

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 1646 - L2 Version 3
Chandra X-Ray Center

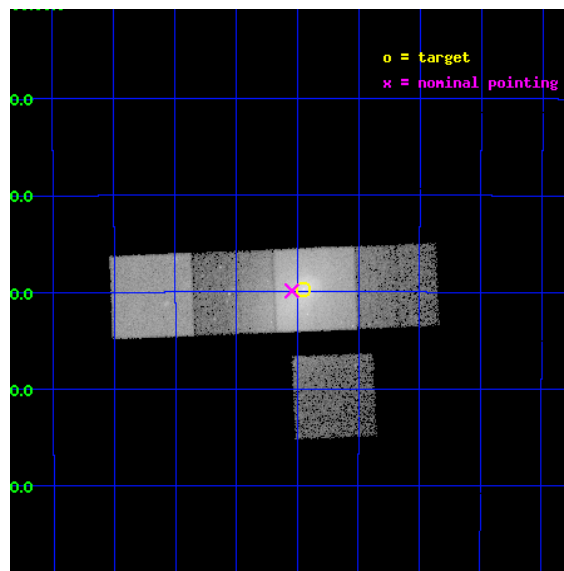
L2 Processing Date : Sep 15 2012

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1 Front

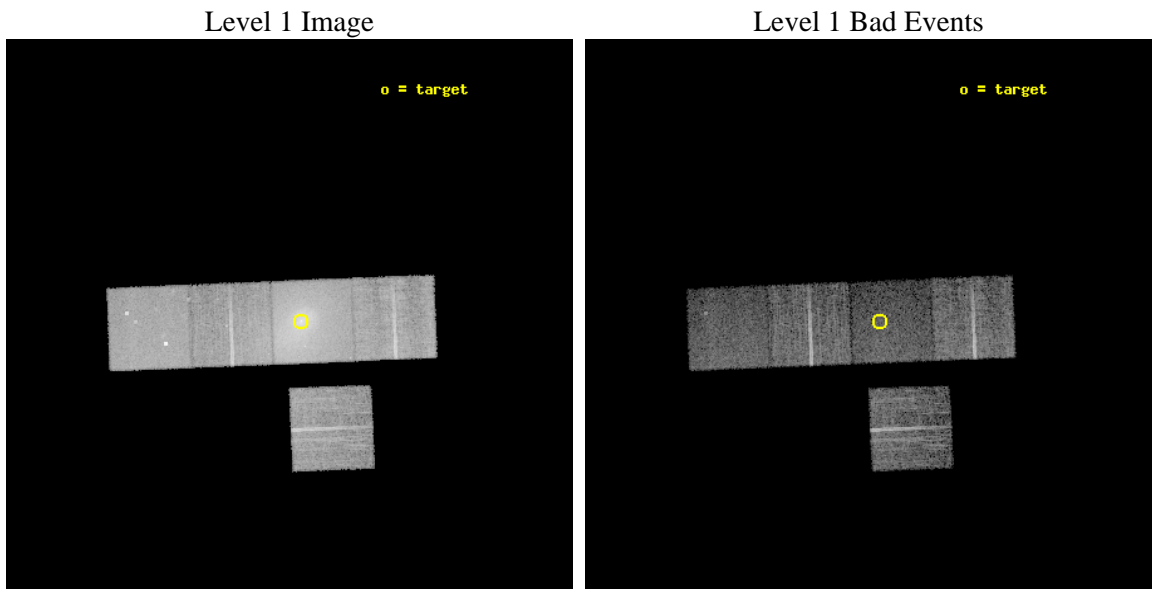
| | | |
|----------|---------------------------|---|
| seq_num | 800114 | Sequence number |
| obs_id | 1646 | Observation id |
| title | THE COOLING FLOW IN A3558 | Proposal title |
| observer | Professor Andrew Fabian | Principal investigator |
| object | A3558 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 201.987125 | Observer's specified target RA [deg] |
| dec_targ | -31.495528 | Observer's specified target Dec [deg] |
| ra_nom | 202.01141226157 | Nominal RA [deg] |
| dec_nom | -31.498152042688 | Nominal Dec [deg] |
| roll_nom | 357.64571298896 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 14609.634858295 | Sum of GTIs [s] |
| livetime | 14418.749223415 | Livetime [s] |
| ontime3 | 14606.37080799 | Sum of GTIs [s] |
| ontime5 | 14609.593818292 | Sum of GTIs [s] |
| ontime6 | 14606.411818042 | Sum of GTIs [s] |
| ontime7 | 14609.634858295 | Sum of GTIs [s] |
| ontime8 | 14609.470698297 | Sum of GTIs [s] |
| l2events | 229541 | Number of level 2 events |



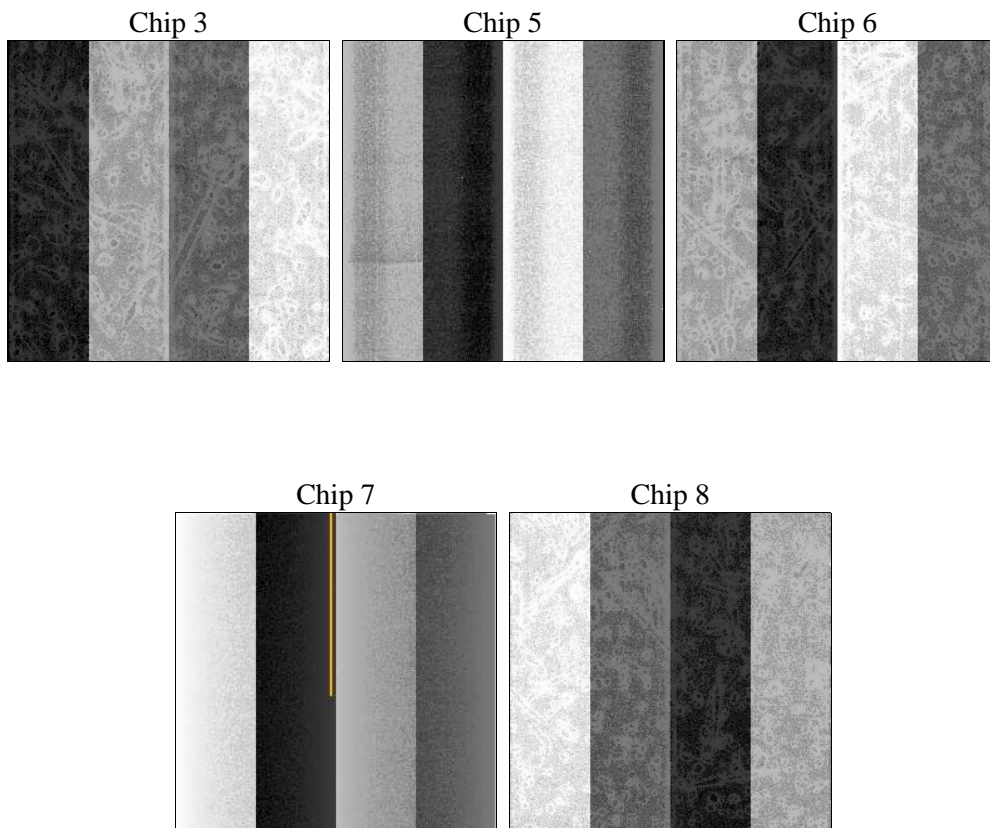
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 14685.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 14609.634858295 | Sum of GTIs [s] |
| caldbver | 4.5.1.1 | | ontime3 | 14606.37080799 | Sum of GTIs [s] |
| date | 2012-09-15T14:39:46 | Date and time of file creation | ontime5 | 14609.593818292 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime6 | 14606.411818042 | Sum of GTIs [s] |
| | | | ontime7 | 14609.634858295 | Sum of GTIs [s] |
| | | | ontime8 | 14609.470698297 | Sum of GTIs [s] |
| | | | l1events | 509731 | Number of level 1 events |

2.1.4 Events

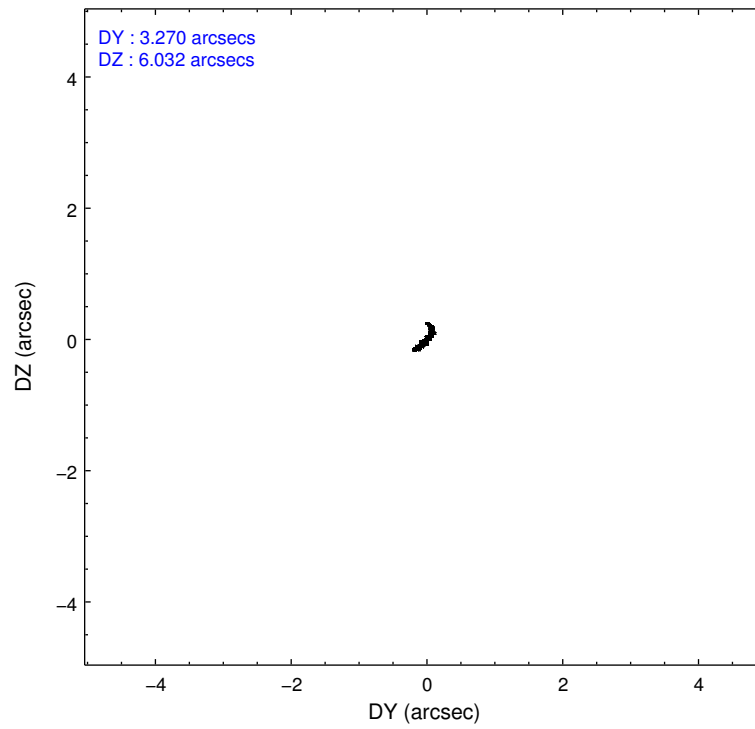
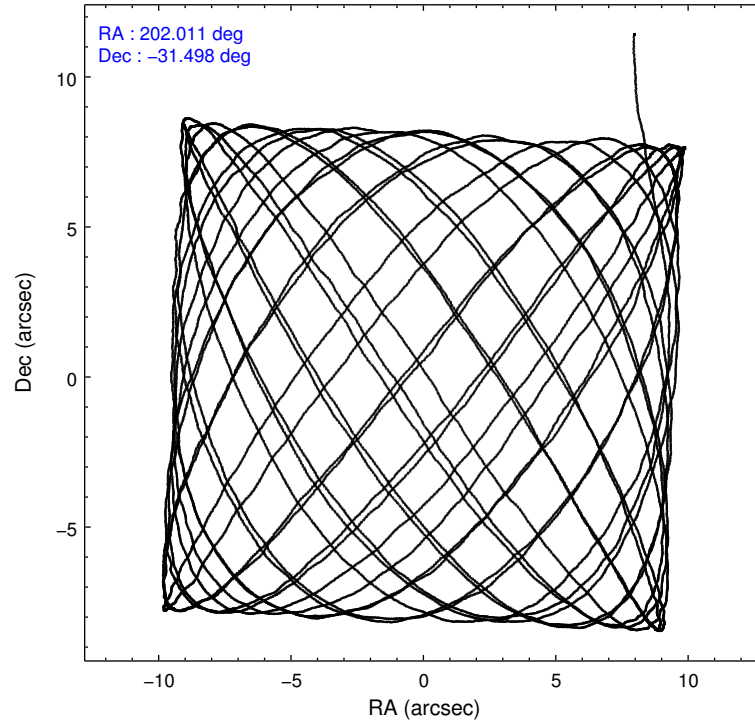
| | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|--------|-------|
| level 1 events | 67382 | 94557 | 86589 | 171718 | 89485 |
| rejected events | 57584 | 40964 | 58249 | 36779 | 63336 |
| rejected % | 85% | 43% | 67% | 21% | 70% |

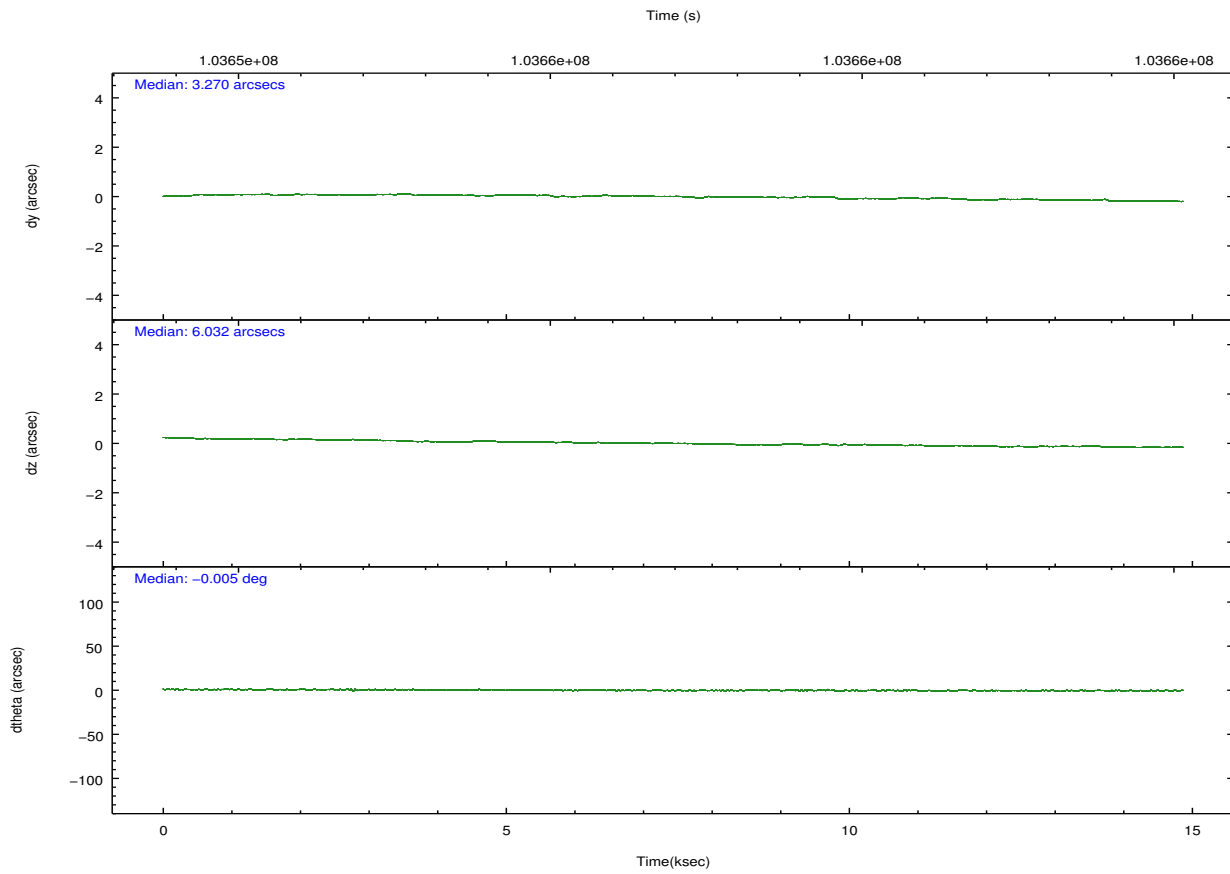
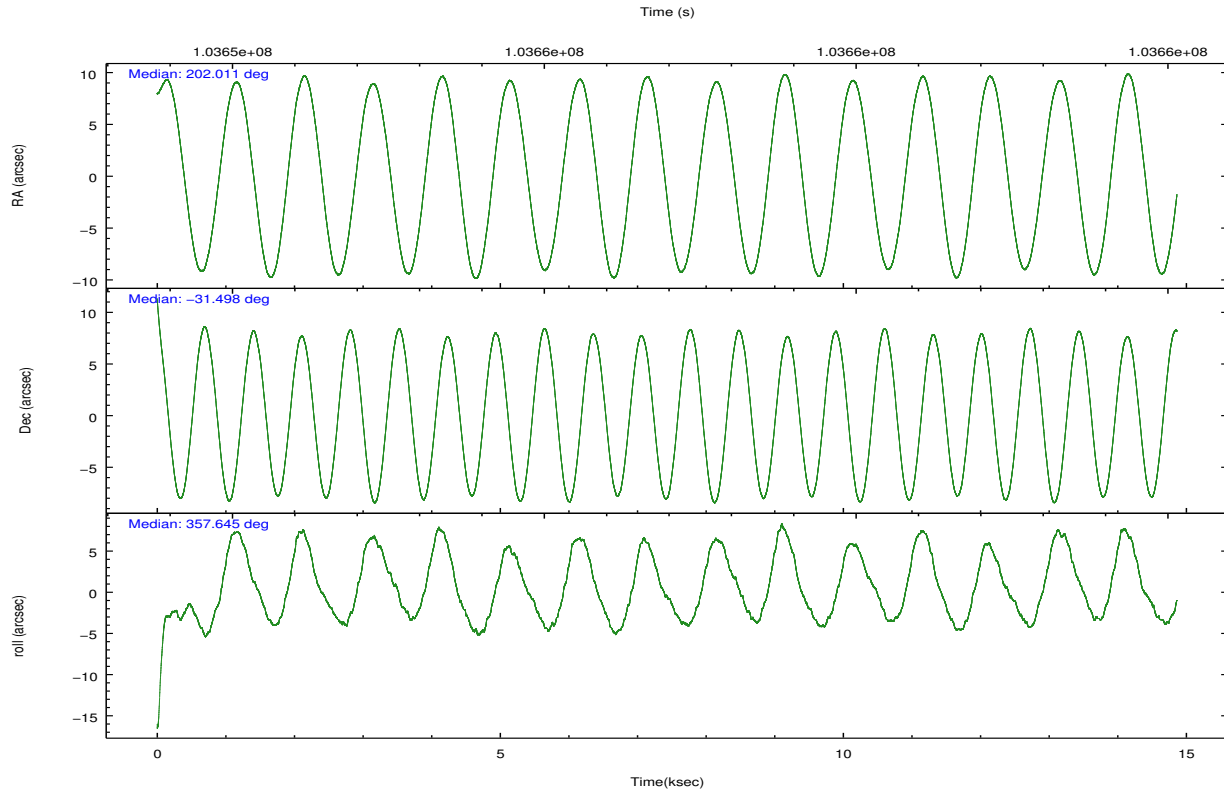
| | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 5268 | 10537 | 20298 | 34282 | 11653 |
| | 7% | 11% | 23% | 19% | 13% |
| grade 1 events | 38 | 257 | 84 | 70 | 77 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 1653 | 14167 | 3514 | 33260 | 4409 |
| | 2% | 14% | 4% | 19% | 4% |
| grade 3 events | 785 | 2976 | 1342 | 15146 | 2832 |
| | 1% | 3% | 1% | 8% | 3% |
| grade 4 events | 817 | 2828 | 1308 | 14829 | 2605 |
| | 1% | 2% | 1% | 8% | 2% |
| grade 5 events | 2163 | 6732 | 2441 | 7660 | 3282 |
| | 3% | 7% | 2% | 4% | 3% |
| grade 6 events | 1281 | 23103 | 1887 | 37478 | 4655 |
| | 1% | 24% | 2% | 21% | 5% |
| grade 7 events | 55377 | 33957 | 55715 | 28993 | 59972 |
| | 82% | 35% | 64% | 16% | 67% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-35678 | ACIS-35678 | 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 | 201.983184 | 202.0114122615688 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -31.511059 | -31.49815204268794 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 357.474333 | 357.6457129889588 | [s] Primary exposure time | 0.000000 | 3.1 |
| [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) | 103649714.184000 | 103648723.17165 | | | |
| Observation start date | 2001-04-14T15:34:10 | 2001-04-14T15:18:43 | | | |
| [s] Observation end time (MET) | 103664399.184000 | 103664893.05978 | | | |
| Observation end date | 2001-04-14T19:38:55 | 2001-04-14T19:48:13 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



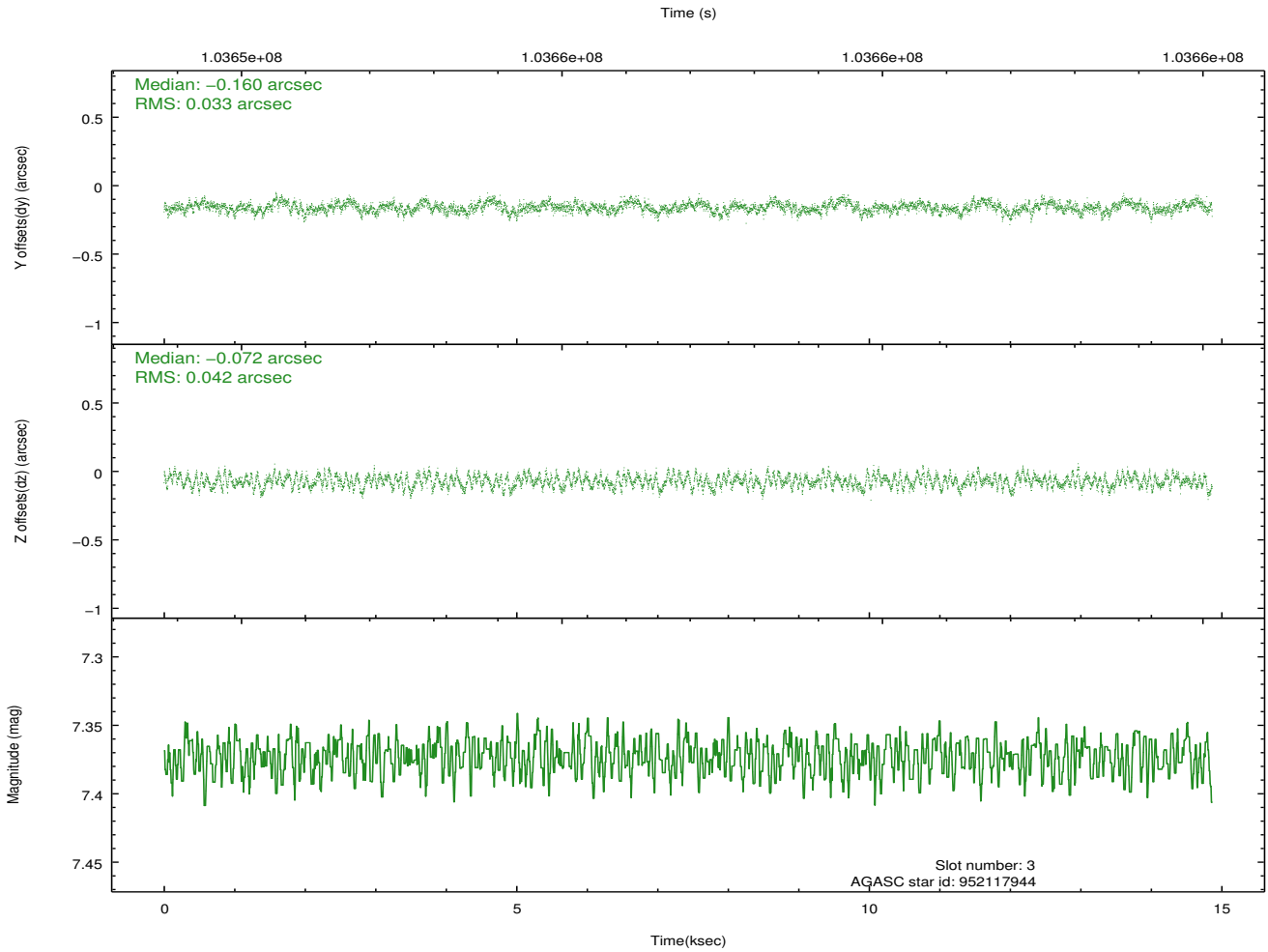
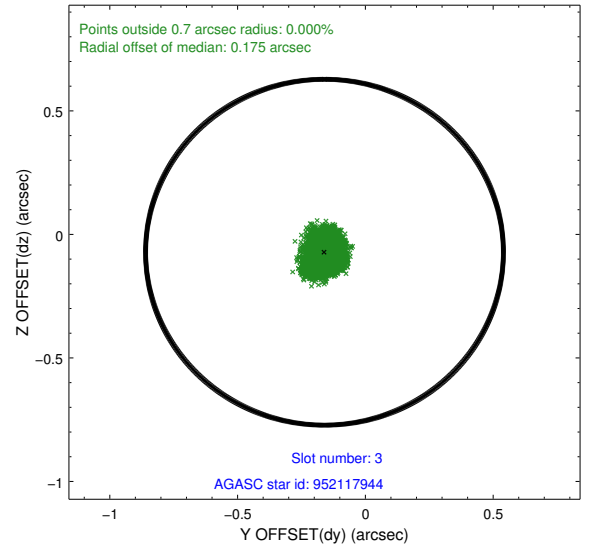
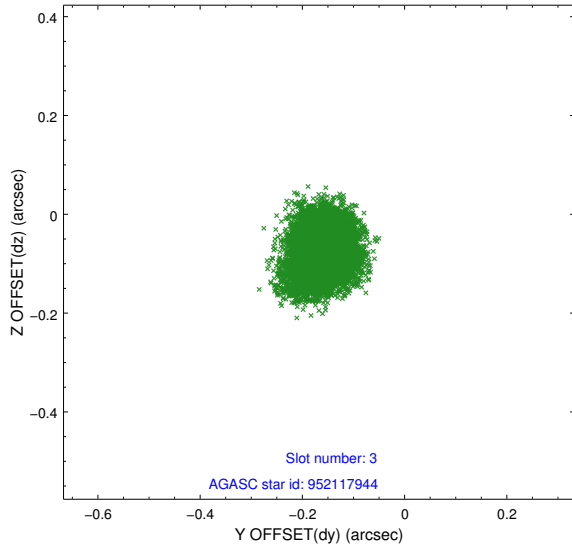


Slot Statistics

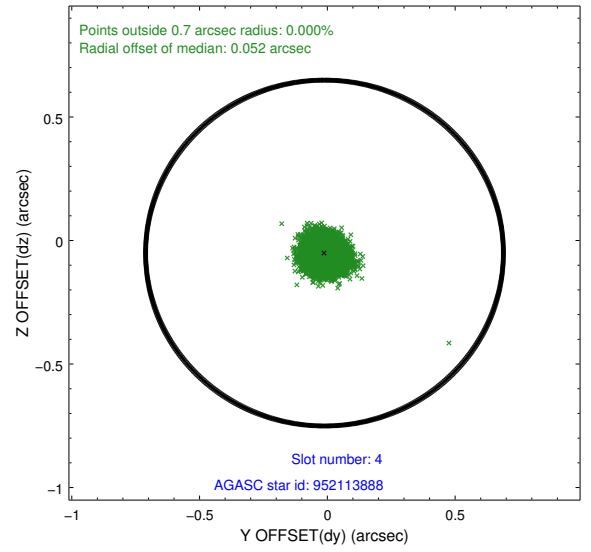
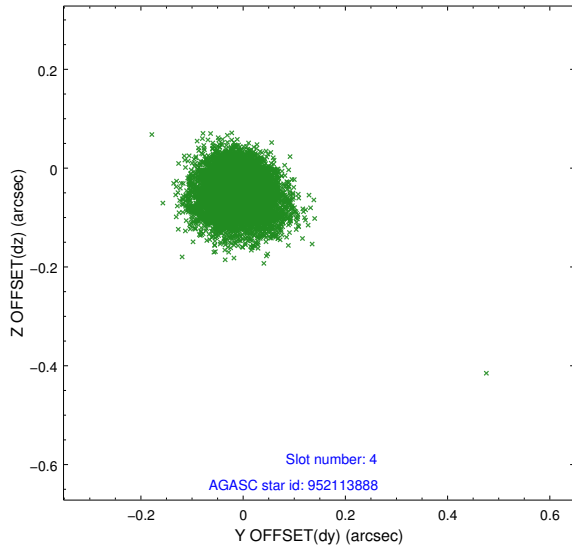
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.12 | 3626 | -0.021 | 0.012 | 0.007 | 0.011 | 0.000000 | 0.000000 | -755.88 | -1727.18 |
| 1 | FID | ACIS-S-4 | 7.20 | 3626 | -0.032 | 0.007 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2157.20 | 181.04 |
| 2 | FID | ACIS-S-5 | 7.24 | 3626 | 0.022 | -0.010 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1808.33 | 174.96 |
| 3 | GUIDE | 952117944 | 7.37 | 7252 | -0.160 | -0.072 | 0.058 | 0.092 | 202.242705 | -31.044082 | 725.49 | 1713.13 |
| 4 | GUIDE | 952113888 | 8.06 | 7247 | -0.011 | -0.051 | 0.061 | 0.097 | 201.647854 | -31.450482 | -1038.35 | 170.46 |
| 5 | GUIDE | 952116240 | 8.37 | 7252 | -0.000 | -0.065 | 0.060 | 0.097 | 202.422973 | -31.388320 | 1330.67 | 497.61 |
| 6 | GUIDE | 952114936 | 8.50 | 7250 | 0.126 | -0.023 | 0.061 | 0.100 | 201.294532 | -31.198626 | -2167.47 | 1023.00 |
| 7 | GUIDE | 952646264 | 9.60 | 7247 | 0.044 | 0.209 | 0.098 | 0.164 | 201.642199 | -32.039051 | -956.03 | -1946.67 |

2.4 Star Slots

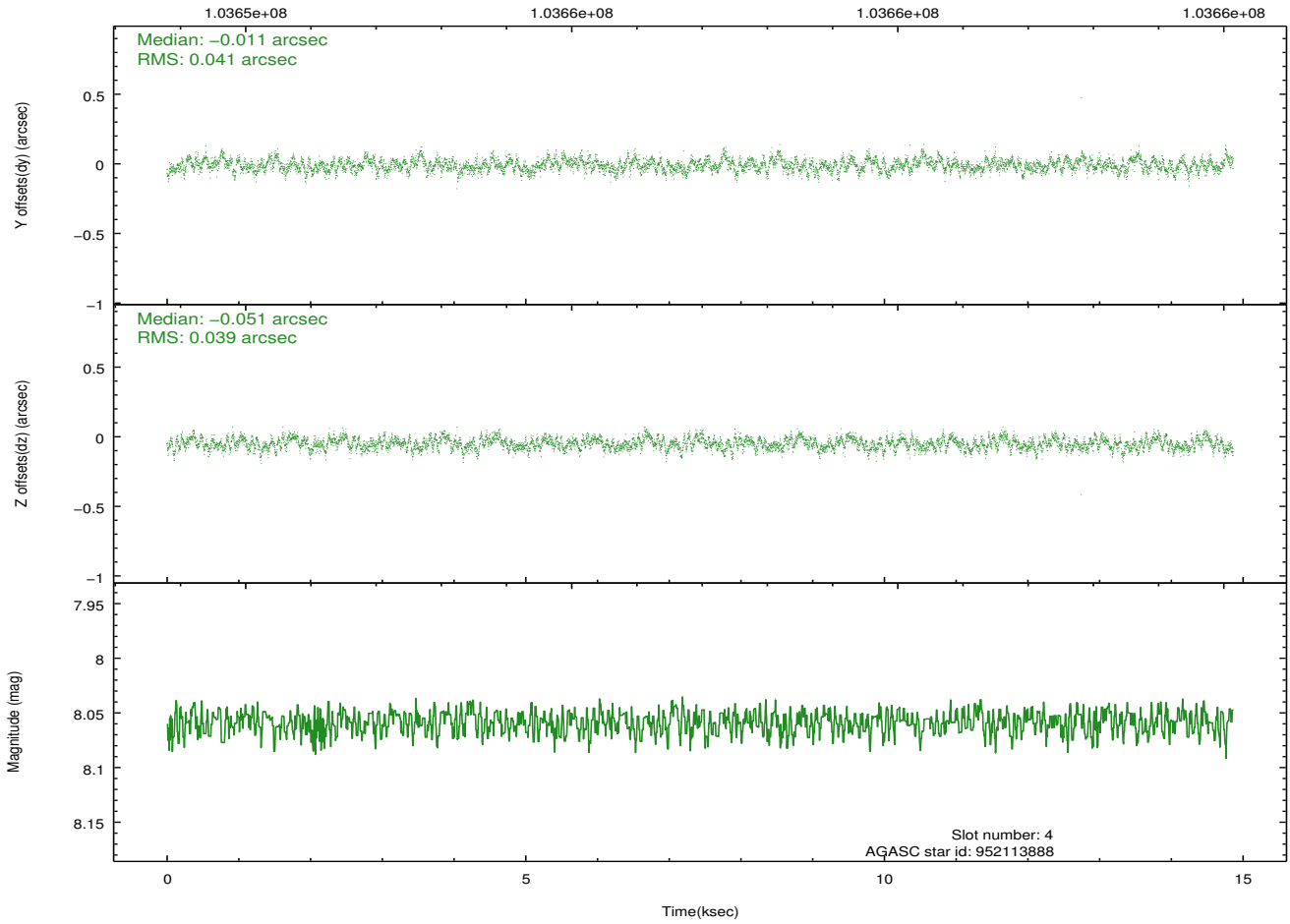
2.4.1 Slot 3



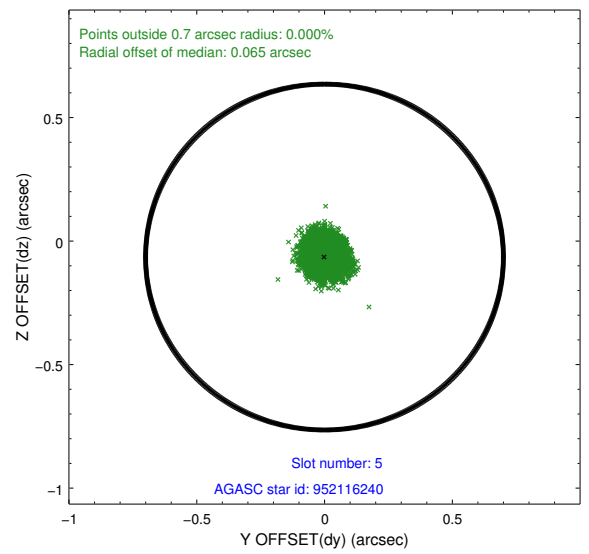
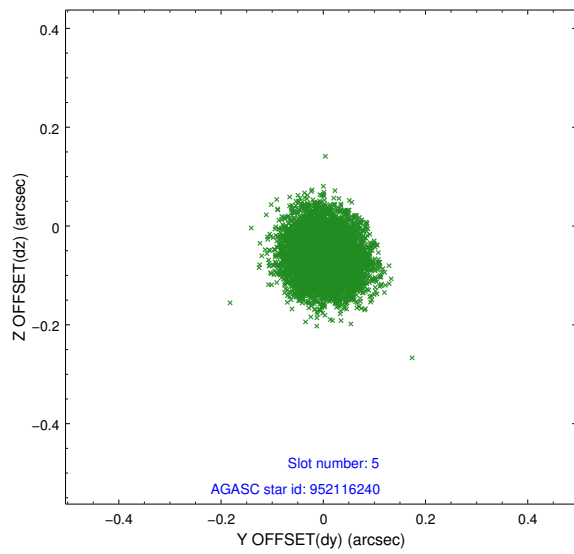
2.4.2 Slot 4



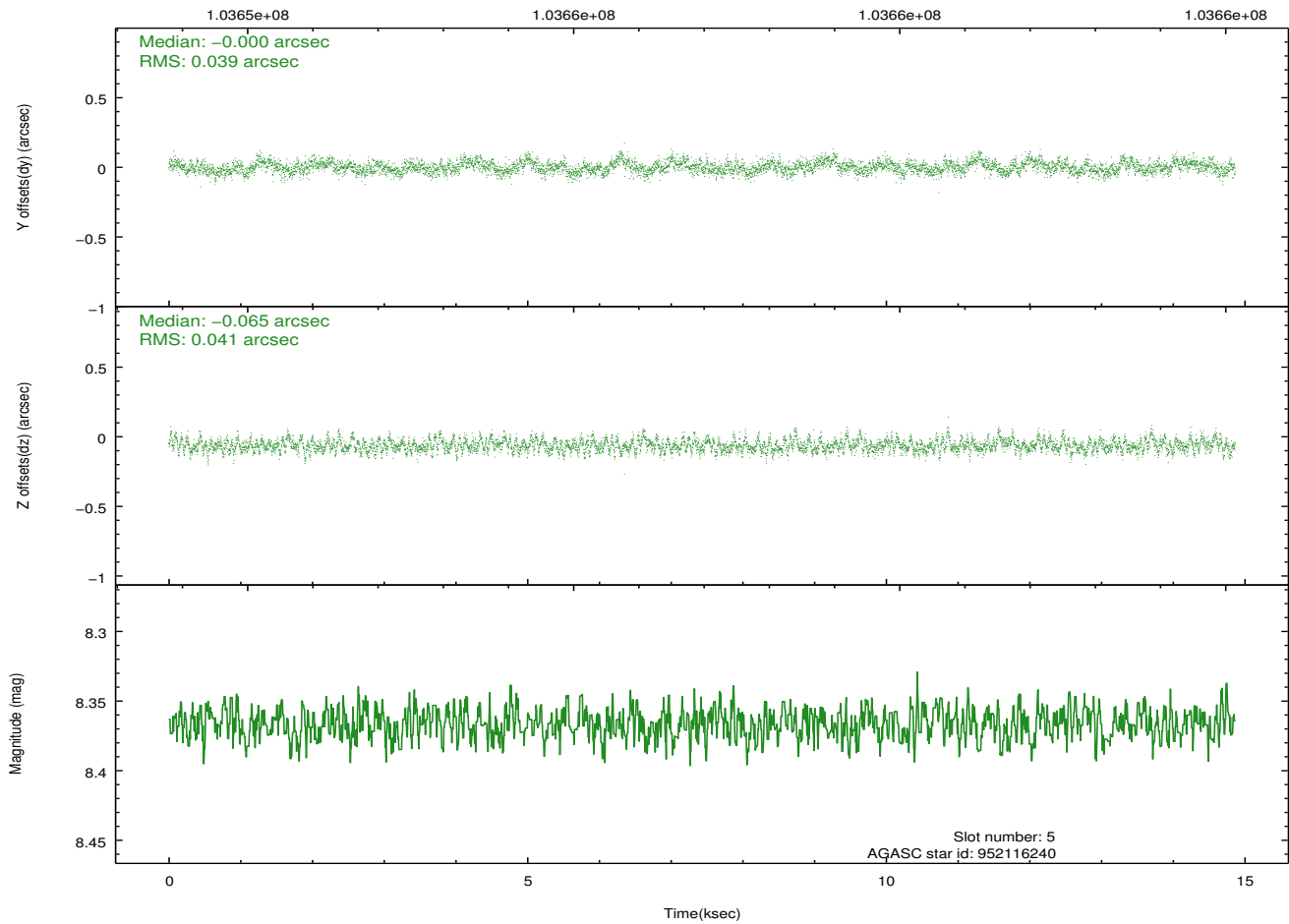
Time (s)



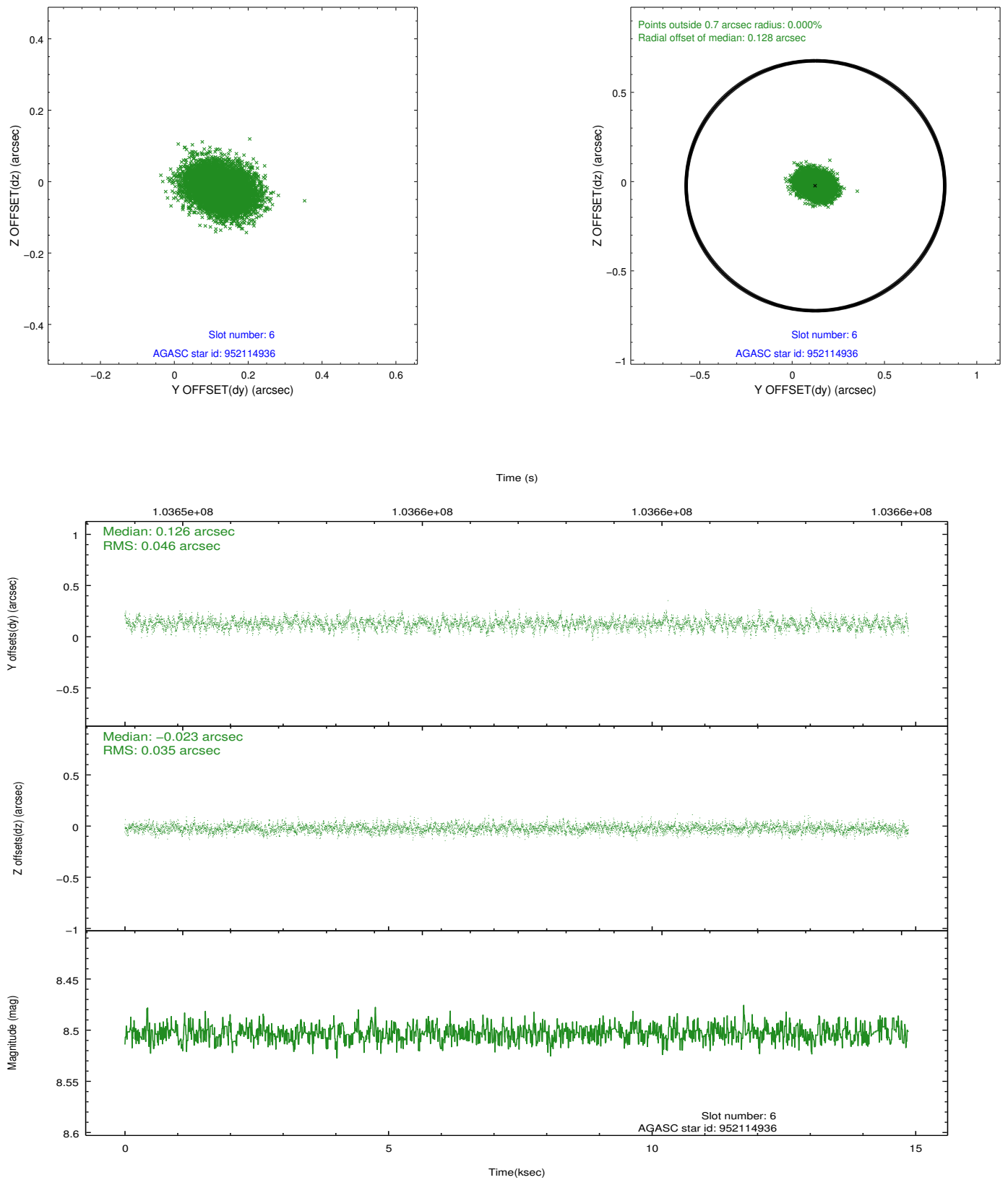
2.4.3 Slot 5



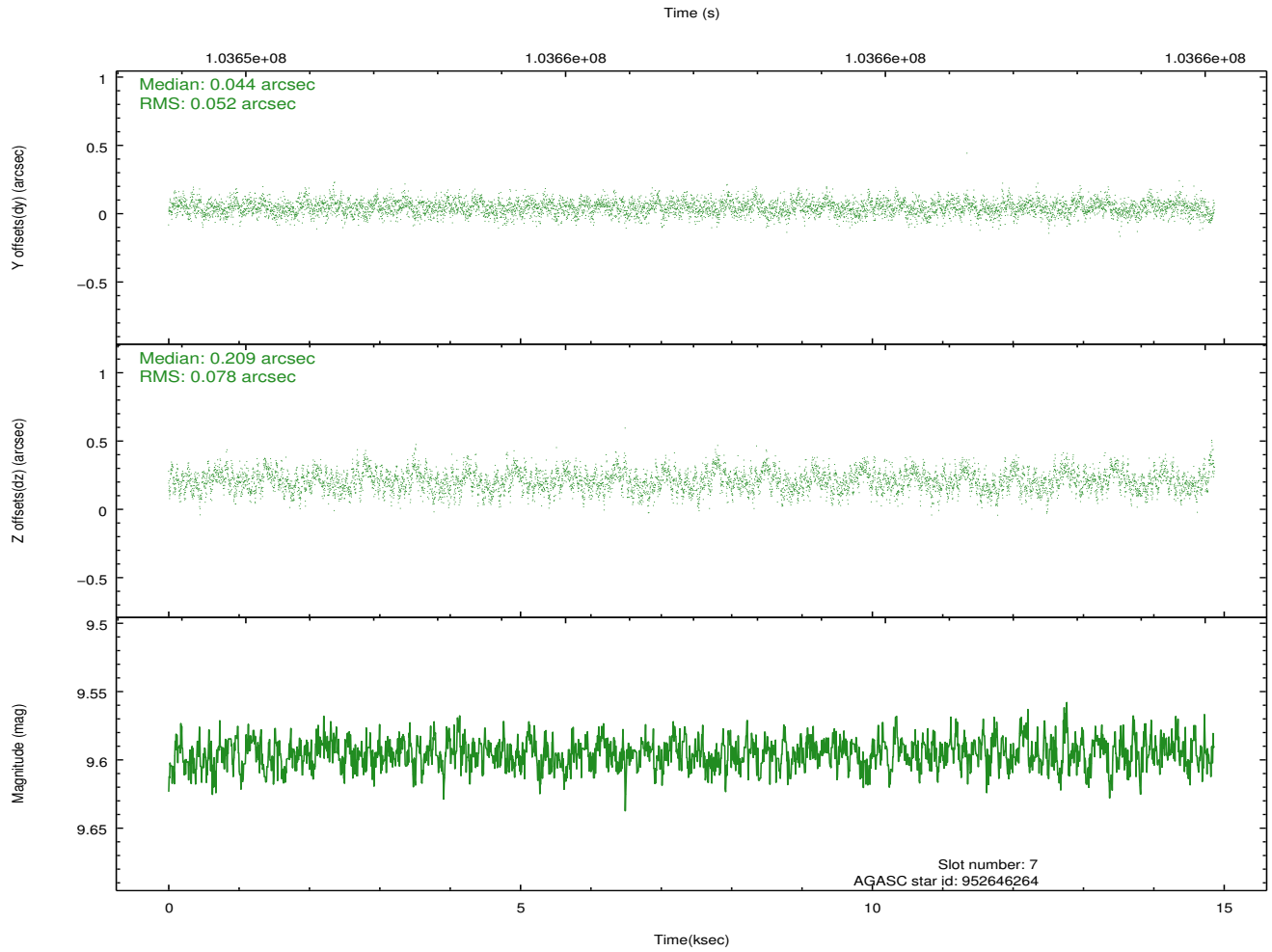
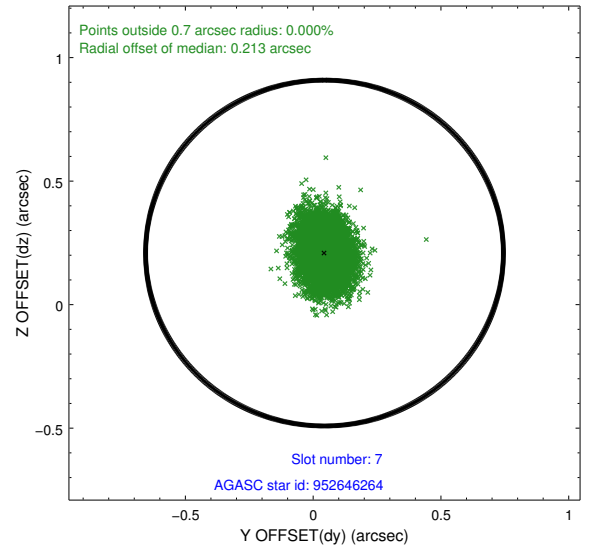
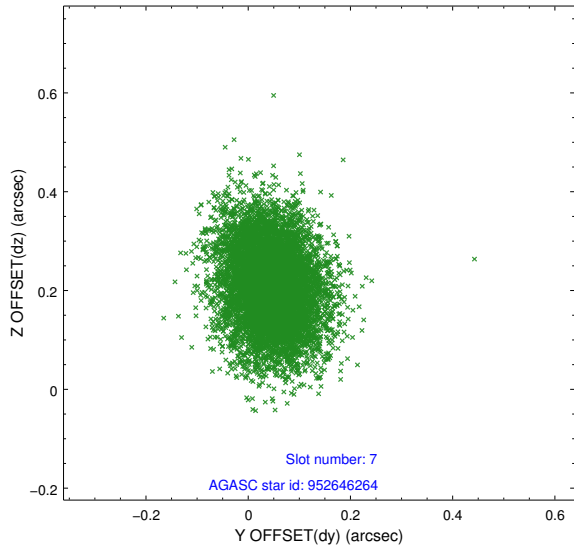
Time (s)



2.4.4 Slot 6

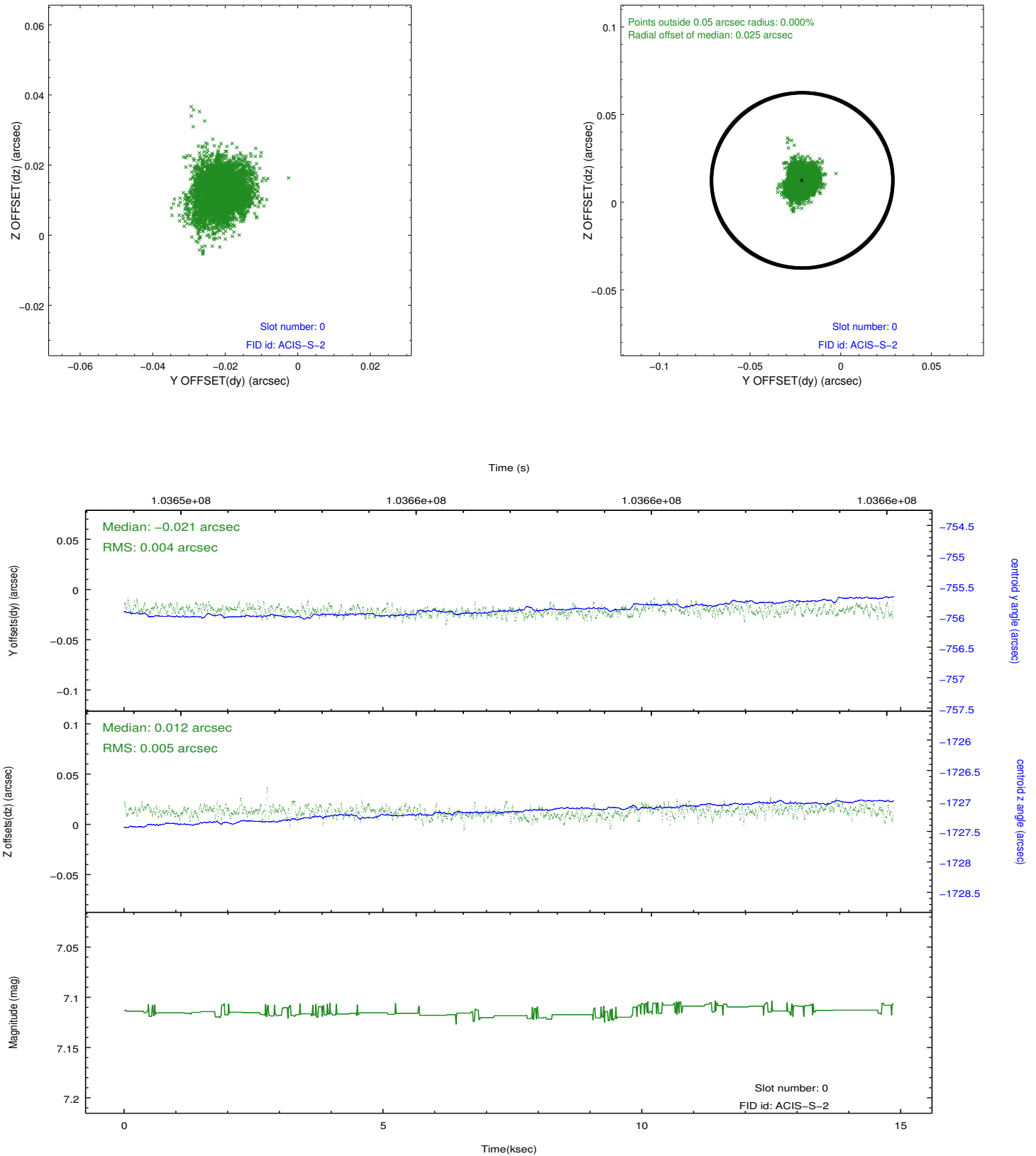


2.4.5 Slot 7

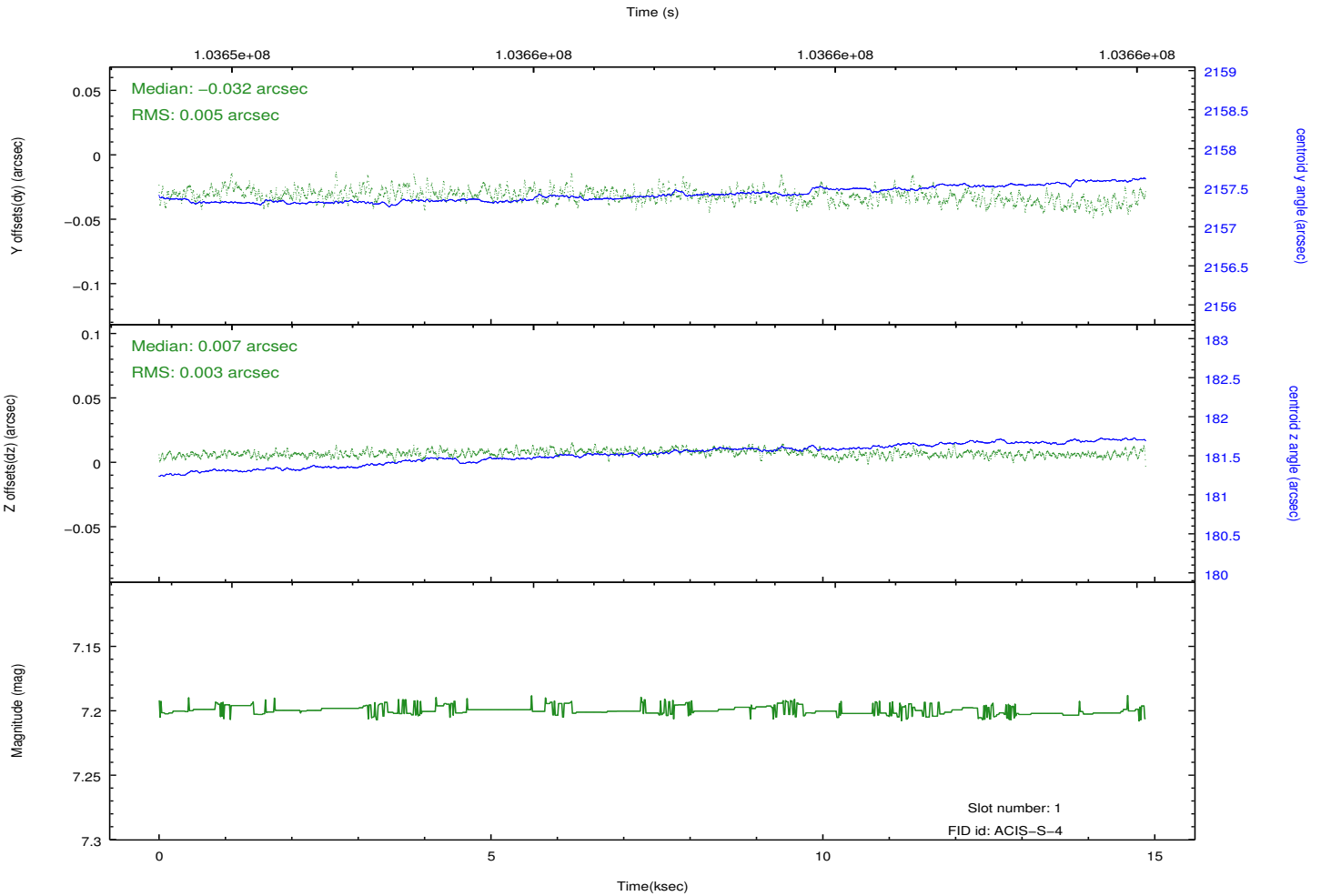
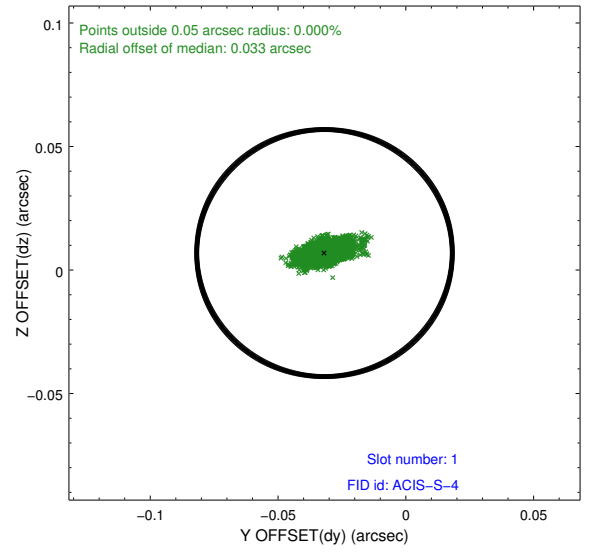
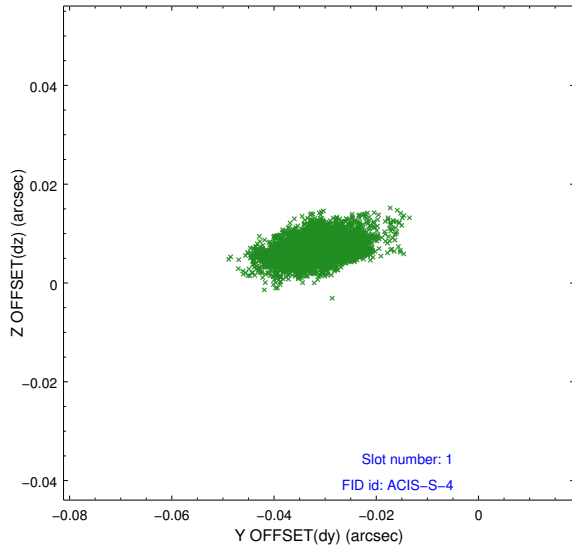


2.5 FID Slots

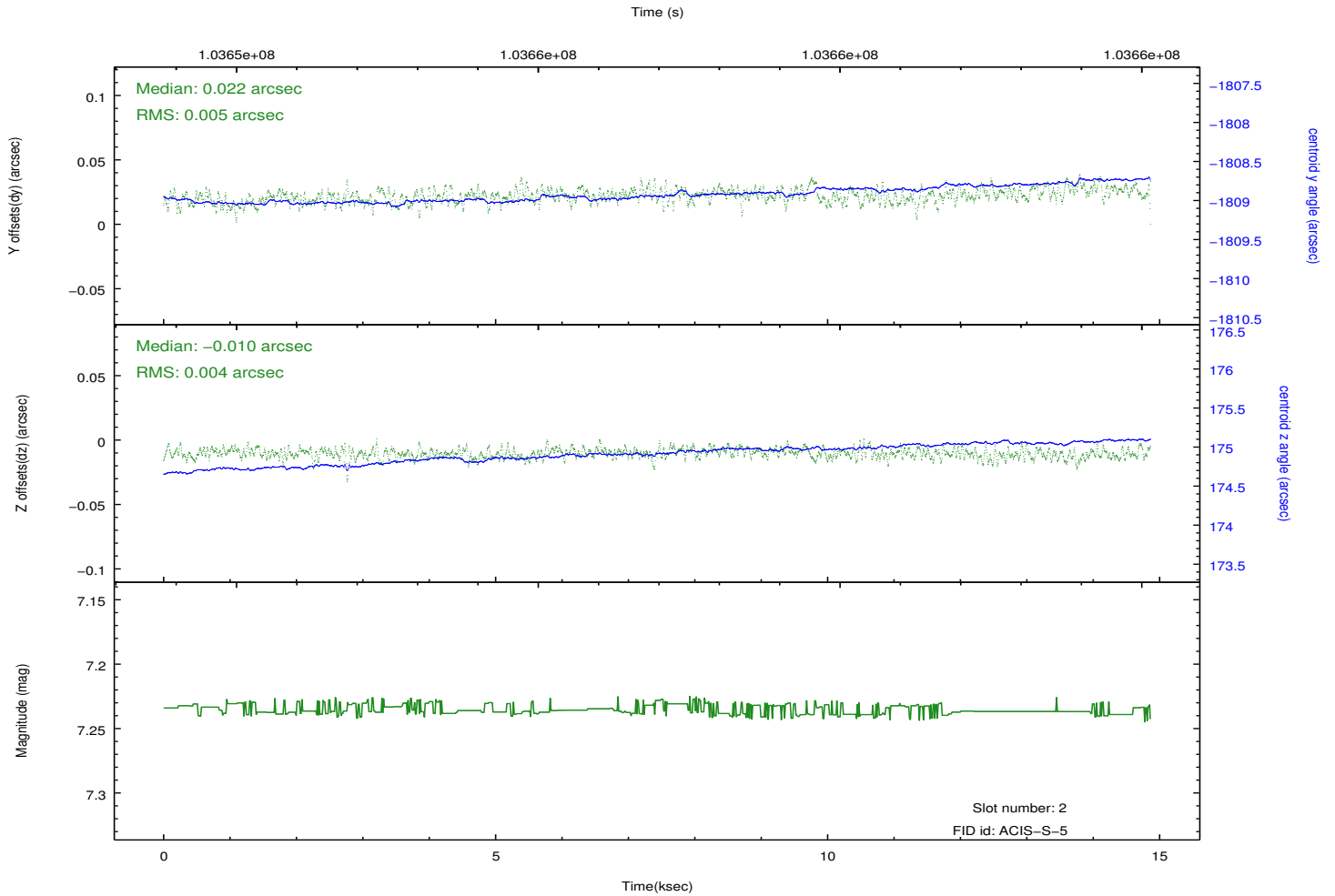
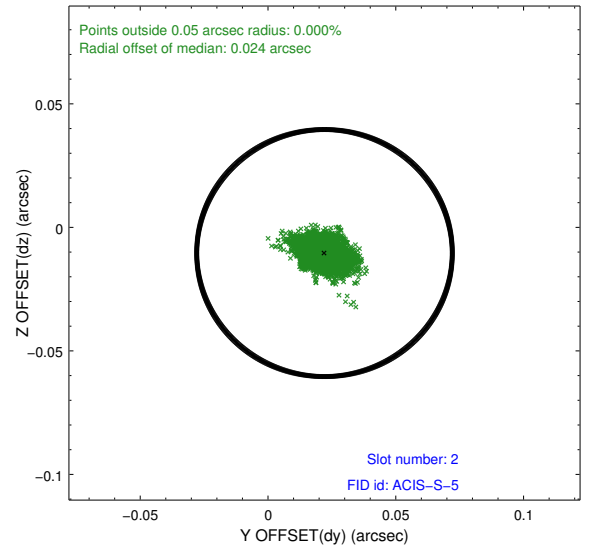
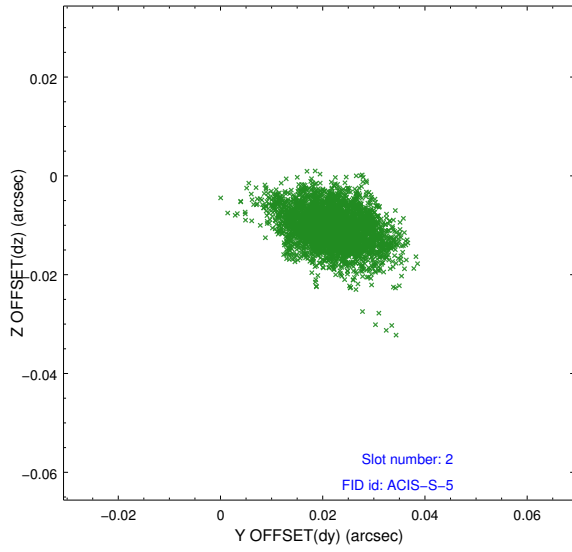
2.5.1 Slot 0



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) | 2012.09.18 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 14.61 |

A.2 Comments