

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 10966 - L2 Version 2
Chandra X-Ray Center

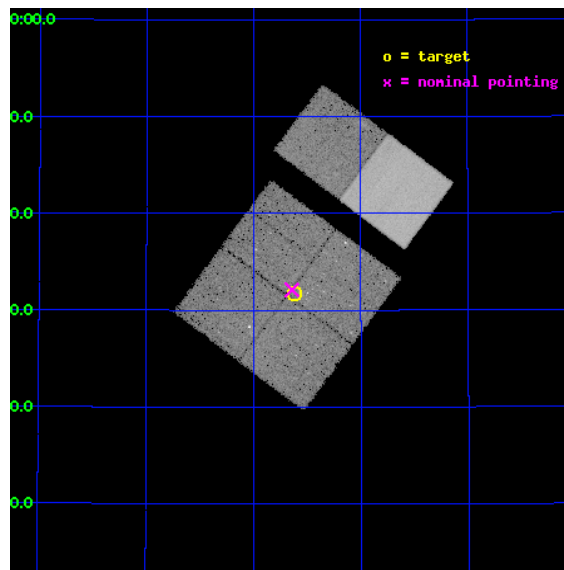
L2 Processing Date : Jun 22 2012

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1 Front

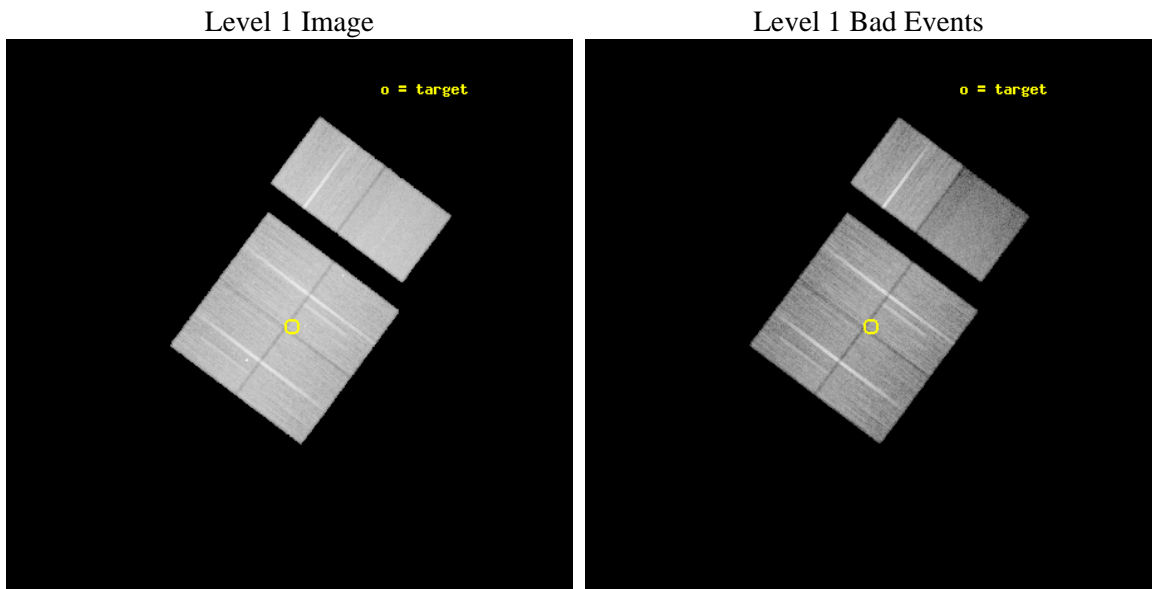
| | | |
|----------|-------------------------------|---|
| seq_num | 200598 | Sequence number |
| obs_id | 10966 | Observation id |
| title | The Chandra Cygnus OB2 Survey | Proposal title |
| observer | Dr. Jeremy Drake | Principal investigator |
| object | Cygnus OB2 | Source name |
| dtycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 308.654161 | Observer's specified target RA [deg] |
| dec_targ | 41.528661 | Observer's specified target Dec [deg] |
| ra_nom | 308.66049960705 | Nominal RA [deg] |
| dec_nom | 41.535206256826 | Nominal Dec [deg] |
| roll_nom | 36.704479491117 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 29545.098871052 | Sum of GTIs [s] |
| livetime | 29170.981039224 | Livetime [s] |
| ontime0 | 29541.734790802 | Sum of GTIs [s] |
| ontime1 | 29545.016791046 | Sum of GTIs [s] |
| ontime2 | 29541.816960335 | Sum of GTIs [s] |
| ontime3 | 29545.098871052 | Sum of GTIs [s] |
| ontime6 | 29545.180951059 | Sum of GTIs [s] |
| ontime7 | 29545.139911056 | Sum of GTIs [s] |
| l2events | 213697 | Number of level 2 events |



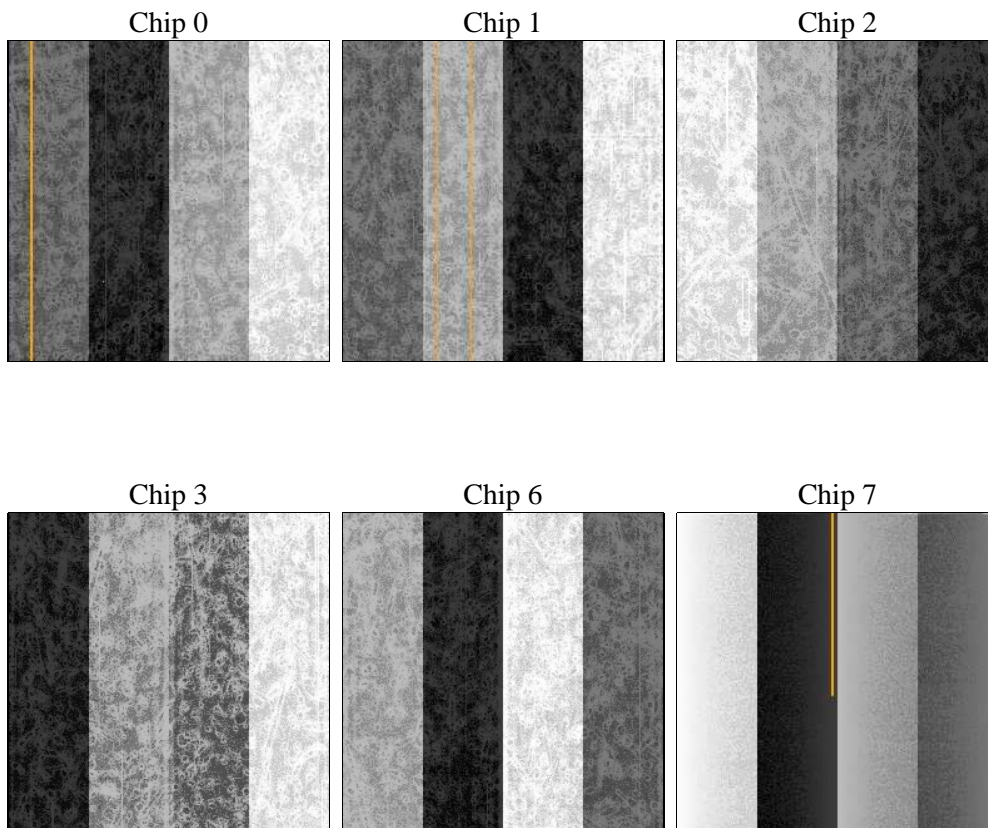
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 29500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 29545.098871052 | Sum of GTIs [s] |
| caldbver | 4.4.10 | | ontime0 | 29541.734790802 | Sum of GTIs [s] |
| date | 2012-06-22T04:30:13 | Date and time of file creation | ontime1 | 29545.016791046 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 29541.816960335 | Sum of GTIs [s] |
| | | | ontime3 | 29545.098871052 | Sum of GTIs [s] |
| | | | ontime6 | 29545.180951059 | Sum of GTIs [s] |
| | | | ontime7 | 29545.139911056 | Sum of GTIs [s] |
| | | | l1events | 1343979 | Number of level 1 events |

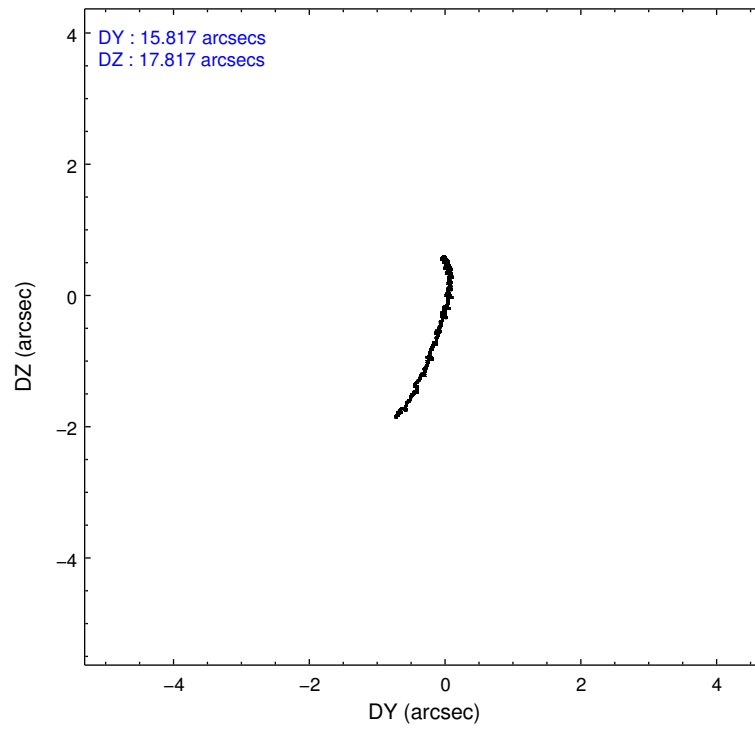
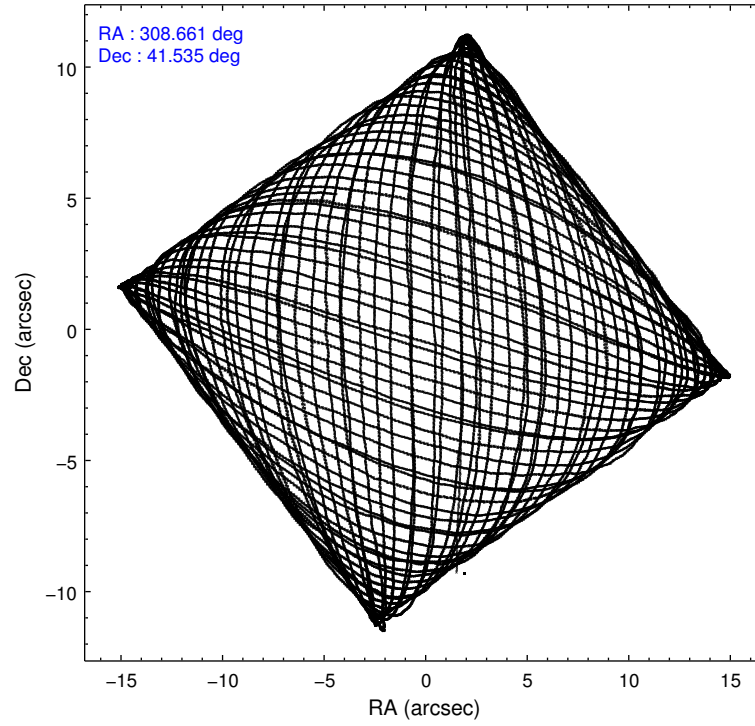
2.1.4 Events

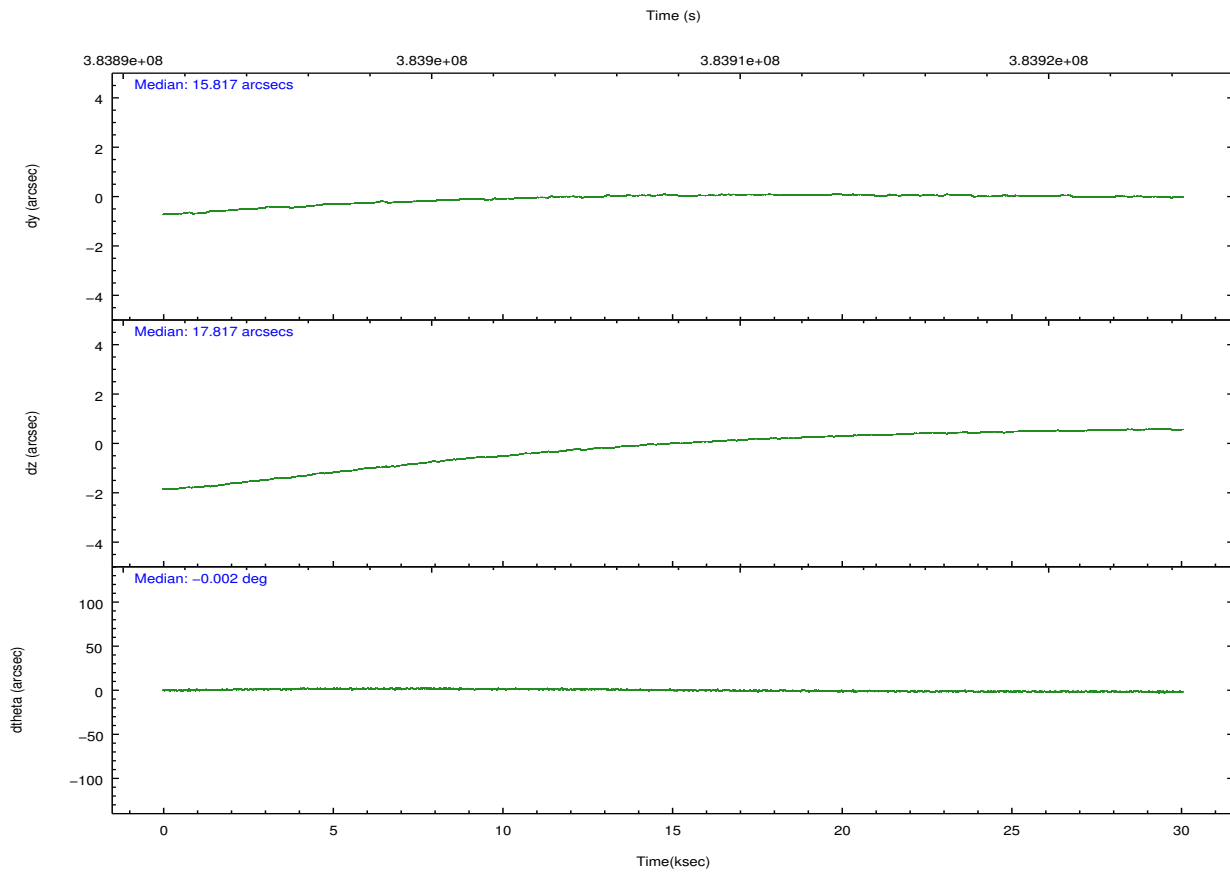
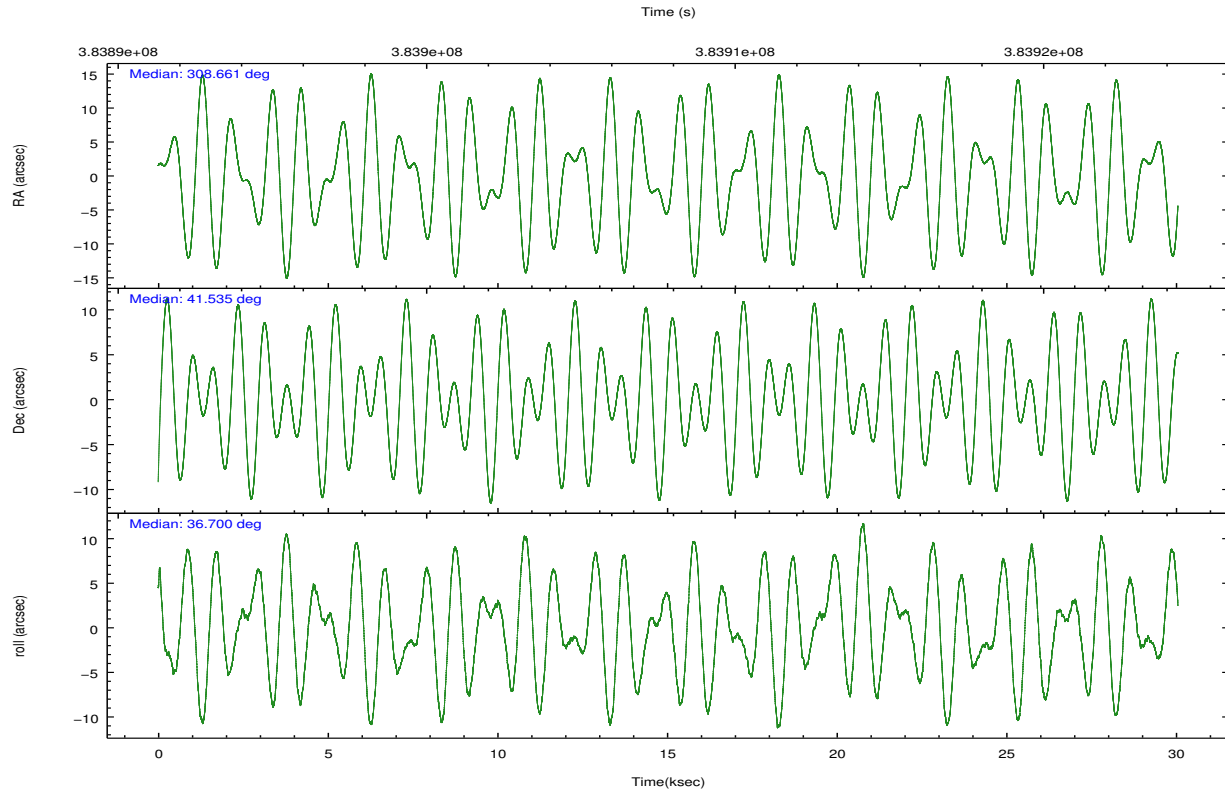
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|-------|
| level 1 events | 207810 | 206820 | 235321 | 227861 | 237352 | 228815 | grade 0 events | 10151 | 9847 | 9905 | 10588 | 9391 | 11276 |
| rejected events | 182271 | 180802 | 210577 | 202824 | 212229 | 116975 | | 4% | 4% | 4% | 4% | 3% | 4% |
| rejected % | 87% | 87% | 89% | 89% | 89% | 51% | grade 1 events | 156 | 124 | 159 | 161 | 148 | 359 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 5977 | 5732 | 5934 | 5231 | 5739 | 24135 |
| | | | | | | | | 2% | 2% | 2% | 2% | 2% | 10% |
| | | | | | | | grade 3 events | 2626 | 2789 | 2370 | 2517 | 2430 | 10404 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 4 events | 2460 | 2676 | 2457 | 2435 | 2546 | 10115 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 5 events | 7412 | 7899 | 6873 | 8167 | 8458 | 24505 |
| | | | | | | | | 3% | 3% | 2% | 3% | 3% | 10% |
| | | | | | | | grade 6 events | 4335 | 4978 | 4086 | 4267 | 5020 | 55941 |
| | | | | | | | | 2% | 2% | 1% | 1% | 2% | 24% |
| | | | | | | | grade 7 events | 174693 | 172775 | 203537 | 194495 | 203620 | 92080 |
| | | | | | | | | 84% | 83% | 86% | 85% | 85% | 40% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-012367 | ACIS-012367 | 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 | 308.646118 | 308.6604996070469 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | 41.509902 | 41.53520625682632 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 36.505327 | 36.70447949111687 | 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 | O2 | Y |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | CCD S3 on | O1 | Y |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 383893341.184000 | 383892147.3501 | CCD S5 on | N | N |
| Observation start date | 2010-03-02T05:01:15 | 2010-03-02T04:42:27 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 383922841.184000 | 383922975.25166 | On-chip summing requested | N | N |
| Observation end date | 2010-03-02T13:12:55 | 2010-03-02T13:16:15 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



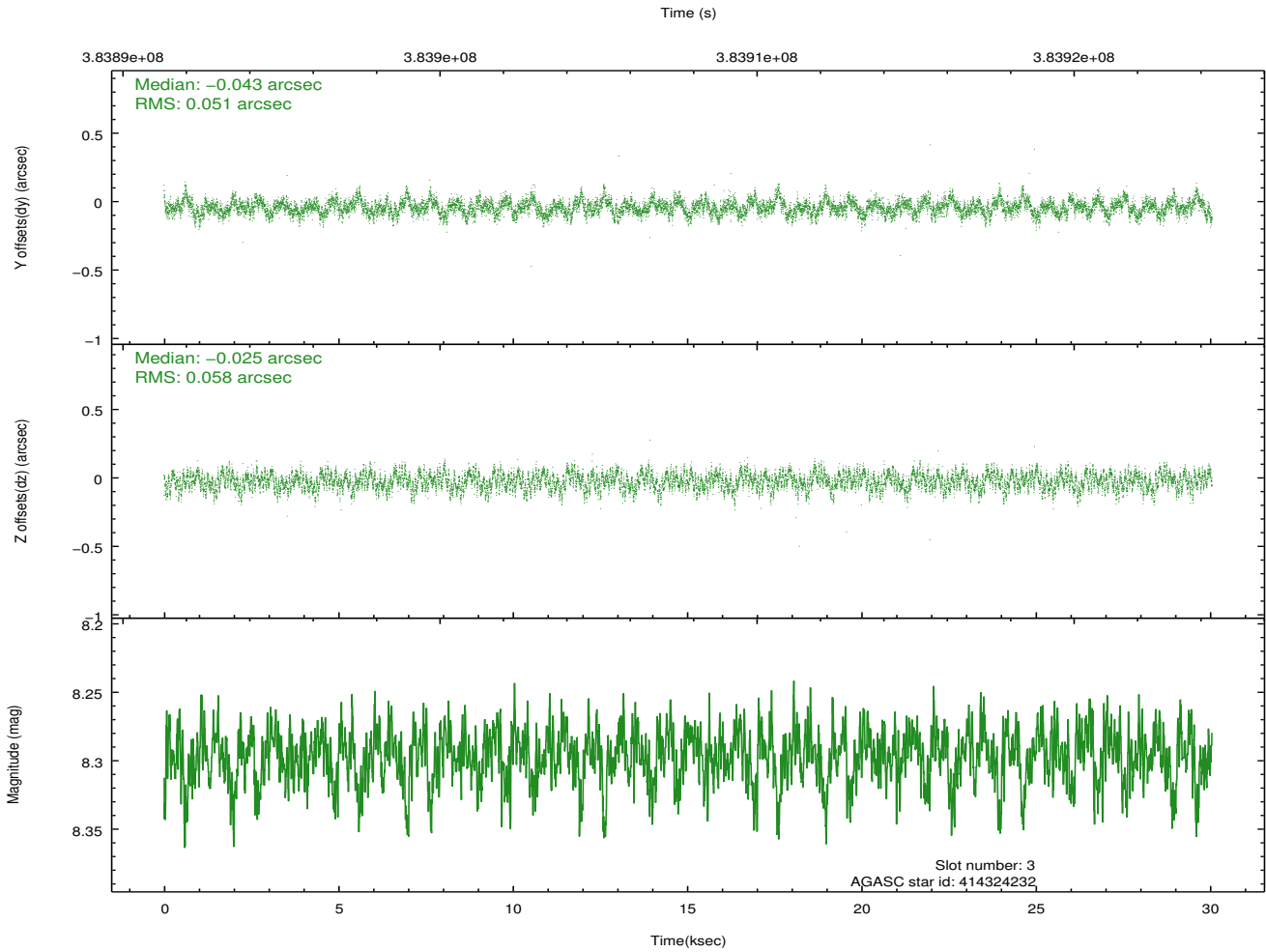
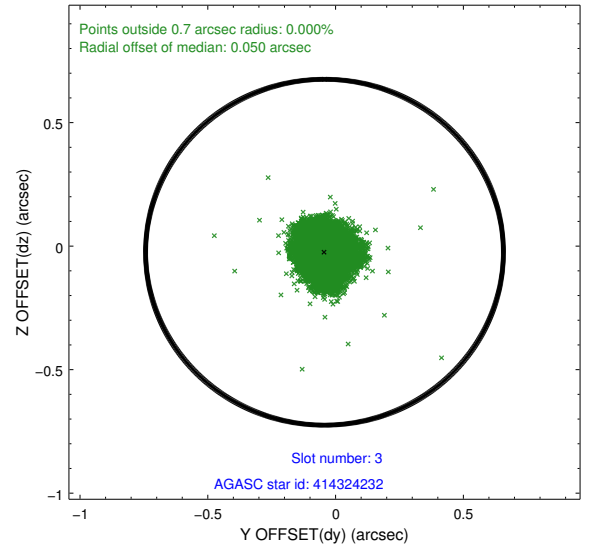
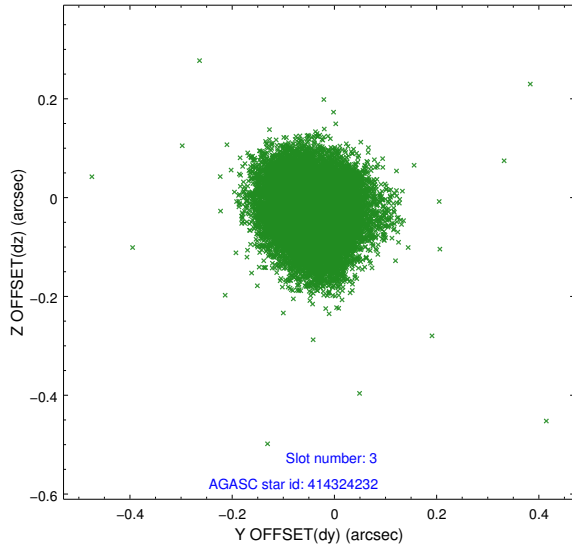


Slot Statistics

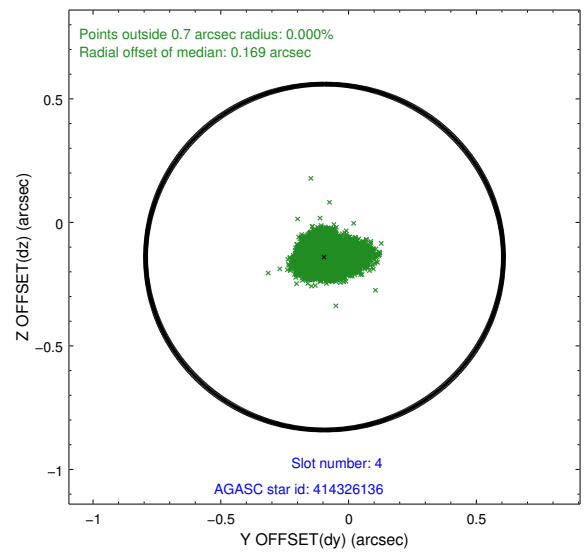
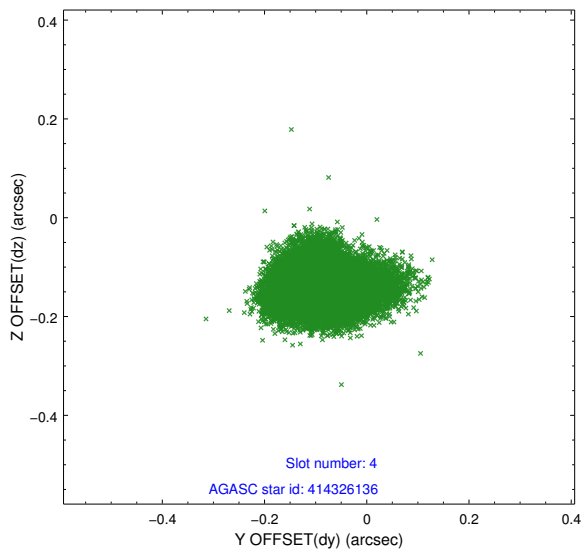
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.00 | 7331 | 0.047 | 0.004 | 0.026 | 0.038 | 0.000000 | 0.000000 | 923.76 | -841.24 |
| 1 | FID | ACIS-I-5 | 6.99 | 7331 | -0.208 | 0.055 | 0.010 | 0.015 | 0.000000 | 0.000000 | -1824.55 | 1056.28 |
| 2 | FID | ACIS-I-6 | 7.01 | 7330 | 0.071 | 0.010 | 0.019 | 0.038 | 0.000000 | 0.000000 | 389.26 | 1700.82 |
| 3 | GUIDE | 414324232 | 8.30 | 14660 | -0.043 | -0.025 | 0.082 | 0.130 | 308.637806 | 41.996627 | 1024.41 | 1421.79 |
| 4 | GUIDE | 414326136 | 7.36 | 14661 | -0.094 | -0.140 | 0.072 | 0.121 | 308.256176 | 41.473642 | -921.27 | 522.84 |
| 5 | GUIDE | 414327224 | 7.98 | 14598 | 0.052 | 0.073 | 0.065 | 0.107 | 309.355439 | 41.393115 | 1294.89 | -1470.80 |
| 6 | GUIDE | 413800040 | 8.52 | 14649 | 0.072 | 0.157 | 0.065 | 0.106 | 308.324931 | 40.981886 | -1831.14 | -1007.50 |
| 7 | GUIDE | 414319912 | 8.92 | 14656 | 0.010 | -0.064 | 0.070 | 0.112 | 308.768330 | 42.373876 | 2111.65 | 2307.08 |

2.4 Star Slots

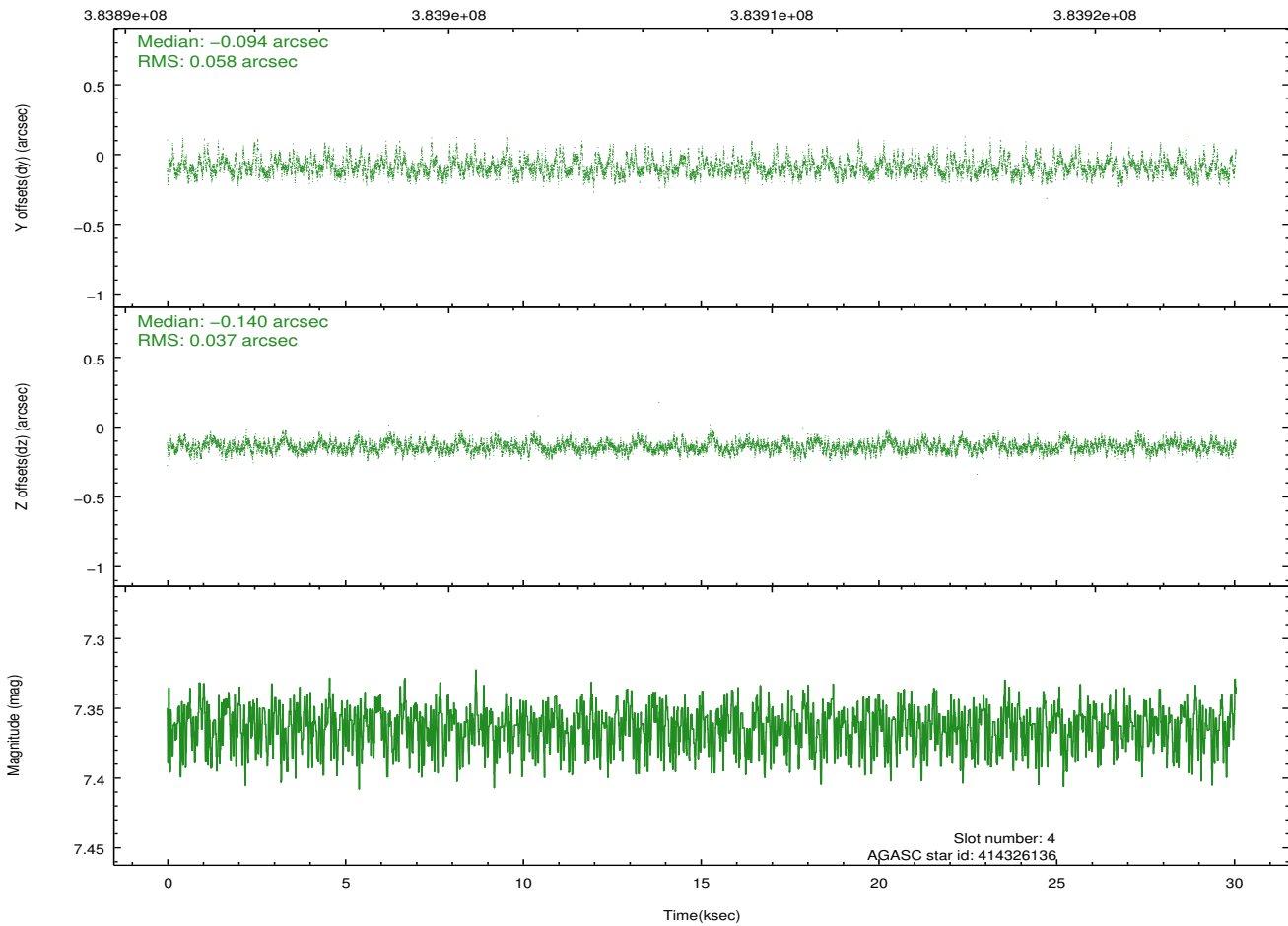
2.4.1 Slot 3



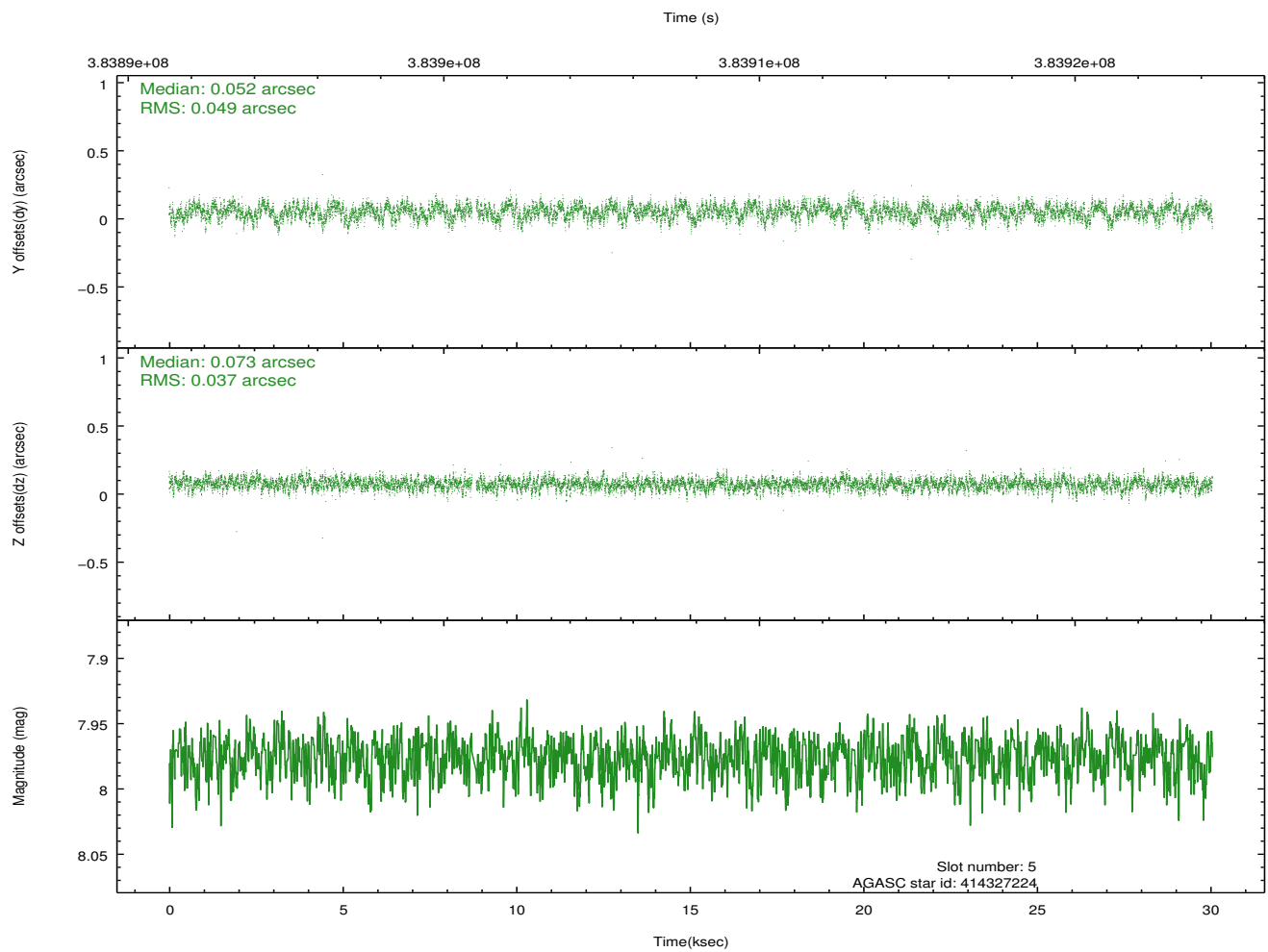
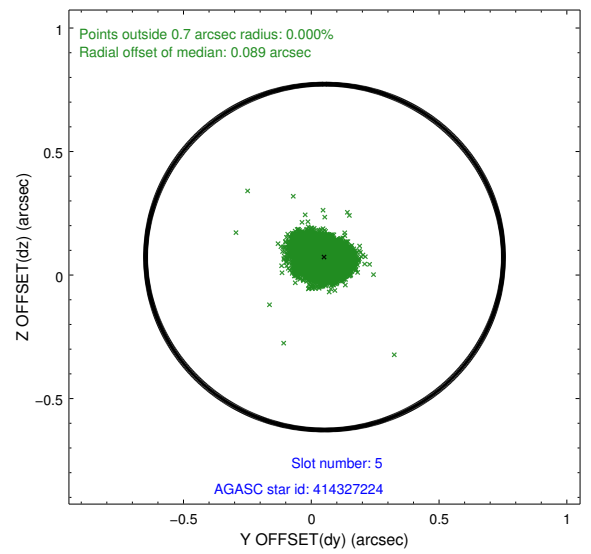
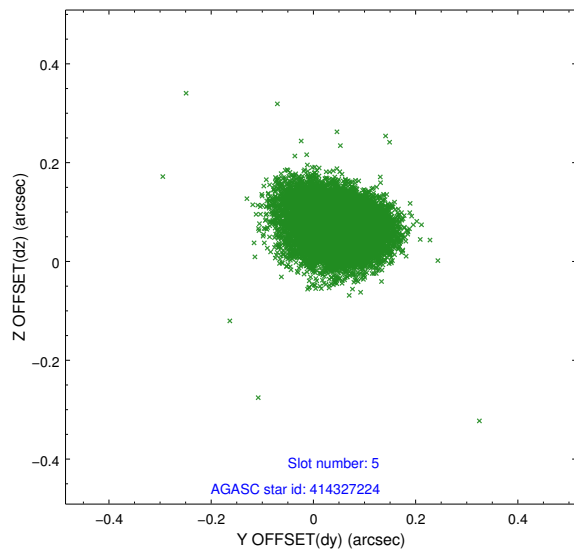
2.4.2 Slot 4



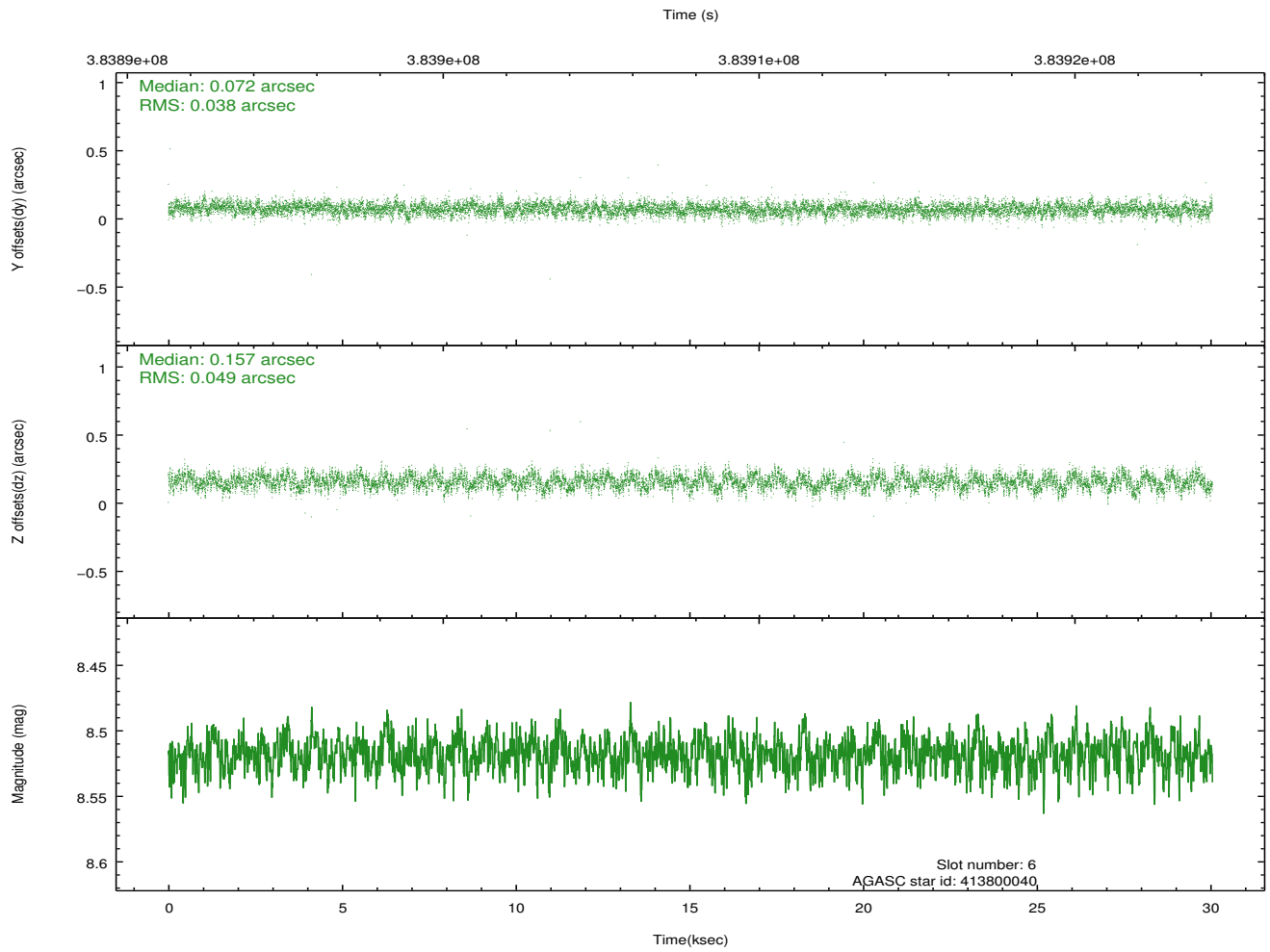
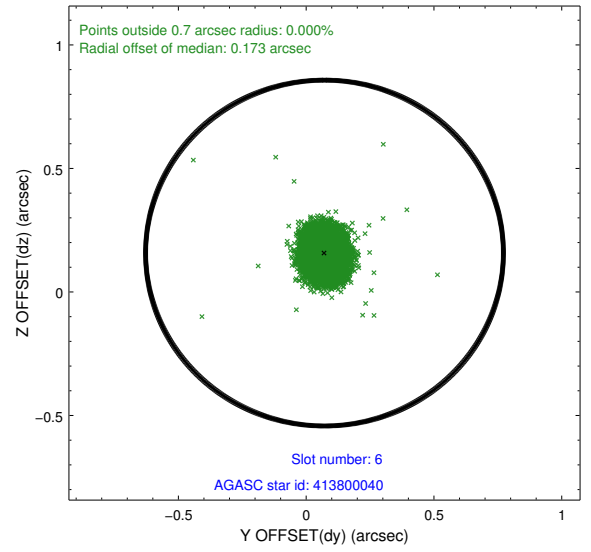
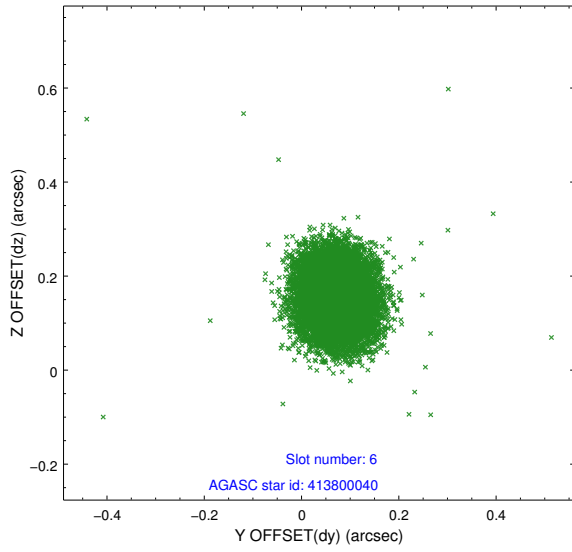
Time (s)



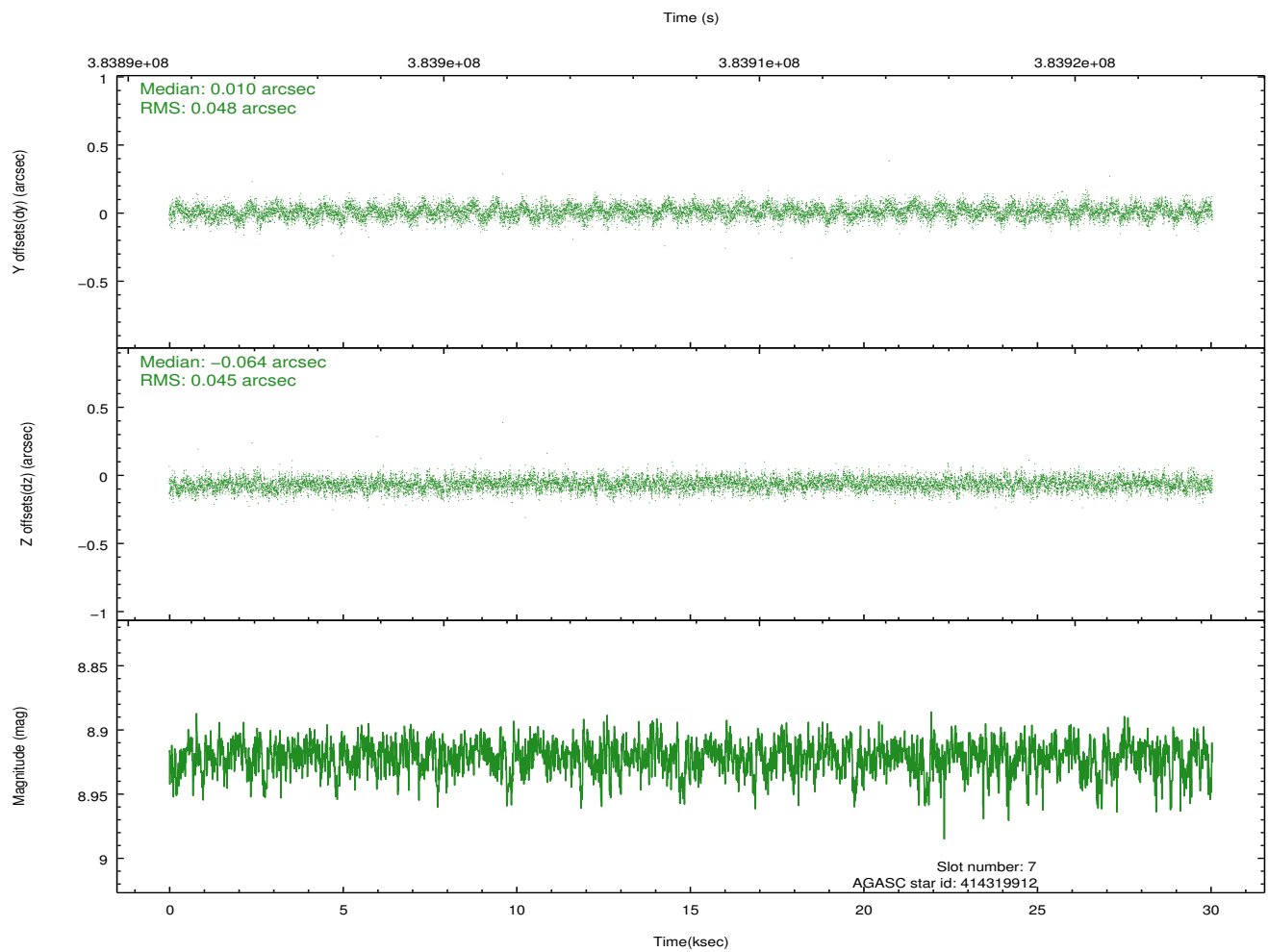
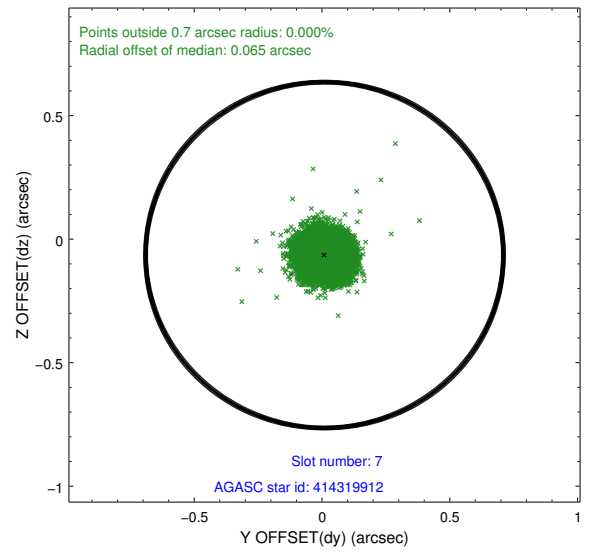
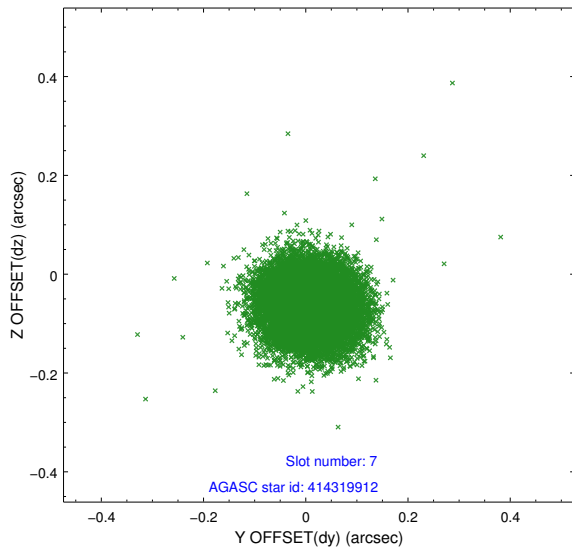
2.4.3 Slot 5



2.4.4 Slot 6

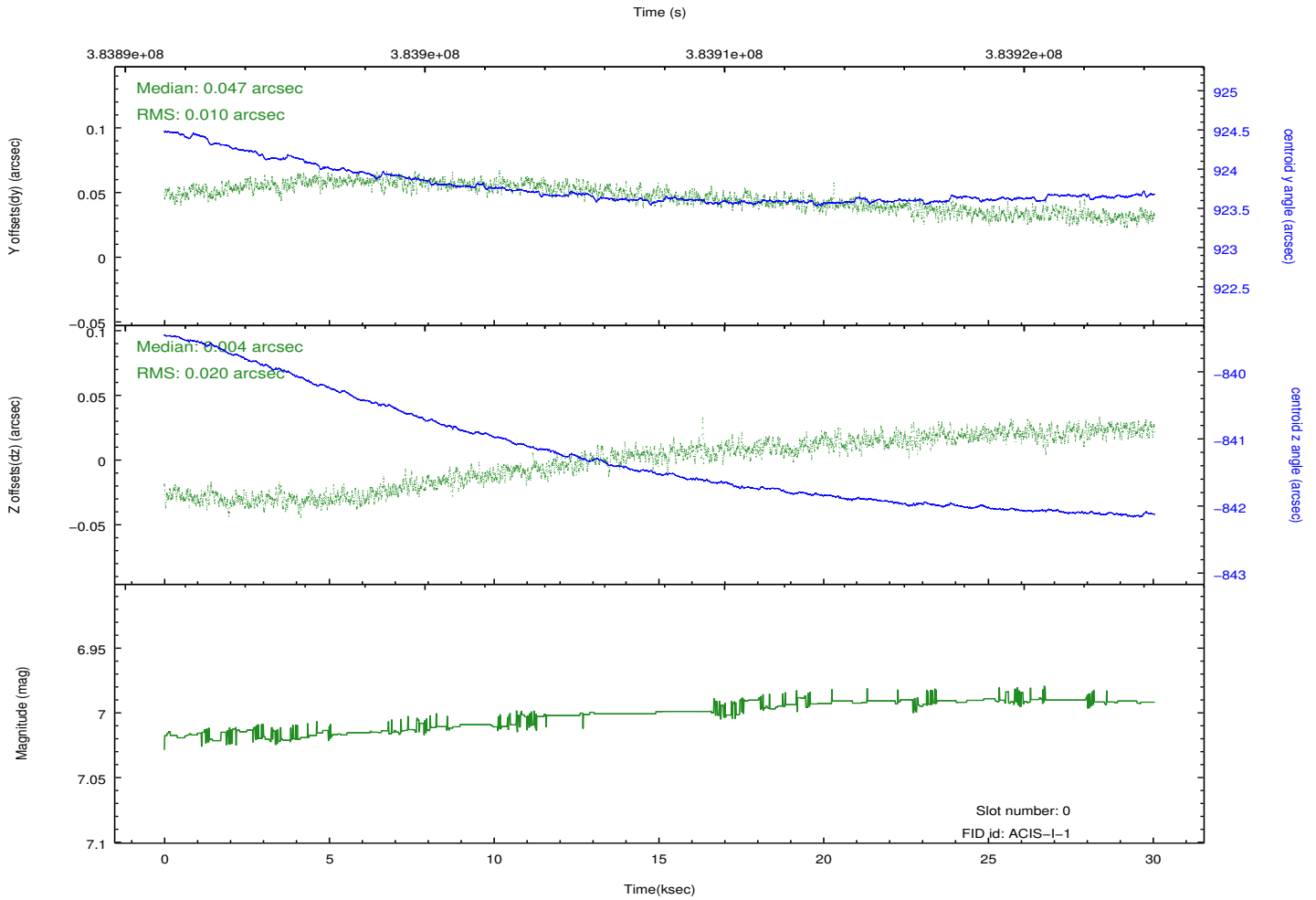
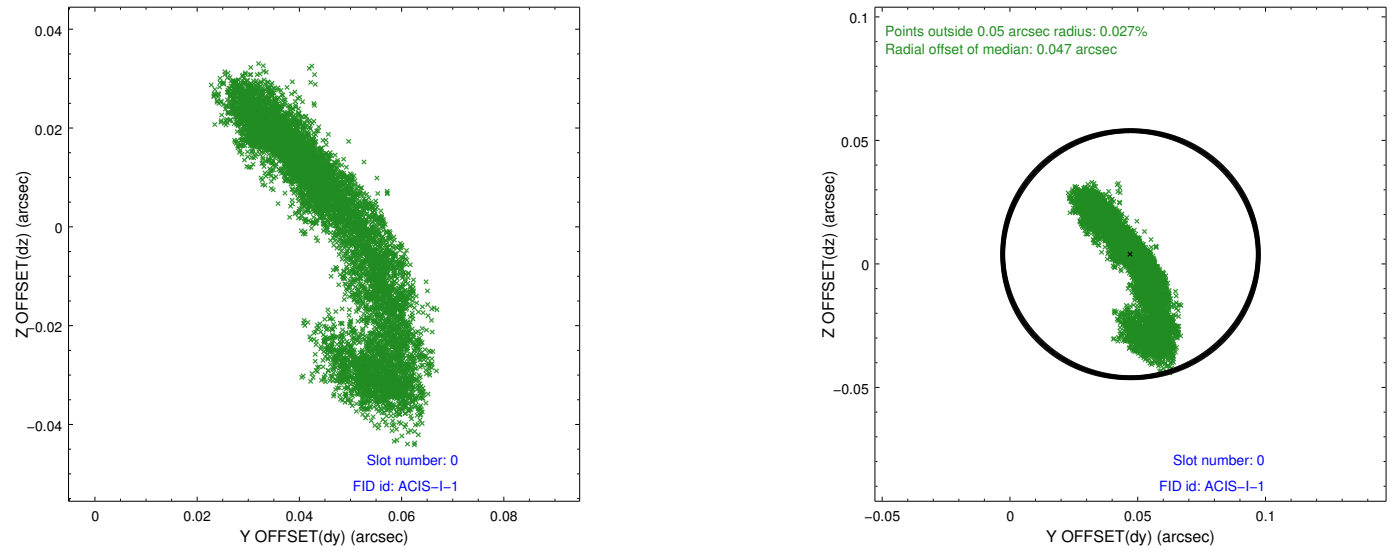


2.4.5 Slot 7

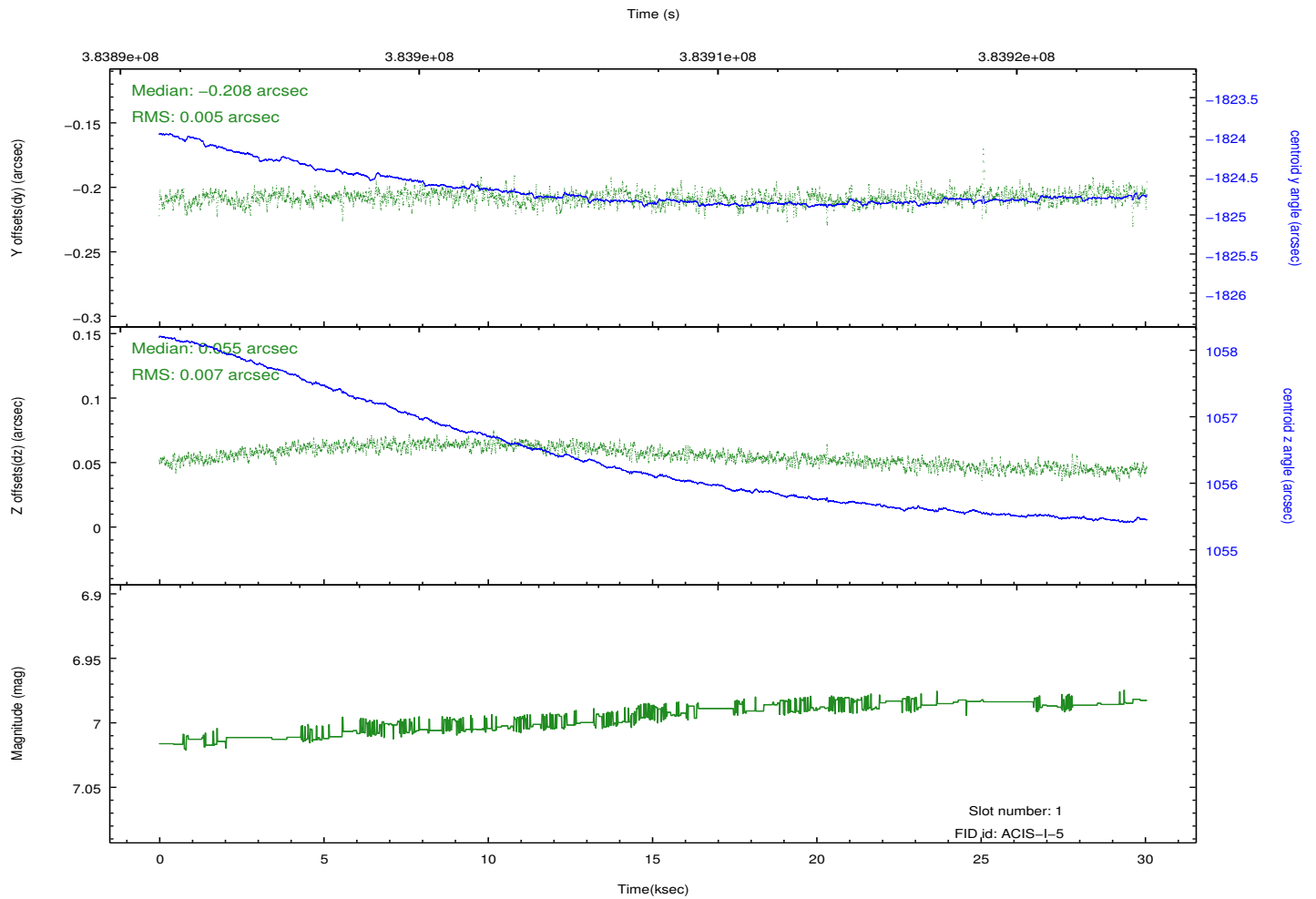
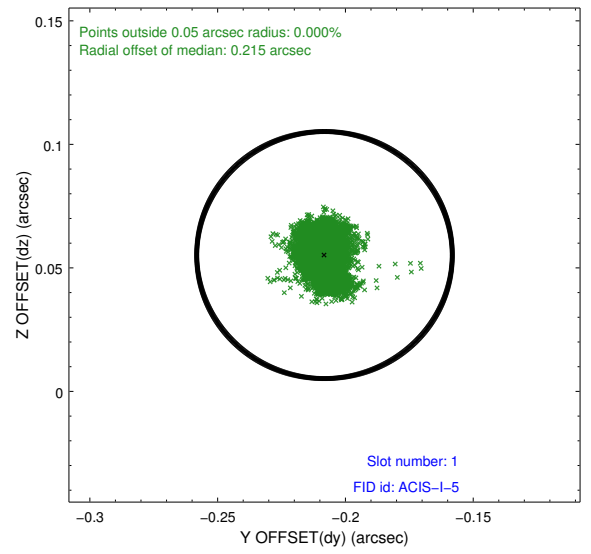
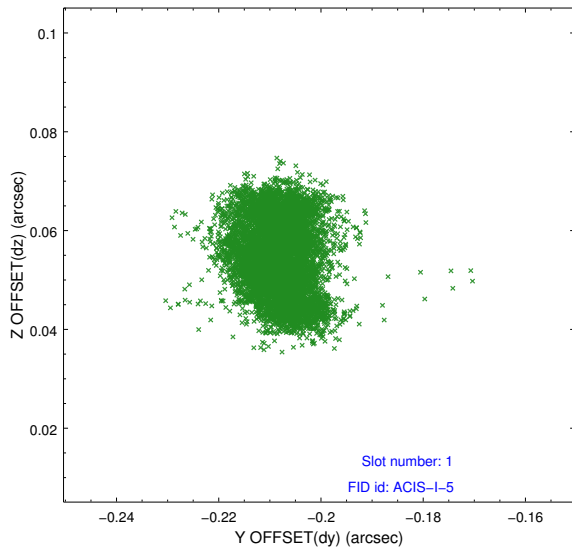


2.5 FID Slots

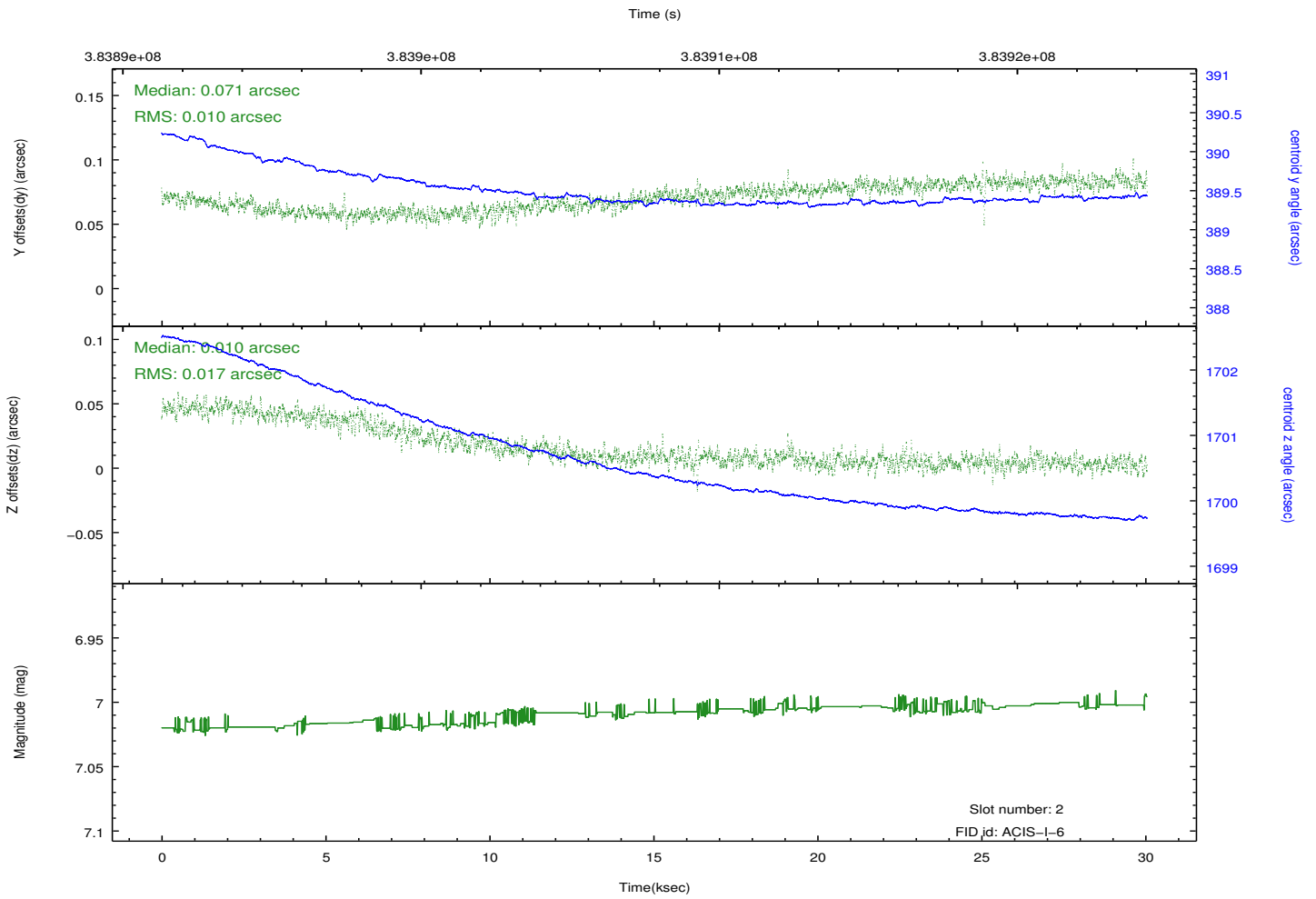
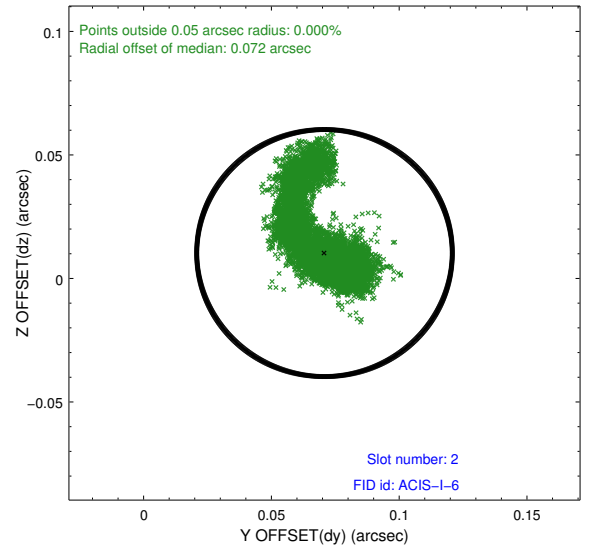
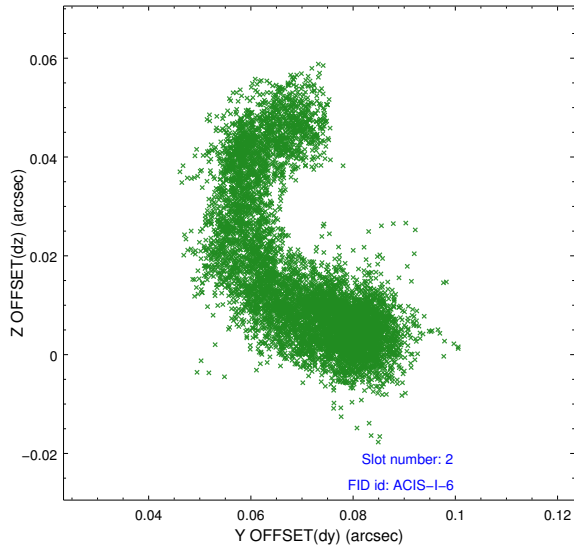
2.5.1 Slot 0



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) | 2012.06.28 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 29.54509886539 |

A.2 Comments

Preferred roll angle met.