

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 5139 - L2 Version 3
Chandra X-Ray Center

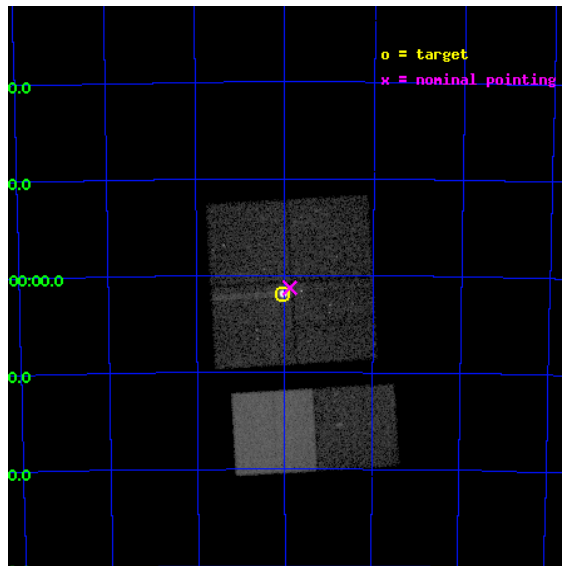
L2 Processing Date : Nov 30 2012

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1 Front

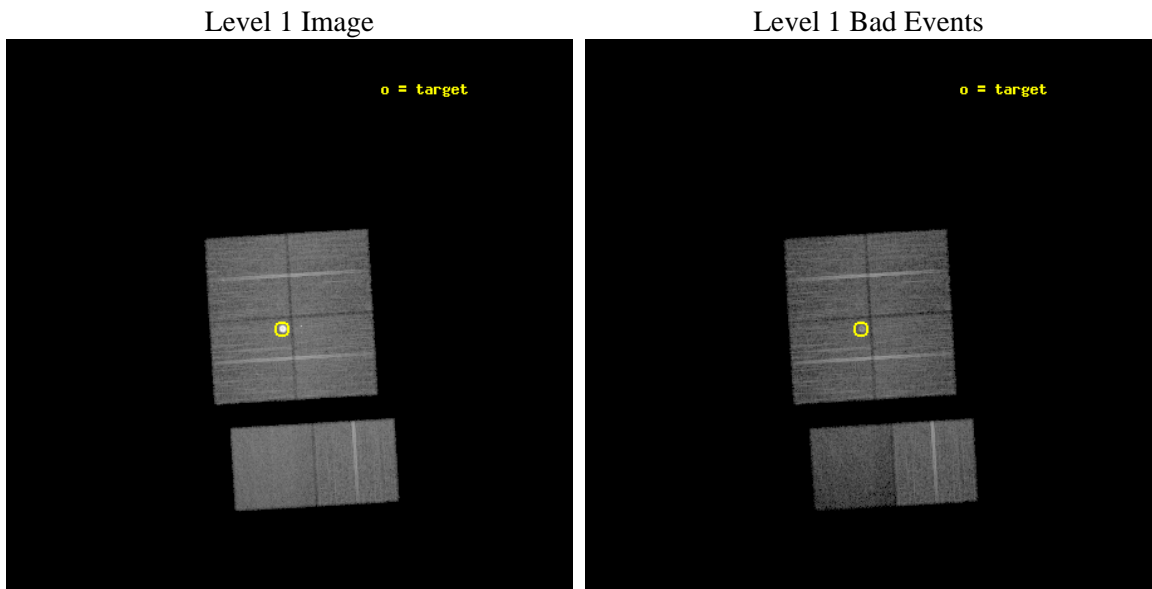
| | | |
|----------|--|---|
| seq_num | 590337 | Sequence number |
| obs_id | 5139 | Observation id |
| title | AO5B ACIS-I Calibration Observations of E0102-72 | Proposal title |
| observer | Dr. CXC Calibration | Principal investigator |
| object | E0102-72[I3,-120,-0.5,0.5,0] | Source name |
| dtycycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 16.01 | Observer's specified target RA [deg] |
| dec_targ | -72.032028 | Observer's specified target Dec [deg] |
| ra_nom | 15.971234310747 | Nominal RA [deg] |
| dec_nom | -72.021140282164 | Nominal Dec [deg] |
| roll_nom | 176.59580425458 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 20681.558932751 | Sum of GTIs [s] |
| livetime | 20419.676580605 | Livetime [s] |
| ontime0 | 20678.275586039 | Sum of GTIs [s] |
| ontime1 | 20684.798486859 | Sum of GTIs [s] |
| ontime2 | 20684.799922943 | Sum of GTIs [s] |
| ontime3 | 20681.558932751 | Sum of GTIs [s] |
| ontime6 | 20684.799922943 | Sum of GTIs [s] |
| ontime7 | 20684.799922943 | Sum of GTIs [s] |
| l2events | 174895 | Number of level 2 events |



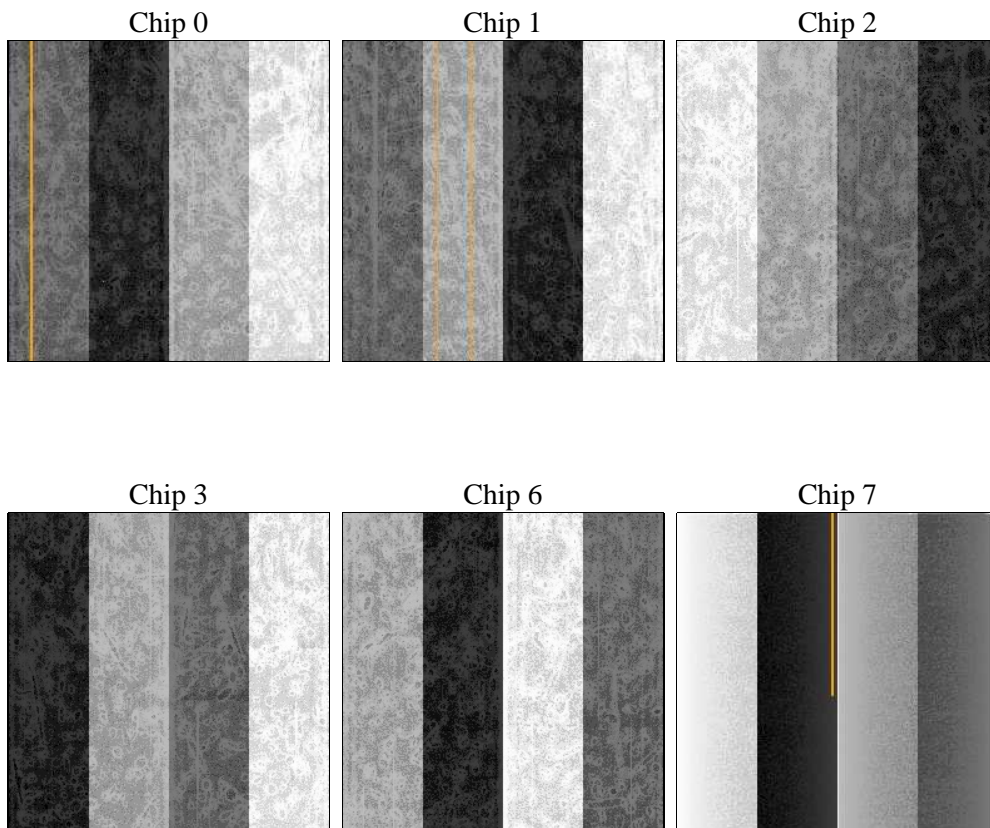
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 20724.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 20681.558932751 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime0 | 20678.275586039 | Sum of GTIs [s] |
| date | 2012-11-30T14:45:16 | Date and time of file creation | ontime1 | 20684.798486859 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 20684.799922943 | Sum of GTIs [s] |
| | | | ontime3 | 20681.558932751 | Sum of GTIs [s] |
| | | | ontime6 | 20684.799922943 | Sum of GTIs [s] |
| | | | ontime7 | 20684.799922943 | Sum of GTIs [s] |
| | | | l1events | 743665 | Number of level 1 events |

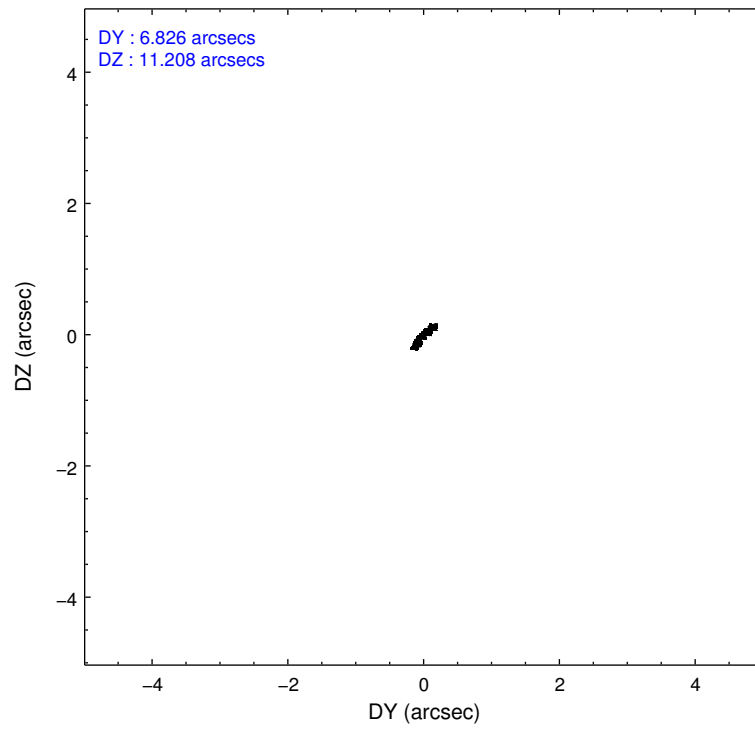
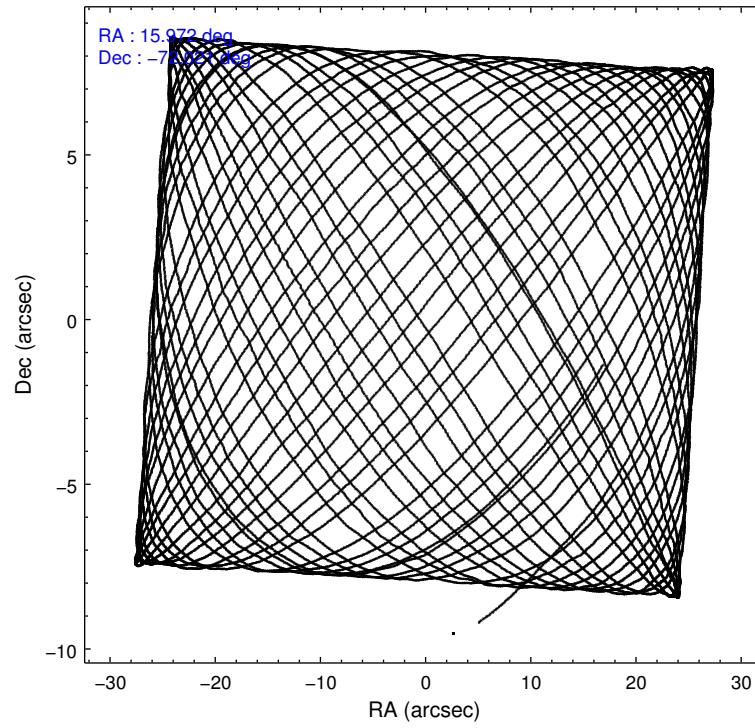
2.1.4 Events

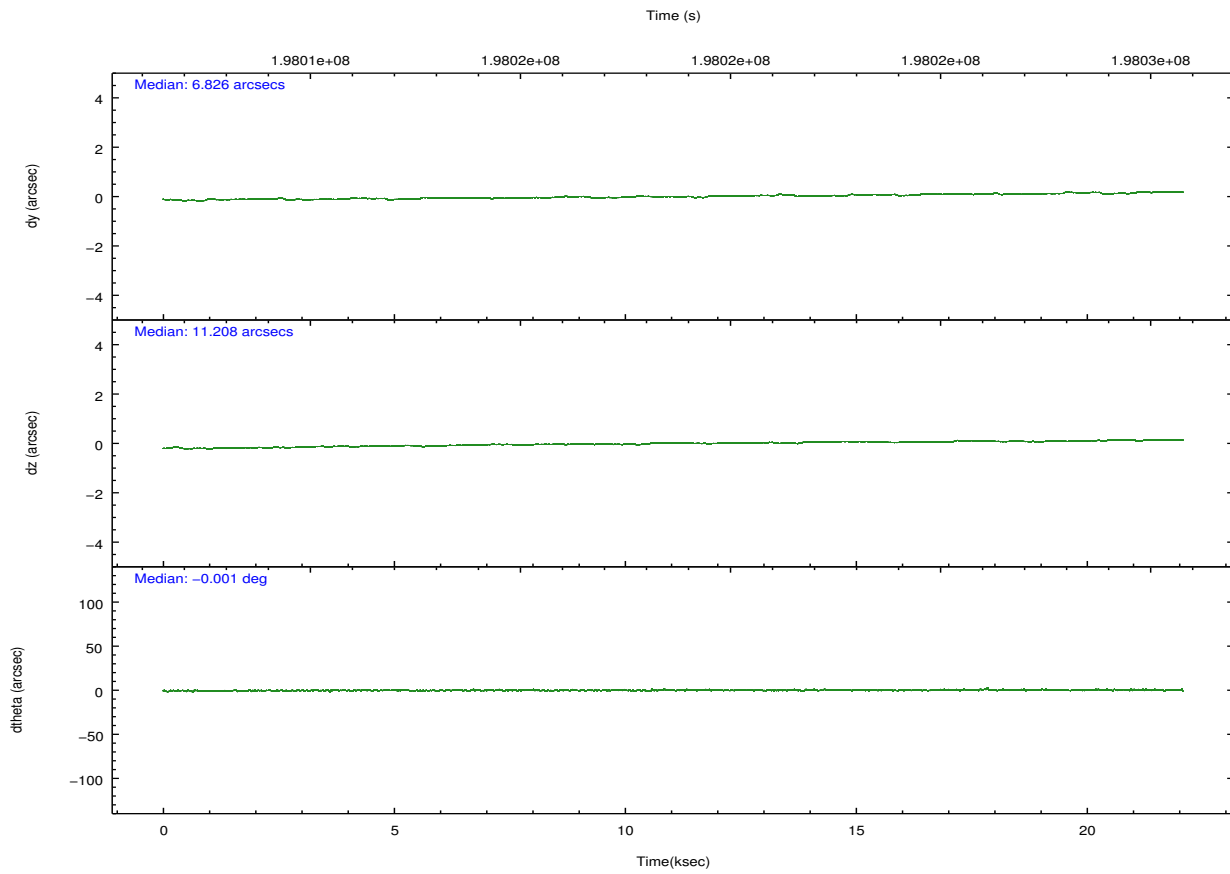
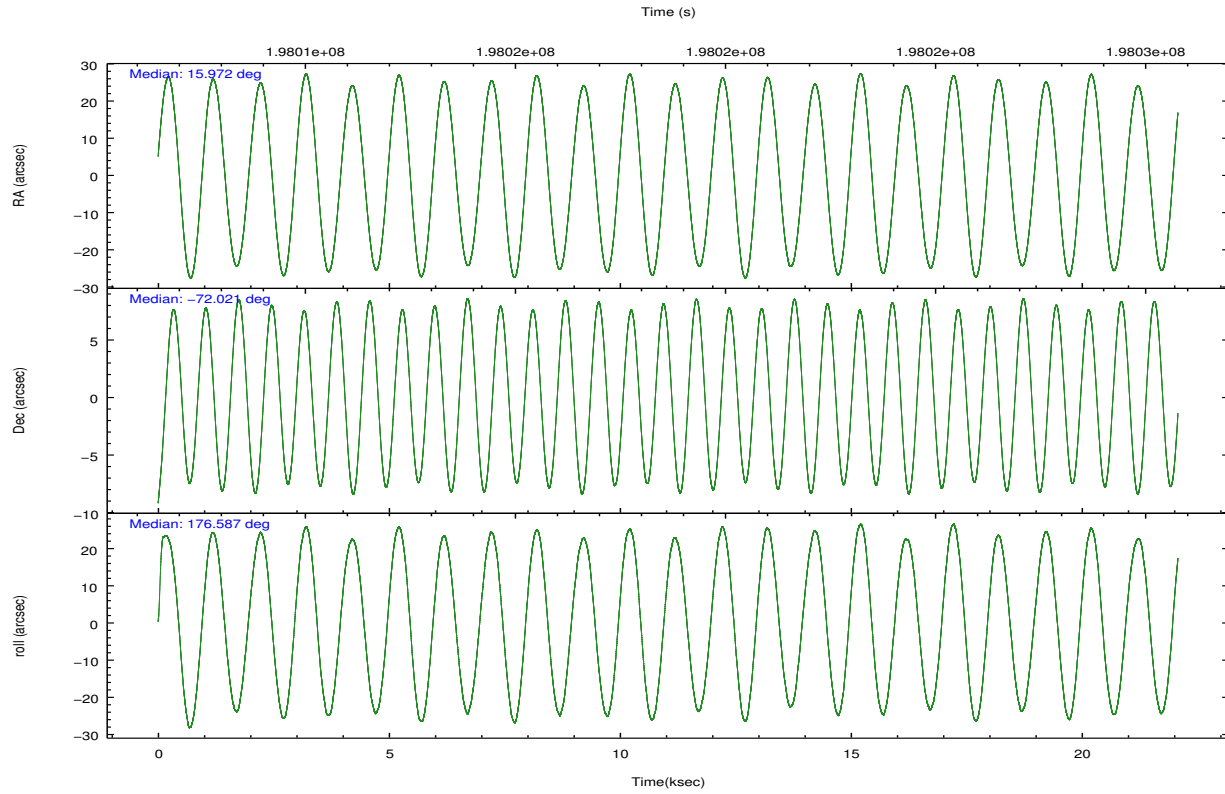
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|-------|-------|--------|-------|--------|-------|
| level 1 events | 105762 | 106327 | 119211 | 183203 | 118390 | 110772 | grade 0 events | 4942 | 4970 | 6124 | 66019 | 5483 | 5829 |
| rejected events | 93570 | 93654 | 105909 | 103494 | 105168 | 54301 | | 4% | 4% | 5% | 36% | 4% | 5% |
| rejected % | 88% | 88% | 88% | 56% | 88% | 49% | grade 1 events | 60 | 58 | 92 | 825 | 69 | 122 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 2651 | 2578 | 2765 | 6875 | 2694 | 11848 |
| | | | | | | | | 2% | 2% | 2% | 3% | 2% | 10% |
| | | | | | | | grade 3 events | 1387 | 1443 | 1278 | 2315 | 1342 | 5429 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 4 events | 1196 | 1357 | 1305 | 2216 | 1268 | 5618 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 5% |
| | | | | | | | grade 5 events | 3262 | 3663 | 3127 | 4043 | 4035 | 11742 |
| | | | | | | | | 3% | 3% | 2% | 2% | 3% | 10% |
| | | | | | | | grade 6 events | 2021 | 2330 | 1840 | 2309 | 2439 | 27757 |
| | | | | | | | | 1% | 2% | 1% | 1% | 2% | 25% |
| | | | | | | | grade 7 events | 90243 | 89928 | 102680 | 98601 | 101060 | 42427 |
| | | | | | | | | 85% | 84% | 86% | 53% | 85% | 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 | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 16.050379 | 15.97123431074683 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -72.008769 | -72.02114028216398 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 176.462401 | 176.5958042545782 | [s] Primary exposure time | 0.000000 | 3.2 |
| [s] Window start time (MET) | 197164864.184000 | 197164864.184000 | | | |
| [s] Window stop time (MET) | 199670464.184000 | 199670464.184000 | | | |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | | | |
| [mm] SIM defocus | 0 | 0.001439871863259334 | | | |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | | | |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | | | |
| [s] Observation start time (MET) | 198008946.184000 | 198007400.64142 | | | |
| Observation start date | 2004-04-10T18:28:02 | 2004-04-10T18:03:20 | | | |
| [s] Observation end time (MET) | 198029670.184000 | 198030452.37994 | | | |
| Observation end date | 2004-04-11T00:13:26 | 2004-04-11T00:27:32 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



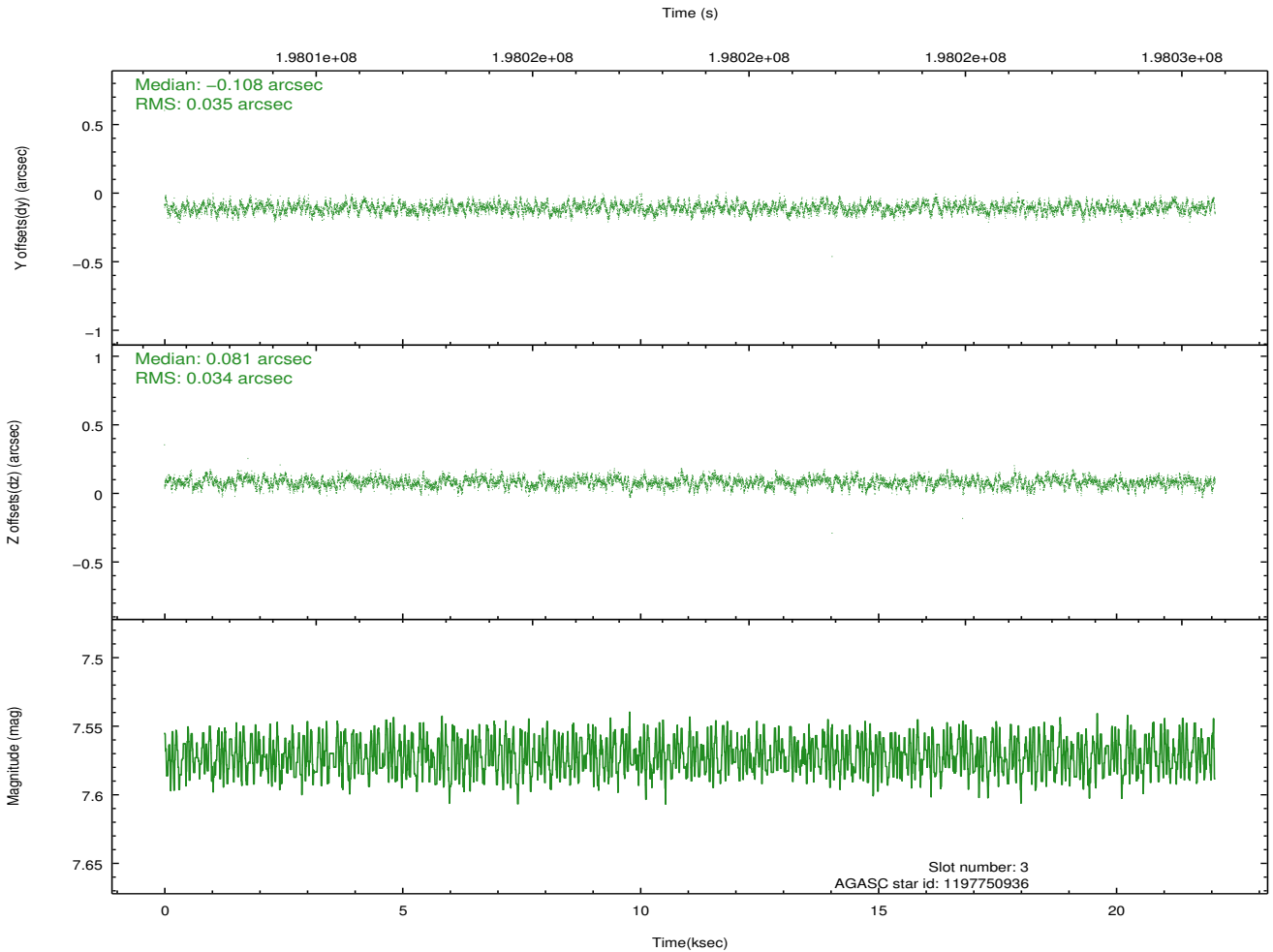
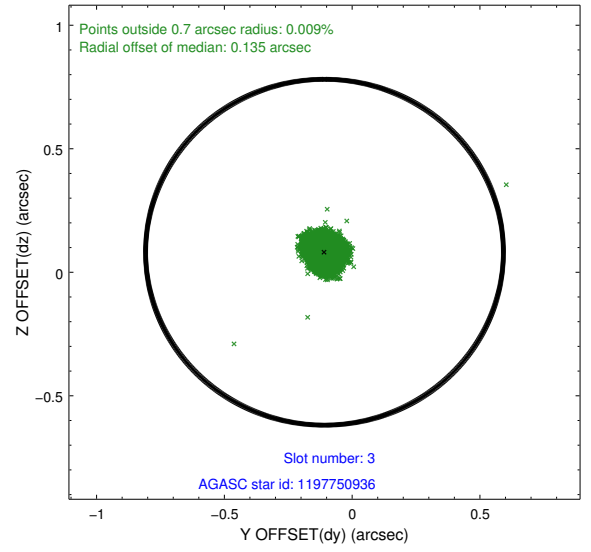
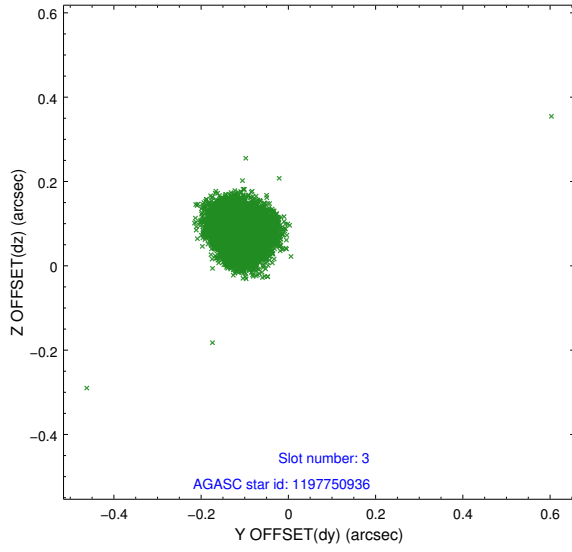


Slot Statistics

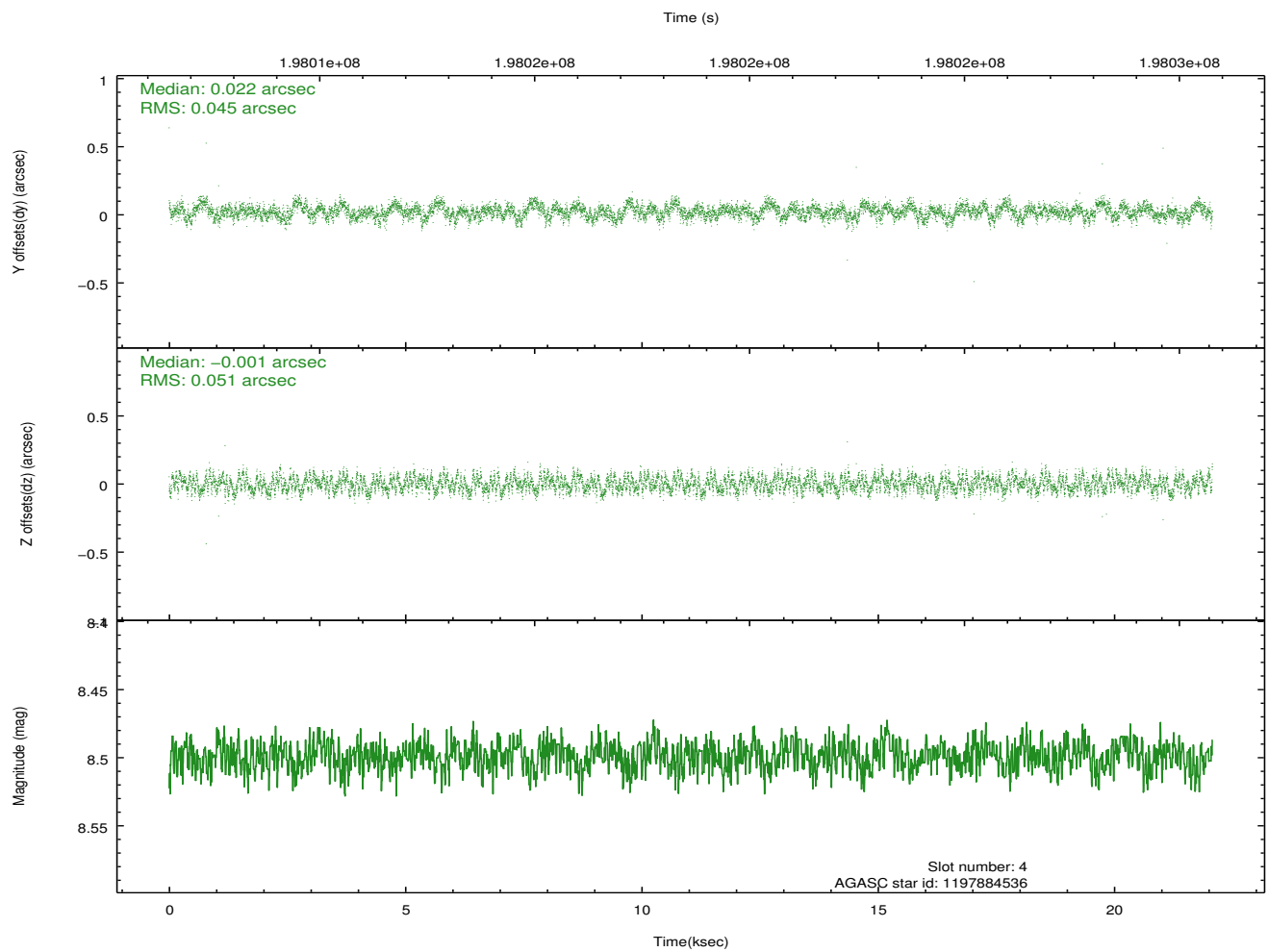
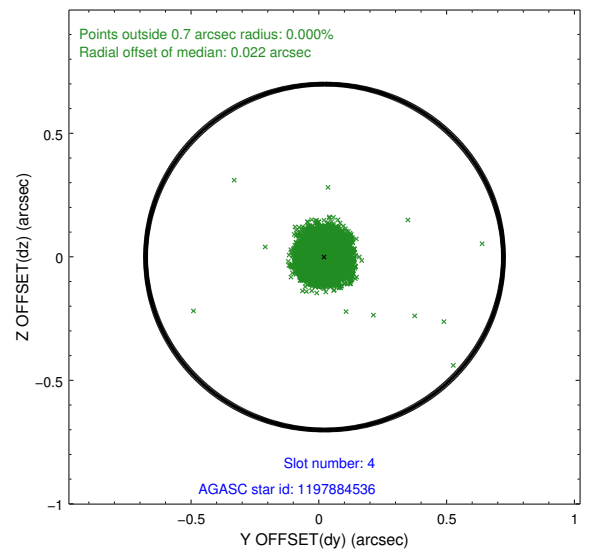
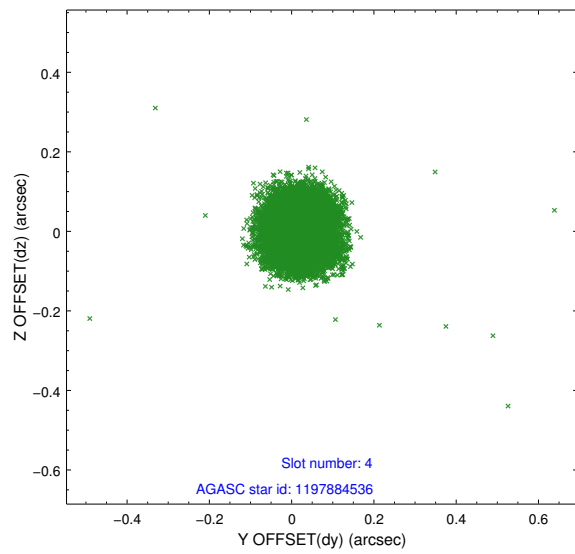
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.23 | 5385 | 0.028 | -0.009 | 0.007 | 0.013 | 0.000000 | 0.000000 | 932.86 | -834.72 |
| 1 | FID | ACIS-I-5 | 7.23 | 5385 | -0.149 | 0.050 | 0.007 | 0.011 | 0.000000 | 0.000000 | -1815.29 | 1062.81 |
| 2 | FID | ACIS-I-6 | 7.25 | 5384 | 0.029 | 0.029 | 0.007 | 0.011 | 0.000000 | 0.000000 | 398.30 | 1707.42 |
| 3 | GUIDE | 1197750936 | 7.57 | 10770 | -0.108 | 0.081 | 0.052 | 0.080 | 15.387940 | -71.549550 | 855.46 | -1598.65 |
| 4 | GUIDE | 1197884536 | 8.50 | 10768 | 0.022 | -0.001 | 0.072 | 0.110 | 17.160729 | -71.835289 | -1205.36 | -688.82 |
| 5 | GUIDE | 1197884712 | 8.30 | 10768 | -0.035 | -0.068 | 0.055 | 0.087 | 16.087398 | -72.252690 | -94.72 | 874.12 |
| 6 | GUIDE | 1197885104 | 9.36 | 10766 | 0.105 | -0.050 | 0.083 | 0.136 | 17.845067 | -72.189368 | -2013.61 | 556.70 |
| 7 | GUIDE | 1197885328 | 7.23 | 10768 | 0.017 | 0.038 | 0.055 | 0.085 | 16.283090 | -71.733943 | -201.20 | -1003.06 |

2.4 Star Slots

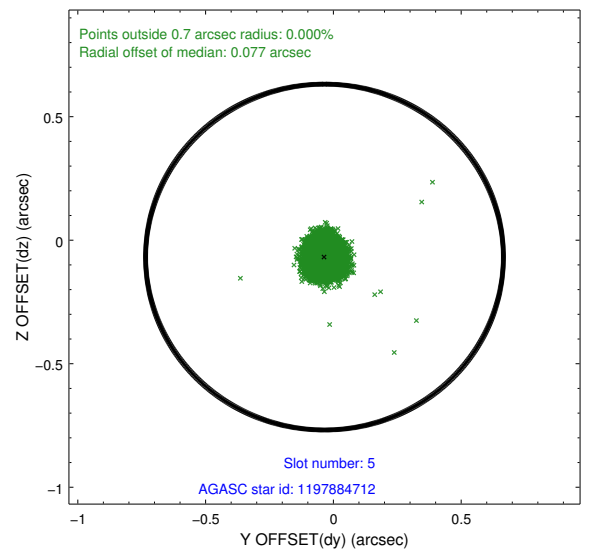
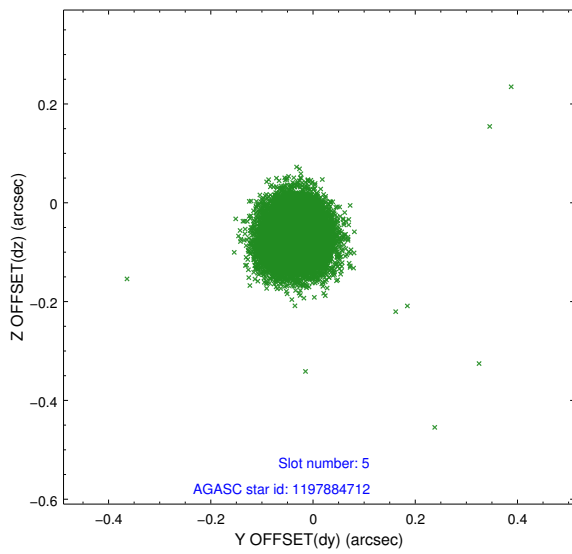
2.4.1 Slot 3



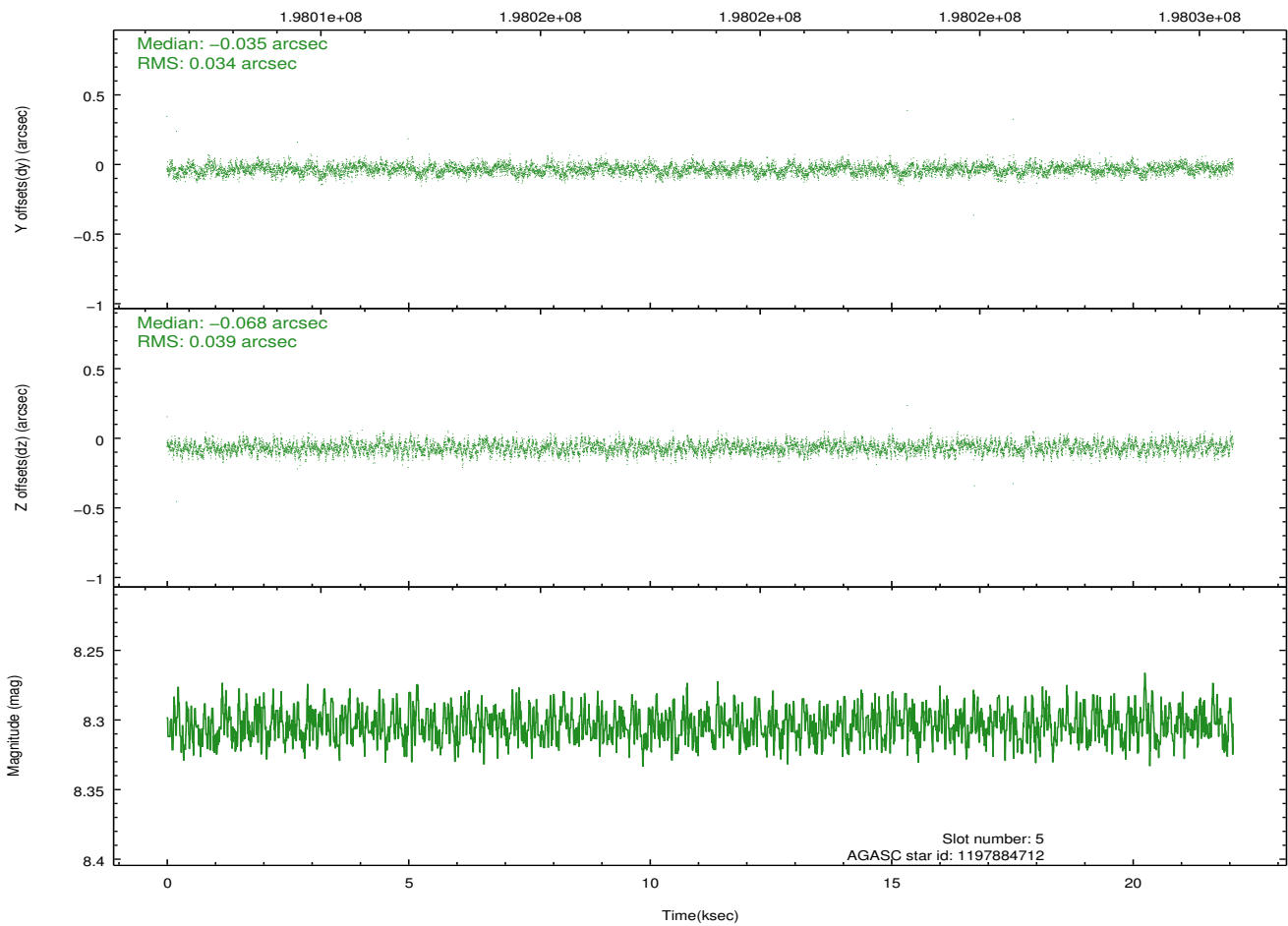
2.4.2 Slot 4



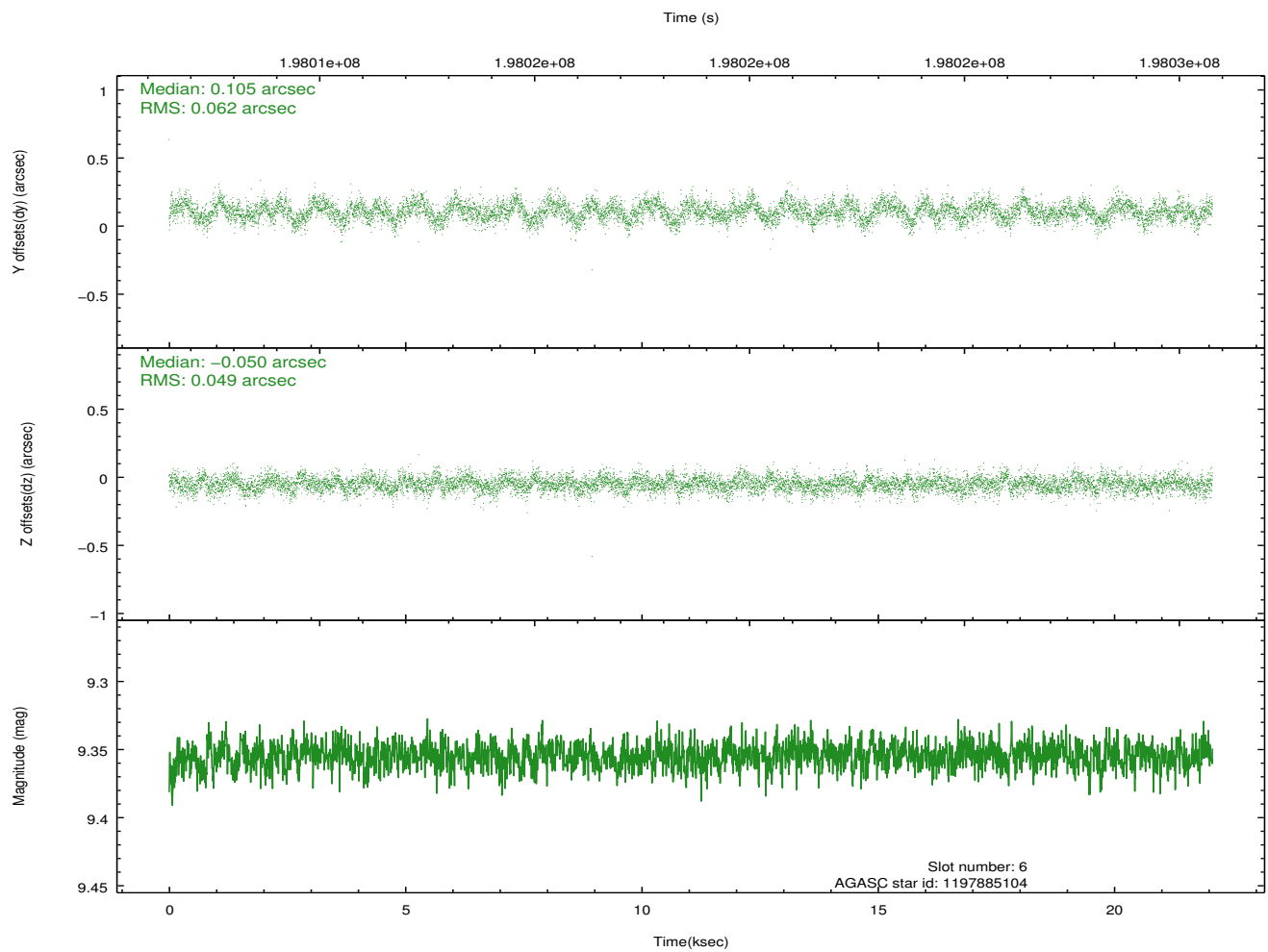
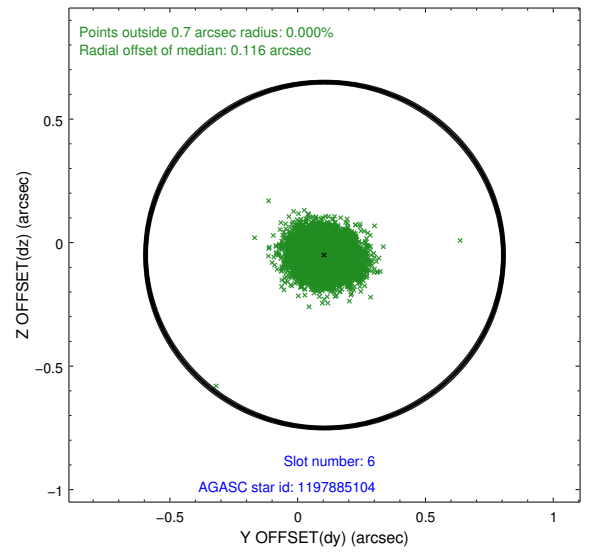
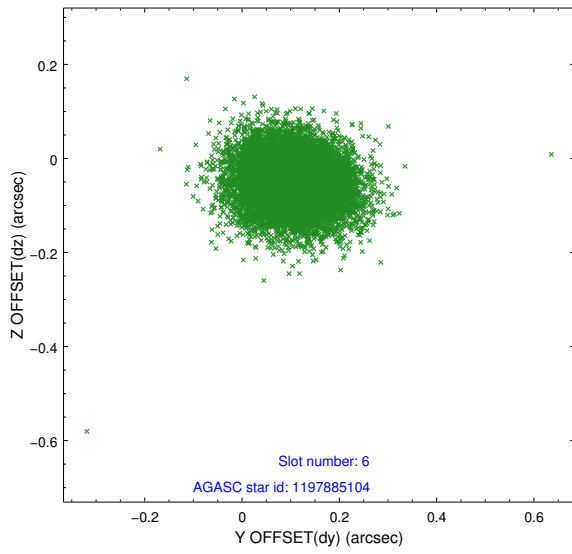
2.4.3 Slot 5



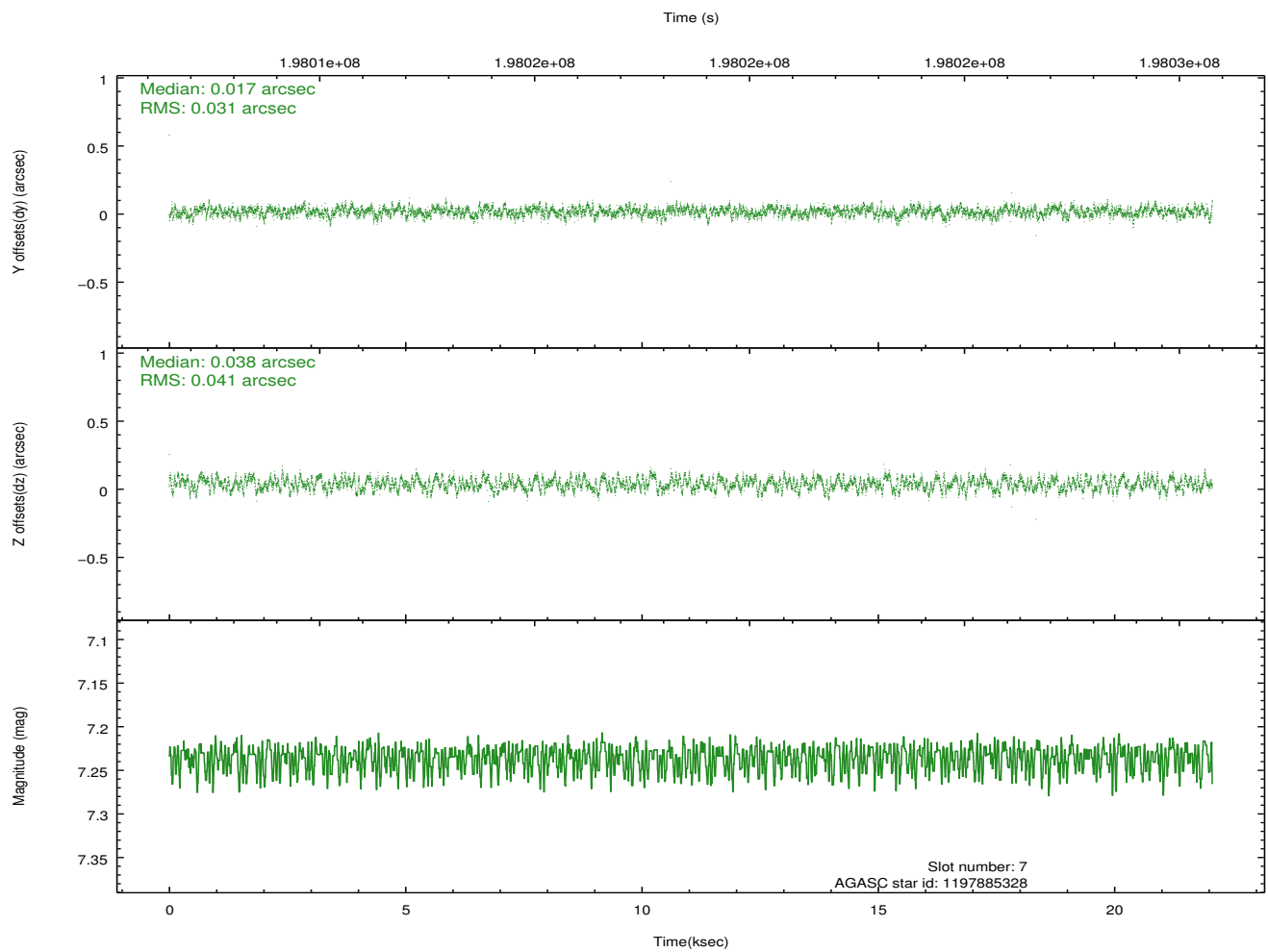
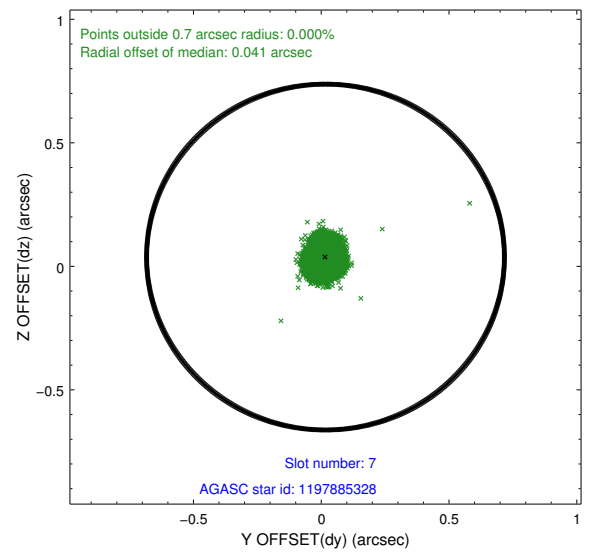
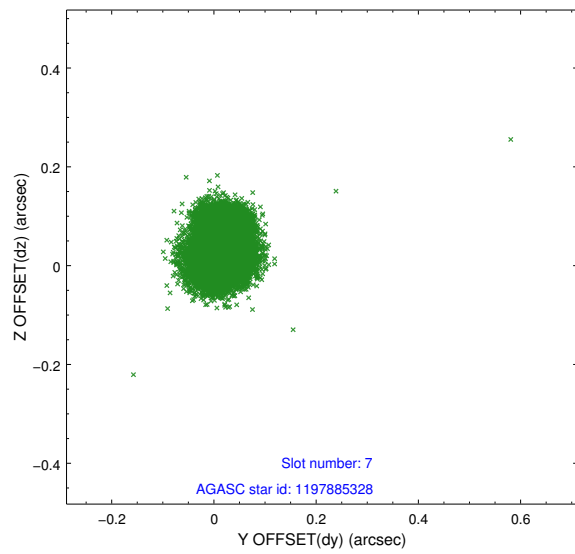
Time (s)



2.4.4 Slot 6

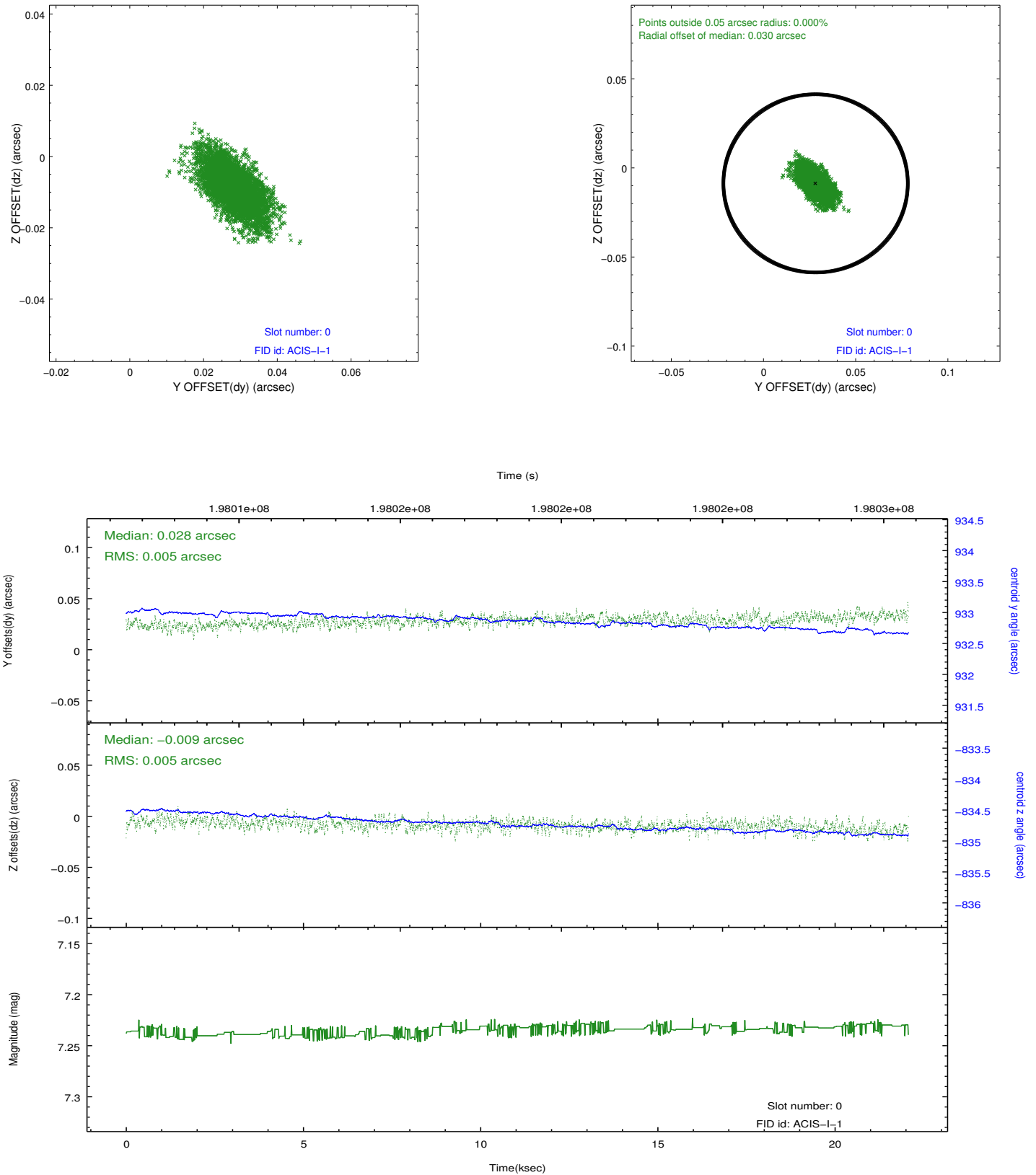


2.4.5 Slot 7

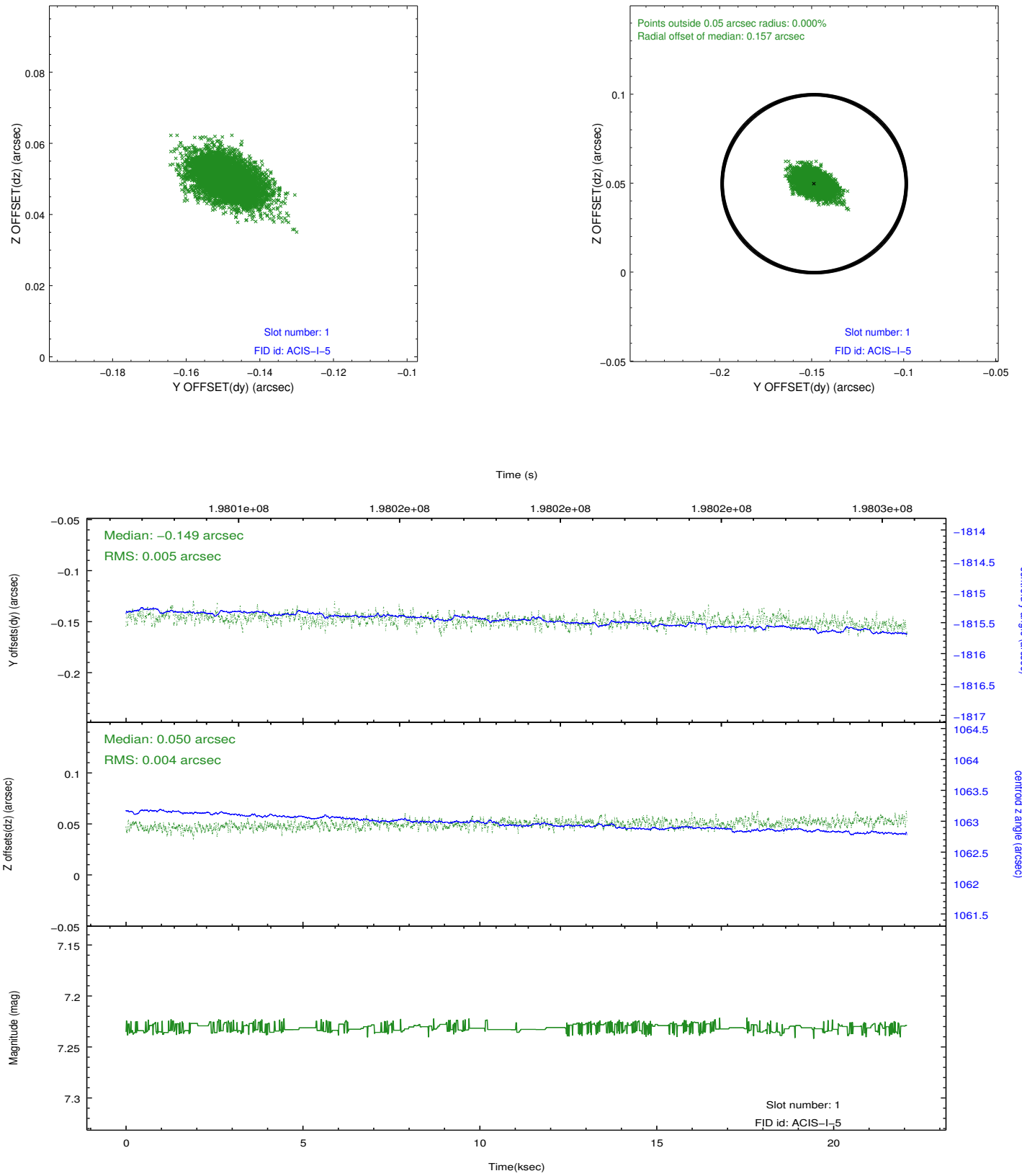


2.5 FID Slots

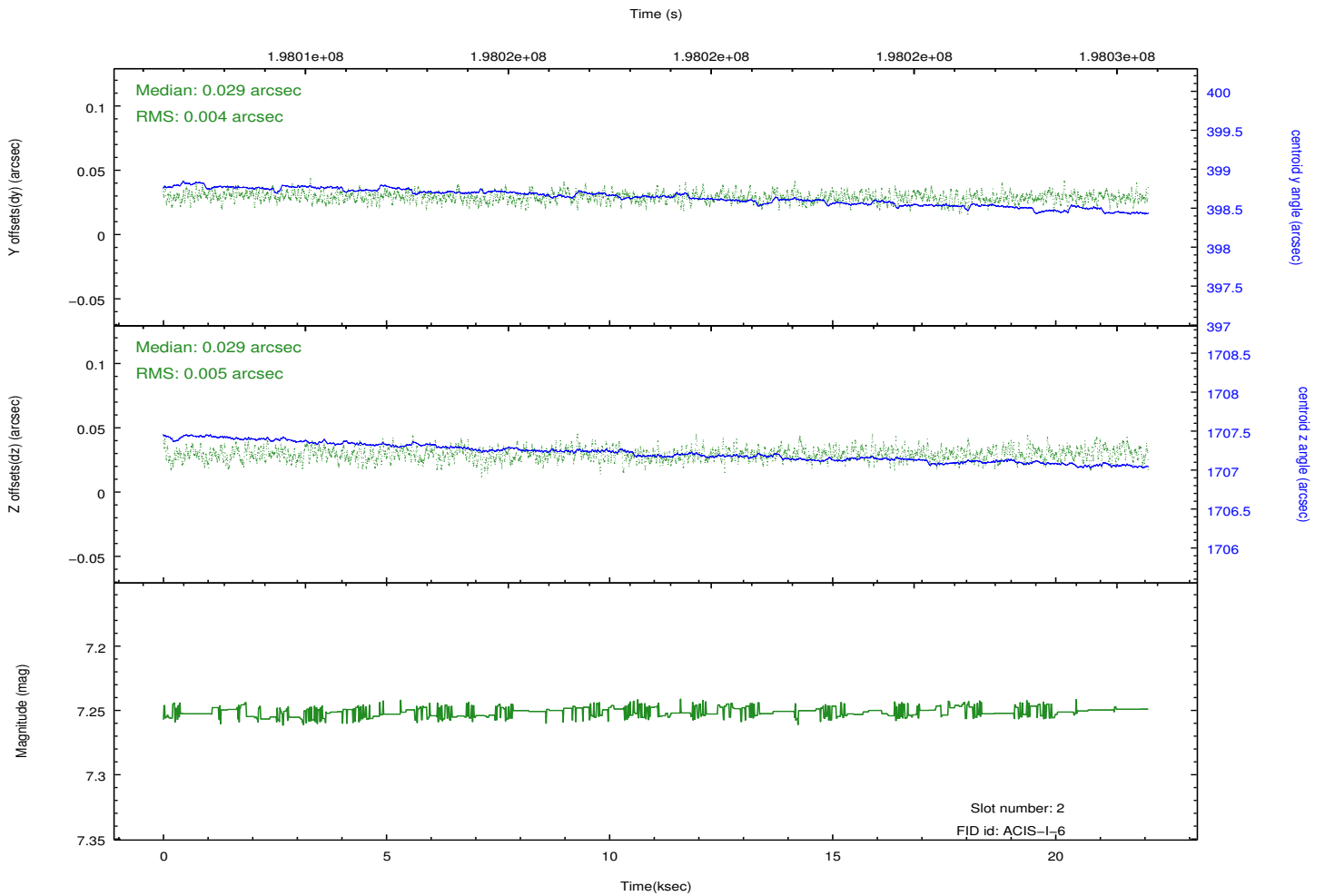
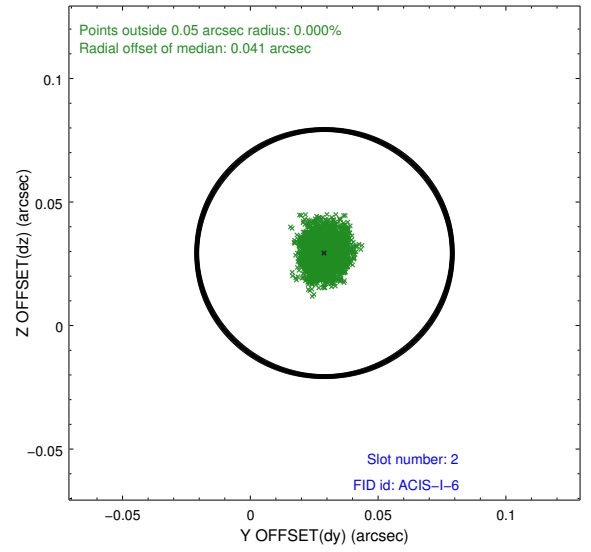
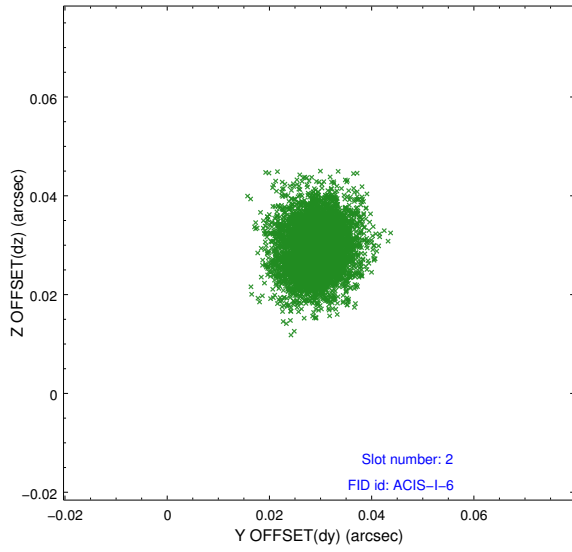
2.5.1 Slot 0



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) | 2012.12.14 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 20.684 |

A.2 Comments

Window constraint met.