

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13142 - L2 Version 2
Chandra X-Ray Center

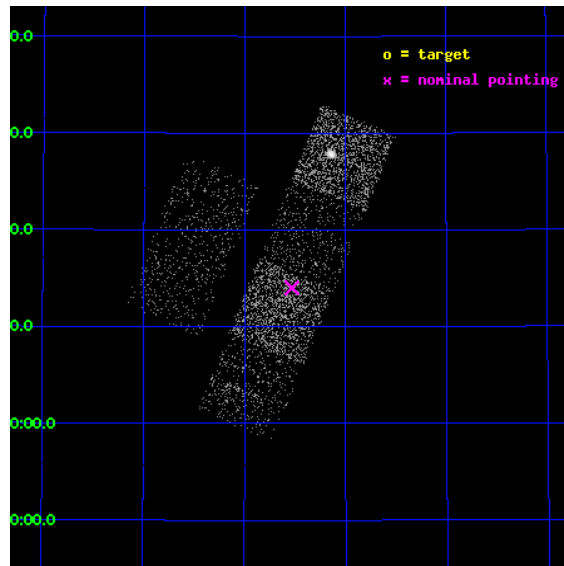
L2 Processing Date : Jul 5 2012

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

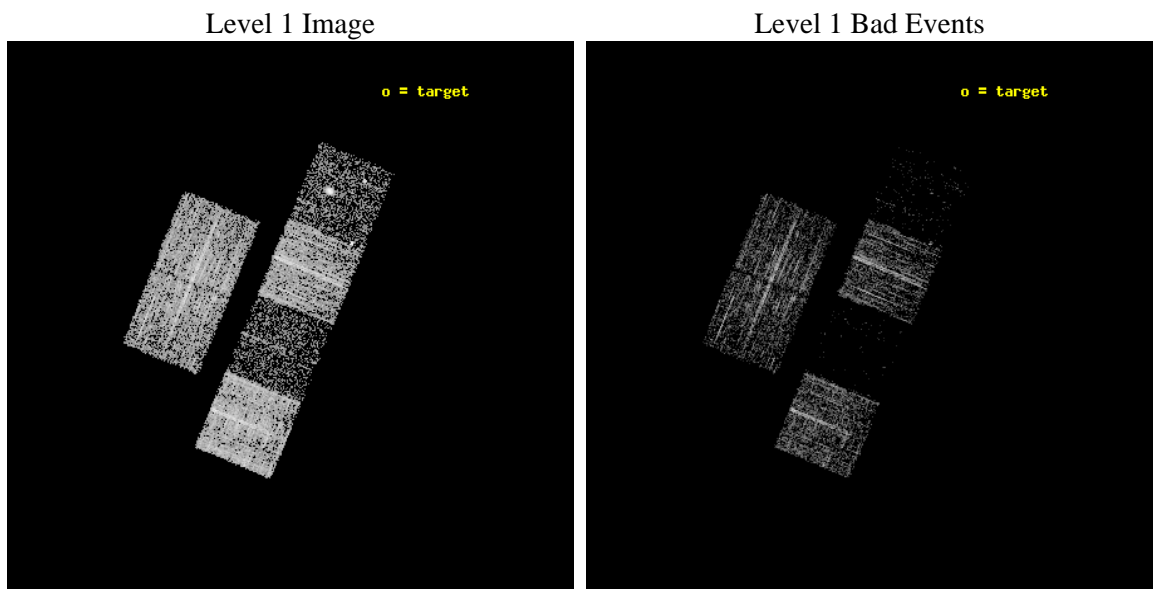
| | | |
|----------|--|---|
| seq_num | 100083 | Sequence number |
| obs_id | 13142 | Observation id |
| title | Comet 103P/Hartley 2 During the EPOXI Spacecraft Encounter | Proposa |
| observer | Dr. Carey Lisse | Principal investigator |
| object | 103P/Hartley 2 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 81.25 | Observer's specified target RA [deg] |
| dec_targ | 39.0 | Observer's specified target Dec [deg] |
| ra_nom | 74.382751434838 | Nominal RA [deg] |
| dec_nom | 45.233753185645 | Nominal Dec [deg] |
| roll_nom | 112.44473170183 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 2758.3999897838 | Sum of GTIs [s] |
| livetime | 2723.4714682041 | Livetime [s] |
| ontime2 | 2758.3999897838 | Sum of GTIs [s] |
| ontime3 | 2758.3999897838 | Sum of GTIs [s] |
| ontime5 | 2758.3999897838 | Sum of GTIs [s] |
| ontime6 | 2755.1589694619 | Sum of GTIs [s] |
| ontime7 | 2758.3999897838 | Sum of GTIs [s] |
| ontime8 | 2751.9179392457 | Sum of GTIs [s] |
| l2events | 5650 | Number of level 2 events |



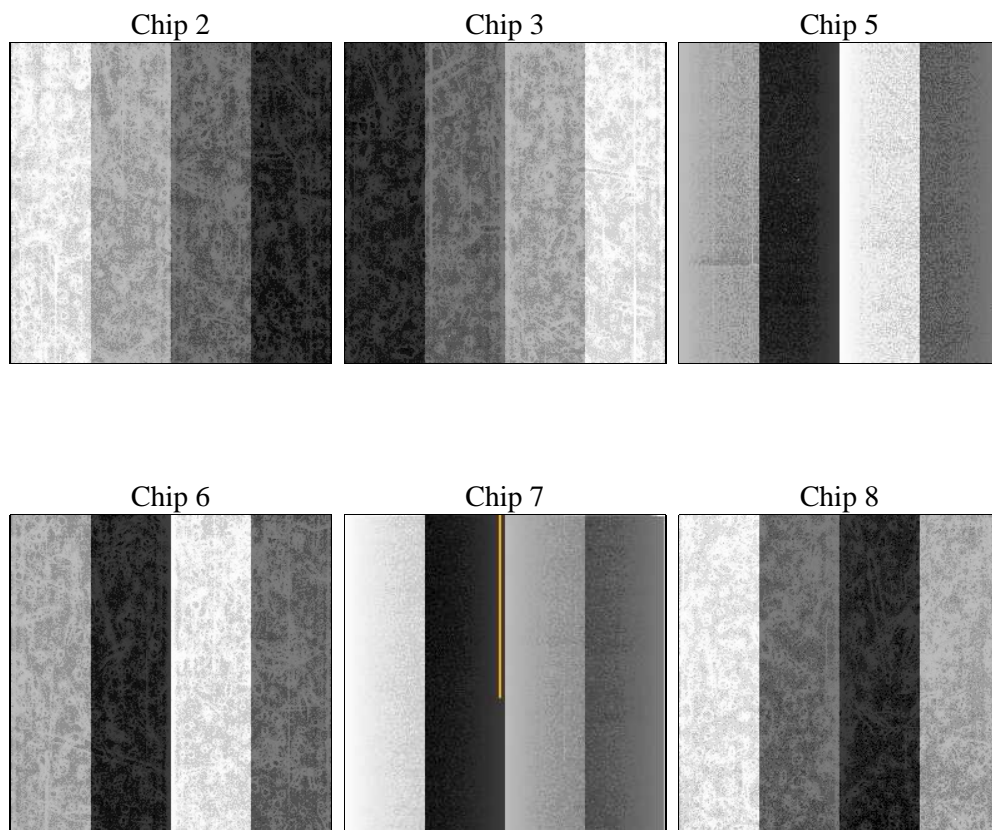
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 3000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 2758.3999897838 | Sum of GTIs [s] |
| caldsver | 4.5.0 | | ontime2 | 2758.3999897838 | Sum of GTIs [s] |
| date | 2012-07-05T05:11:15 | Date and time of file creation | ontime3 | 2758.3999897838 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime5 | 2758.3999897838 | Sum of GTIs [s] |
| | | | ontime6 | 2755.1589694619 | Sum of GTIs [s] |
| | | | ontime7 | 2758.3999897838 | Sum of GTIs [s] |
| | | | ontime8 | 2751.9179392457 | Sum of GTIs [s] |
| | | | l1events | 62602 | Number of level 1 events |

2.1.4 Events

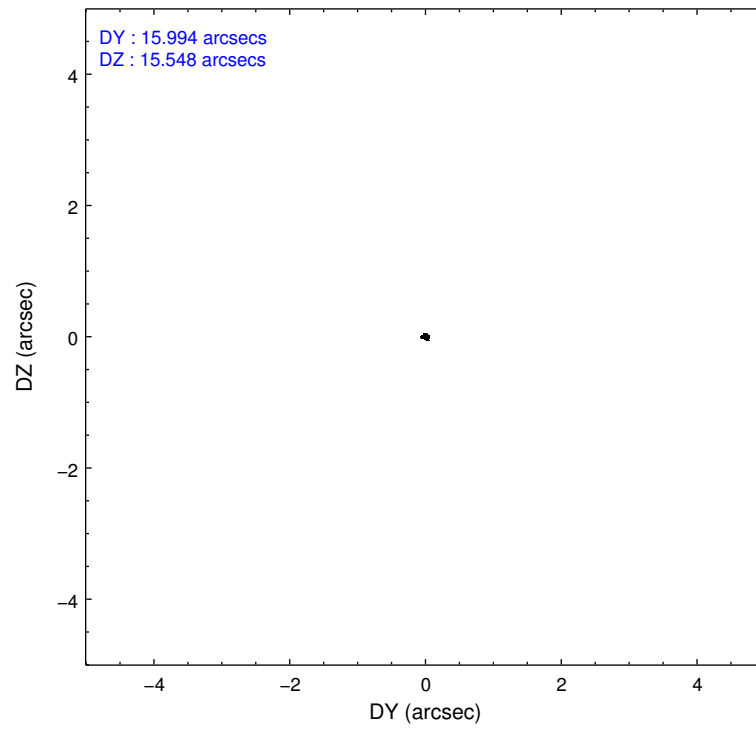
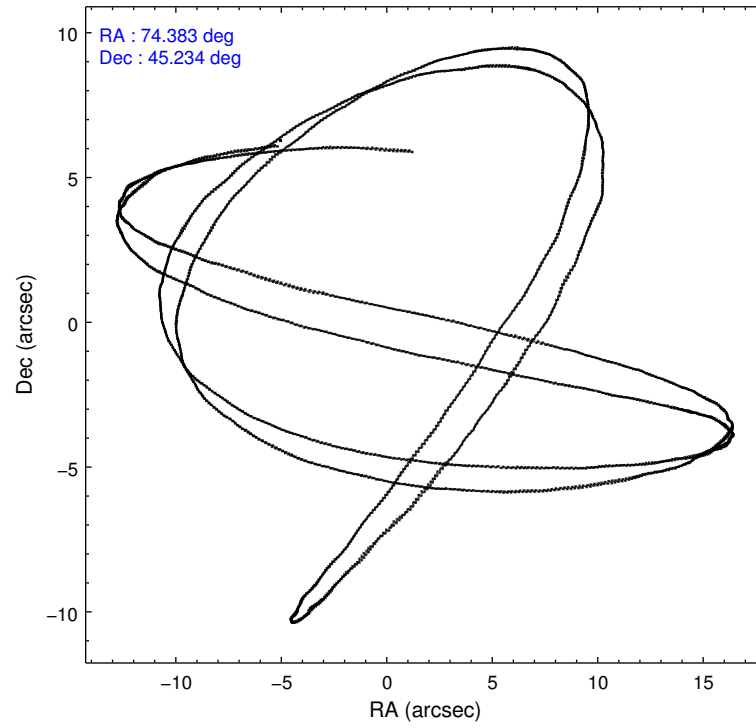
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 12778 | 11538 | 4046 | 13605 | 2342 | 18293 |
| rejected events | 12137 | 11129 | 1129 | 12985 | 458 | 13941 |
| rejected % | 94% | 96% | 27% | 95% | 19% | 76% |

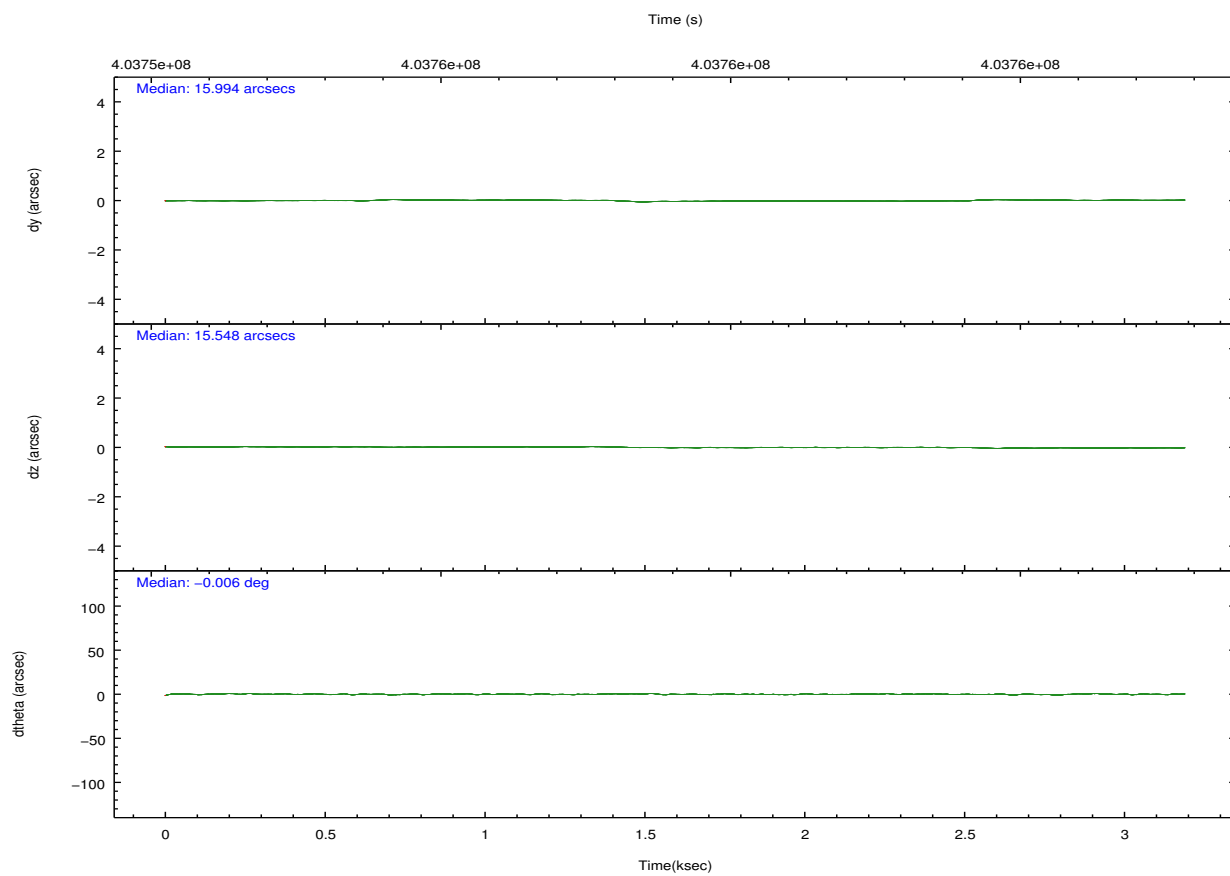
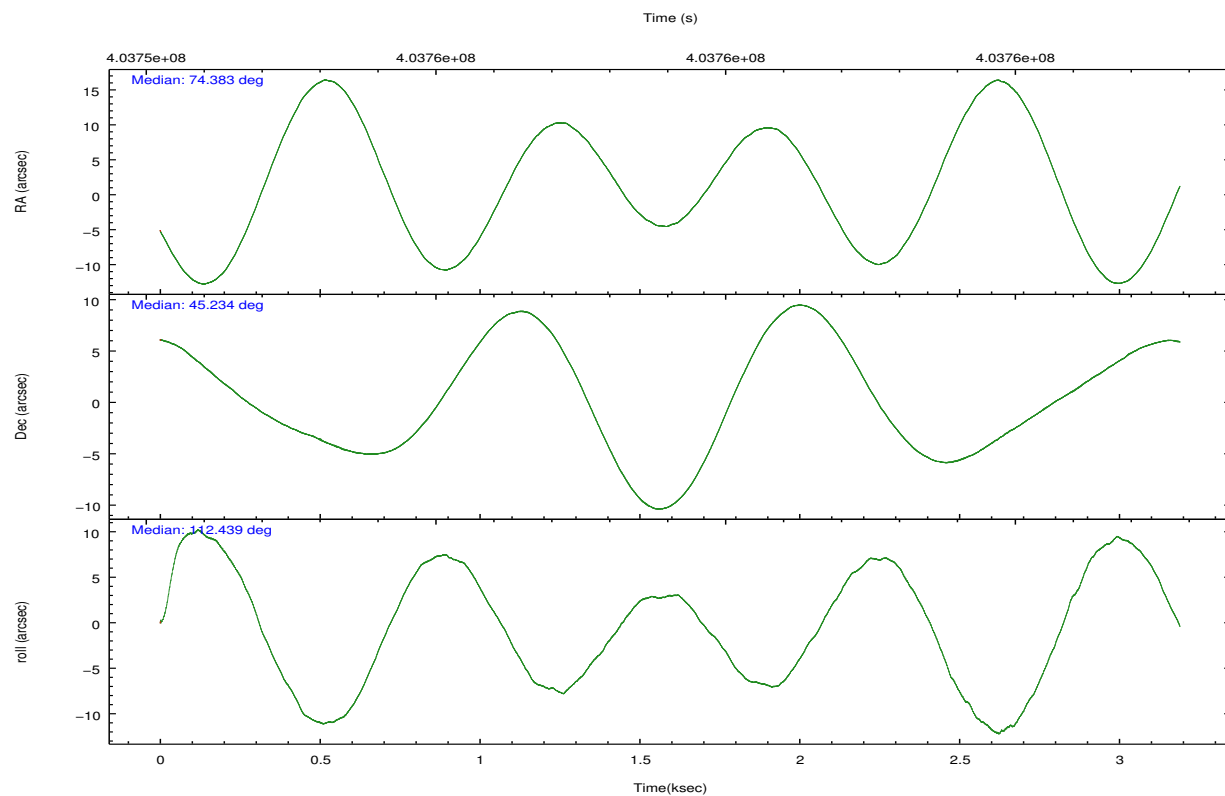
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 252 | 185 | 1036 | 308 | 626 | 1152 |
| | 1% | 1% | 25% | 2% | 26% | 6% |
| grade 1 events | 8 | 3 | 74 | 2 | 11 | 7 |
| | 0% | 0% | 1% | 0% | 0% | 0% |
| grade 2 events | 163 | 64 | 1030 | 114 | 609 | 1044 |
| | 1% | 0% | 25% | 0% | 26% | 5% |
| grade 3 events | 74 | 77 | 280 | 73 | 241 | 481 |
| | 0% | 0% | 6% | 0% | 10% | 2% |
| grade 4 events | 79 | 51 | 260 | 80 | 217 | 445 |
| | 0% | 0% | 6% | 0% | 9% | 2% |
| grade 5 events | 8 | 8 | 205 | 16 | 68 | 103 |
| | 0% | 0% | 5% | 0% | 2% | 0% |
| grade 6 events | 82 | 33 | 317 | 46 | 195 | 1237 |
| | 0% | 0% | 7% | 0% | 8% | 6% |
| grade 7 events | 12112 | 11117 | 844 | 12966 | 375 | 13824 |
| | 94% | 96% | 20% | 95% | 16% | 75% |

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 | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 74.414155 | 74.38275143483823 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 45.217338 | 45.23375318564465 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 112.265817 | 112.444731701826 | [s] Primary exposure time | 0.000000 | 3.2 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | | | |
| [mm] SIM defocus | 0 | 0.001444936568705701 | | | |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 403754396.184000 | 403754020.26396 | | | |
| Observation start date | 2010-10-18T01:58:50 | 2010-10-18T01:53:40 | | | |
| [s] Observation end time (MET) | 403757396.184000 | 403757530.88914 | | | |
| Observation end date | 2010-10-18T02:48:50 | 2010-10-18T02:52:10 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



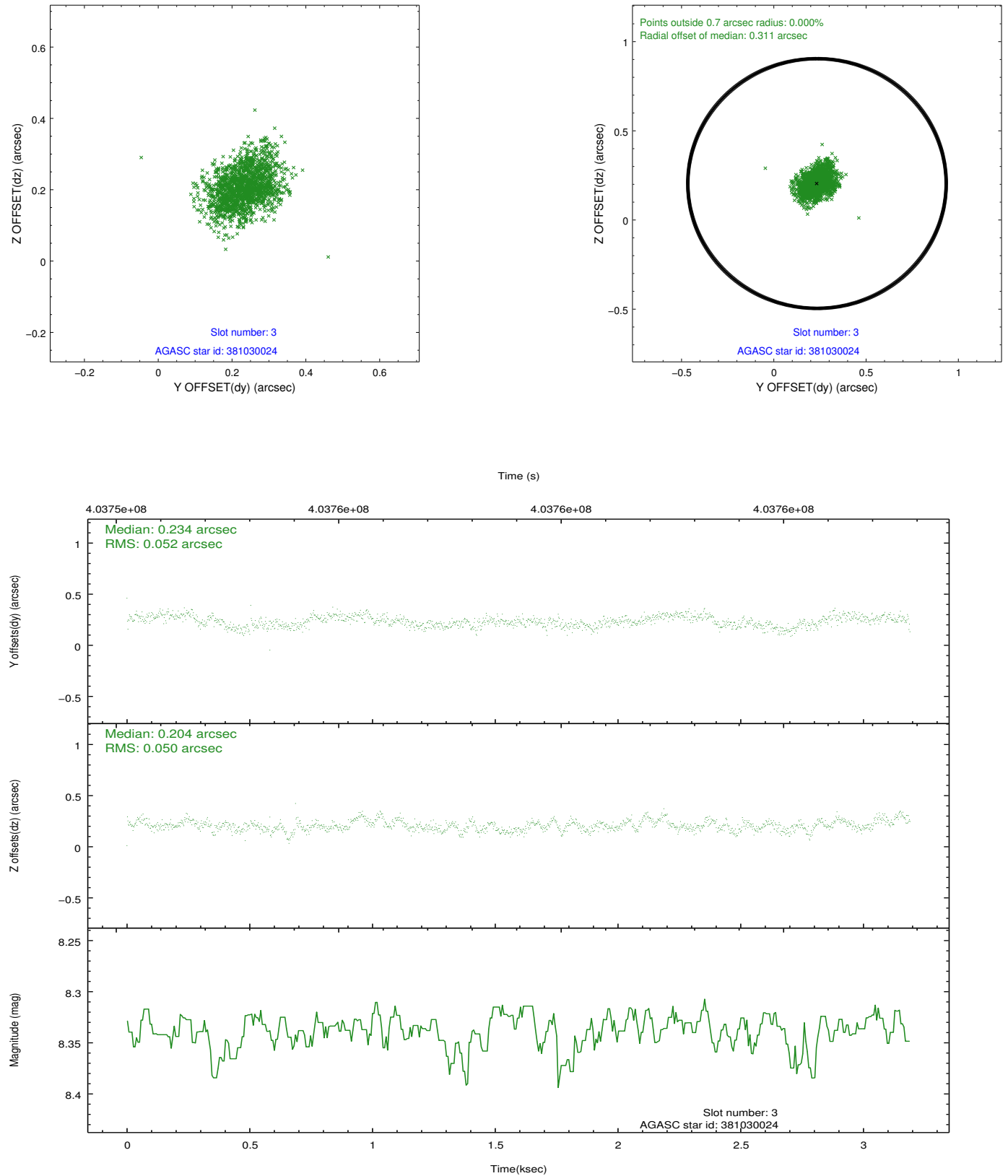


Slot Statistics

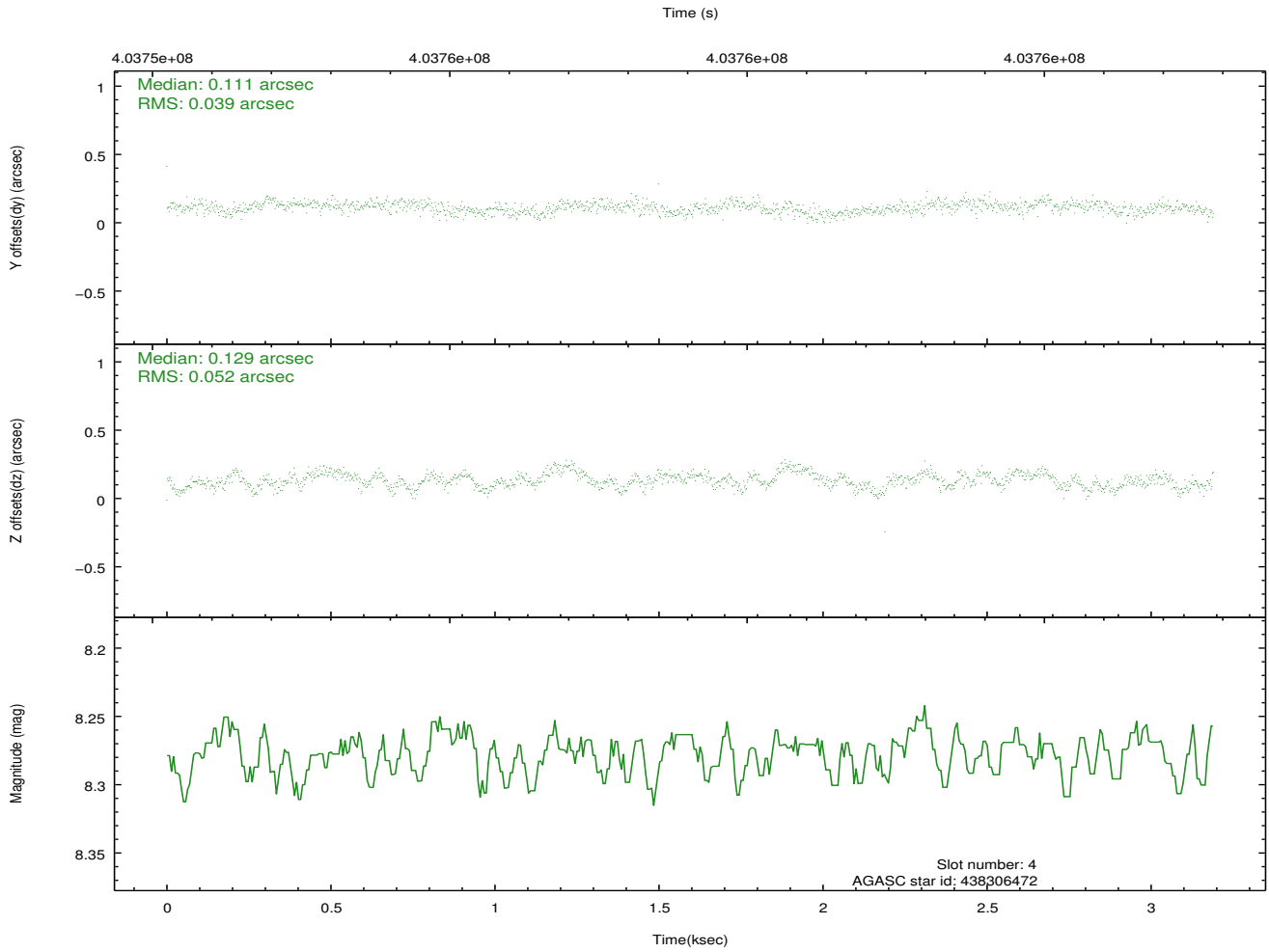
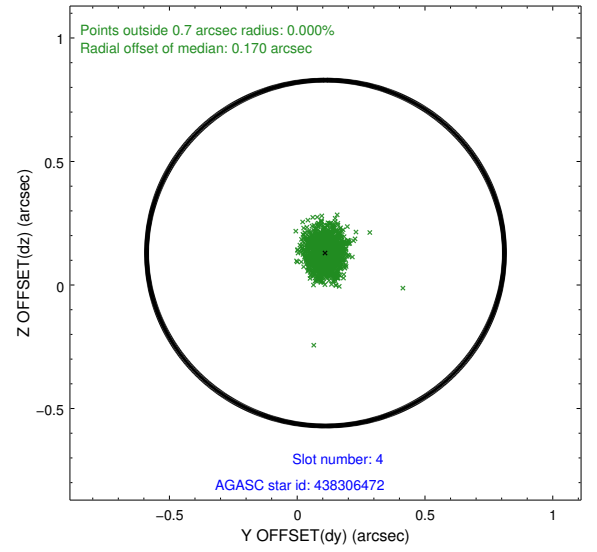
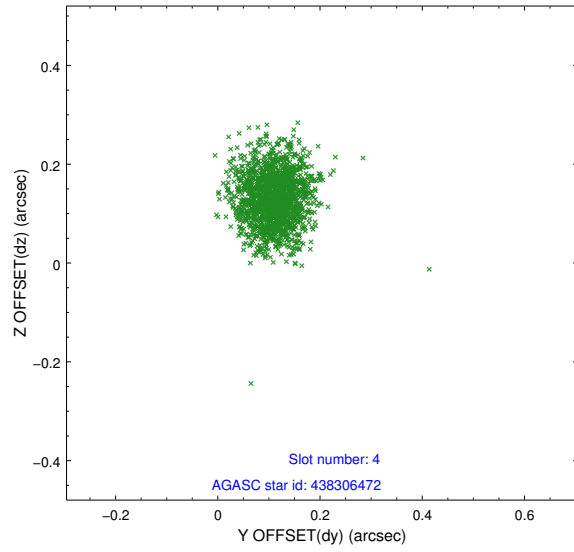
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0 | FID | ACIS-S-1 | 7.01 | 779 | 0.020 | -0.038 | 0.007 | 0.014 | 0.000000 | 0.000000 | 927.08 | -1732.60 |
| 1 | FID | ACIS-S-4 | 7.03 | 779 | 0.120 | 0.021 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2145.67 | 169.57 |
| 2 | FID | ACIS-S-5 | 7.05 | 779 | -0.167 | 0.029 | 0.006 | 0.012 | 0.000000 | 0.000000 | -1819.45 | 165.38 |
| 3 | GUIDE | 381030024 | 8.34 | 1556 | 0.234 | 0.204 | 0.076 | 0.125 | 75.061936 | 44.874027 | -1764.09 | -1064.09 |
| 4 | GUIDE | 438306472 | 8.28 | 1556 | 0.111 | 0.129 | 0.068 | 0.111 | 75.140877 | 45.253790 | -570.00 | -1757.93 |
| 5 | GUIDE | 438315504 | 8.57 | 1556 | -0.039 | -0.362 | 0.069 | 0.113 | 73.821517 | 45.156819 | 372.43 | 1470.87 |
| 6 | GUIDE | 438322520 | 8.22 | 1557 | -0.396 | -0.237 | 0.084 | 0.134 | 73.688072 | 45.706515 | 2328.53 | 1019.42 |
| 7 | GUIDE | 438314176 | 8.40 | 1556 | 0.101 | 0.263 | 0.084 | 0.138 | 75.326509 | 45.446275 | -96.66 | -2449.24 |

2.4 Star Slots

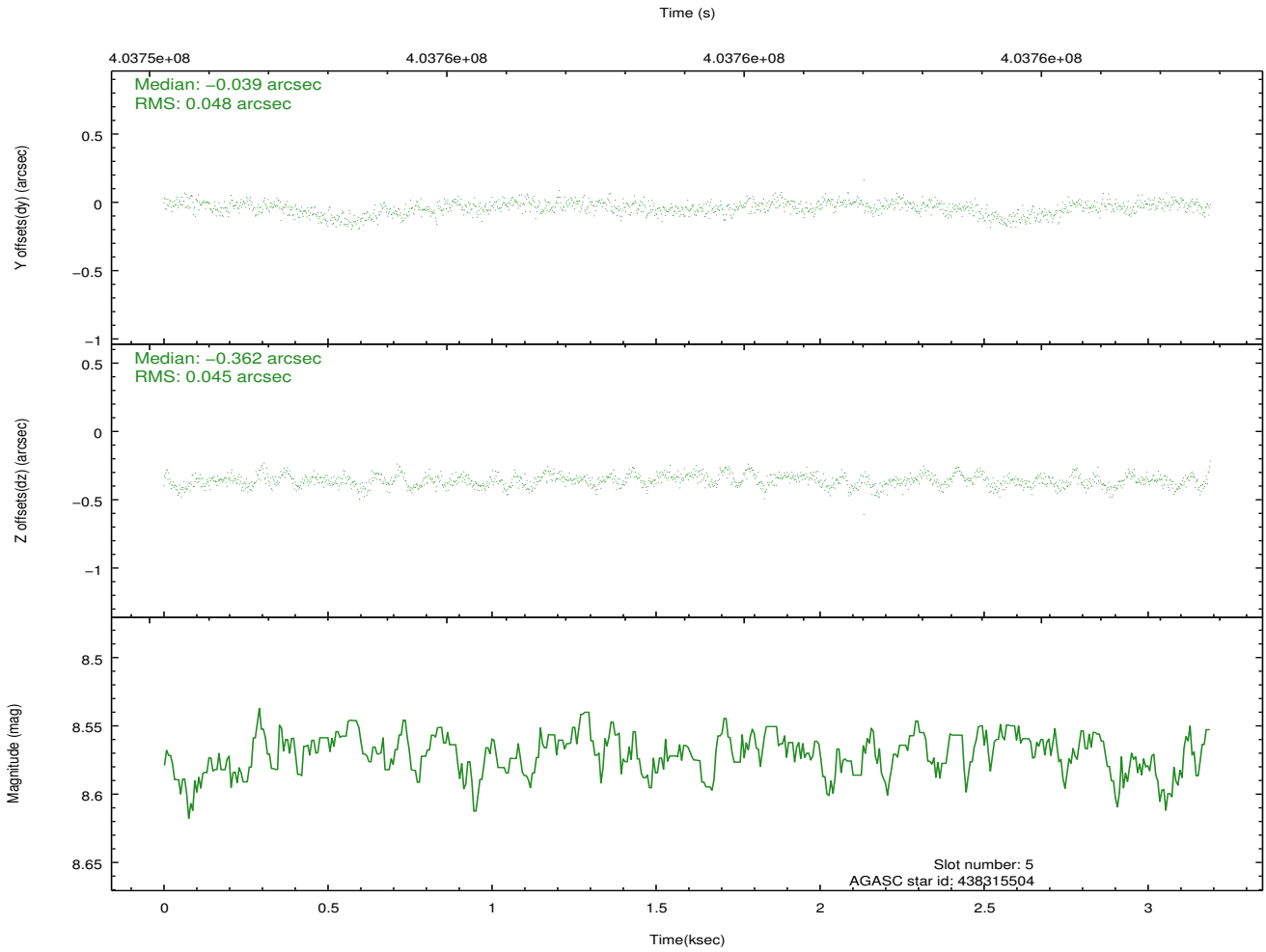
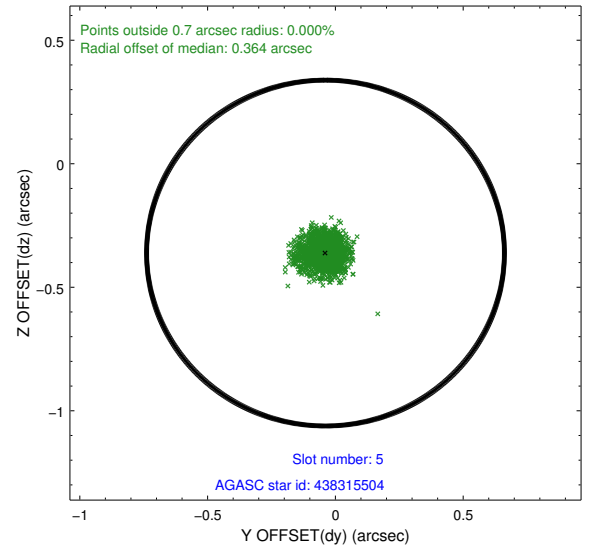
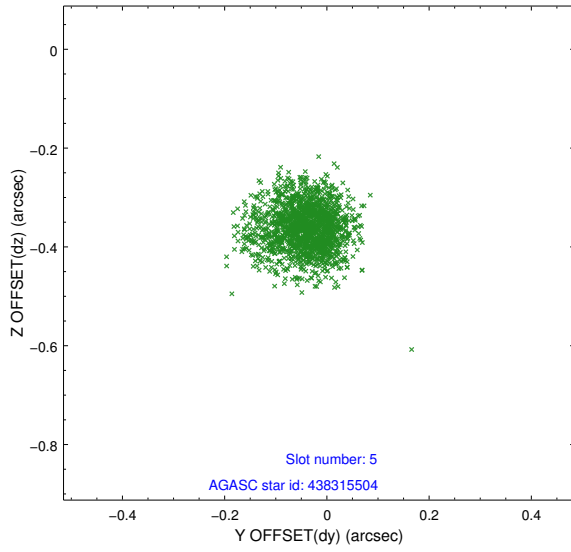
2.4.1 Slot 3



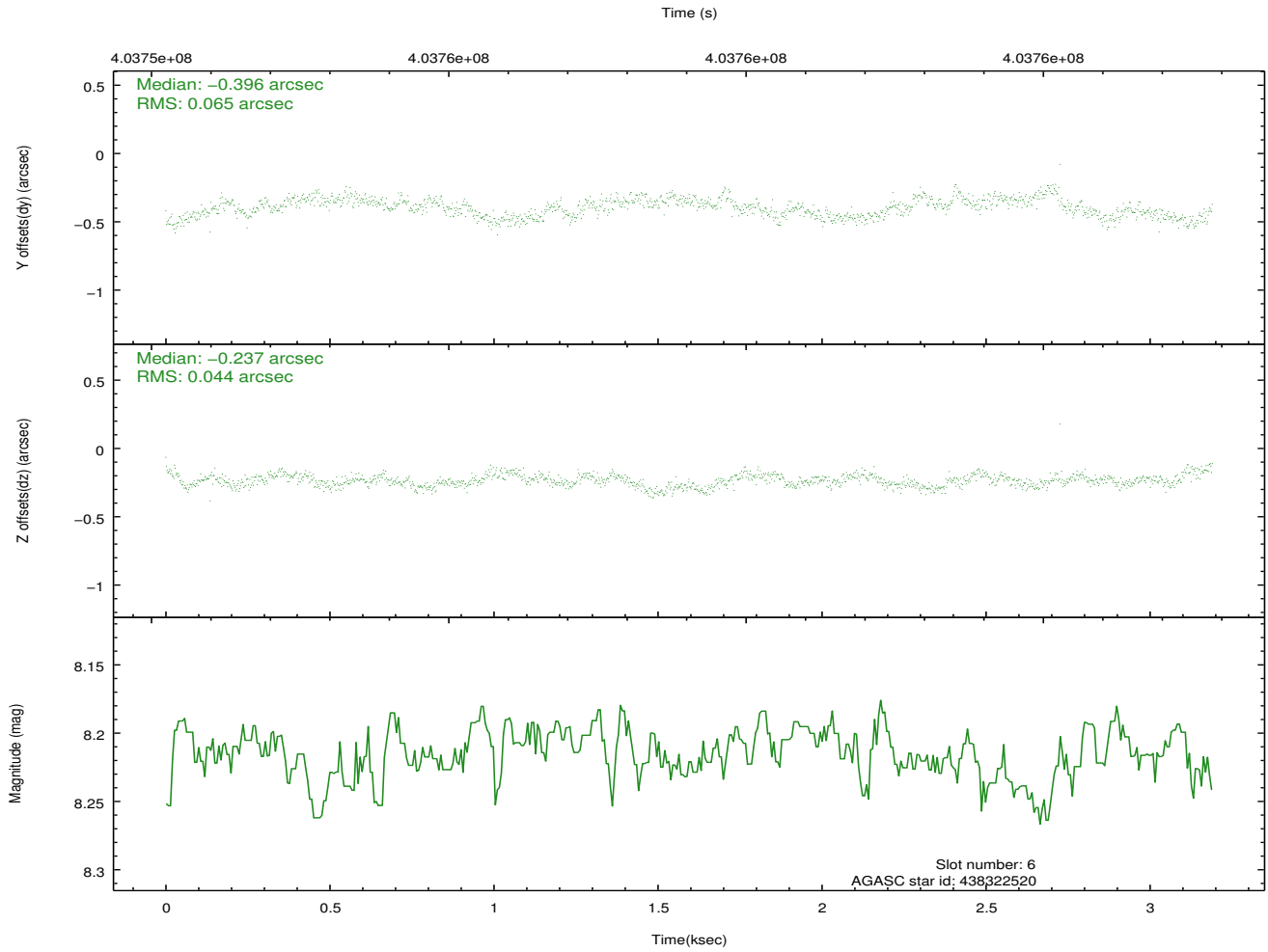
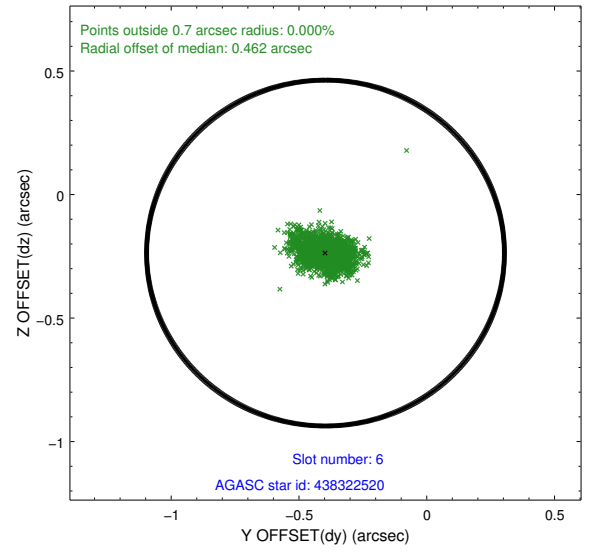
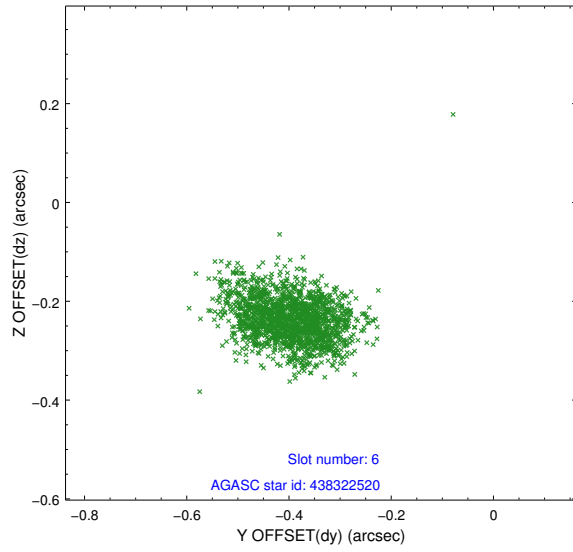
2.4.2 Slot 4



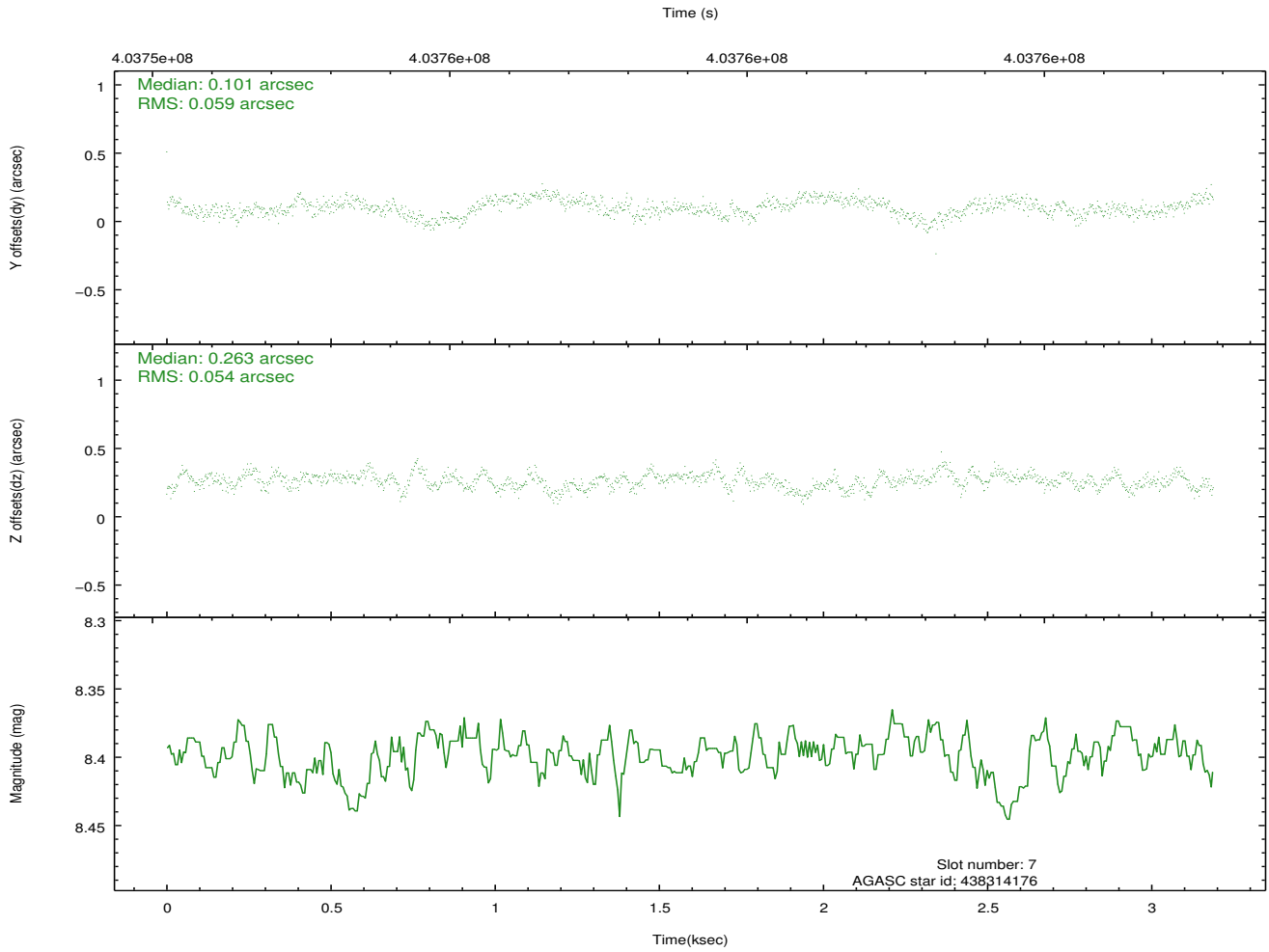
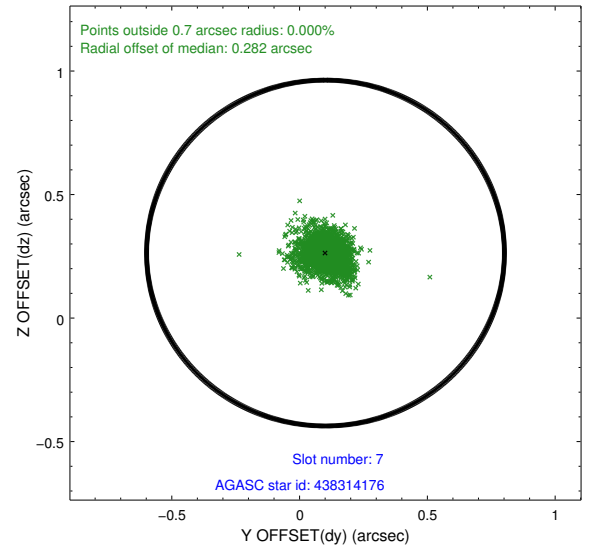
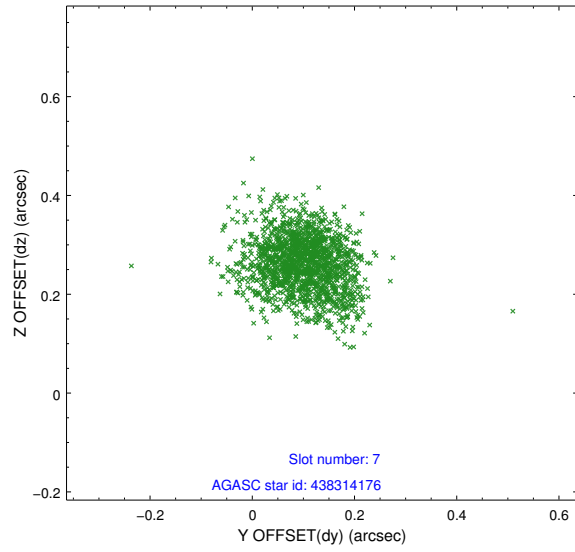
2.4.3 Slot 5



2.4.4 Slot 6

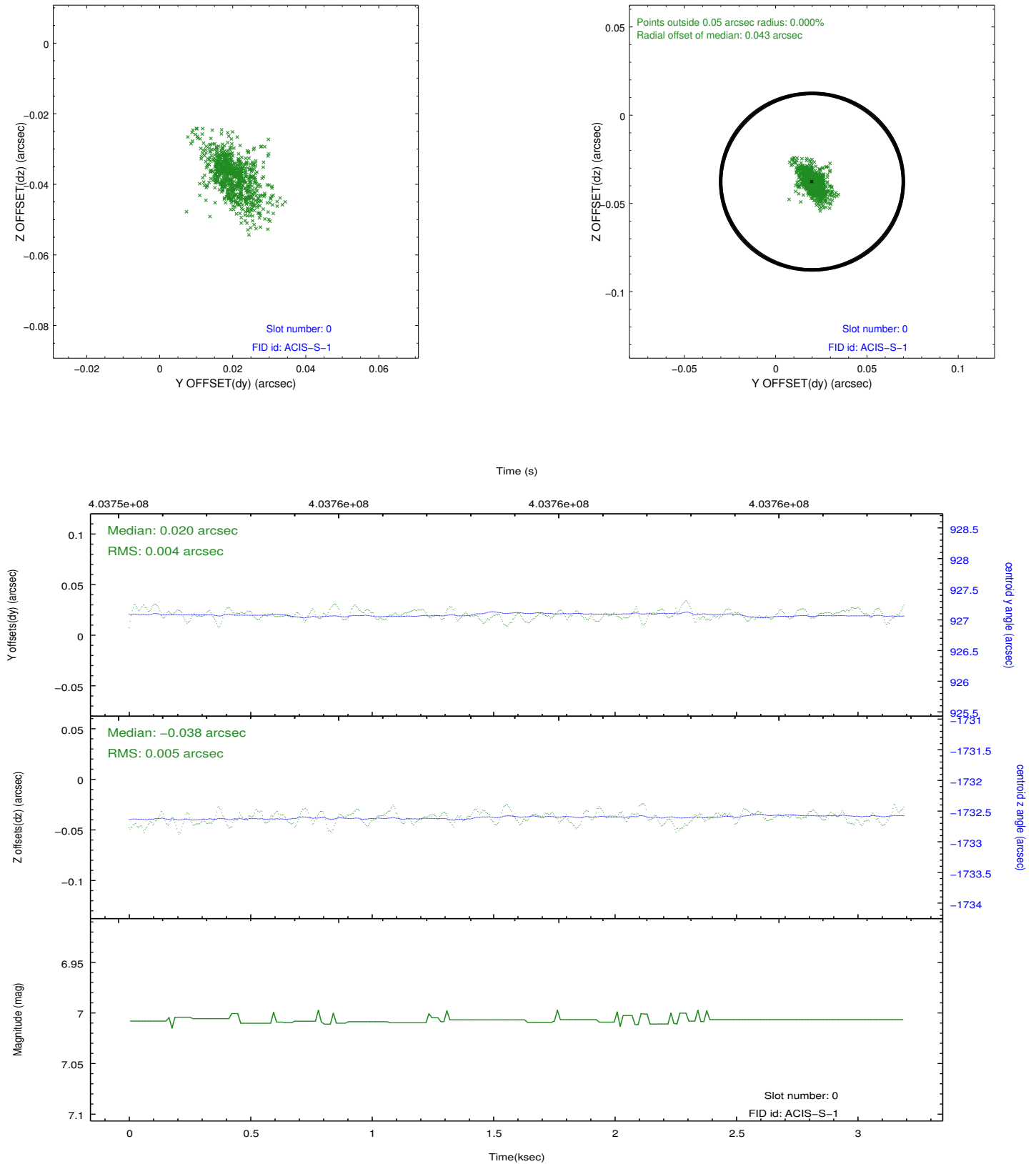


2.4.5 Slot 7

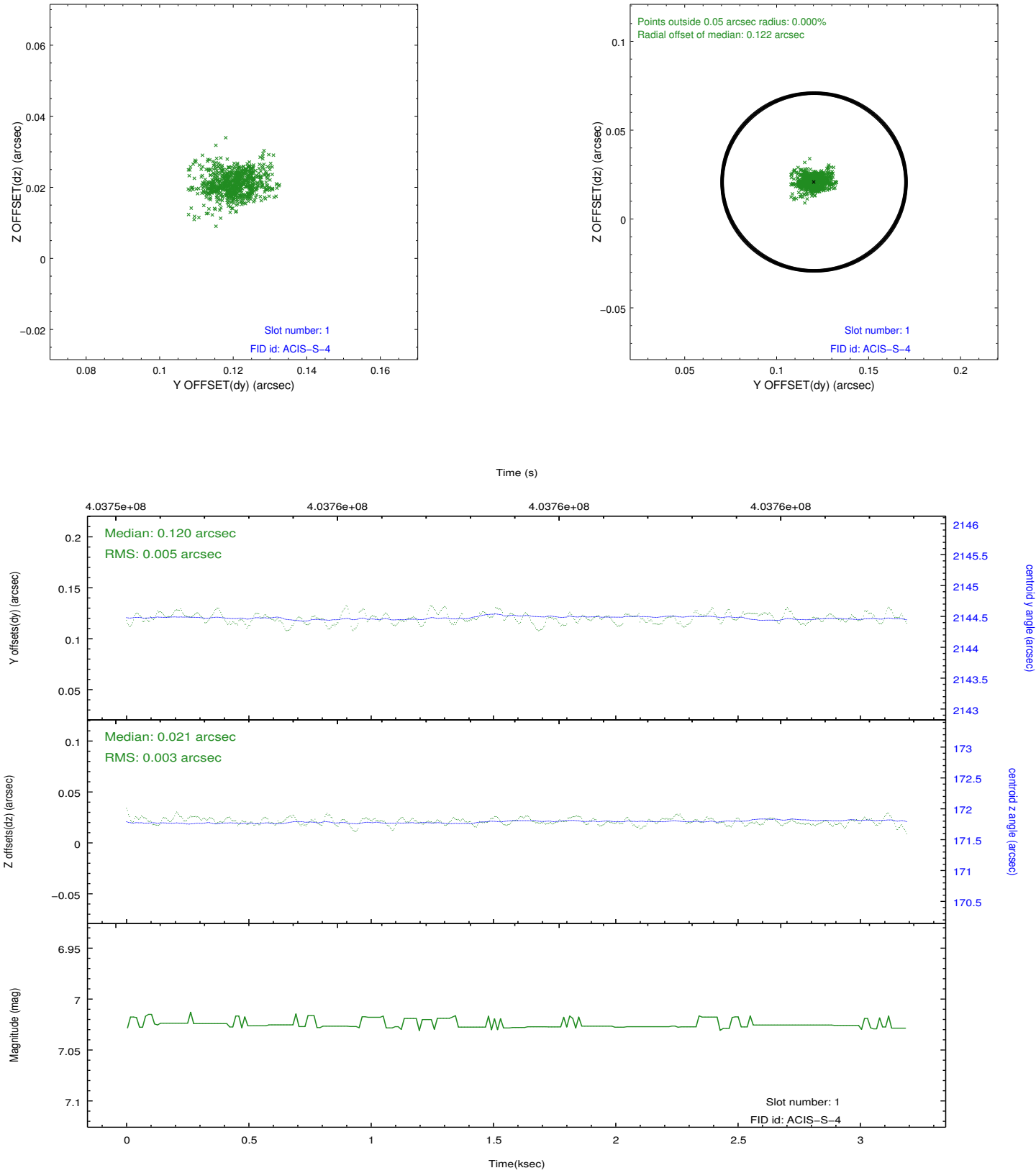


2.5 FID Slots

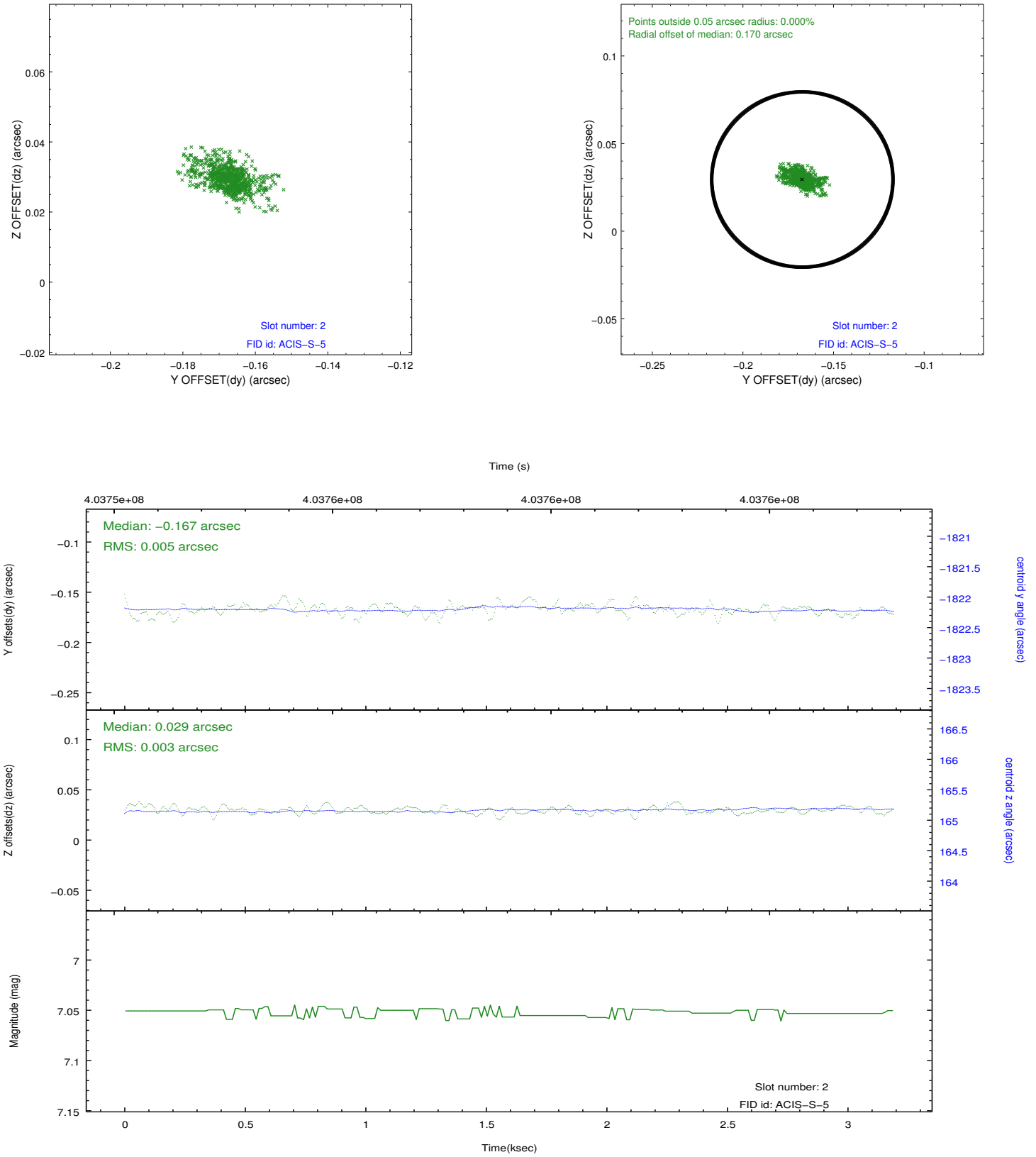
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2012.07.13 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 2.7583999897838 |

A.2 Comments