

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 6683 - L2 Version 2
Chandra X-Ray Center

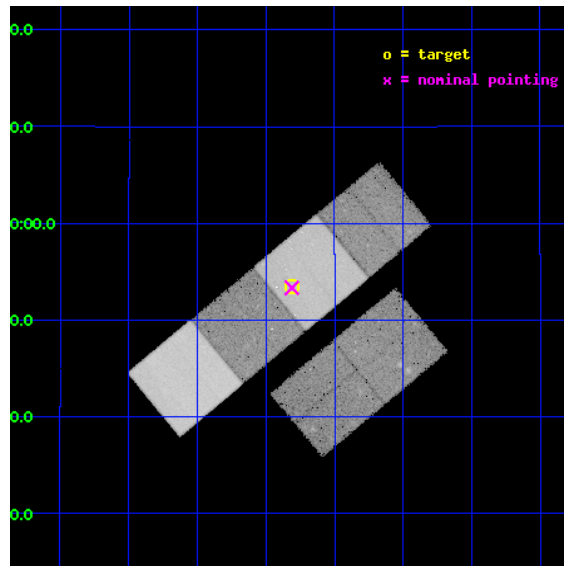
L2 Processing Date : Mar 23 2012

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1 Front

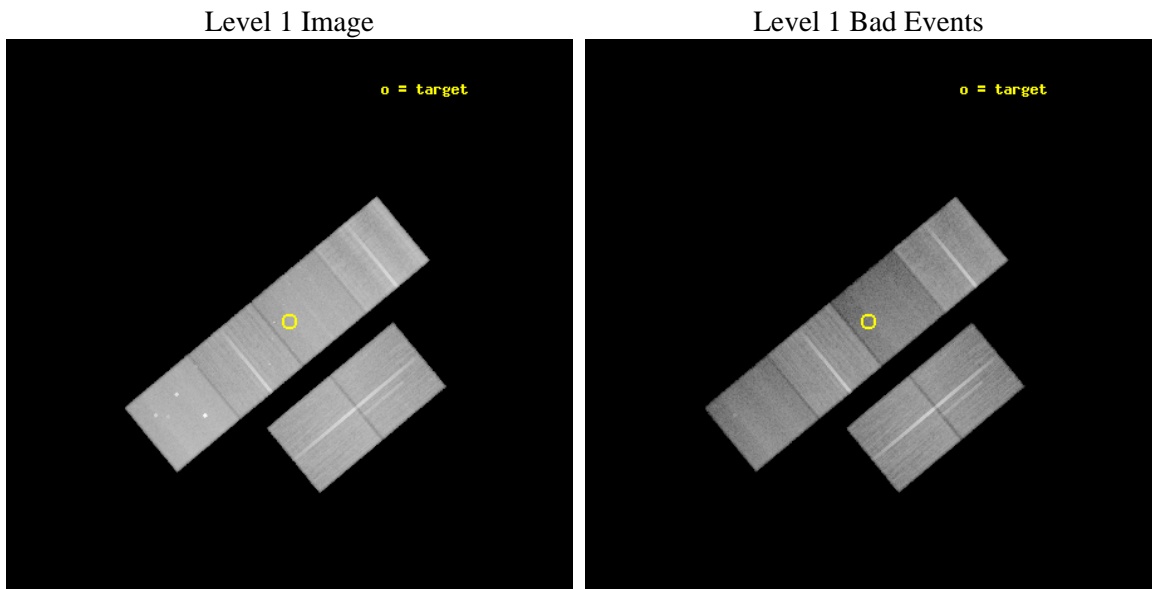
| | | |
|----------|--|---|
| seq_num | 500634 | Sequence number |
| obs_id | 6683 | Observation id |
| title | A Day in the Life of a Short Gamma-Ray Burst | Proposal title |
| observer | Prof. David Burrows | Principal investigator |
| object | GRB051221 | Source name |
| dtycycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 328.7029 | Observer's specified target RA [deg] |
| dec_targ | 16.8912 | Observer's specified target Dec [deg] |
| ra_nom | 328.70279930621 | Nominal RA [deg] |
| dec_nom | 16.88912119216 | Nominal Dec [deg] |
| roll_nom | 320.30681923077 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 49110.39981705 | Sum of GTIs [s] |
| livetime | 48488.534363833 | Livetime [s] |
| ontime2 | 49107.15885675 | Sum of GTIs [s] |
| ontime3 | 49107.158826828 | Sum of GTIs [s] |
| ontime5 | 49110.39981705 | Sum of GTIs [s] |
| ontime6 | 49103.917926371 | Sum of GTIs [s] |
| ontime7 | 49110.39981705 | Sum of GTIs [s] |
| ontime8 | 49103.917916358 | Sum of GTIs [s] |
| l2events | 437527 | Number of level 2 events |



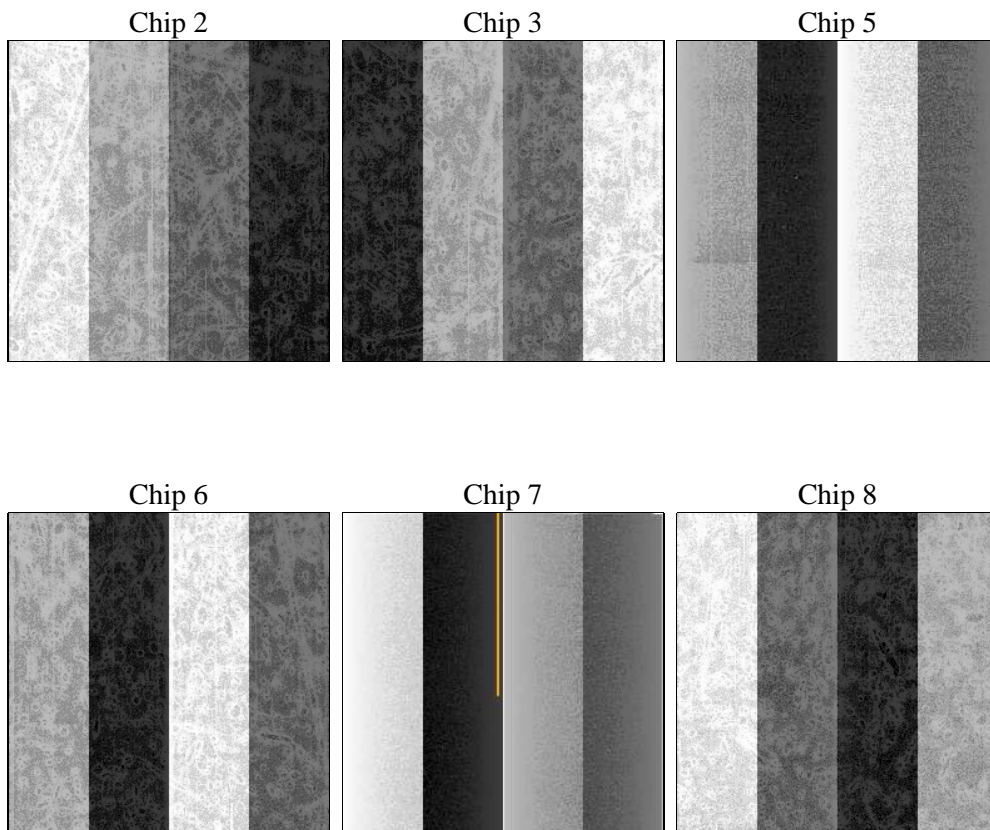
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 48932.355000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3 | Processing system revision | ontime | 49110.39981705 | Sum of GTIs [s] |
| caldbver | 4.4.8 | | ontime2 | 49107.15885675 | Sum of GTIs [s] |
| date | 2012-03-23T15:37:39 | Date and time of file creation | ontime3 | 49107.158826828 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime5 | 49110.39981705 | Sum of GTIs [s] |
| | | | ontime6 | 49103.917926371 | Sum of GTIs [s] |
| | | | ontime7 | 49110.39981705 | Sum of GTIs [s] |
| | | | ontime8 | 49103.917916358 | Sum of GTIs [s] |
| | | | l1events | 2075846 | Number of level 1 events |

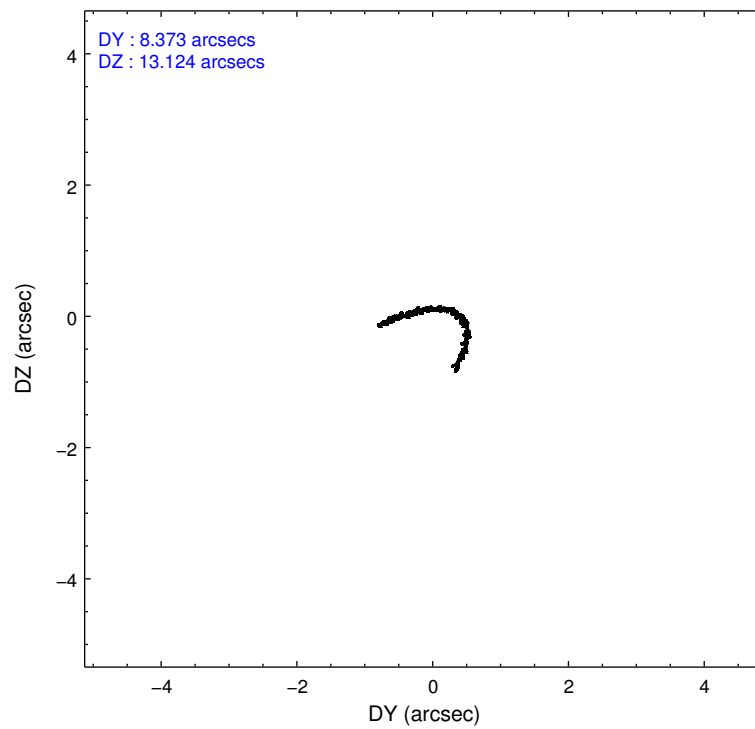
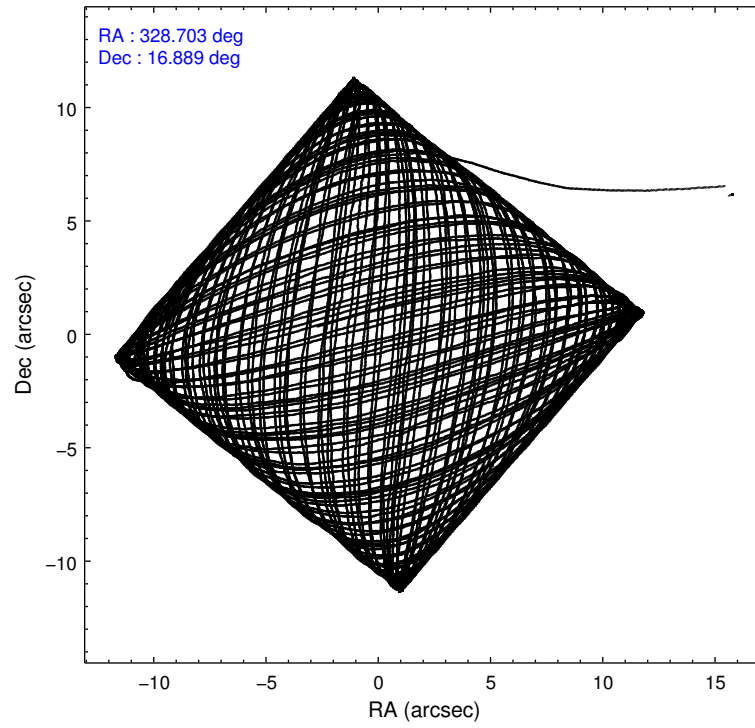
2.1.4 Events

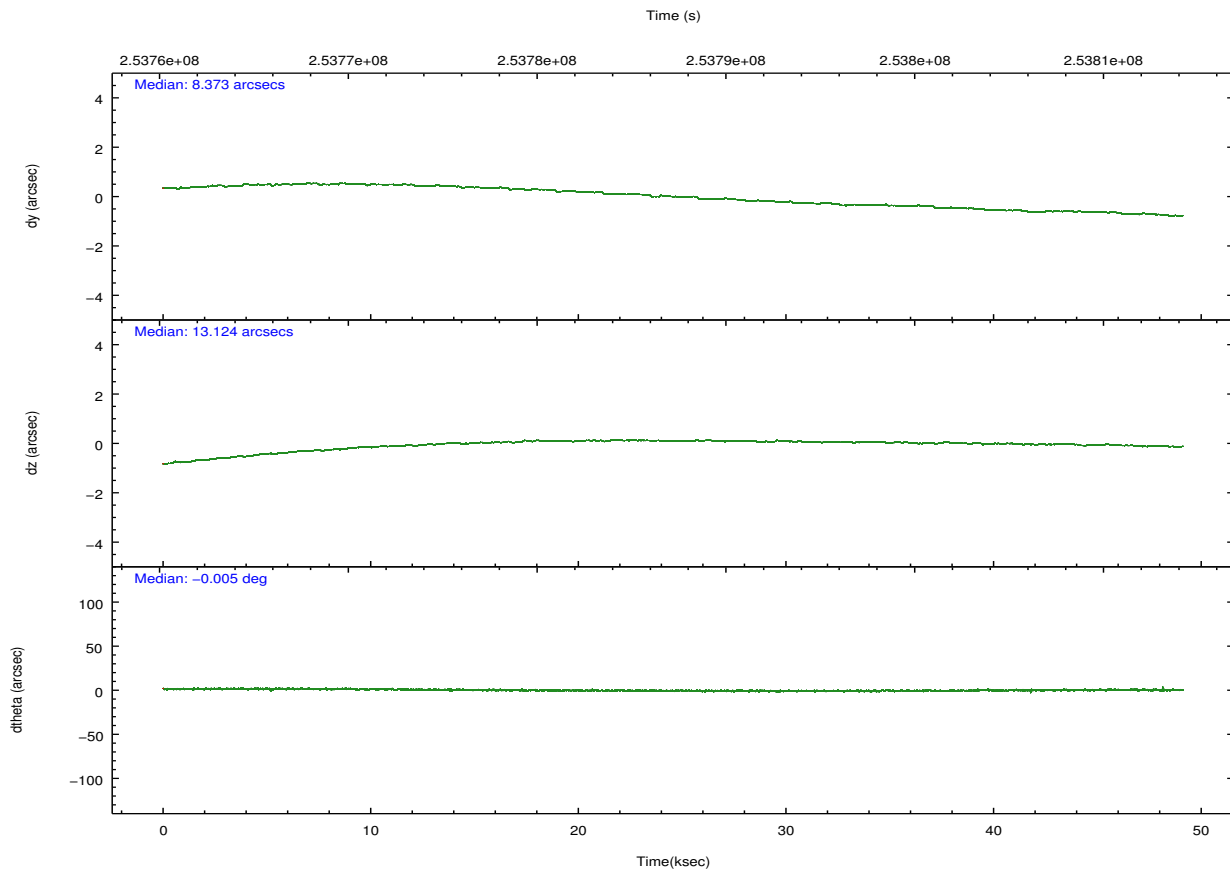
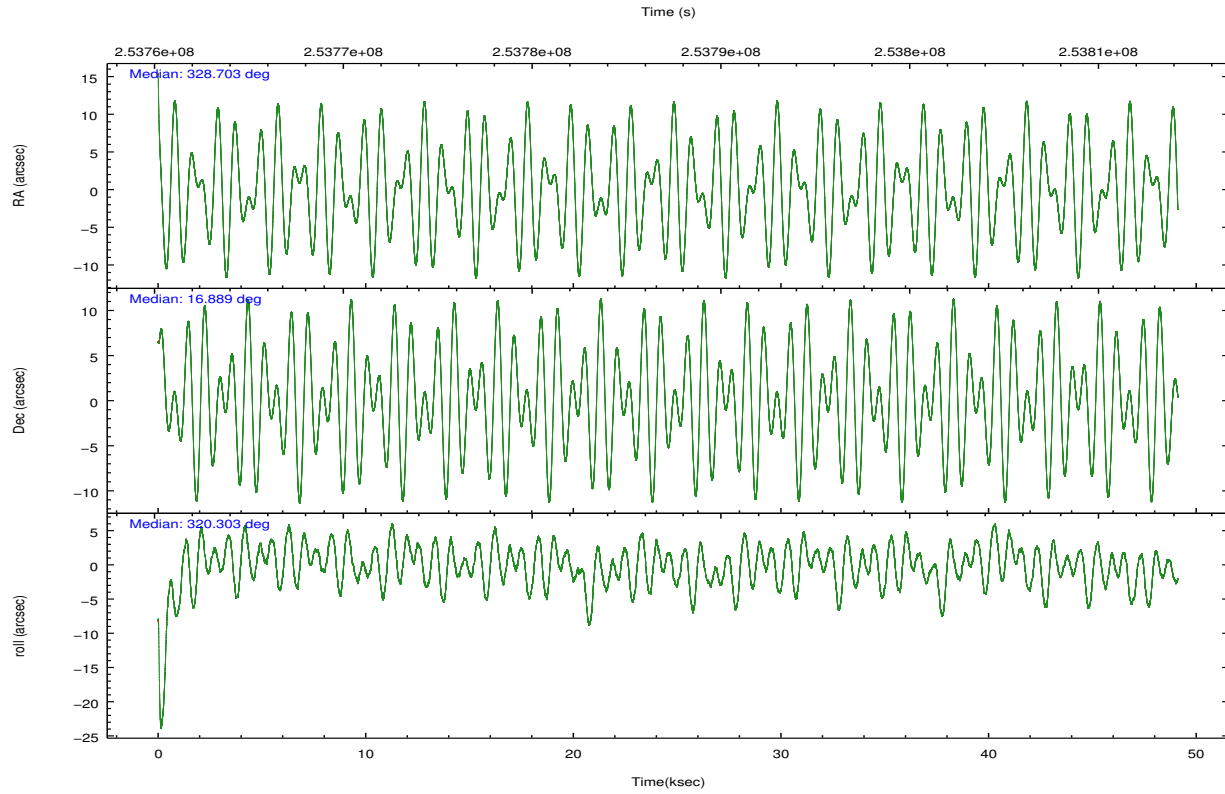
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 348903 | 312025 | 395515 | 323900 | 302465 | 393038 | grade 0 events | 11304 | 11338 | 25629 | 12481 | 14757 | 25632 |
| rejected events | 319238 | 282708 | 188150 | 291252 | 155284 | 299317 | | 3% | 3% | 6% | 3% | 4% | 6% |
| rejected % | 91% | 90% | 47% | 89% | 51% | 76% | grade 1 events | 160 | 170 | 416 | 153 | 335 | 272 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 7134 | 6130 | 62059 | 7085 | 31351 | 22751 |
| | | | | | | | | 2% | 1% | 15% | 2% | 10% | 5% |
| | | | | | | | grade 3 events | 3166 | 3486 | 9728 | 3577 | 14576 | 10660 |
| | | | | | | | | 0% | 1% | 2% | 1% | 4% | 2% |
| | | | | | | | grade 4 events | 3386 | 3380 | 9234 | 3588 | 14397 | 9894 |
| | | | | | | | | 0% | 1% | 2% | 1% | 4% | 2% |
| | | | | | | | grade 5 events | 8473 | 10519 | 32186 | 10878 | 32723 | 16103 |
| | | | | | | | | 2% | 3% | 8% | 3% | 10% | 4% |
| | | | | | | | grade 6 events | 5134 | 5416 | 103847 | 6368 | 74168 | 26195 |
| | | | | | | | | 1% | 1% | 26% | 1% | 24% | 6% |
| | | | | | | | grade 7 events | 310146 | 271586 | 152416 | 279770 | 120158 | 281531 |
| | | | | | | | | 88% | 87% | 38% | 86% | 39% | 71% |

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 | 328.674675 | 328.7027993062127 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 16.893340 | 16.8891211921604 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 320.158363 | 320.3068192307707 | [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) | 253762829.184000 | 253761418.18872 | | | |
| Observation start date | 2006-01-16T01:39:24 | 2006-01-16T01:16:58 | | | |
| [s] Observation end time (MET) | 253811762.184000 | 253811984.51606 | | | |
| Observation end date | 2006-01-16T15:14:57 | 2006-01-16T15:19:44 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



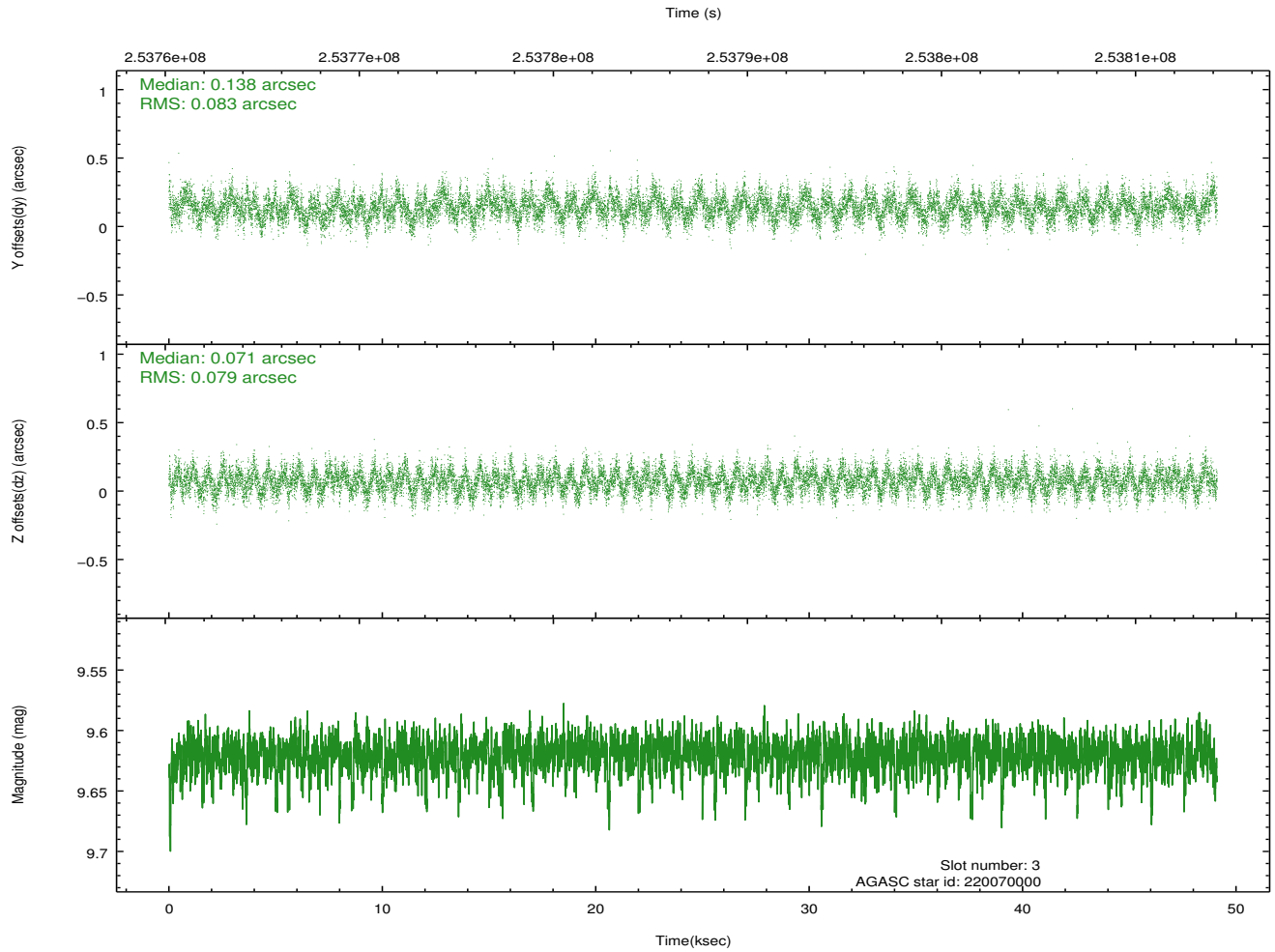
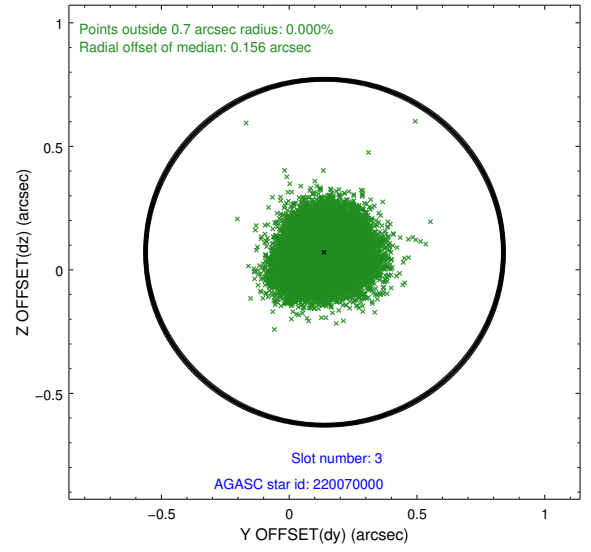
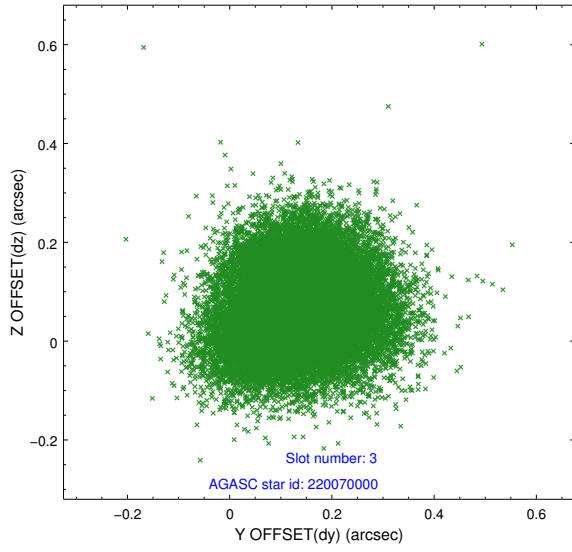


Slot Statistics

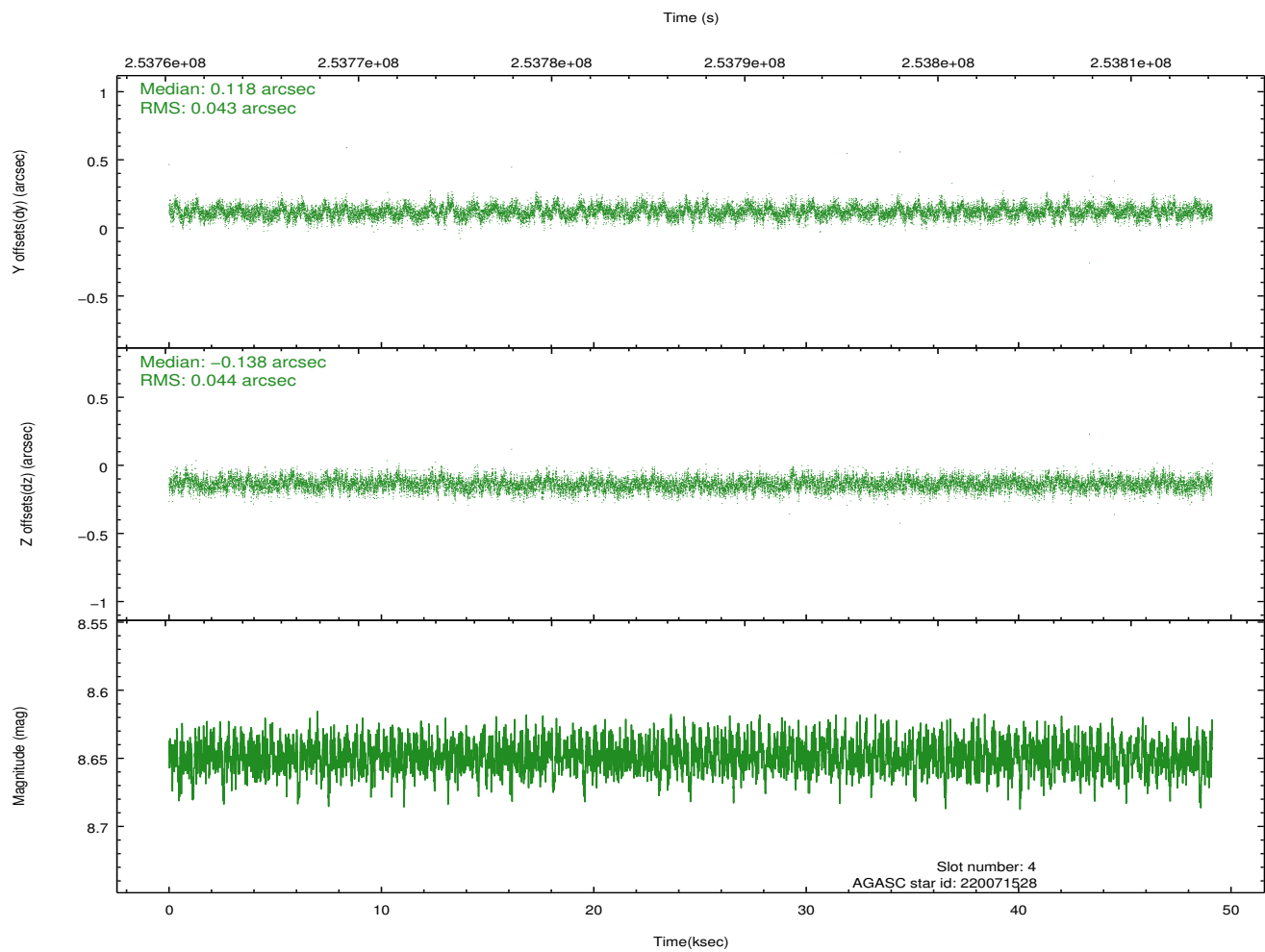
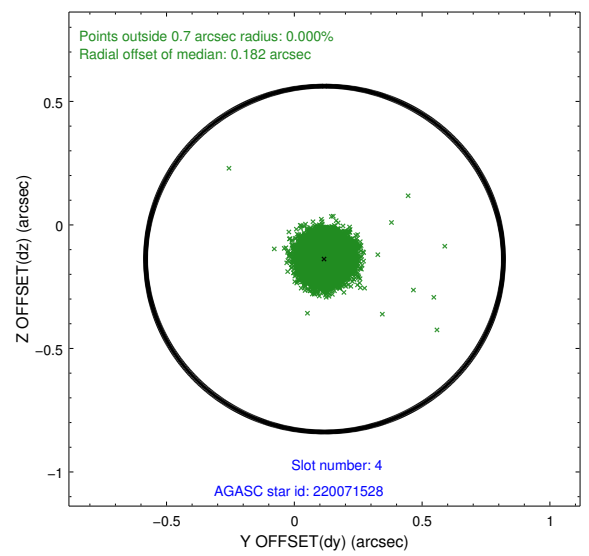
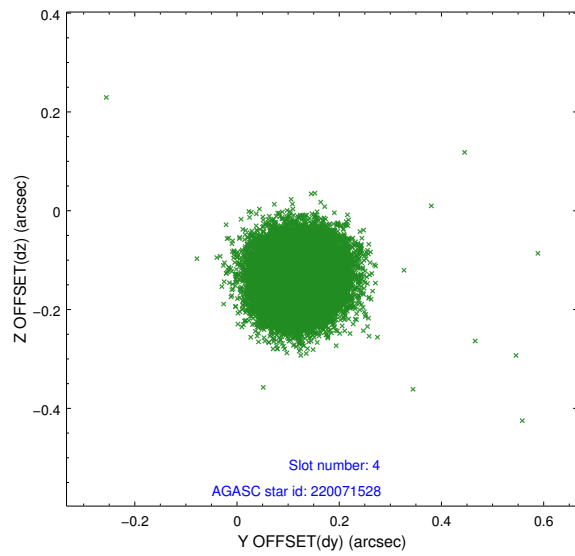
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-1 | 7.19 | 11980 | 0.078 | -0.040 | 0.010 | 0.030 | 0.000000 | 0.000000 | 934.95 | -1730.06 |
| 1 | FID | ACIS-S-5 | 7.24 | 11979 | -0.114 | 0.061 | 0.023 | 0.039 | 0.000000 | 0.000000 | -1814.21 | 167.66 |
| 2 | FID | ACIS-S-6 | 7.35 | 11979 | 0.014 | -0.009 | 0.022 | 0.038 | 0.000000 | 0.000000 | 400.50 | 811.49 |
| 3 | GUIDE | 220070000 | 9.62 | 23928 | 0.138 | 0.071 | 0.122 | 0.196 | 329.283110 | 16.602011 | 2282.02 | 542.54 |
| 4 | GUIDE | 220071528 | 8.65 | 23950 | 0.118 | -0.138 | 0.065 | 0.104 | 328.933551 | 16.712940 | 1101.48 | 73.62 |
| 5 | GUIDE | 220595632 | 9.29 | 23865 | -0.048 | 0.157 | 0.103 | 0.172 | 328.930788 | 17.108977 | 179.19 | 1161.29 |
| 6 | GUIDE | 220608440 | 9.58 | 23918 | -0.128 | 0.042 | 0.109 | 0.174 | 328.040690 | 17.032344 | -1998.26 | -1011.22 |
| 7 | GUIDE | 220597856 | 9.31 | 23937 | -0.087 | -0.120 | 0.134 | 0.210 | 329.110726 | 17.405179 | -31.55 | 2375.60 |

2.4 Star Slots

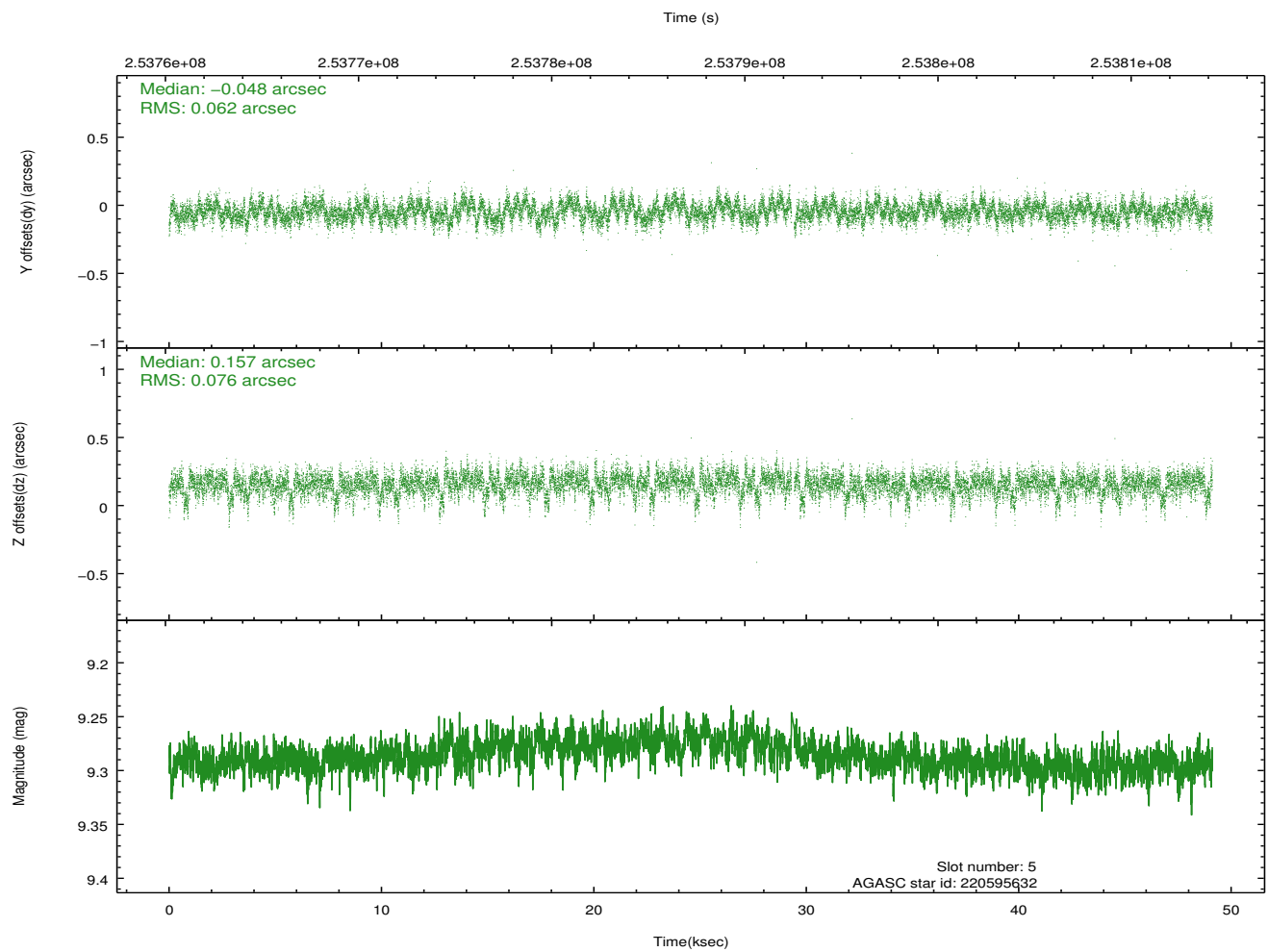
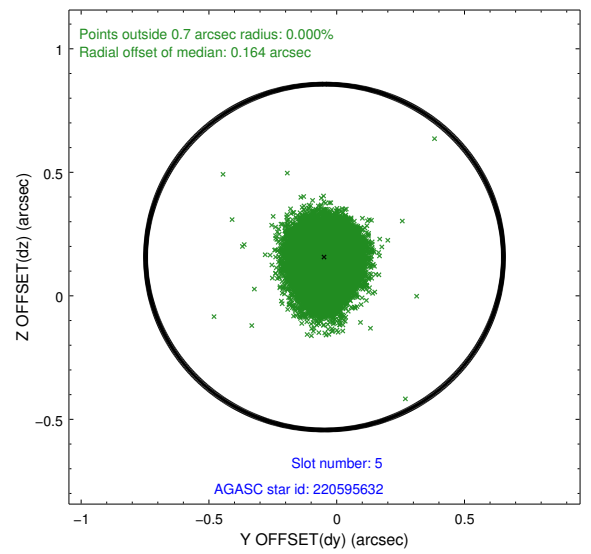
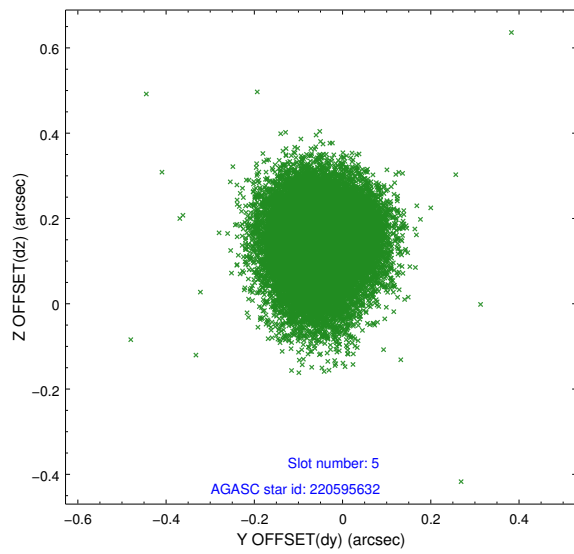
2.4.1 Slot 3



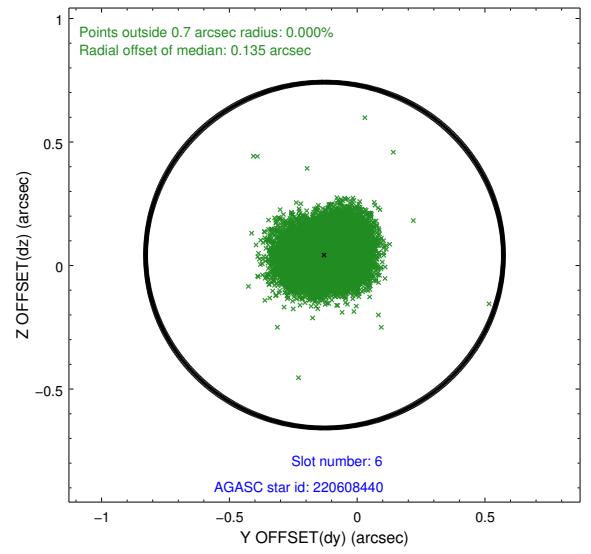
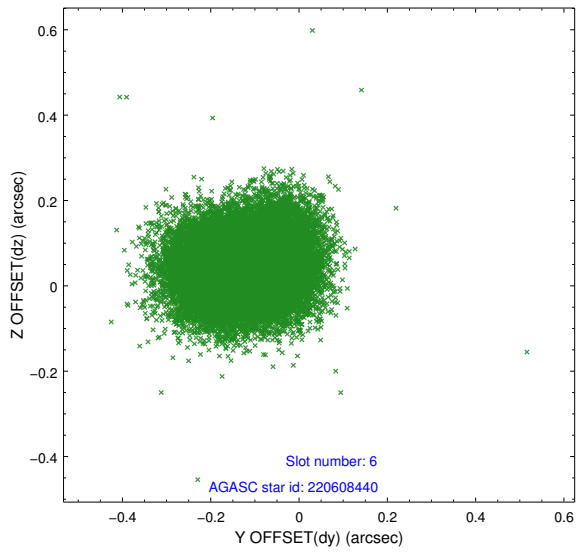
2.4.2 Slot 4



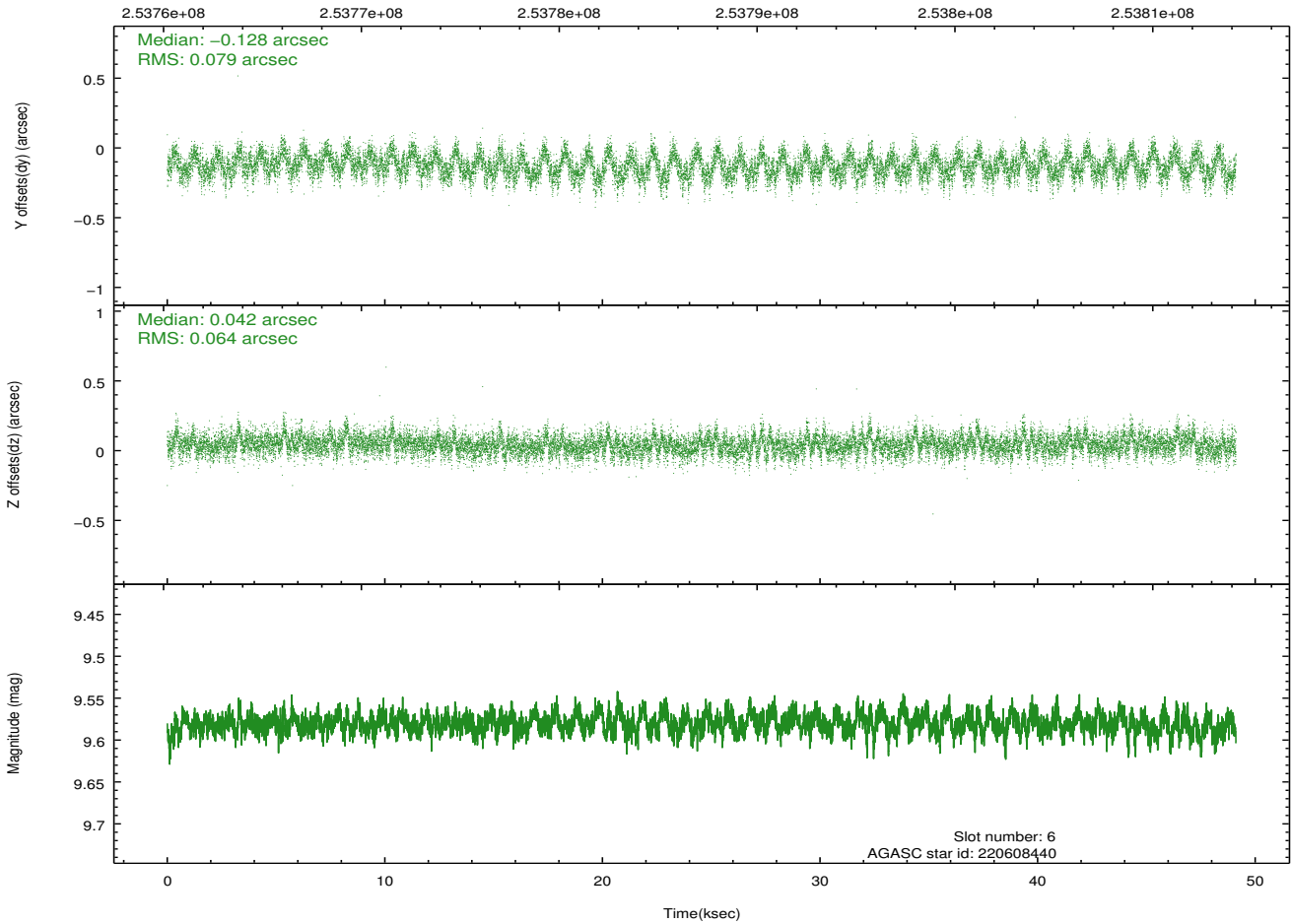
2.4.3 Slot 5



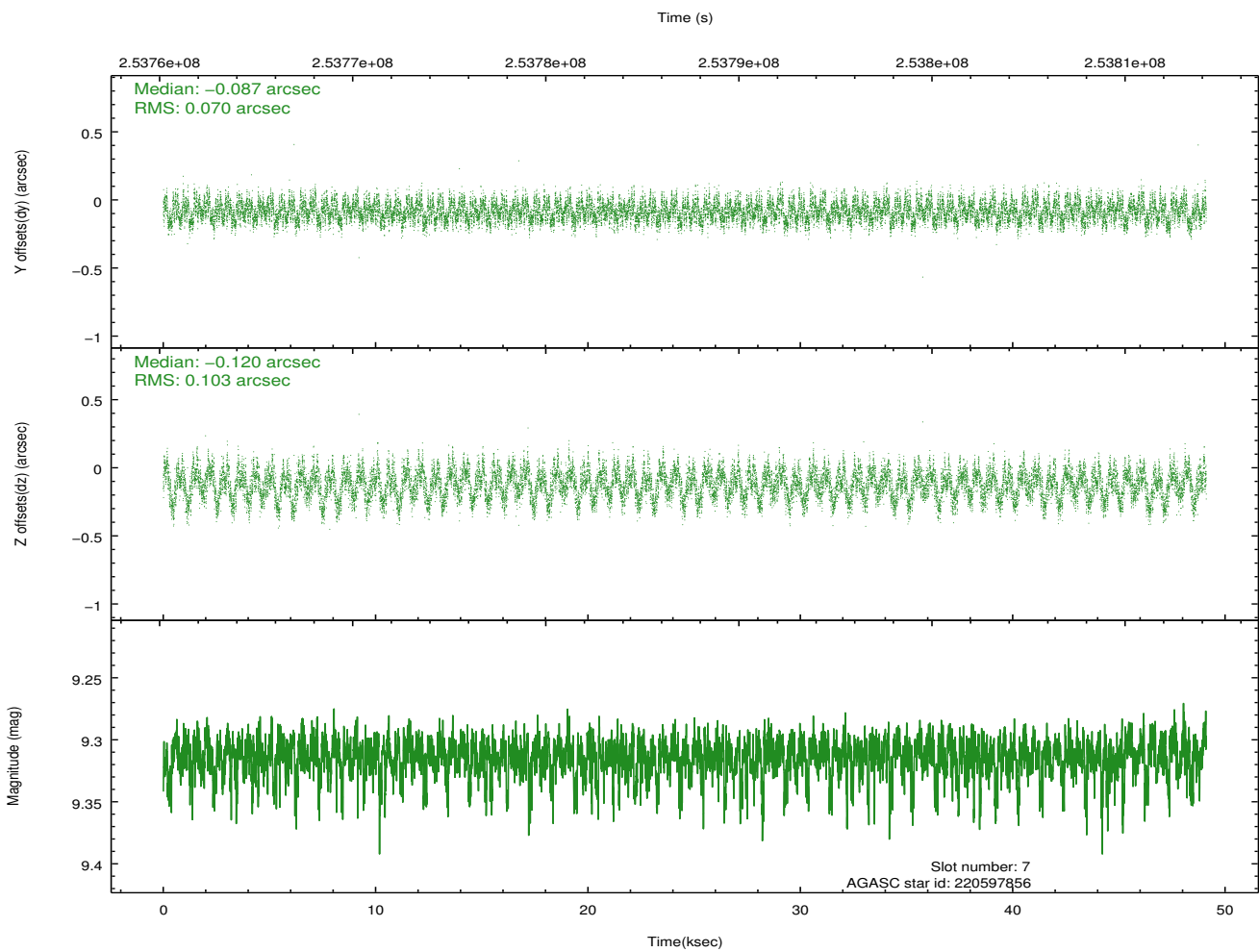
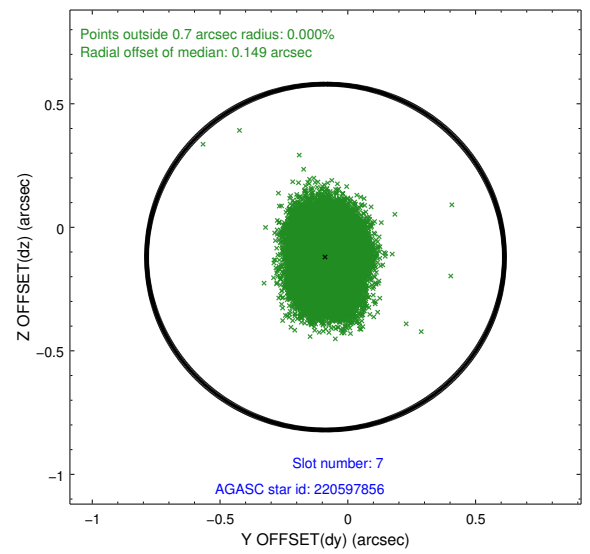
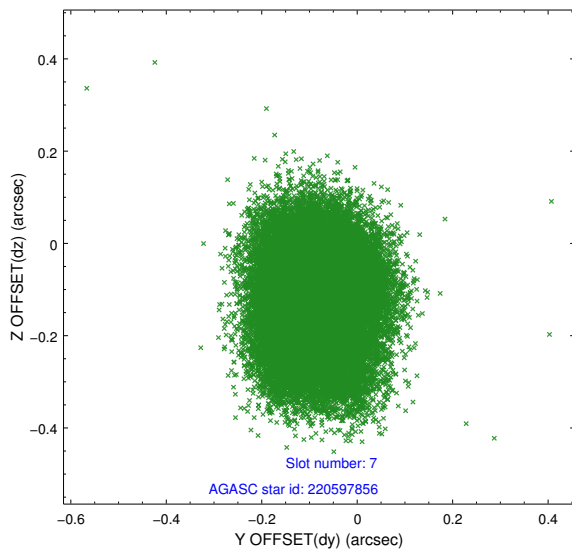
2.4.4 Slot 6



Time (s)

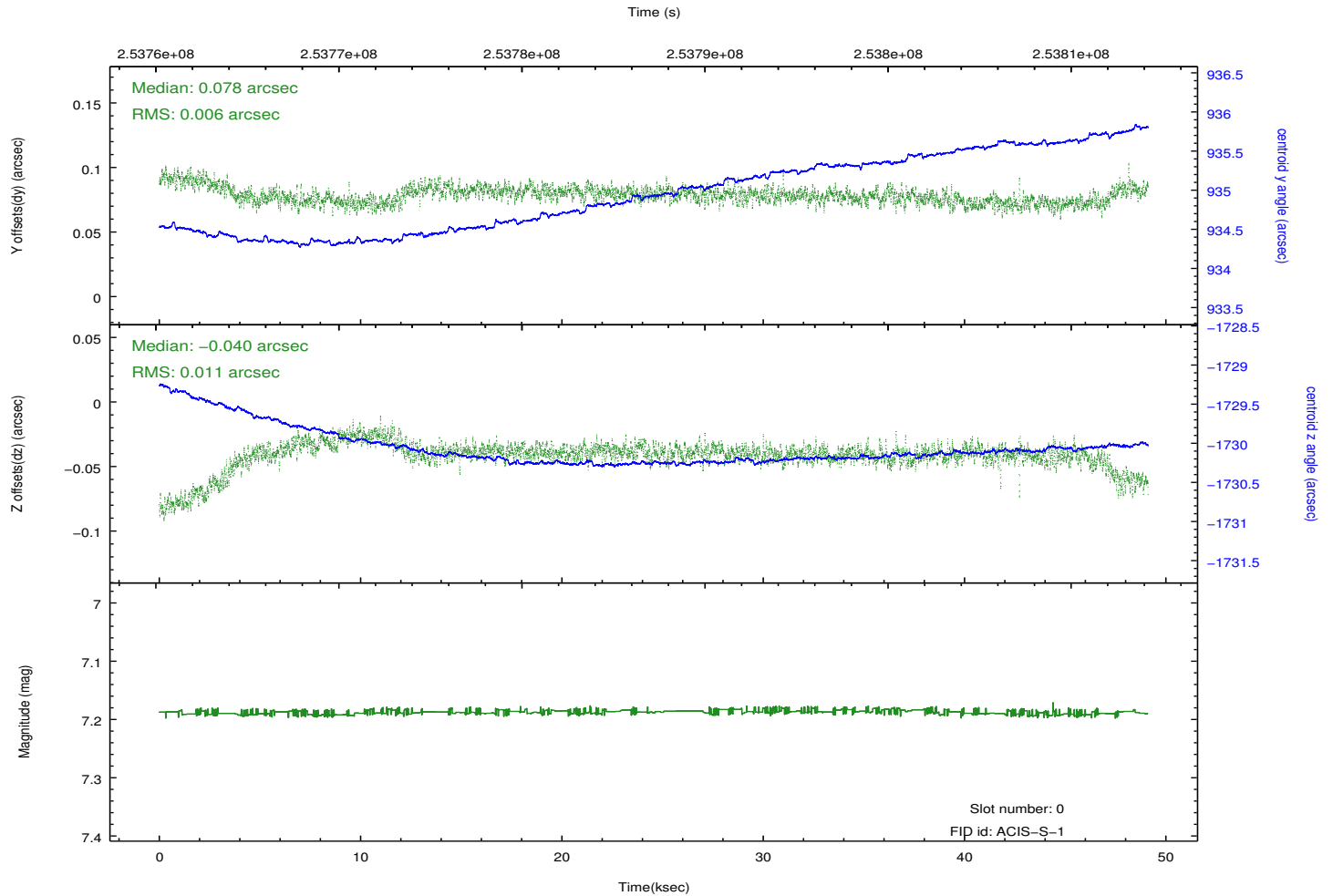
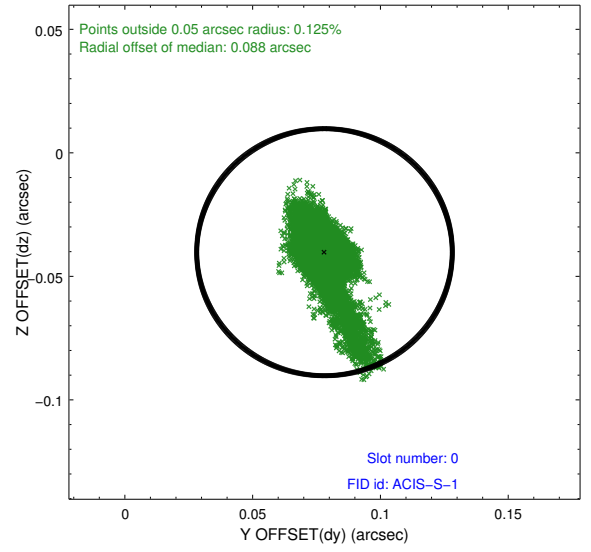
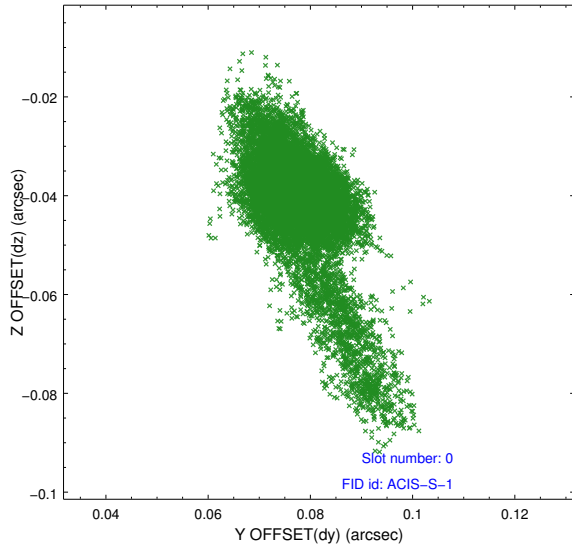


2.4.5 Slot 7

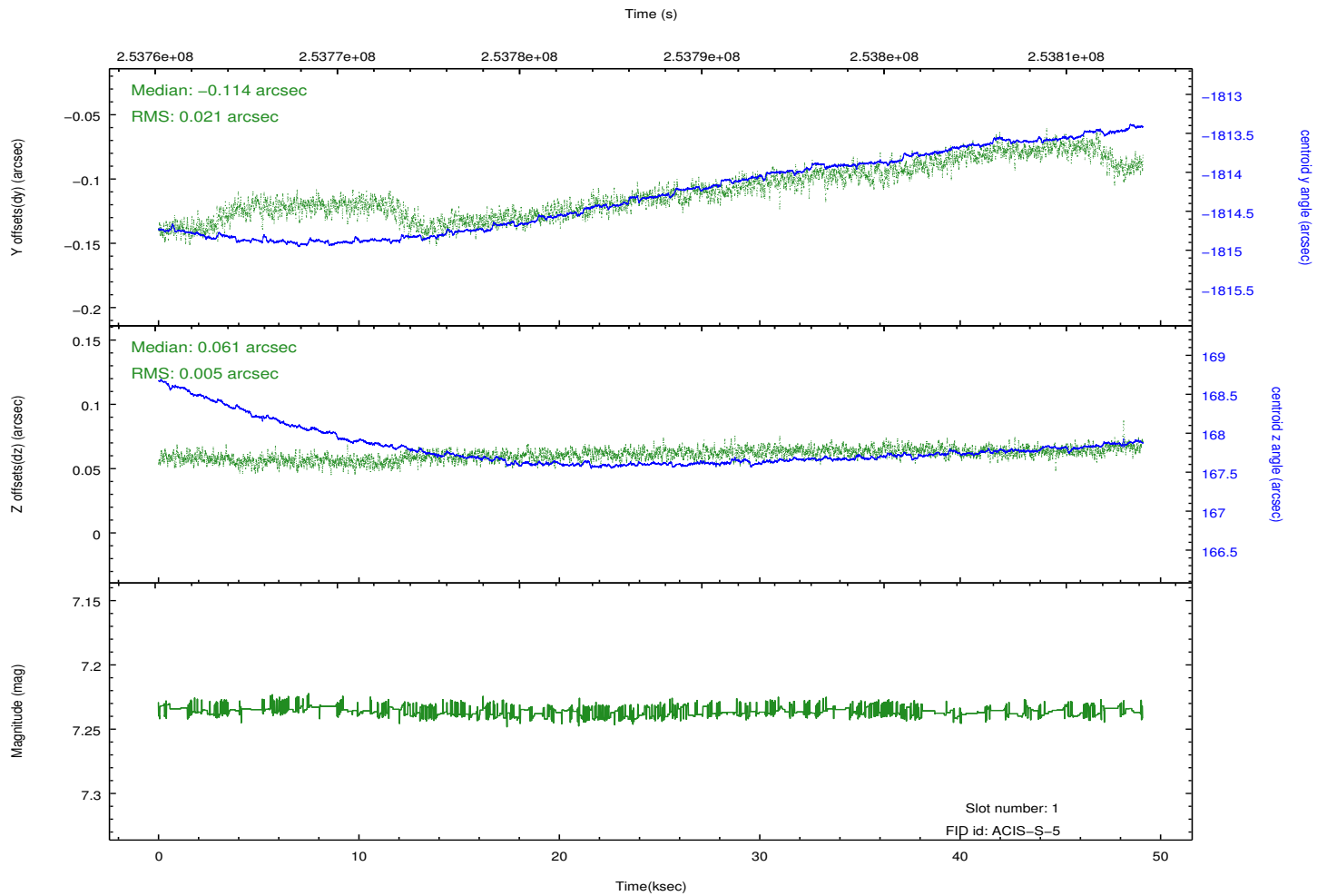
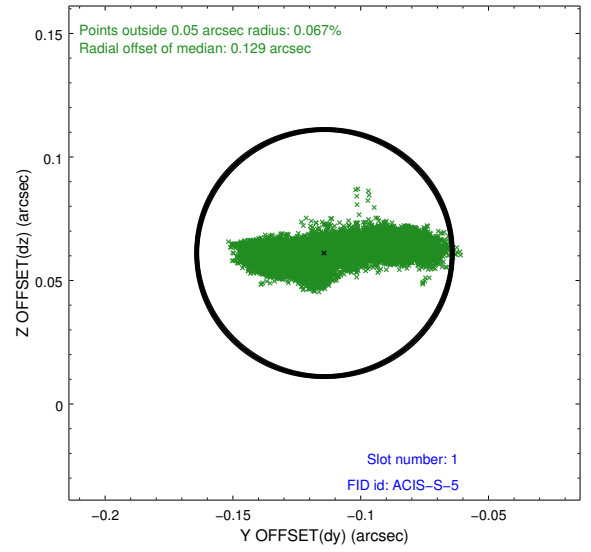
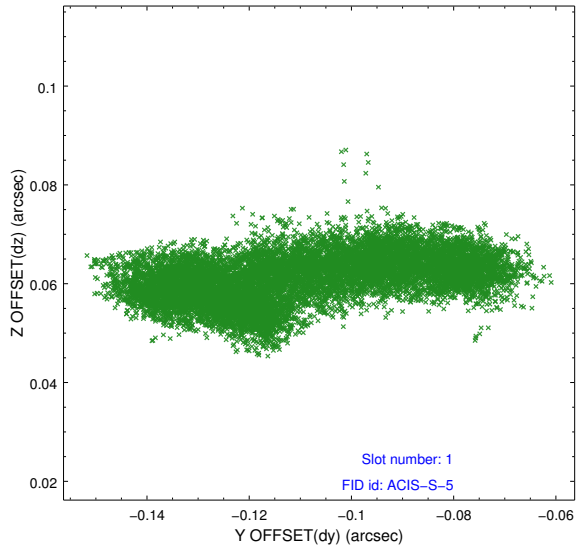


2.5 FID Slots

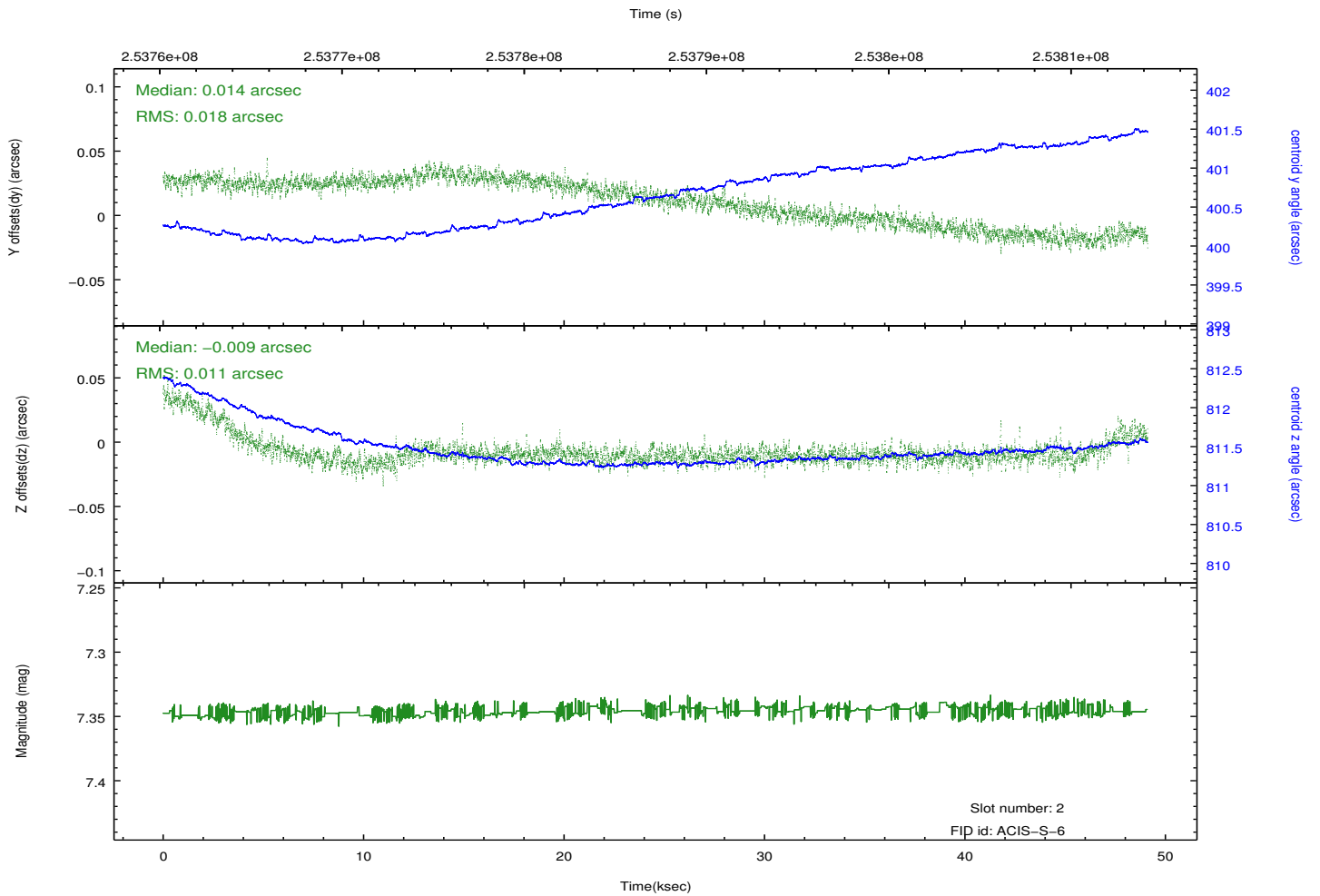
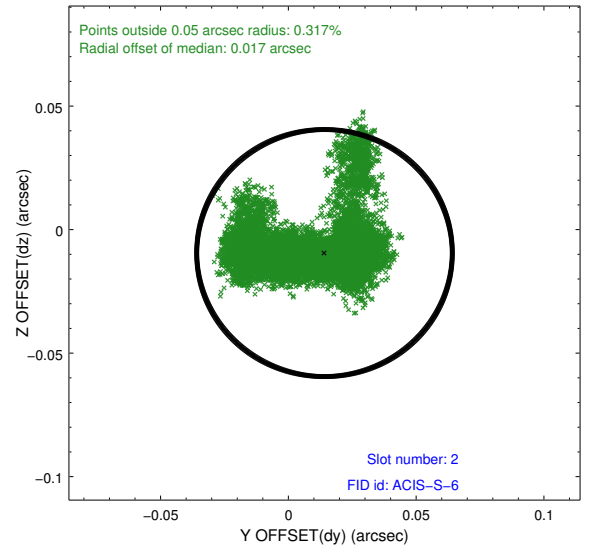
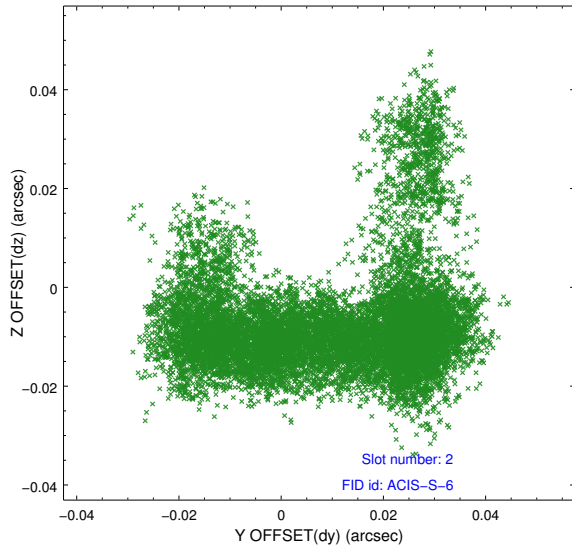
2.5.1 Slot 0



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) | 2012.03.23 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 49.1103998 |

A.2 Comments

Fid light in slot 2 has large deviations during first 10 ksec.