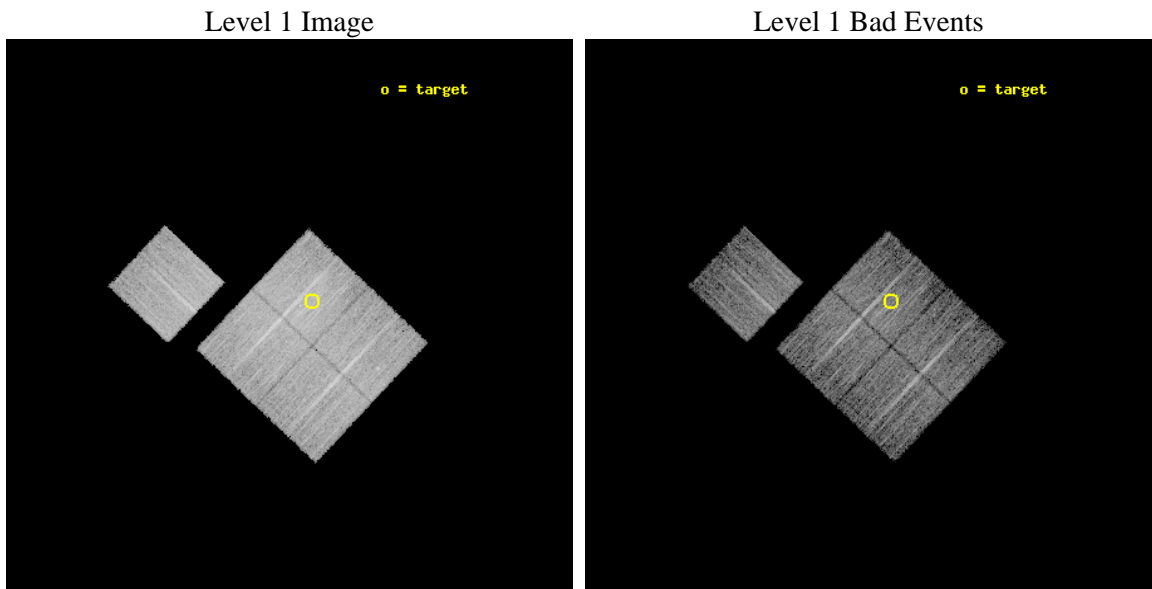
| | | |
|----------|--|---|
| seq_num | 801065 | Sequence number |
| obs_id | 13378 | Observation id |
| title | Characterizing the Most Massive Clusters in the Local Universe | Pro |
| observer | Dr Stephen Murray | Principal investigator |
| object | G241.97+14.85 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 130.479583 | Observer's specified target RA [deg] |
| dec_targ | -17.499611 | Observer's specified target Dec [deg] |
| ra_nom | 130.52041553078 | Nominal RA [deg] |
| dec_nom | -17.537646670034 | Nominal Dec [deg] |
| roll_nom | 313.35147755354 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 10078.10007751 | Sum of GTIs [s] |
| livetime | 9946.4222806079 | Livetime [s] |
| ontime0 | 10078.10007751 | Sum of GTIs [s] |
| ontime1 | 10078.10007751 | Sum of GTIs [s] |
| ontime2 | 10074.959087133 | Sum of GTIs [s] |
| ontime3 | 10078.10007751 | Sum of GTIs [s] |
| ontime6 | 10078.10007751 | Sum of GTIs [s] |
| l2events | 40443 | Number of level 2 events |



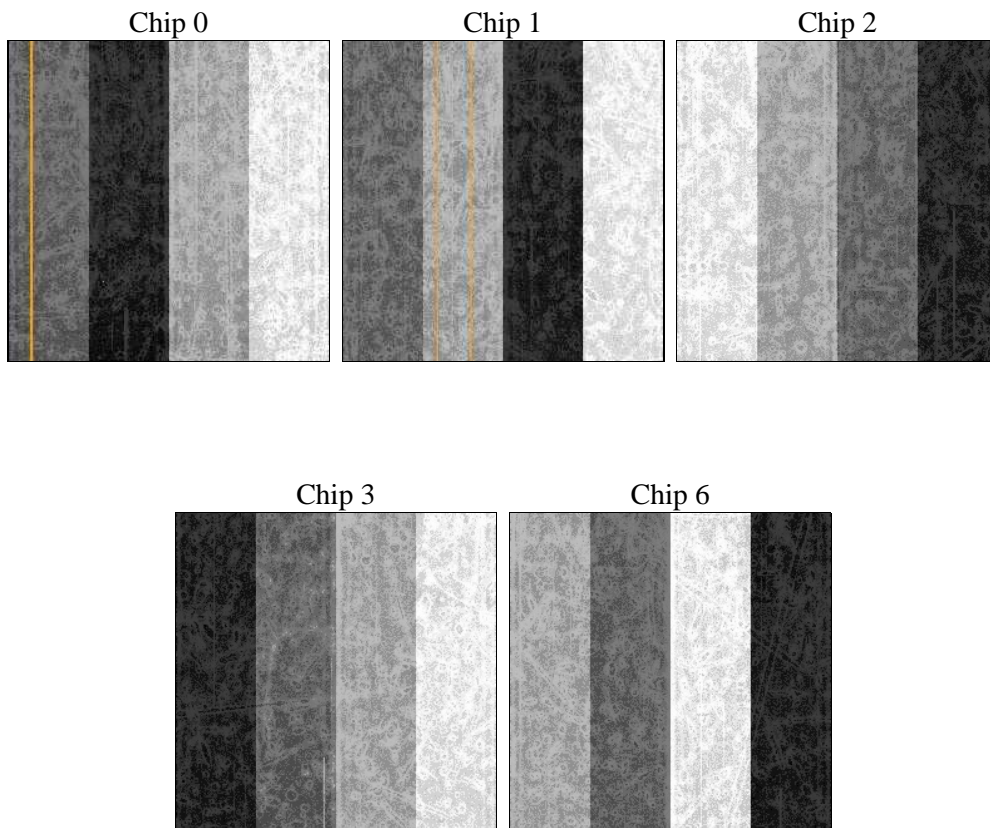
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 10000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3 | Processing system revision | ontime | 10078.10007751 | Sum of GTIs [s] |
| caldsver | 4.4.8 | | ontime0 | 10078.10007751 | Sum of GTIs [s] |
| date | 2012-02-25T17:27:26 | Date and time of file creation | ontime1 | 10078.10007751 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime2 | 10074.959087133 | Sum of GTIs [s] |
| | | | ontime3 | 10078.10007751 | Sum of GTIs [s] |
| | | | ontime6 | 10078.10007751 | Sum of GTIs [s] |
| | | | l1events | 317605 | Number of level 1 events |

2.1.4 Events

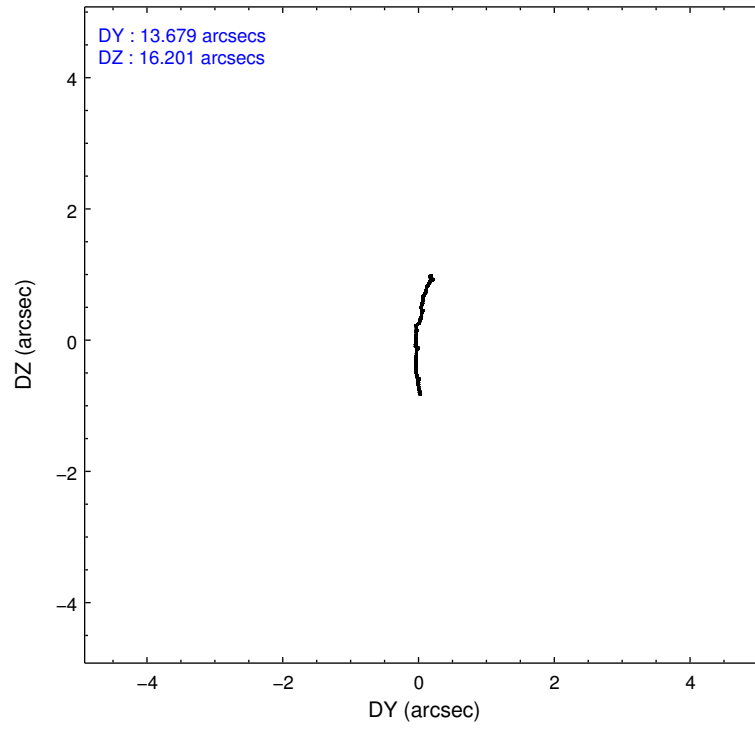
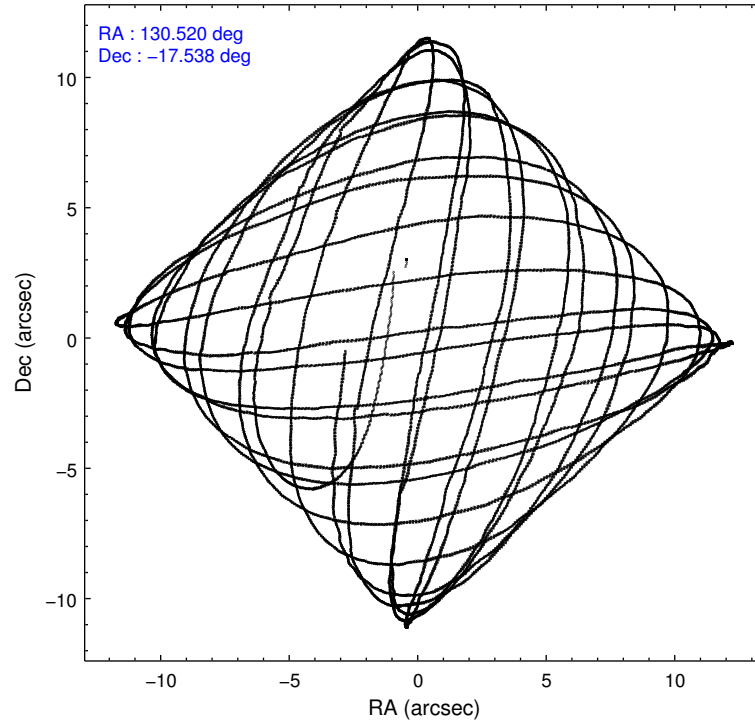
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|-------|-------|-------|-------|-------|
| level 1 events | 58116 | 58371 | 65921 | 71494 | 63703 |
| rejected events | 50467 | 49832 | 57090 | 56862 | 56186 |
| rejected % | 86% | 85% | 86% | 79% | 88% |

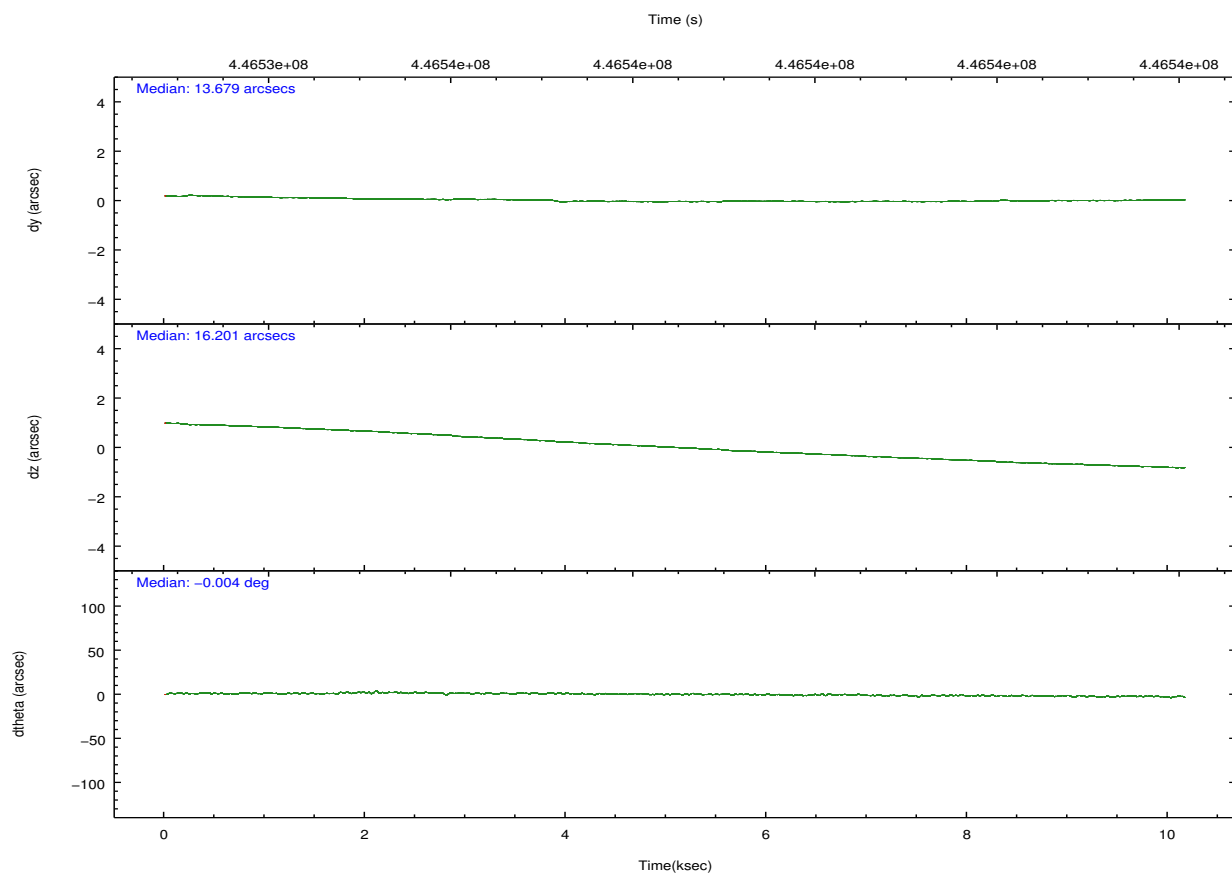
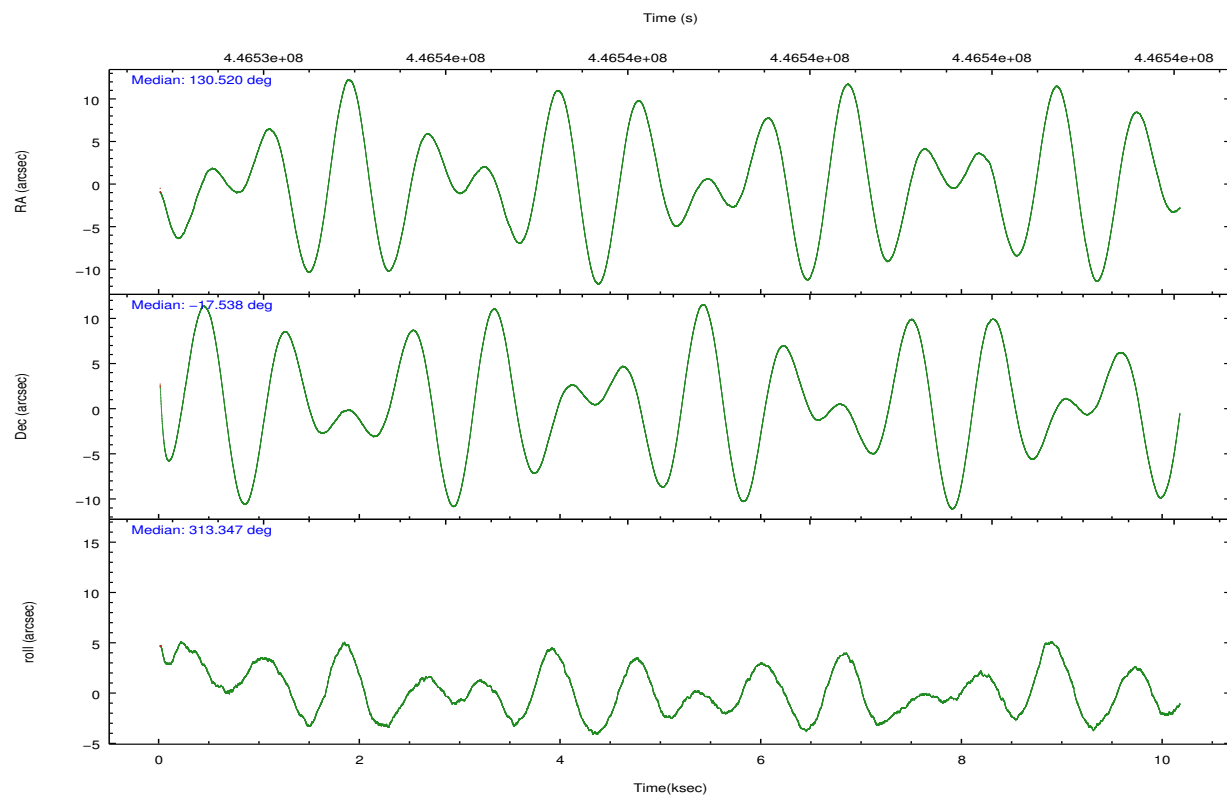
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 2755 | 3257 | 3876 | 8587 | 2595 |
| | 4% | 5% | 5% | 12% | 4% |
| grade 1 events | 40 | 42 | 46 | 80 | 27 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 1895 | 1956 | 1976 | 2391 | 1654 |
| | 3% | 3% | 2% | 3% | 2% |
| grade 3 events | 790 | 781 | 769 | 988 | 785 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 764 | 879 | 778 | 1002 | 796 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 2859 | 2919 | 2582 | 3169 | 3014 |
| | 4% | 5% | 3% | 4% | 4% |
| grade 6 events | 1446 | 1671 | 1436 | 1668 | 1688 |
| | 2% | 2% | 2% | 2% | 2% |
| grade 7 events | 47567 | 46866 | 54458 | 53609 | 53144 |
| | 81% | 80% | 82% | 74% | 83% |

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 | 130.492762 | 130.5204155307771 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | -17.529851 | -17.53764667003362 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 313.134453 | 313.3514775535428 | 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 | -225.892463 | -225.8835723768489 | CCD S3 on | N | N |
| [mm] SIM translation stage offset | -7.7 | -7.708880626080827 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 446533554.184000 | 446532344.63561 | CCD S5 on | N | N |
| Observation start date | 2012-02-25T05:04:48 | 2012-02-25T04:45:44 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 446543554.184000 | 446544855.27377 | On-chip summing requested | N | N |
| Observation end date | 2012-02-25T07:51:28 | 2012-02-25T08:14:15 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect



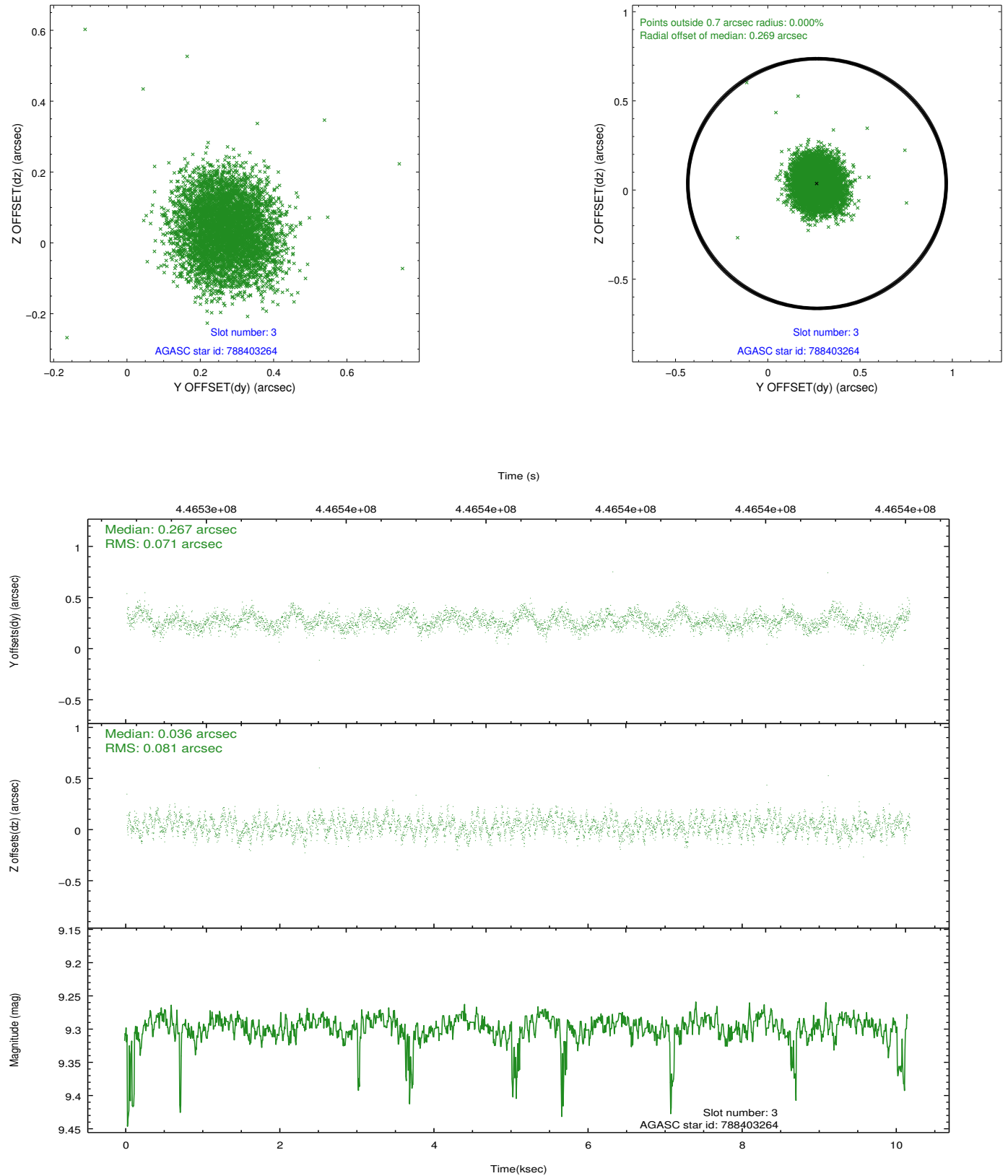


Slot Statistics

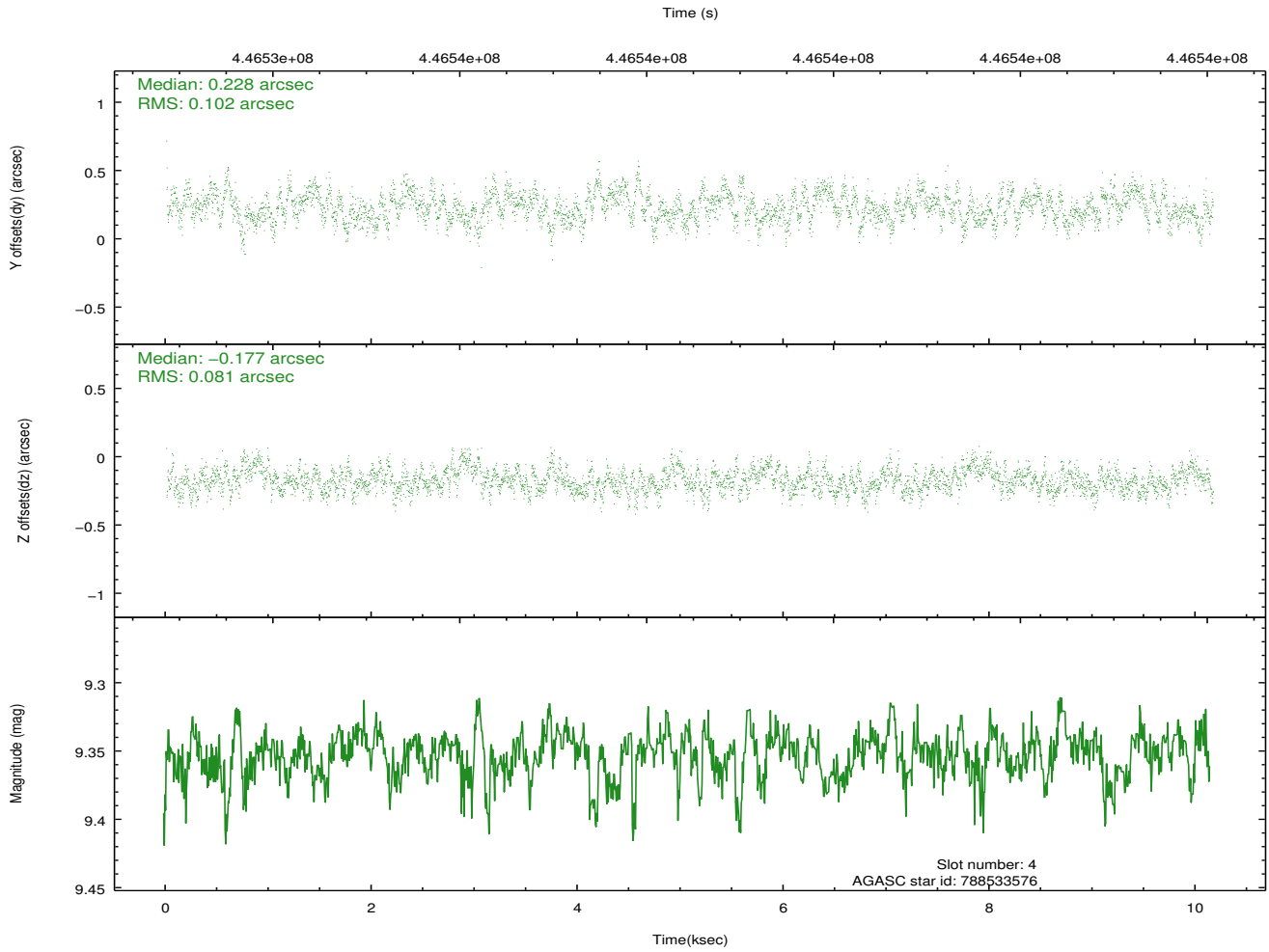
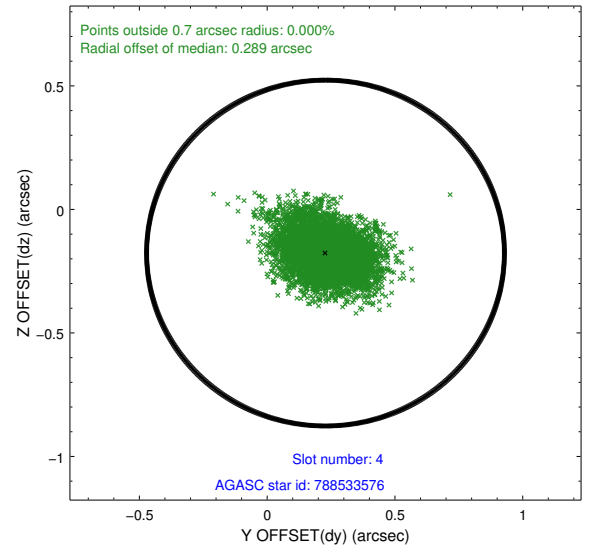
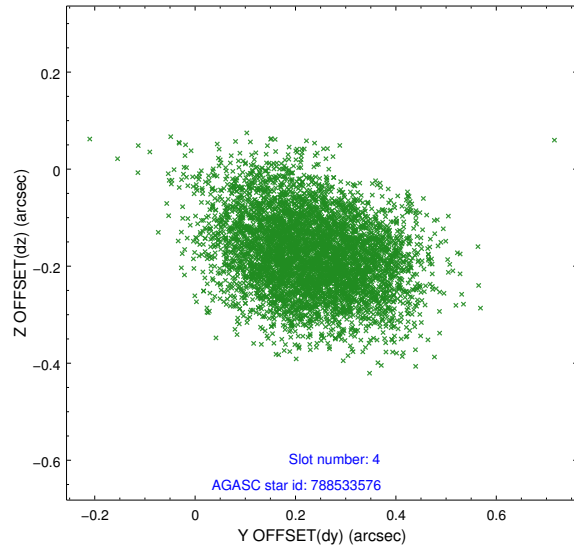
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.02 | 2479 | 0.095 | -0.097 | 0.034 | 0.064 | 0.000000 | 0.000000 | 925.77 | -998.20 |
| 1 | FID | ACIS-I-4 | 6.93 | 2479 | 0.072 | 0.047 | 0.021 | 0.038 | 0.000000 | 0.000000 | 2145.59 | 902.44 |
| 2 | FID | ACIS-I-5 | 7.01 | 2477 | -0.266 | 0.122 | 0.017 | 0.028 | 0.000000 | 0.000000 | -1821.97 | 899.88 |
| 3 | GUIDE | 788403264 | 9.30 | 4929 | 0.267 | 0.036 | 0.115 | 0.178 | 129.988745 | -17.706292 | -716.17 | -1696.92 |
| 4 | GUIDE | 788533576 | 9.35 | 4954 | 0.228 | -0.177 | 0.137 | 0.222 | 130.437267 | -18.327246 | 1965.80 | -2101.20 |
| 5 | GUIDE | 788546808 | 8.86 | 4954 | -0.042 | -0.103 | 0.100 | 0.159 | 131.022424 | -17.370468 | 827.90 | 1718.46 |
| 6 | GUIDE | 788548808 | 8.69 | 4954 | -0.359 | -0.199 | 0.114 | 0.183 | 130.875619 | -17.230270 | 113.96 | 1697.62 |
| 7 | GUIDE | 788416008 | 8.76 | 4955 | -0.098 | 0.450 | 0.134 | 0.201 | 129.756864 | -17.301734 | -2324.80 | -1286.77 |

2.4 Star Slots

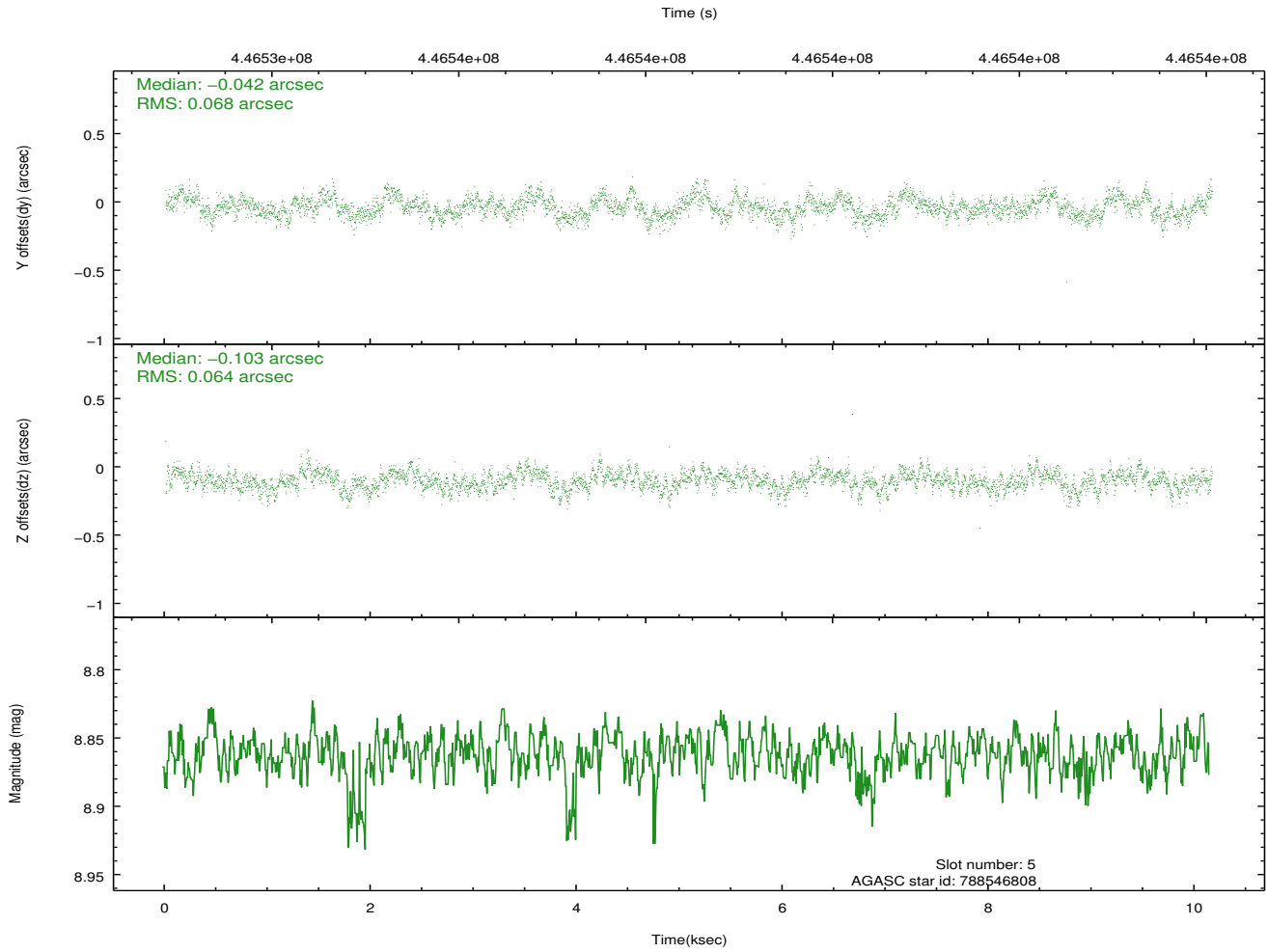
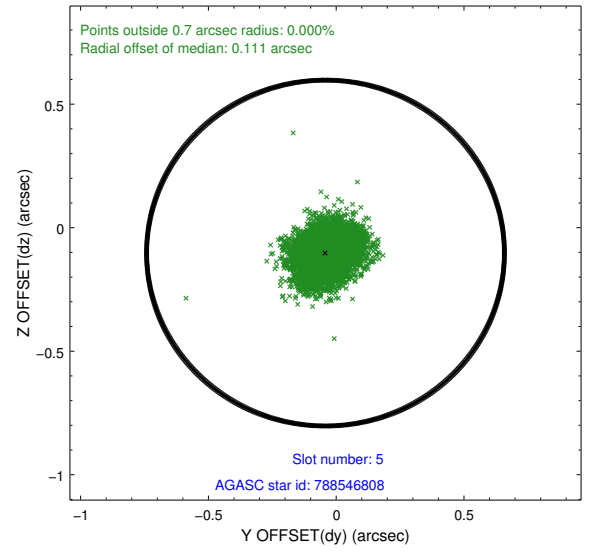
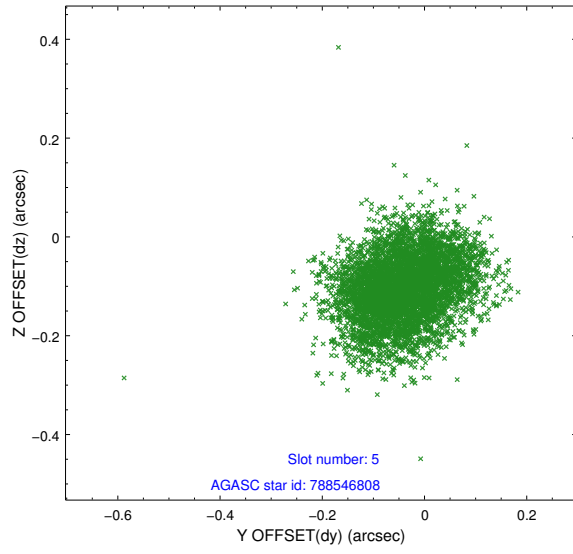
2.4.1 Slot 3



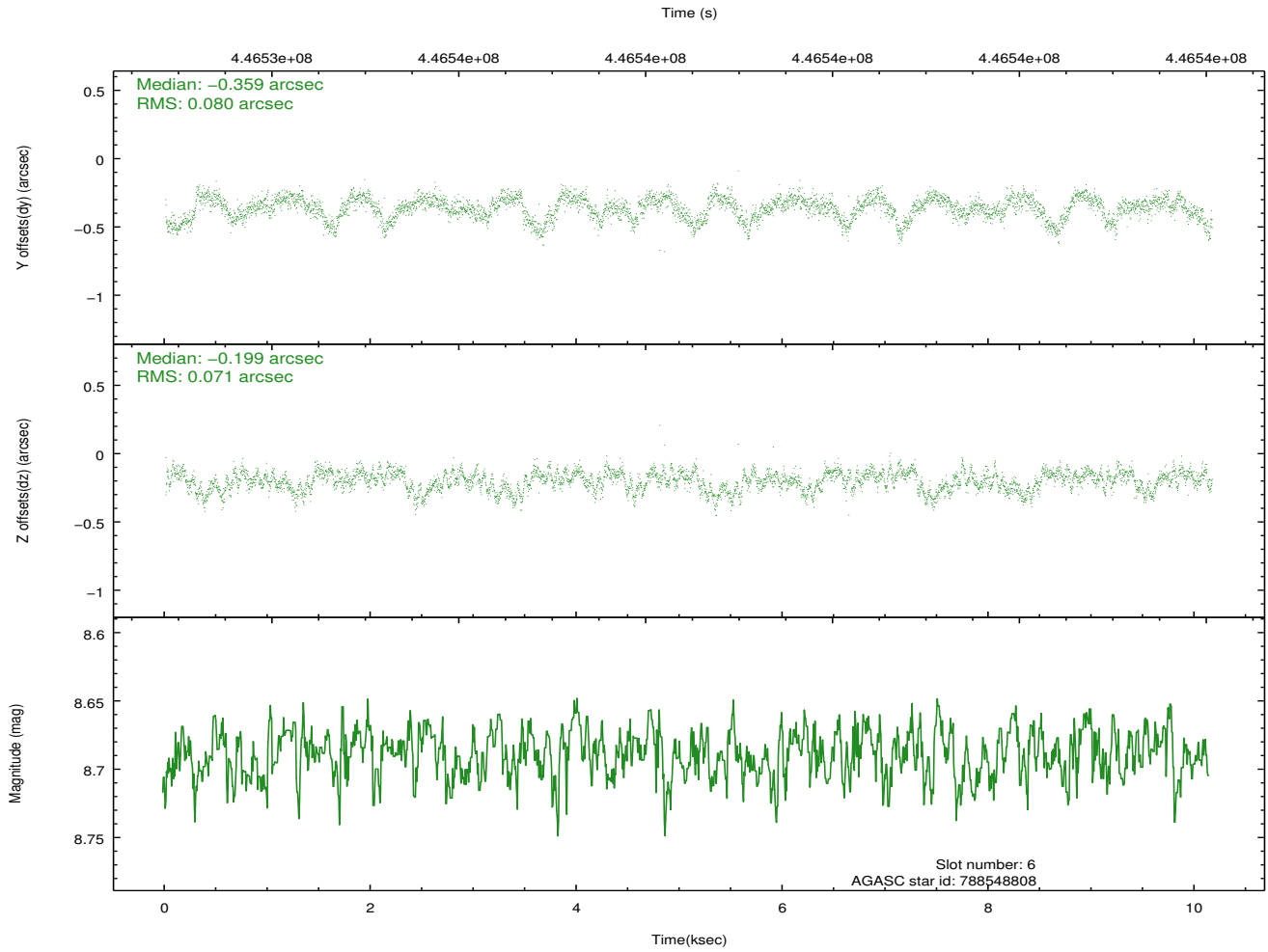
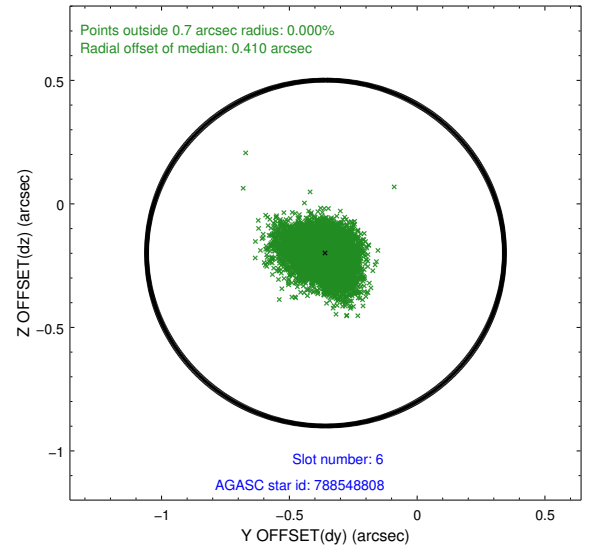
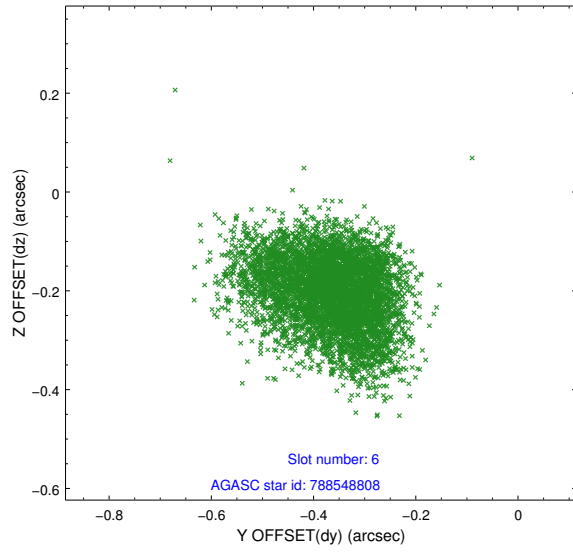
2.4.2 Slot 4



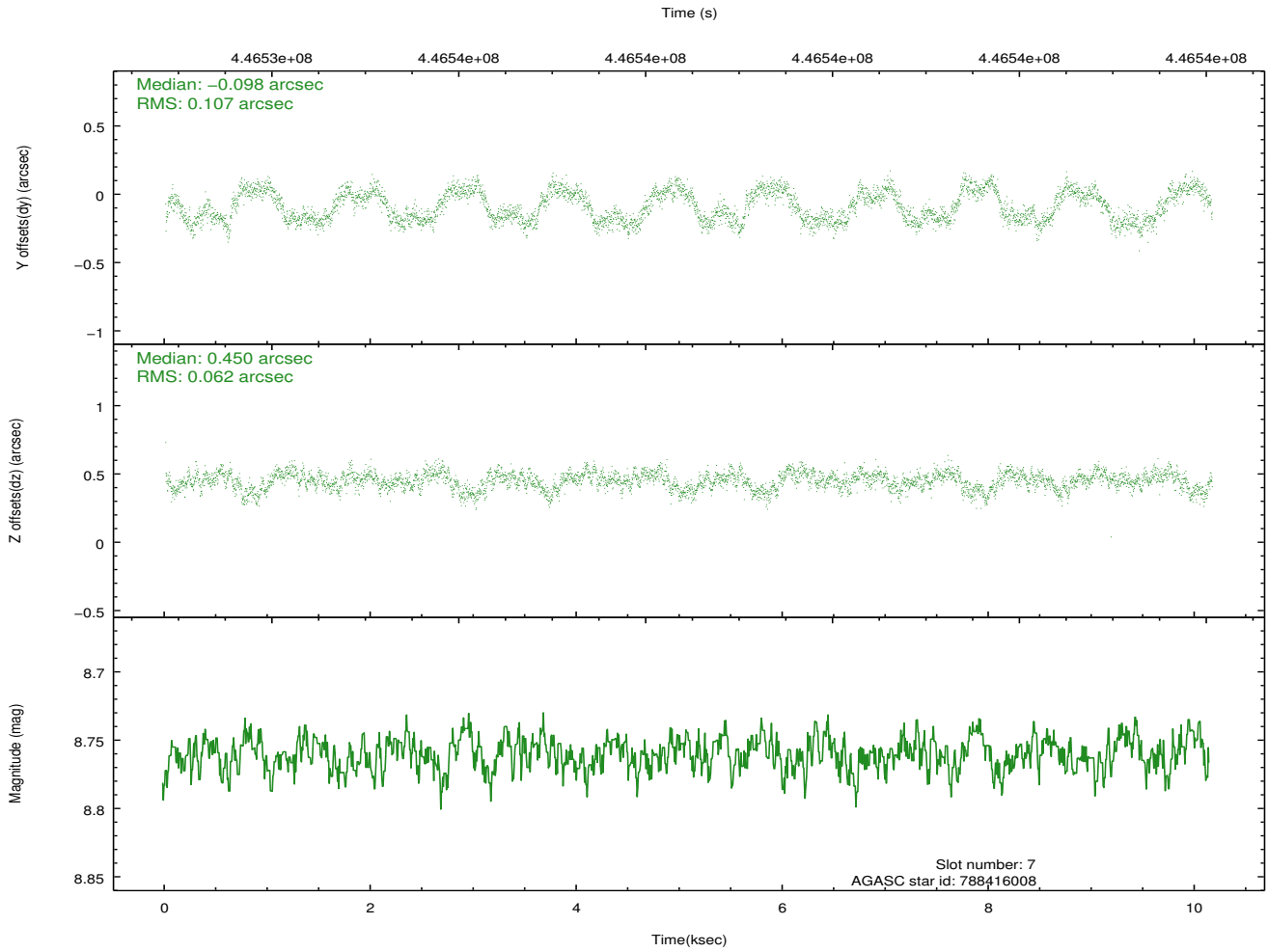
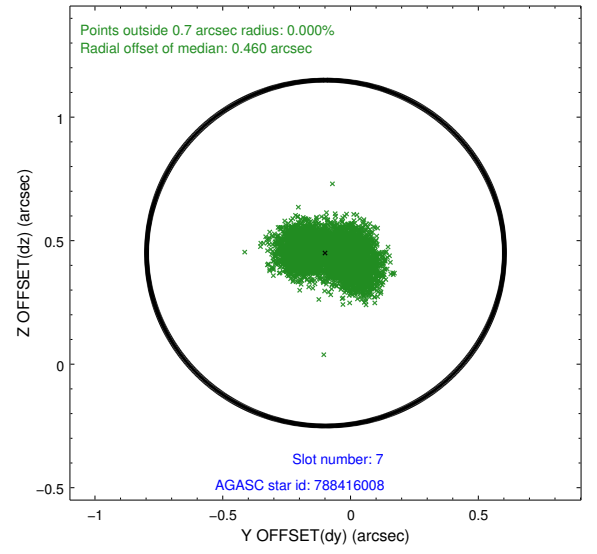
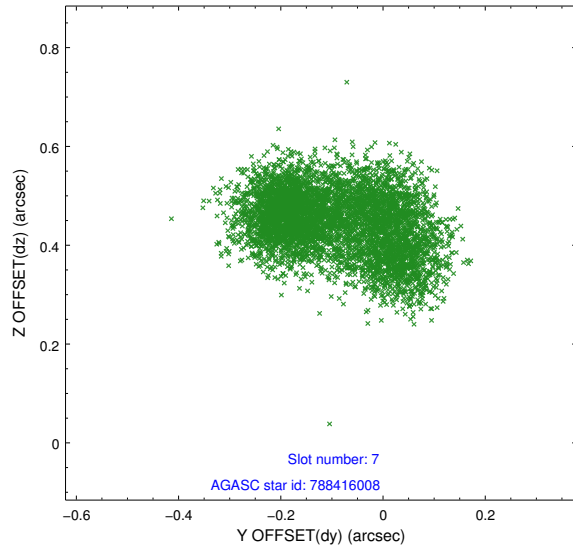
2.4.3 Slot 5



2.4.4 Slot 6

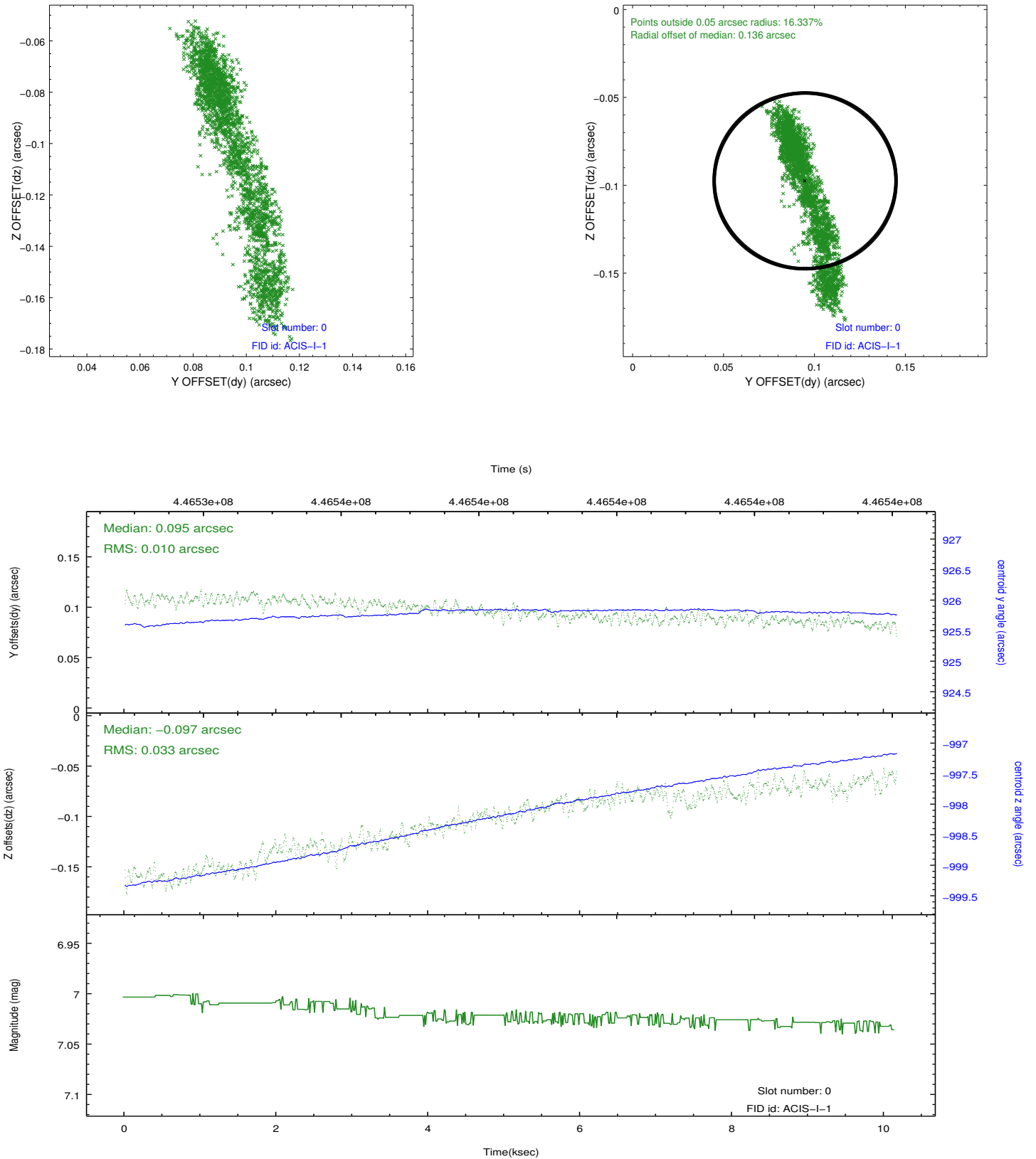


2.4.5 Slot 7

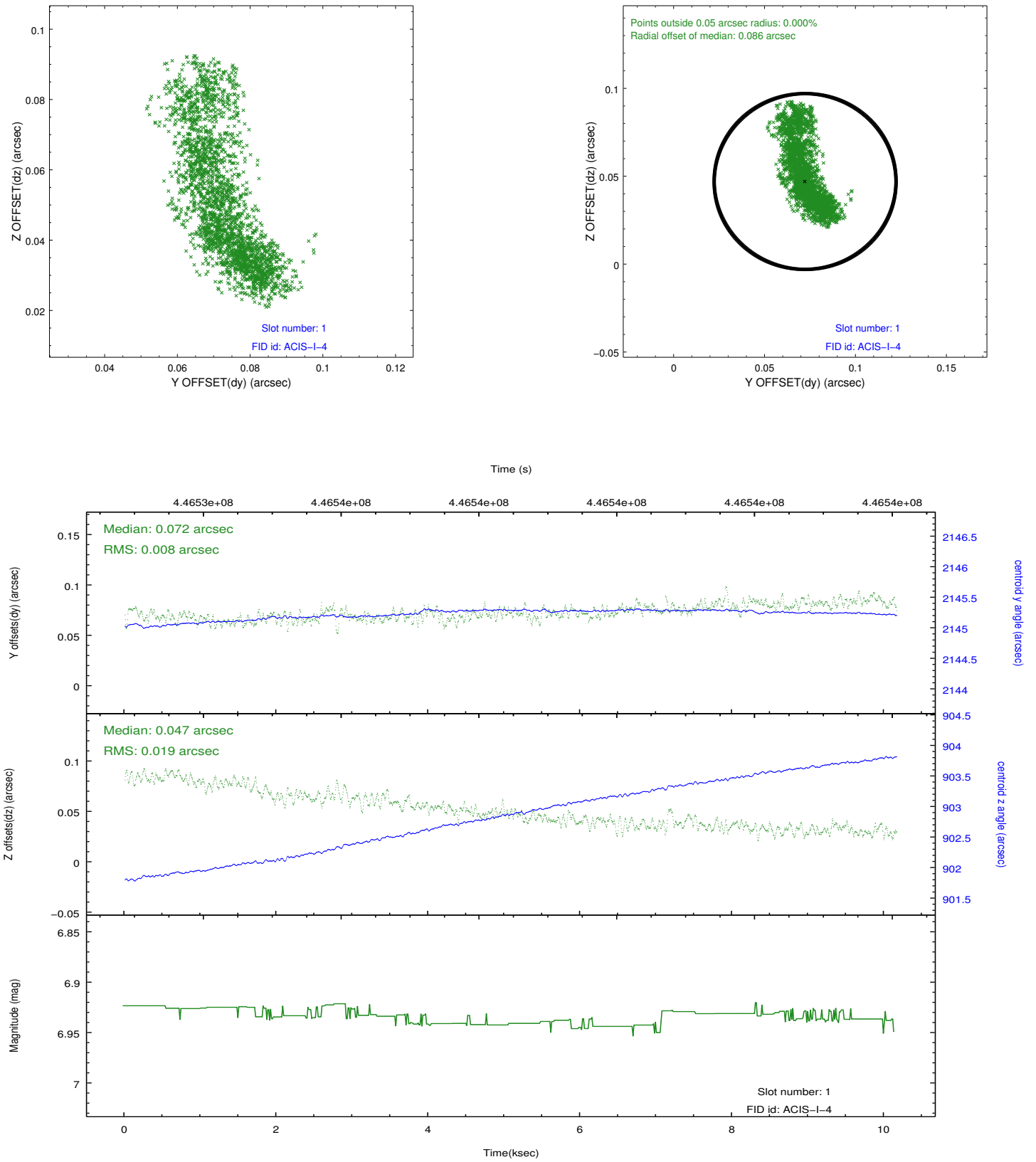


2.5 FID Slots

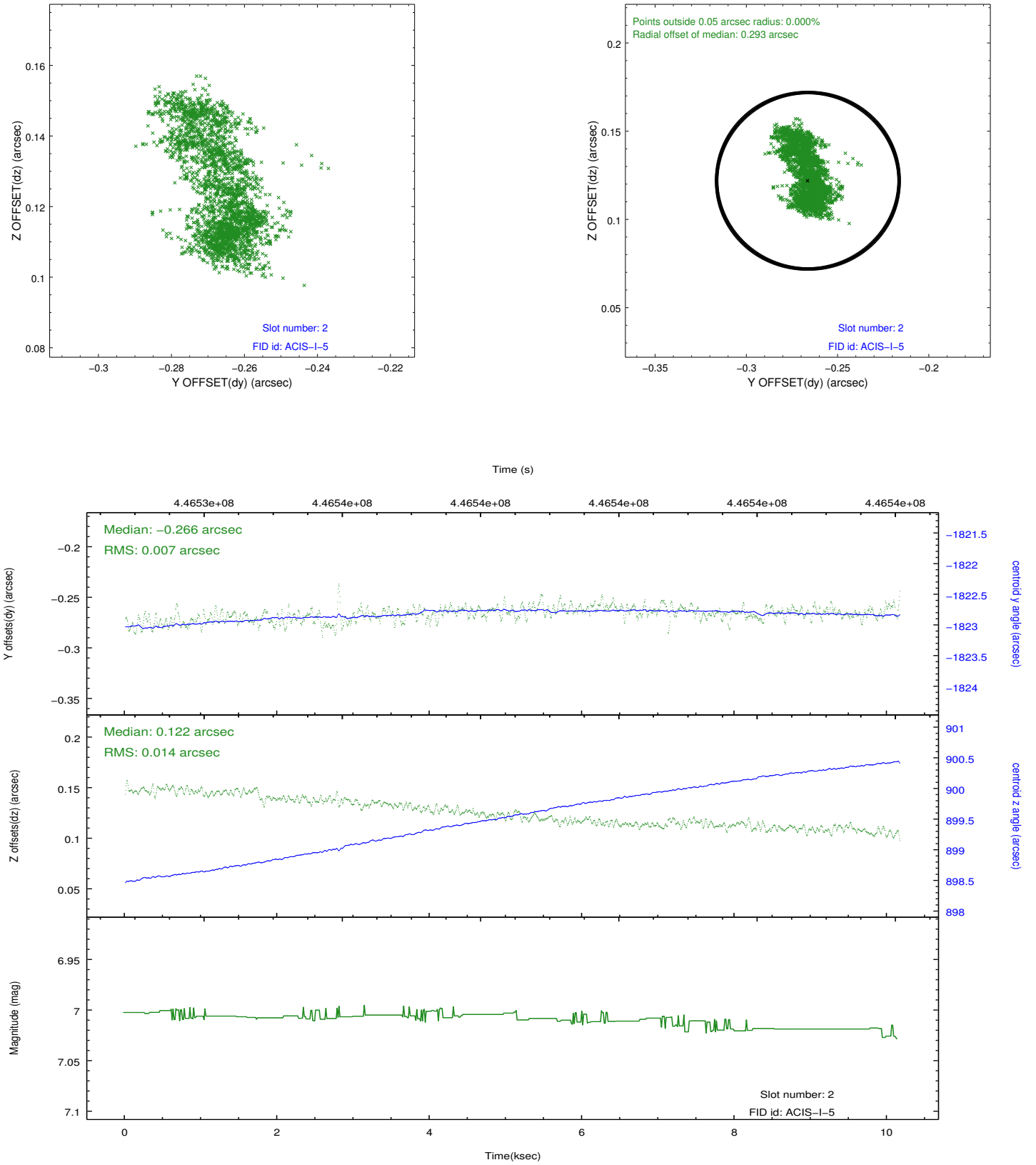
2.5.1 Slot 0



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) | 2012.02.27 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 10.07810007751 |

A.2 Comments