

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 10963 - L2 Version 2
Chandra X-Ray Center

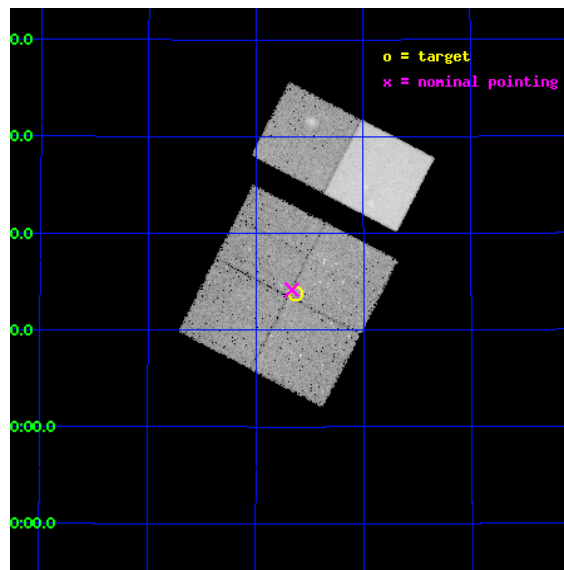
L2 Processing Date : Jun 21 2012

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1 Front

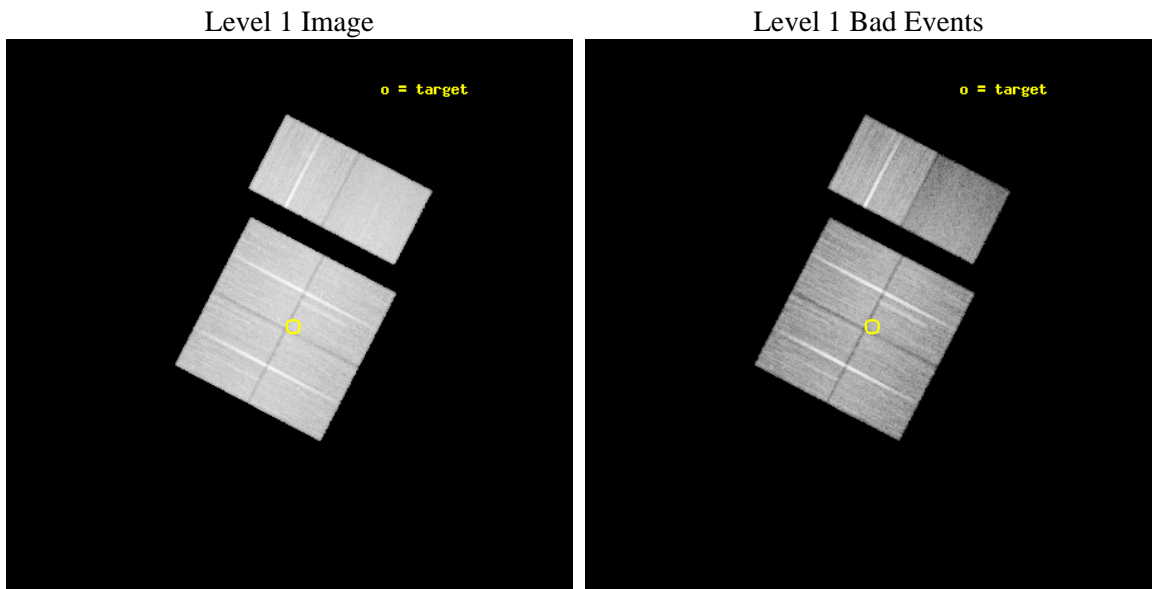
| | | |
|----------|-------------------------------|---|
| seq_num | 200595 | Sequence number |
| obs_id | 10963 | Observation id |
| title | The Chandra Cygnus OB2 Survey | Proposal title |
| observer | Dr. Jeremy Drake | Principal investigator |
| object | Cygnus OB2 | Source name |
| dtycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 308.65856 | Observer's specified target RA [deg] |
| dec_targ | 41.230537 | Observer's specified target Dec [deg] |
| ra_nom | 308.66620400586 | Nominal RA [deg] |
| dec_nom | 41.236207741847 | Nominal Dec [deg] |
| roll_nom | 27.403643583524 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 29753.558918834 | Sum of GTIs [s] |
| livetime | 29376.801440361 | Livetime [s] |
| ontime0 | 29747.076938391 | Sum of GTIs [s] |
| ontime1 | 29753.558928967 | Sum of GTIs [s] |
| ontime2 | 29753.559048414 | Sum of GTIs [s] |
| ontime3 | 29753.558918834 | Sum of GTIs [s] |
| ontime6 | 29756.799889207 | Sum of GTIs [s] |
| ontime7 | 29756.799889207 | Sum of GTIs [s] |
| l2events | 221132 | Number of level 2 events |



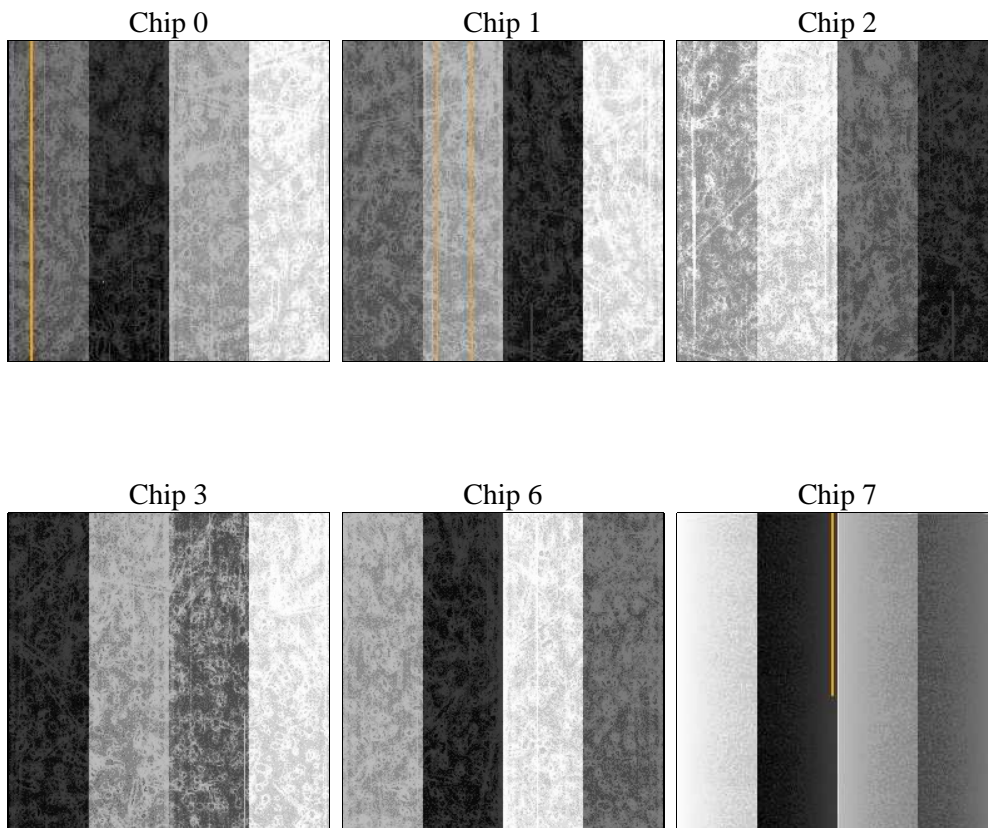
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 30000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 29753.558918834 | Sum of GTIs [s] |
| caldbver | 4.4.10 | | ontime0 | 29747.076938391 | Sum of GTIs [s] |
| date | 2012-06-21T17:32:00 | Date and time of file creation | ontime1 | 29753.558928967 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 29753.559048414 | Sum of GTIs [s] |
| | | | ontime3 | 29753.558918834 | Sum of GTIs [s] |
| | | | ontime6 | 29756.799889207 | Sum of GTIs [s] |
| | | | ontime7 | 29756.799889207 | Sum of GTIs [s] |
| | | | l1events | 1349073 | Number of level 1 events |

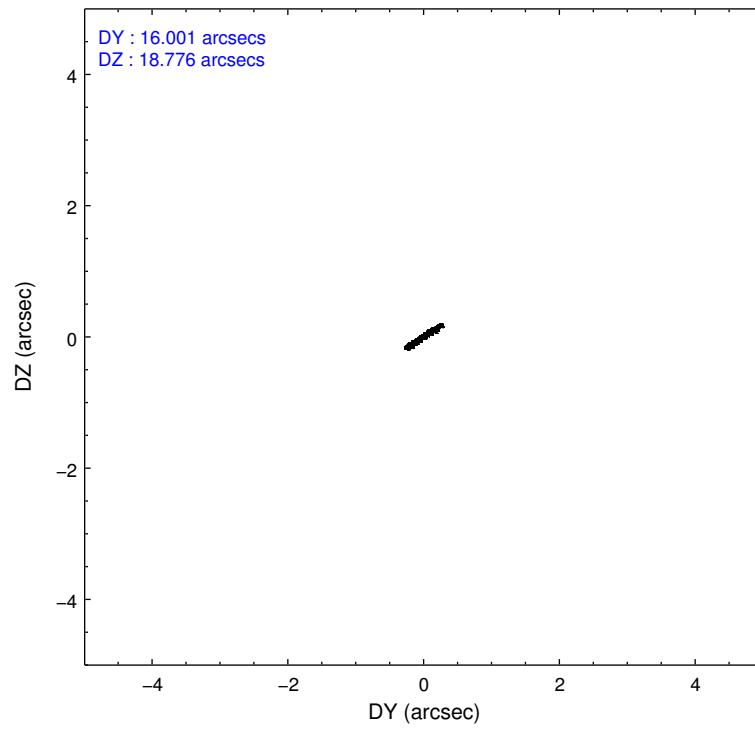
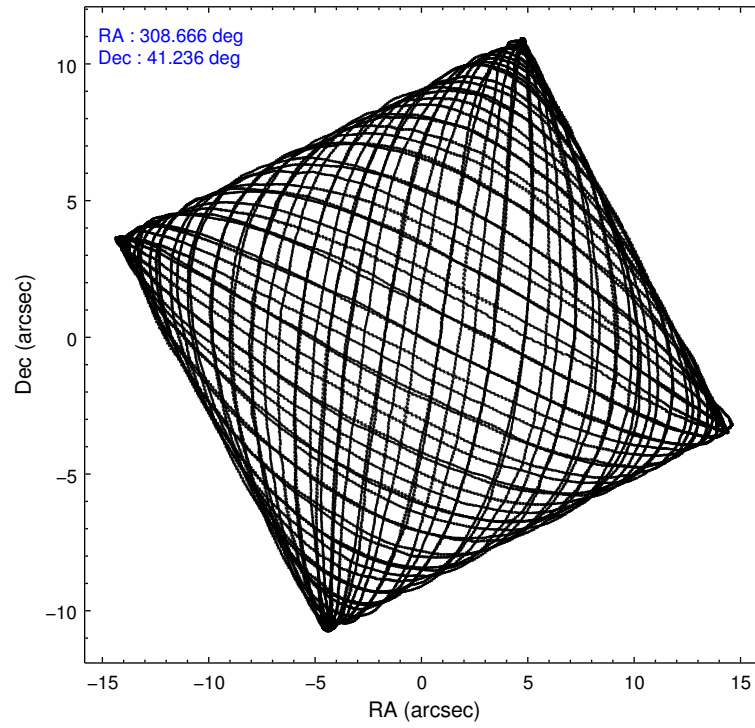
2.1.4 Events

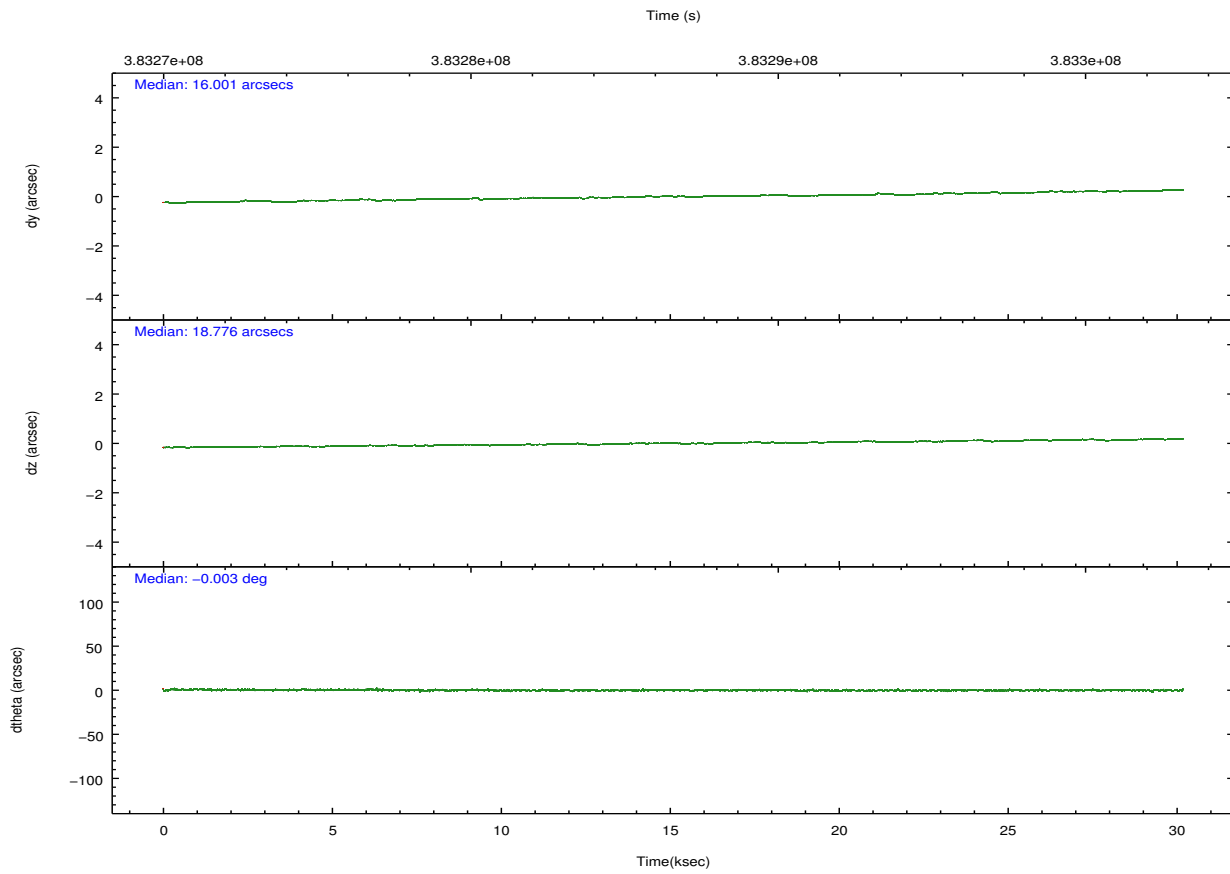
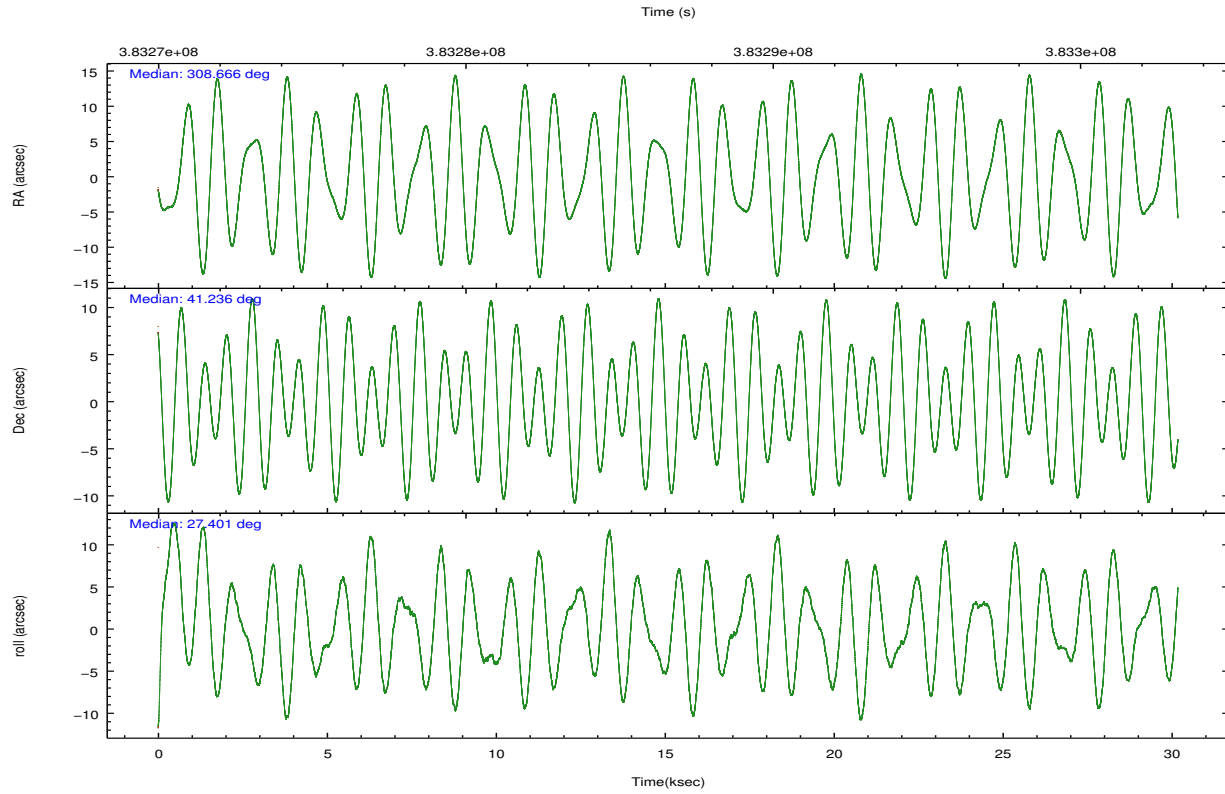
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|-------|
| level 1 events | 208152 | 210890 | 233104 | 226227 | 238173 | 232527 | grade 0 events | 9175 | 10092 | 9838 | 10959 | 10912 | 12587 |
| rejected events | 183741 | 184316 | 208339 | 200584 | 211076 | 115381 | | 4% | 4% | 4% | 4% | 4% | 5% |
| rejected % | 88% | 87% | 89% | 88% | 88% | 49% | grade 1 events | 142 | 141 | 155 | 164 | 119 | 350 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 5895 | 5874 | 5875 | 5292 | 5985 | 25118 |
| | | | | | | | | 2% | 2% | 2% | 2% | 2% | 10% |
| | | | | | | | grade 3 events | 2586 | 2816 | 2378 | 2637 | 2645 | 11027 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 4 events | 2436 | 2789 | 2554 | 2410 | 2546 | 11071 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 5 events | 7158 | 7841 | 6979 | 8395 | 8554 | 24797 |
| | | | | | | | | 3% | 3% | 2% | 3% | 3% | 10% |
| | | | | | | | grade 6 events | 4320 | 5004 | 4122 | 4350 | 5012 | 57358 |
| | | | | | | | | 2% | 2% | 1% | 1% | 2% | 24% |
| | | | | | | | grade 7 events | 176440 | 176333 | 201203 | 192020 | 202400 | 90219 |
| | | | | | | | | 84% | 83% | 86% | 84% | 84% | 38% |

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 | 308.646629 | 308.666204005865 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | 41.212995 | 41.23620774184659 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 27.207862 | 27.40364358352395 | 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) | 383271659.184000 | 383271283.29361 | CCD S5 on | N | N |
| Observation start date | 2010-02-23T00:19:53 | 2010-02-23T00:14:43 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 383301659.184000 | 383302745.67021 | On-chip summing requested | N | N |
| Observation end date | 2010-02-23T08:39:53 | 2010-02-23T08:59:05 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



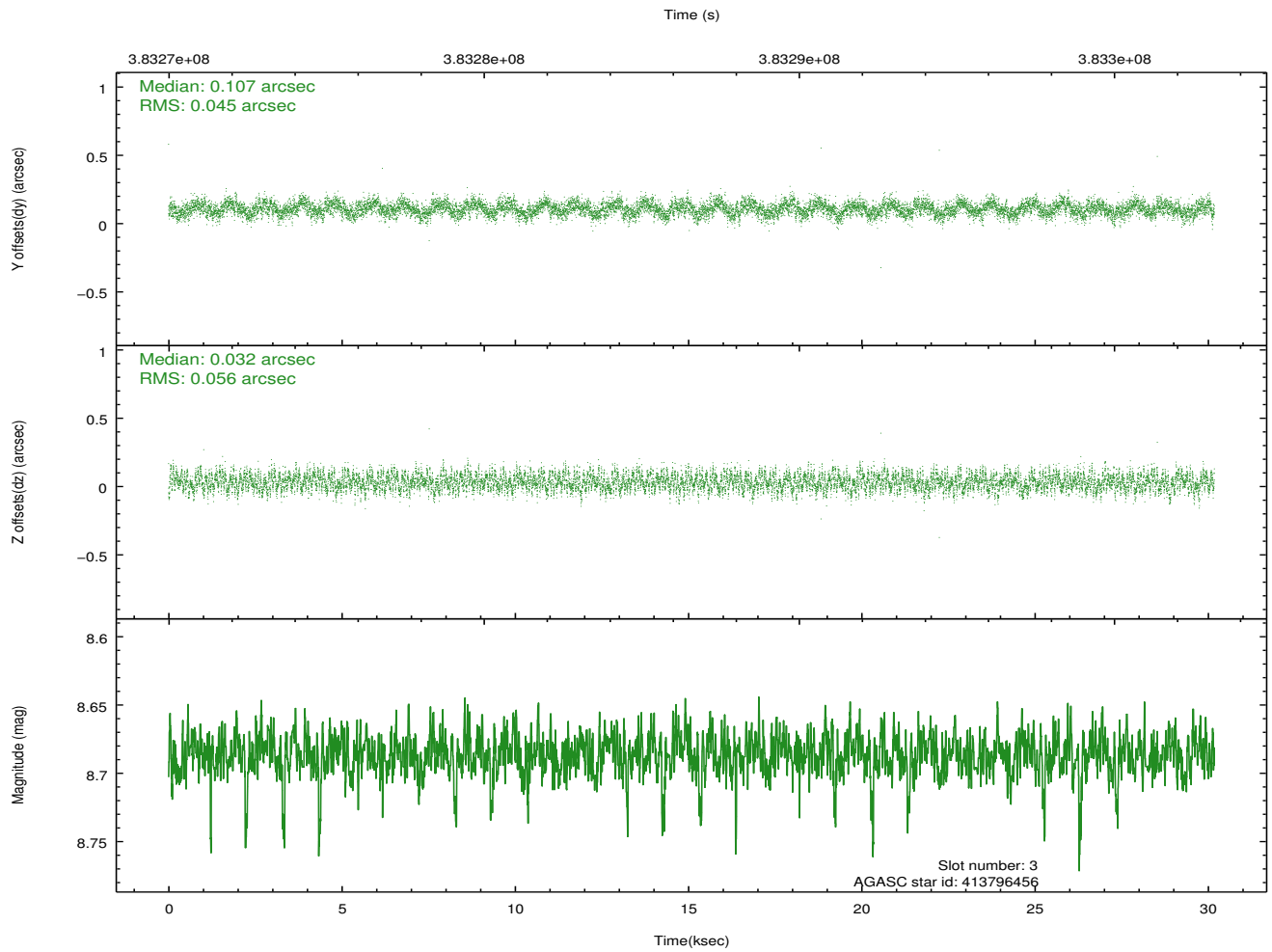
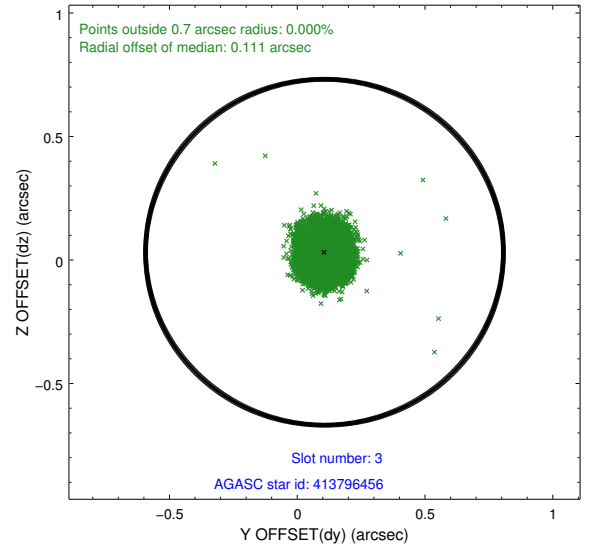
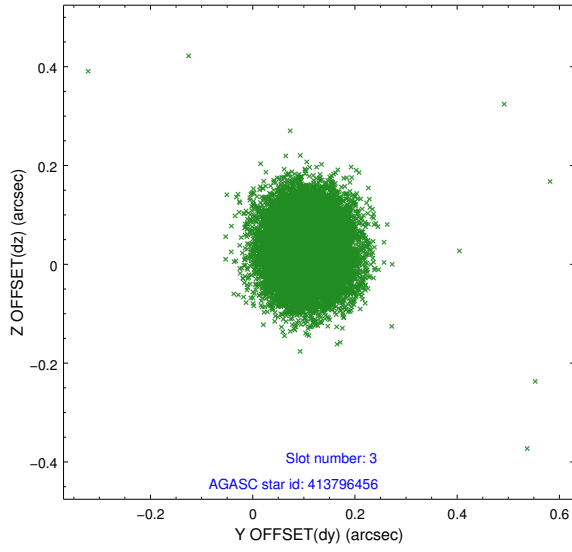


Slot Statistics

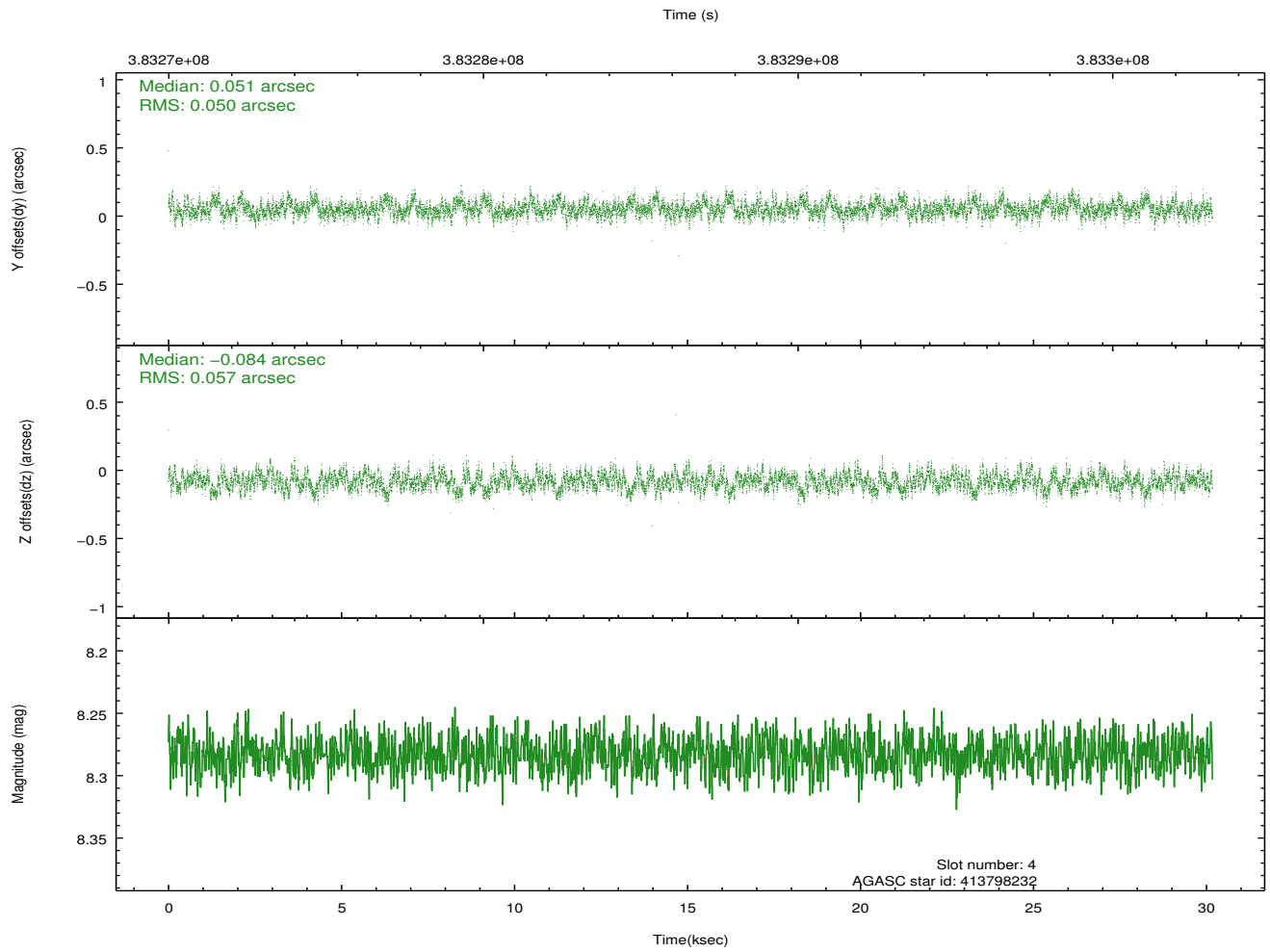
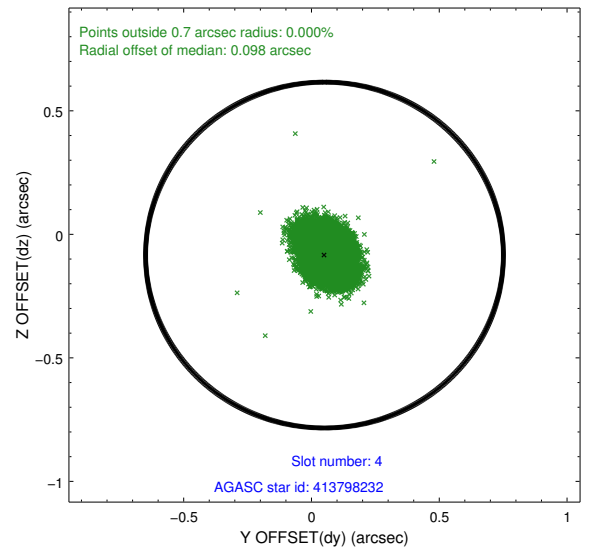
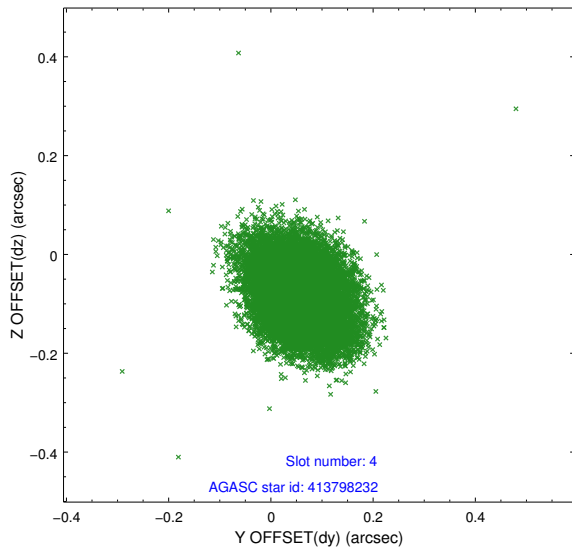
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.00 | 7361 | -0.021 | -0.001 | 0.008 | 0.013 | 0.000000 | 0.000000 | 923.42 | -842.46 |
| 1 | FID | ACIS-I-4 | 6.95 | 7360 | 0.144 | 0.034 | 0.008 | 0.014 | 0.000000 | 0.000000 | 2143.65 | 1057.35 |
| 2 | FID | ACIS-I-5 | 6.99 | 7361 | -0.222 | 0.037 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1824.71 | 1055.24 |
| 3 | GUIDE | 413796456 | 8.69 | 14699 | 0.107 | 0.032 | 0.076 | 0.120 | 308.312084 | 40.613132 | -1799.28 | -1500.83 |
| 4 | GUIDE | 413798232 | 8.28 | 14718 | 0.051 | -0.084 | 0.080 | 0.133 | 309.116117 | 41.044272 | 857.58 | -1120.07 |
| 5 | GUIDE | 414326136 | 7.38 | 14723 | -0.104 | -0.102 | 0.083 | 0.131 | 308.256176 | 41.473642 | -506.09 | 1318.43 |
| 6 | GUIDE | 413802872 | 9.32 | 14706 | -0.030 | 0.121 | 0.099 | 0.160 | 308.231239 | 40.487807 | -2203.04 | -1798.73 |
| 7 | GUIDE | 414327224 | 7.99 | 14718 | -0.025 | 0.031 | 0.073 | 0.117 | 309.355439 | 41.393115 | 2002.88 | -291.19 |

2.4 Star Slots

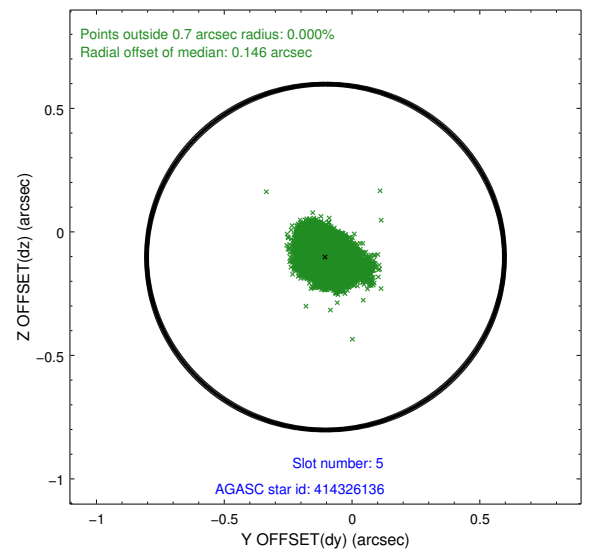
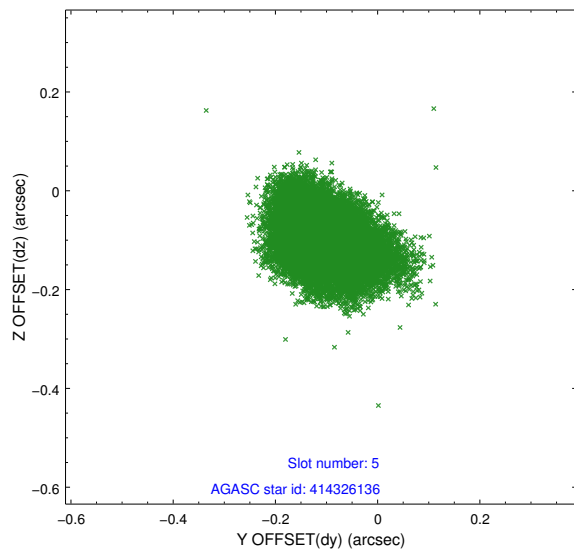
2.4.1 Slot 3



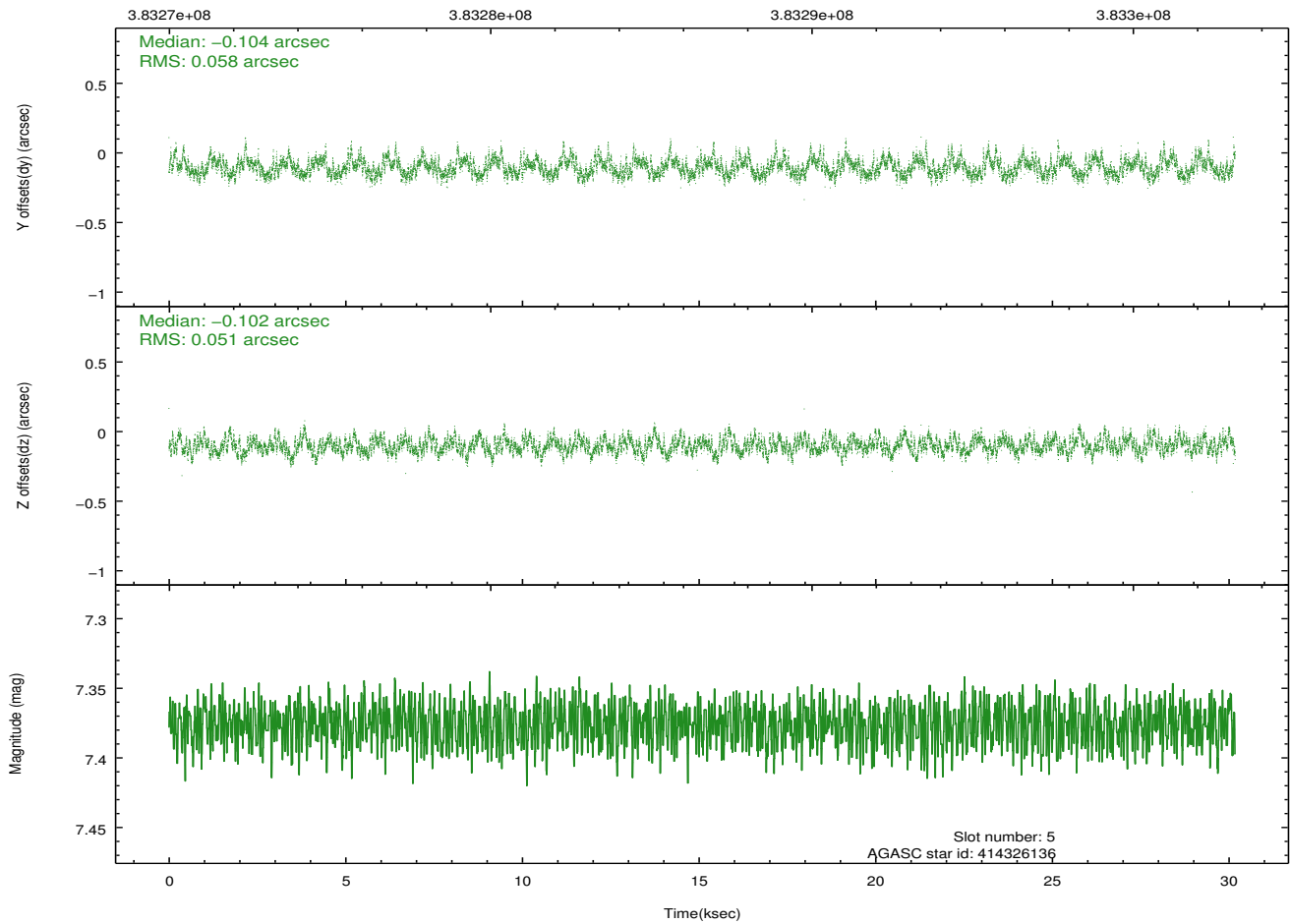
2.4.2 Slot 4



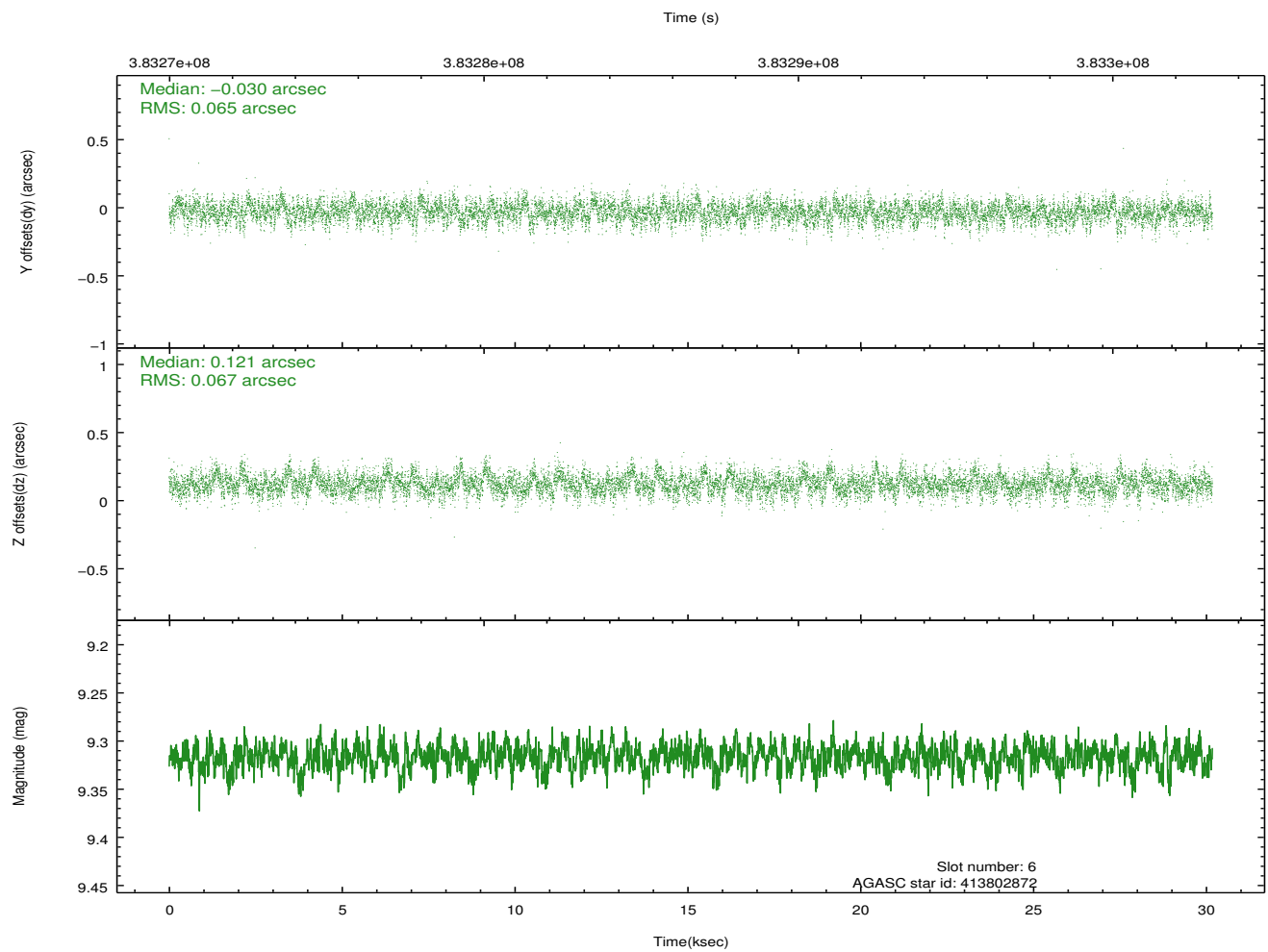
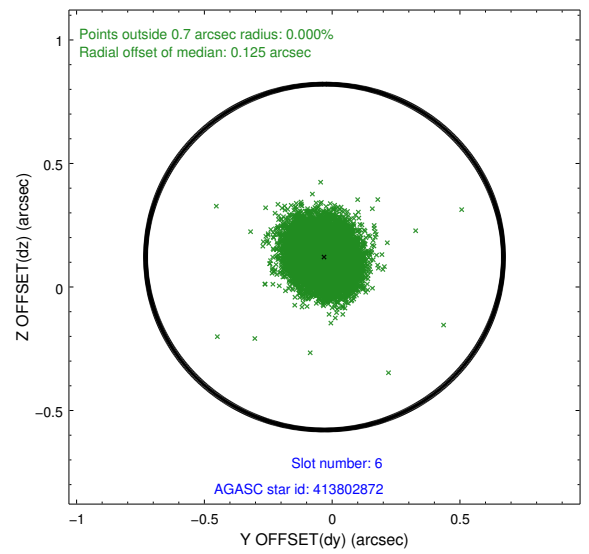
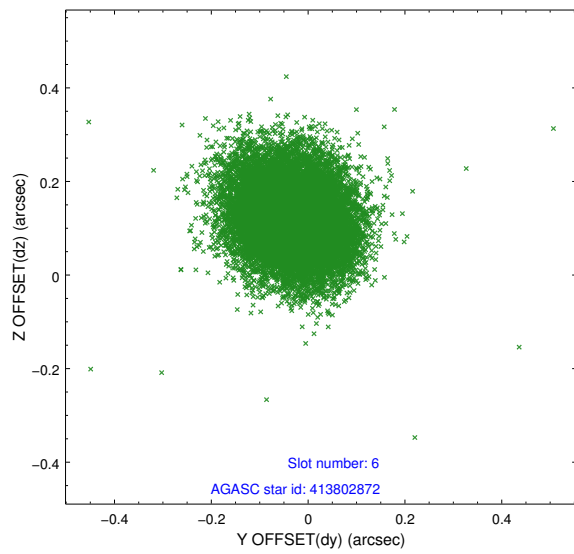
2.4.3 Slot 5



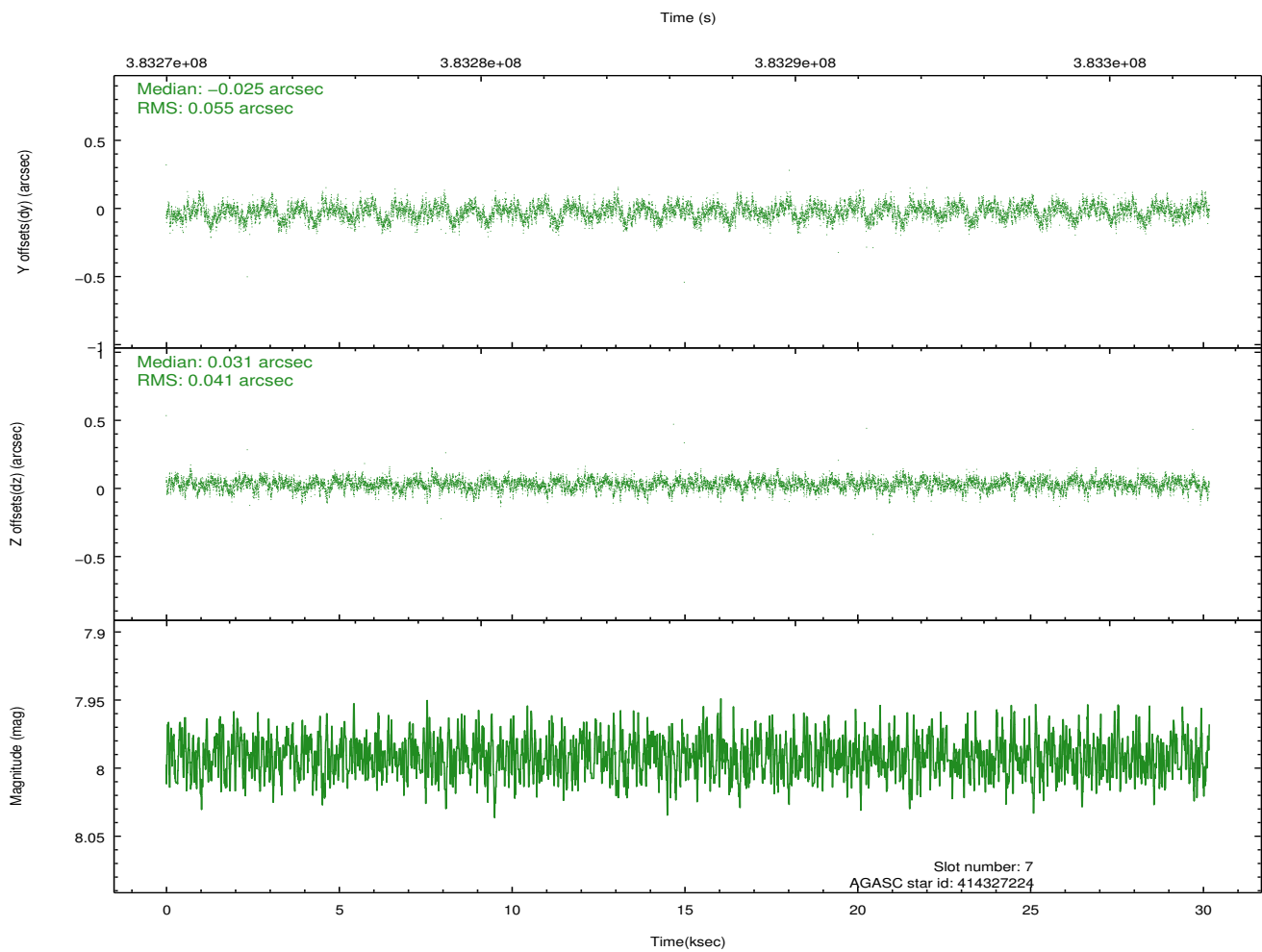
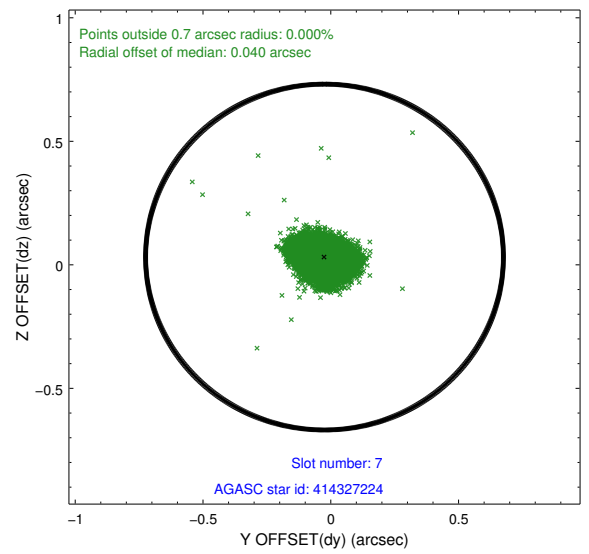
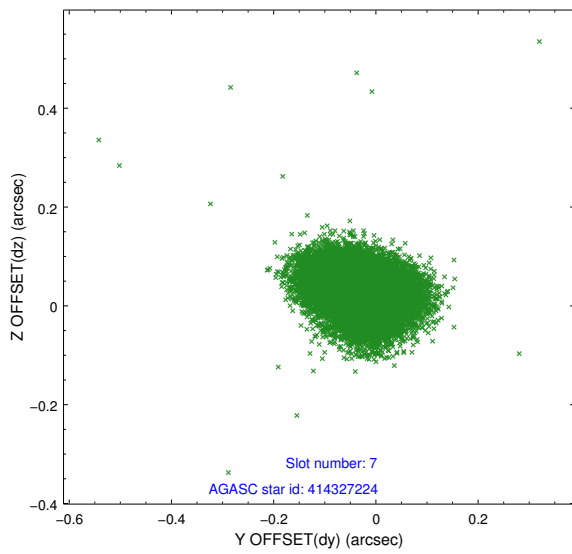
Time (s)



2.4.4 Slot 6

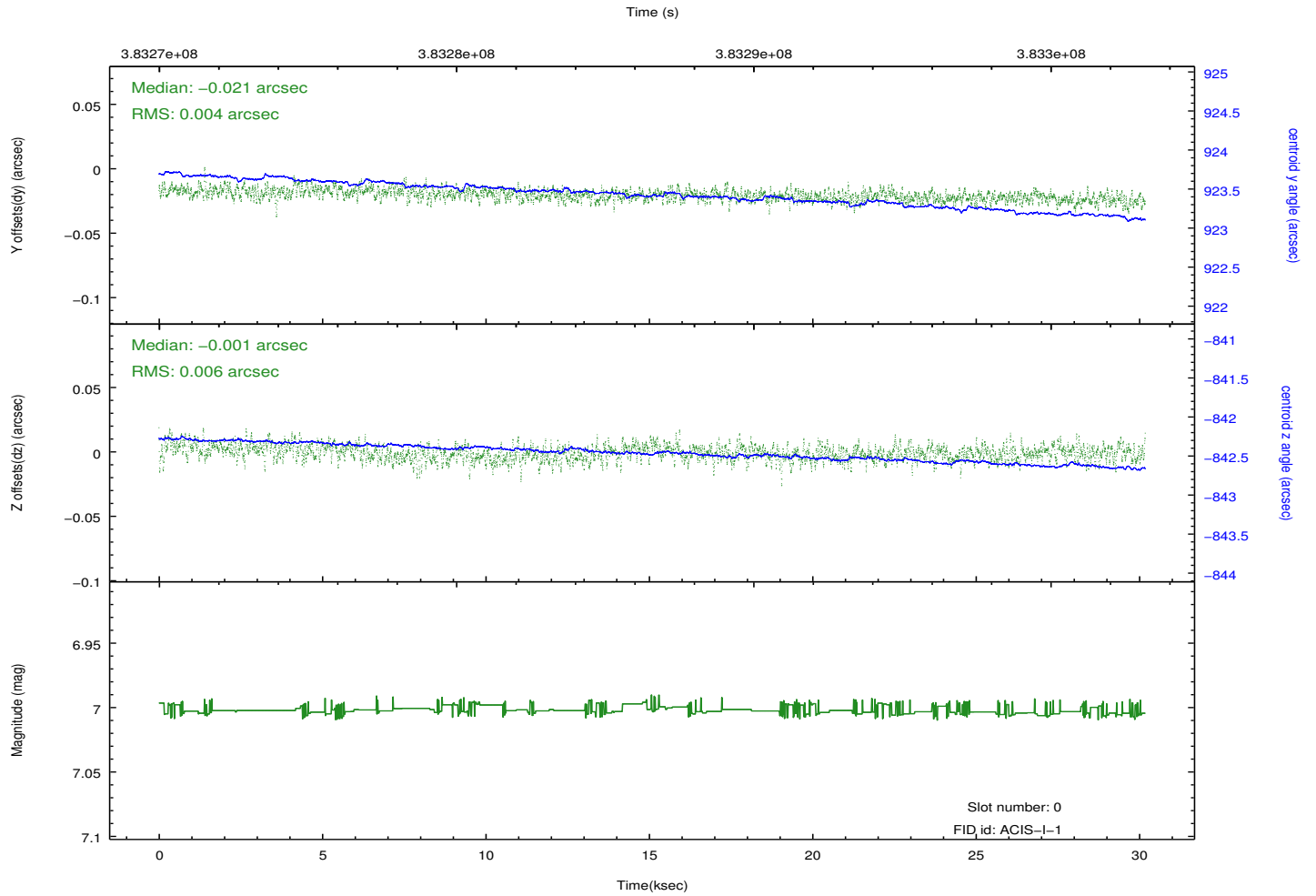
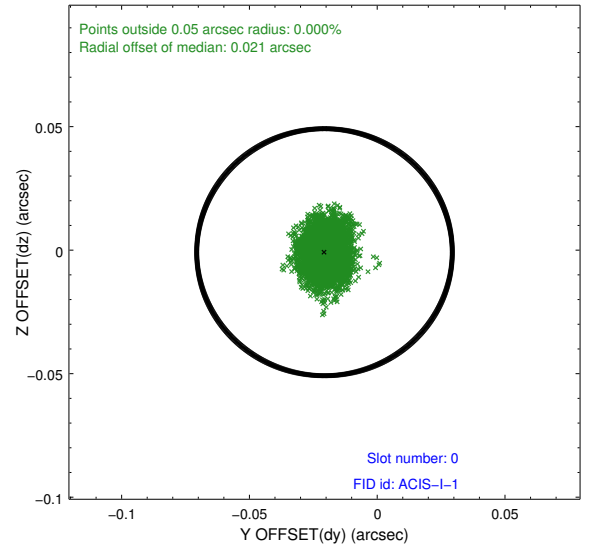
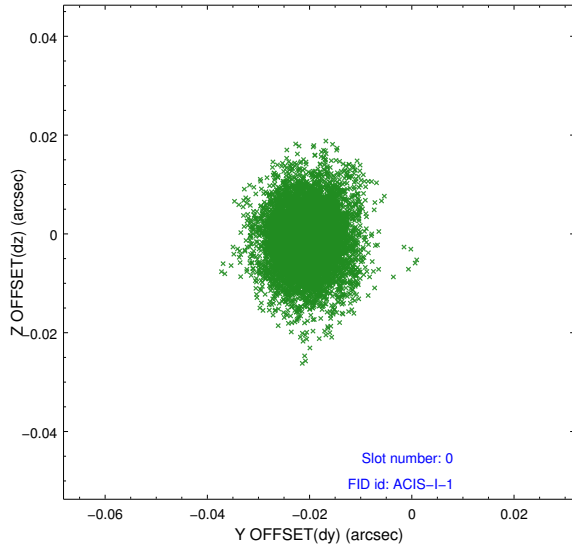


2.4.5 Slot 7

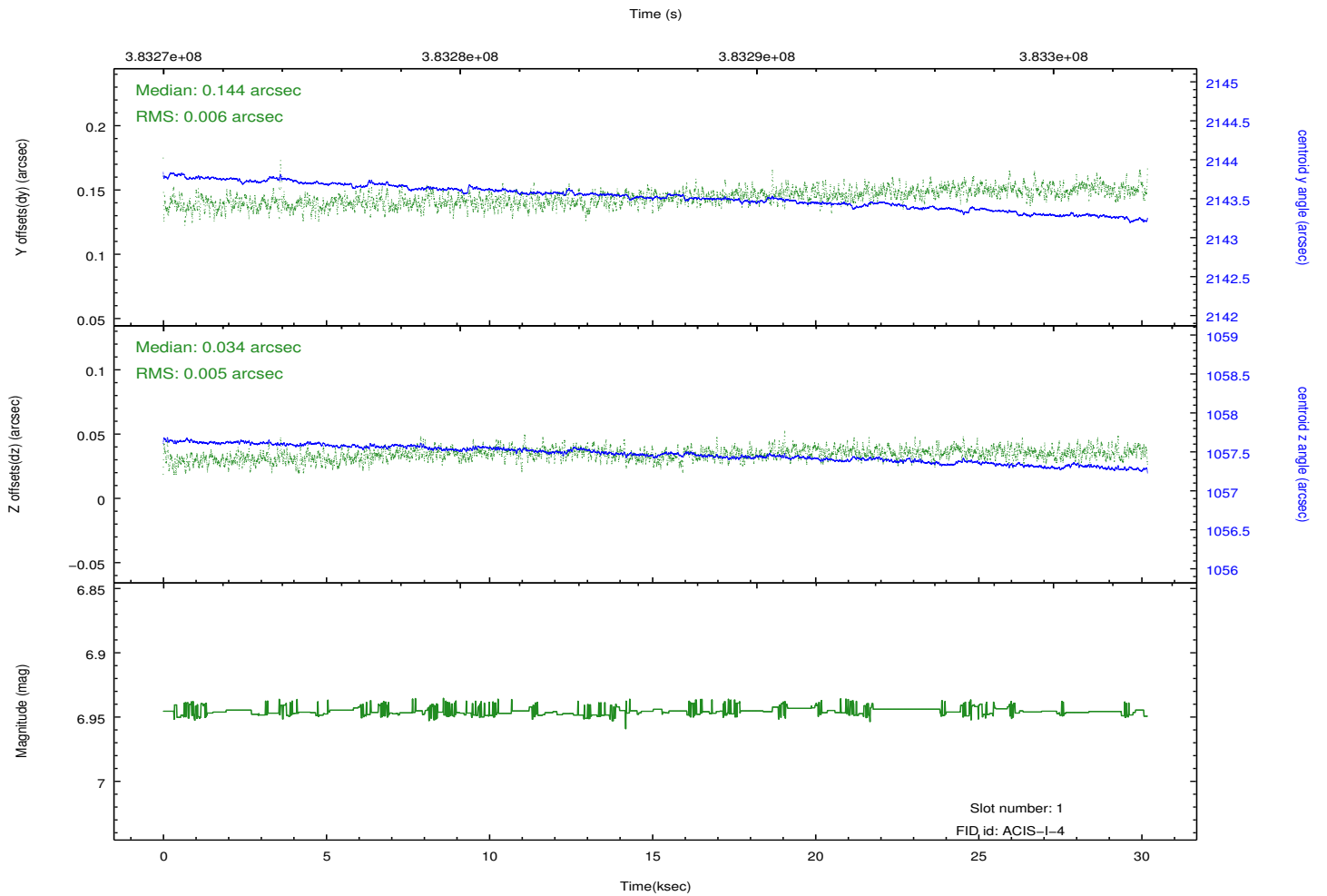
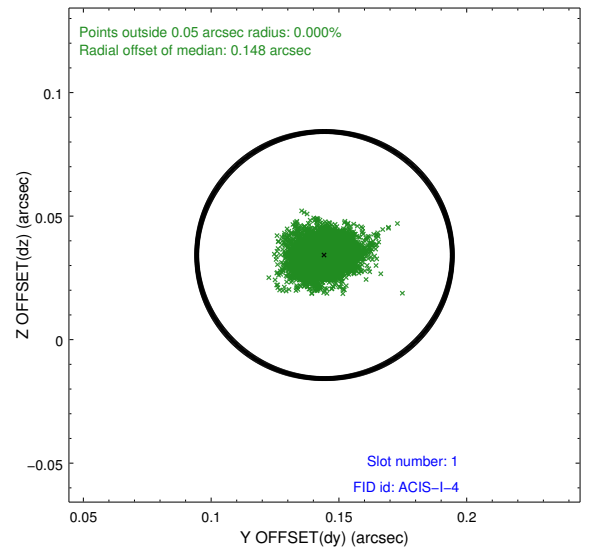
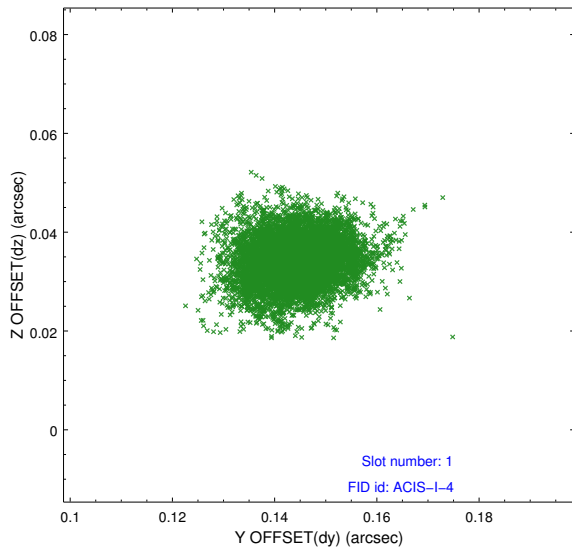


2.5 FID Slots

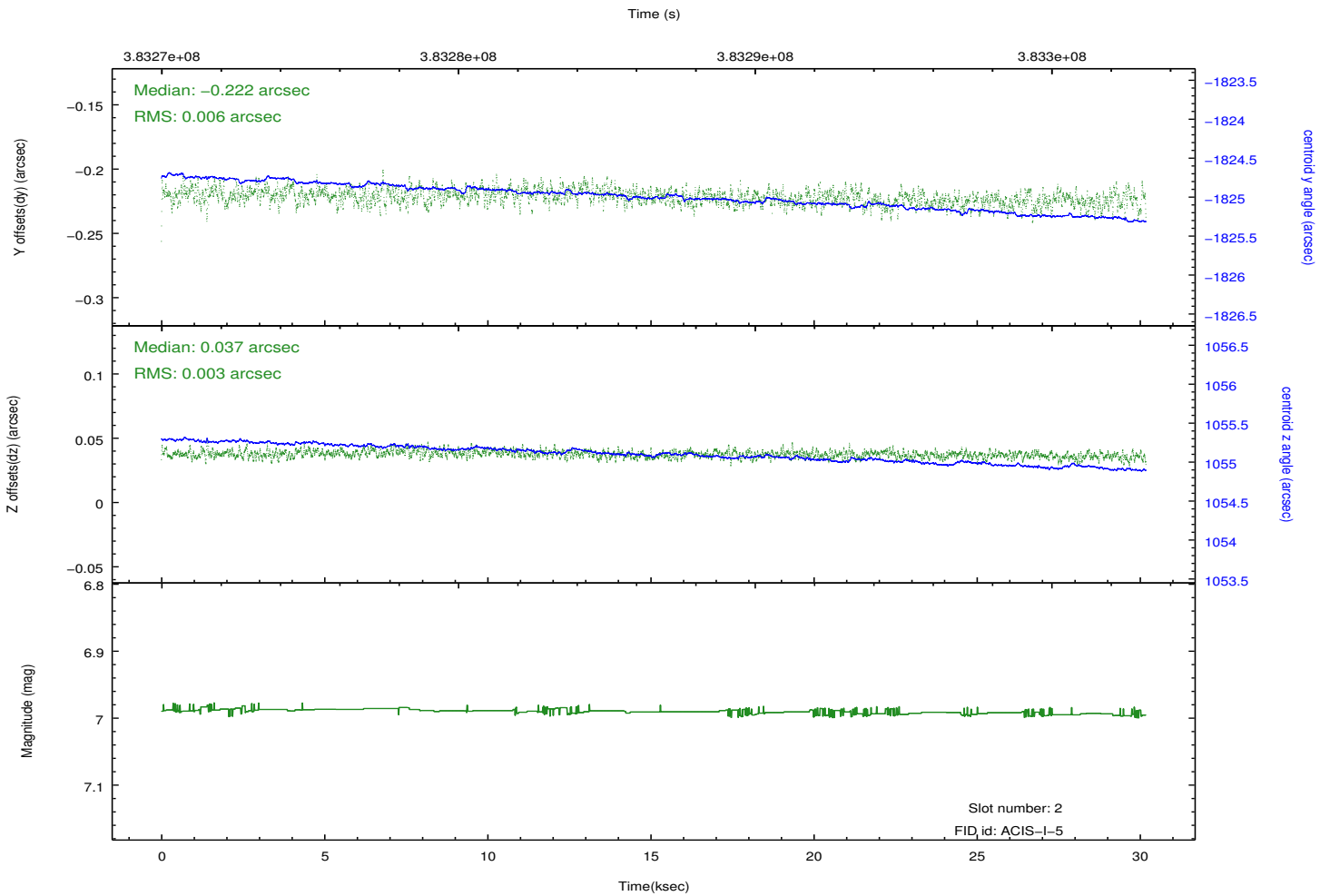
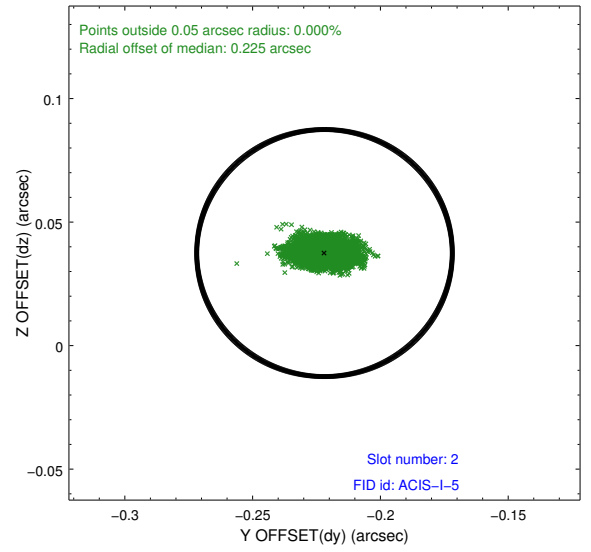
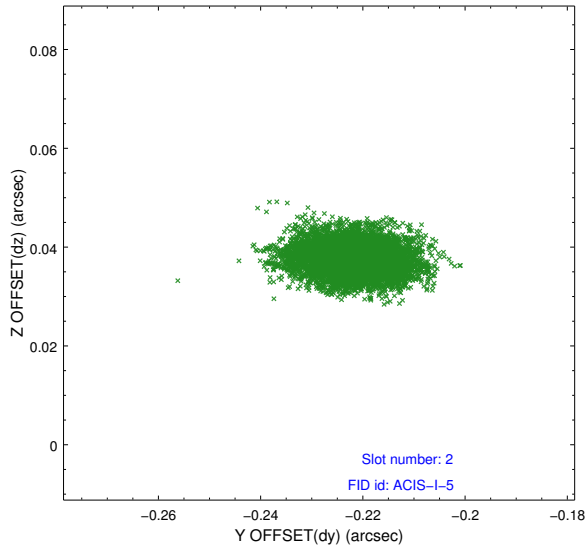
2.5.1 Slot 0



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) | 2012.06.27 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 29.753558918834 |

A.2 Comments

Roll preference met.