

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 950 - L2 Version 4
Chandra X-Ray Center

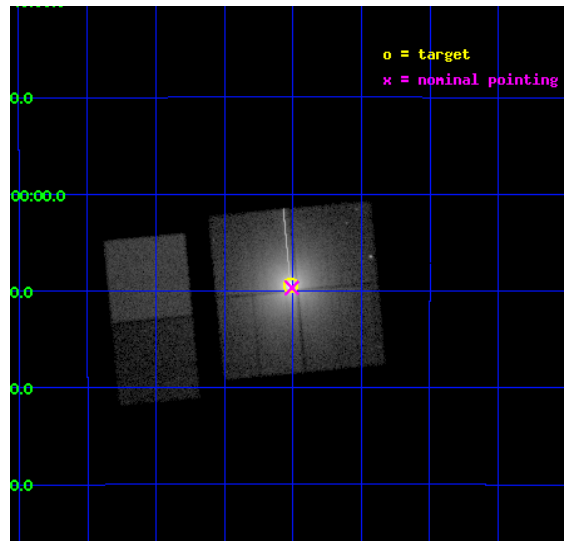
L2 Processing Date : Aug 31 2012

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1 Front

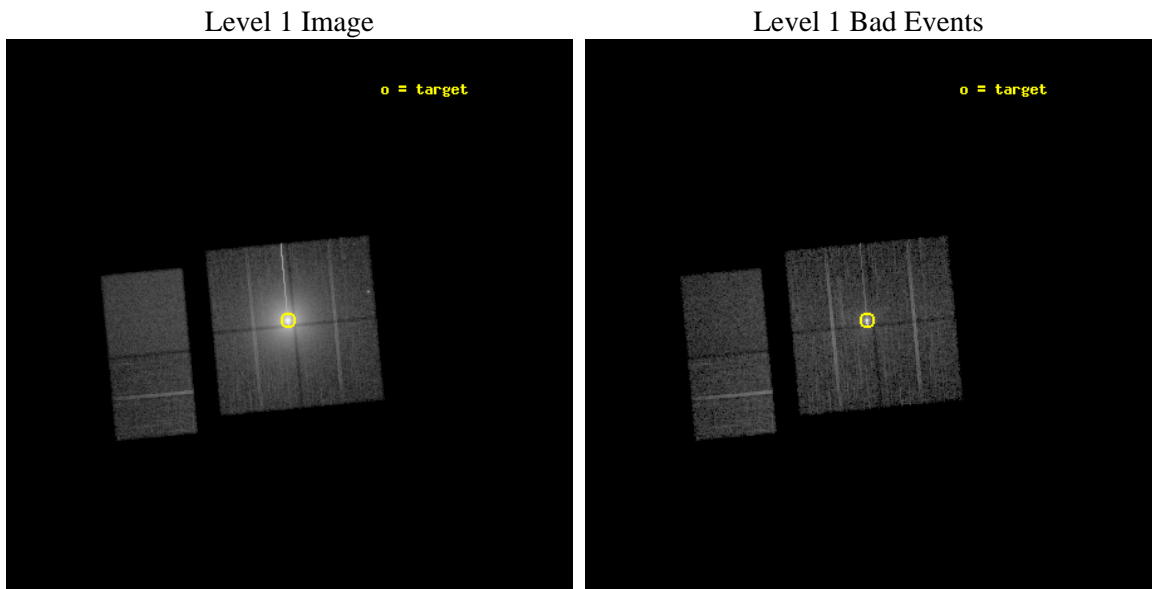
| | | |
|----------|---|---|
| seq_num | 400091 | Sequence number |
| obs_id | 950 | Observation id |
| title | SURVEYING X-RAY HALOS WITH AXAF: MEASURING CLOUD TOMOGRAPHY AND GRAIN COMPOSITION | Proposal title |
| observer | Dr. Randall Smith | Principal investigator |
| object | GX 13+1 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 273.629167 | Observer's specified target RA [deg] |
| dec_targ | -17.157222 | Observer's specified target Dec [deg] |
| ra_nom | 273.6267927909 | Nominal RA [deg] |
| dec_nom | -17.161477350987 | Nominal Dec [deg] |
| roll_nom | 264.62041539019 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 9756.8000090718 | Sum of GTIs [s] |
| livetime | 9633.2535325173 | Livetime [s] |
| ontime0 | 9756.725533247 | Sum of GTIs [s] |
| ontime1 | 9756.7665732503 | Sum of GTIs [s] |
| ontime2 | 9753.5590388328 | Sum of GTIs [s] |
| ontime3 | 9756.8000090718 | Sum of GTIs [s] |
| ontime6 | 9756.8000090718 | Sum of GTIs [s] |
| ontime7 | 9756.8000090718 | Sum of GTIs [s] |
| l2events | 713732 | Number of level 2 events |



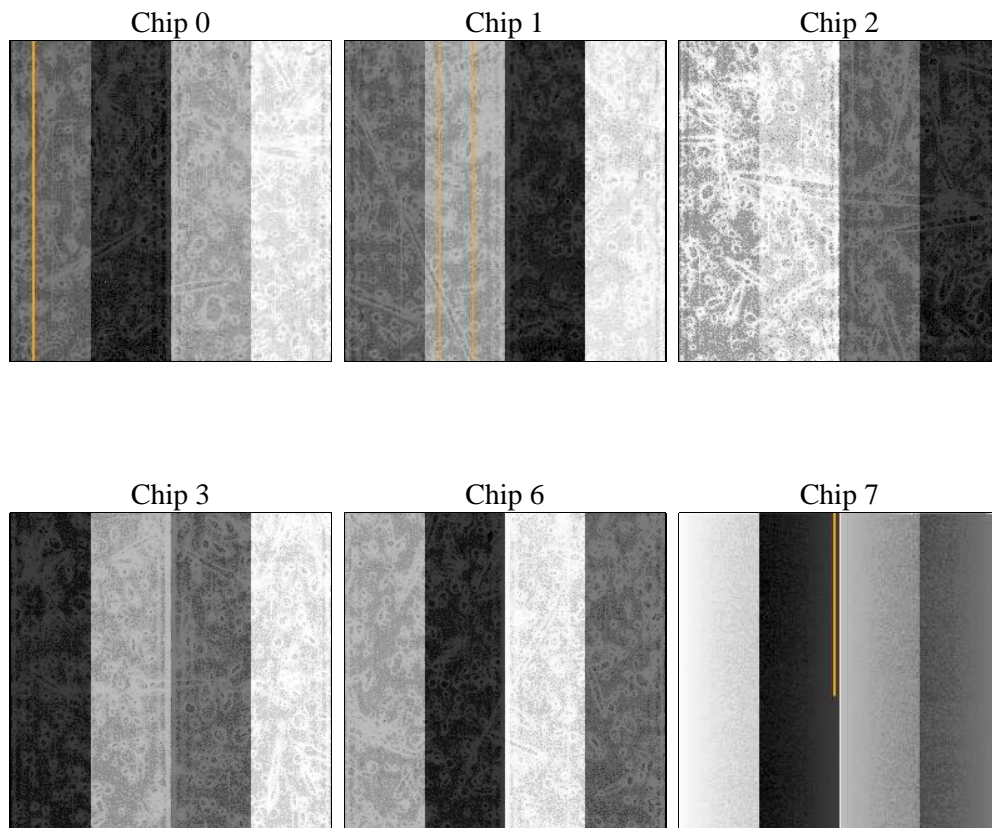
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 9800.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 9756.8000090718 | Sum of GTIs [s] |
| caldsver | 4.5.1.1 | | ontime0 | 9756.725533247 | Sum of GTIs [s] |
| date | 2012-08-31T12:46:50 | Date and time of file creation | ontime1 | 9756.7665732503 | Sum of GTIs [s] |
| revision | 4 | Processing version of data | ontime2 | 9753.5590388328 | Sum of GTIs [s] |
| | | | ontime3 | 9756.8000090718 | Sum of GTIs [s] |
| | | | ontime6 | 9756.8000090718 | Sum of GTIs [s] |
| | | | ontime7 | 9756.8000090718 | Sum of GTIs [s] |
| | | | l1events | 1087829 | Number of level 1 events |

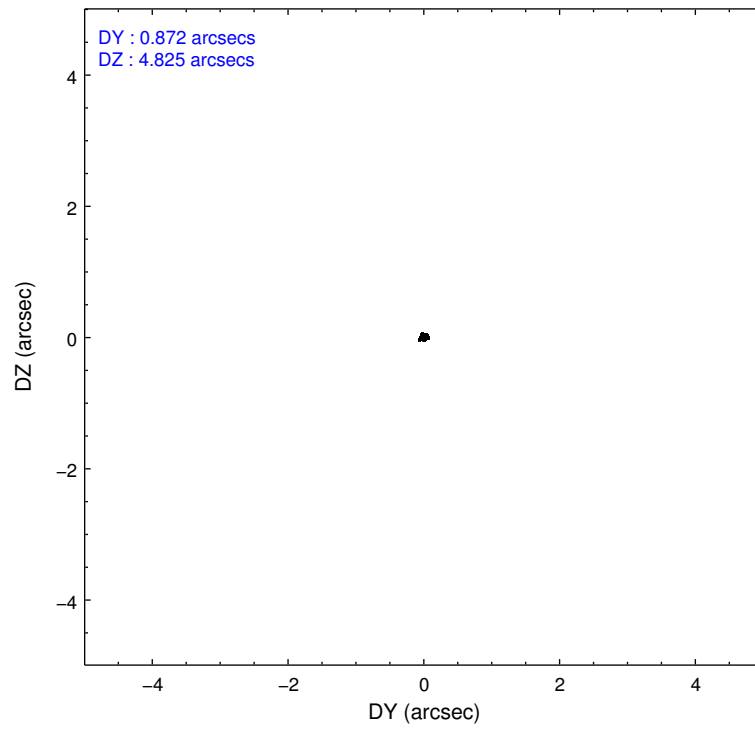
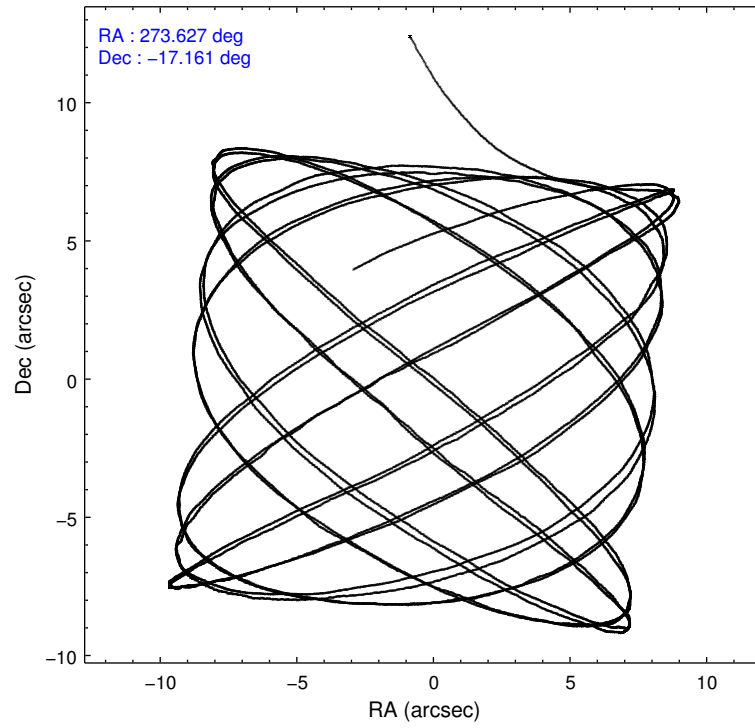
2.1.4 Events

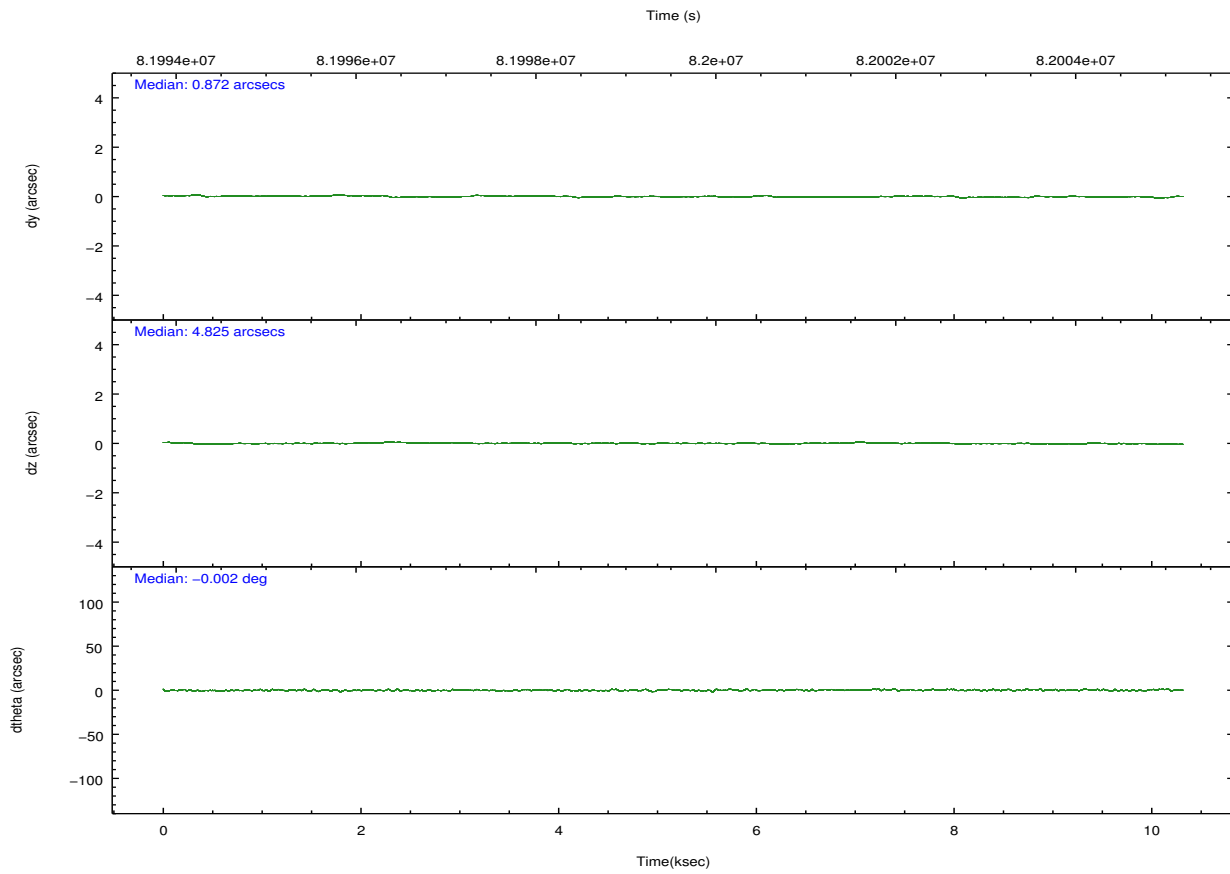
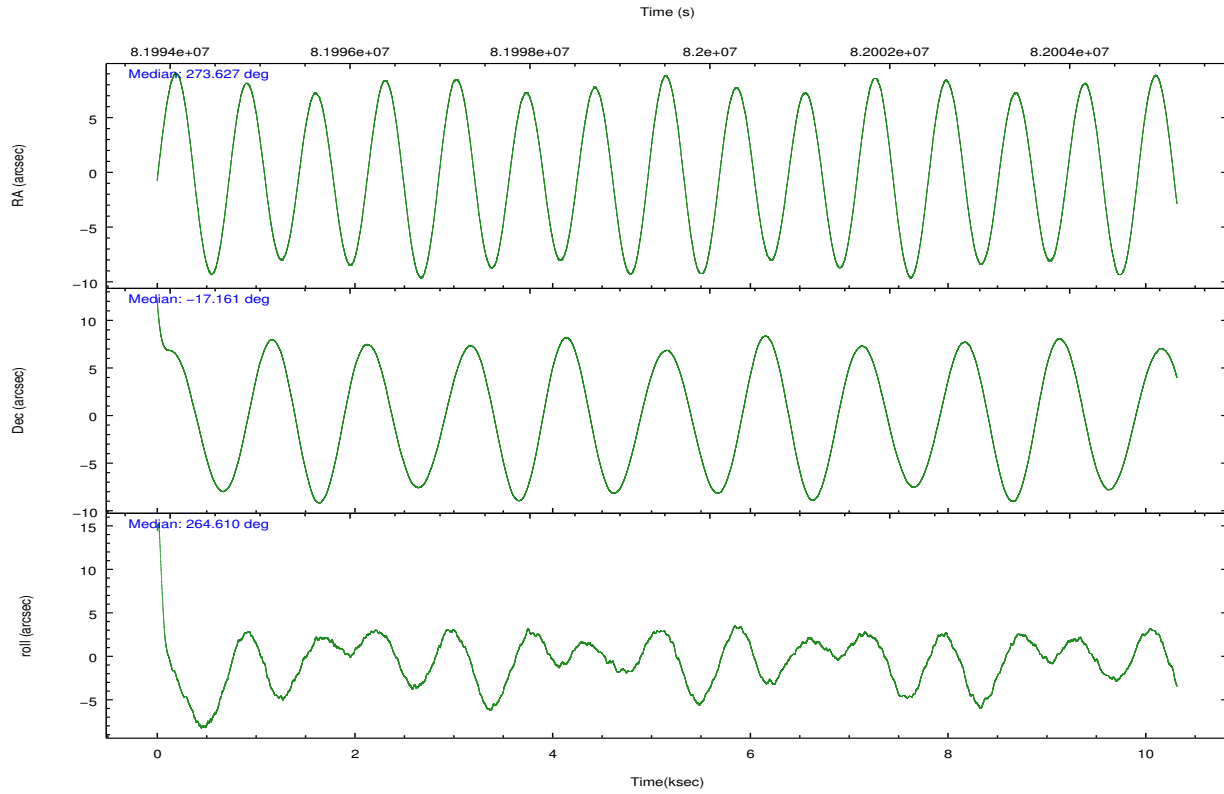
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|-------|-------|----------------|-------|-------|-------|--------|-------|-------|
| level 1 events | 110258 | 149289 | 173246 | 519611 | 59968 | 75457 | grade 0 events | 46822 | 75931 | 88910 | 291602 | 5393 | 4459 |
| rejected events | 45597 | 45441 | 53503 | 105414 | 49954 | 38898 | | 42% | 50% | 51% | 56% | 8% | 5% |
| rejected % | 41% | 30% | 30% | 20% | 83% | 51% | grade 1 events | 264 | 436 | 528 | 8293 | 33 | 67 |
| | | | | | | | | 0% | 0% | 0% | 1% | 0% | 0% |
| | | | | | | | grade 2 events | 8535 | 13502 | 15133 | 58069 | 1633 | 7482 |
| | | | | | | | | 7% | 9% | 8% | 11% | 2% | 9% |
| | | | | | | | grade 3 events | 2807 | 4672 | 5024 | 18808 | 810 | 3521 |
| | | | | | | | | 2% | 3% | 2% | 3% | 1% | 4% |
| | | | | | | | grade 4 events | 2913 | 4449 | 4884 | 19019 | 772 | 3383 |
| | | | | | | | | 2% | 2% | 2% | 3% | 1% | 4% |
| | | | | | | | grade 5 events | 2077 | 2399 | 2233 | 8813 | 2253 | 6601 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 8% |
| | | | | | | | grade 6 events | 3632 | 5344 | 5858 | 26961 | 1412 | 17739 |
| | | | | | | | | 3% | 3% | 3% | 5% | 2% | 23% |
| | | | | | | | grade 7 events | 43208 | 42556 | 50676 | 88046 | 47662 | 32205 |
| | | | | | | | | 39% | 28% | 29% | 16% | 79% | 42% |

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 | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 273.614815 | 273.6267927908984 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -17.136452 | -17.16147735098697 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 264.408171 | 264.6204153901855 | [s] Primary exposure time | 0.000000 | 3.2 |
| [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) | 81994884.184000 | 81993669.320693 | | | |
| Observation start date | 2000-08-07T00:20:20 | 2000-08-07T00:01:09 | | | |
| [s] Observation end time (MET) | 82004684.184000 | 82005145.221121 | | | |
| Observation end date | 2000-08-07T03:03:40 | 2000-08-07T03:12:25 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



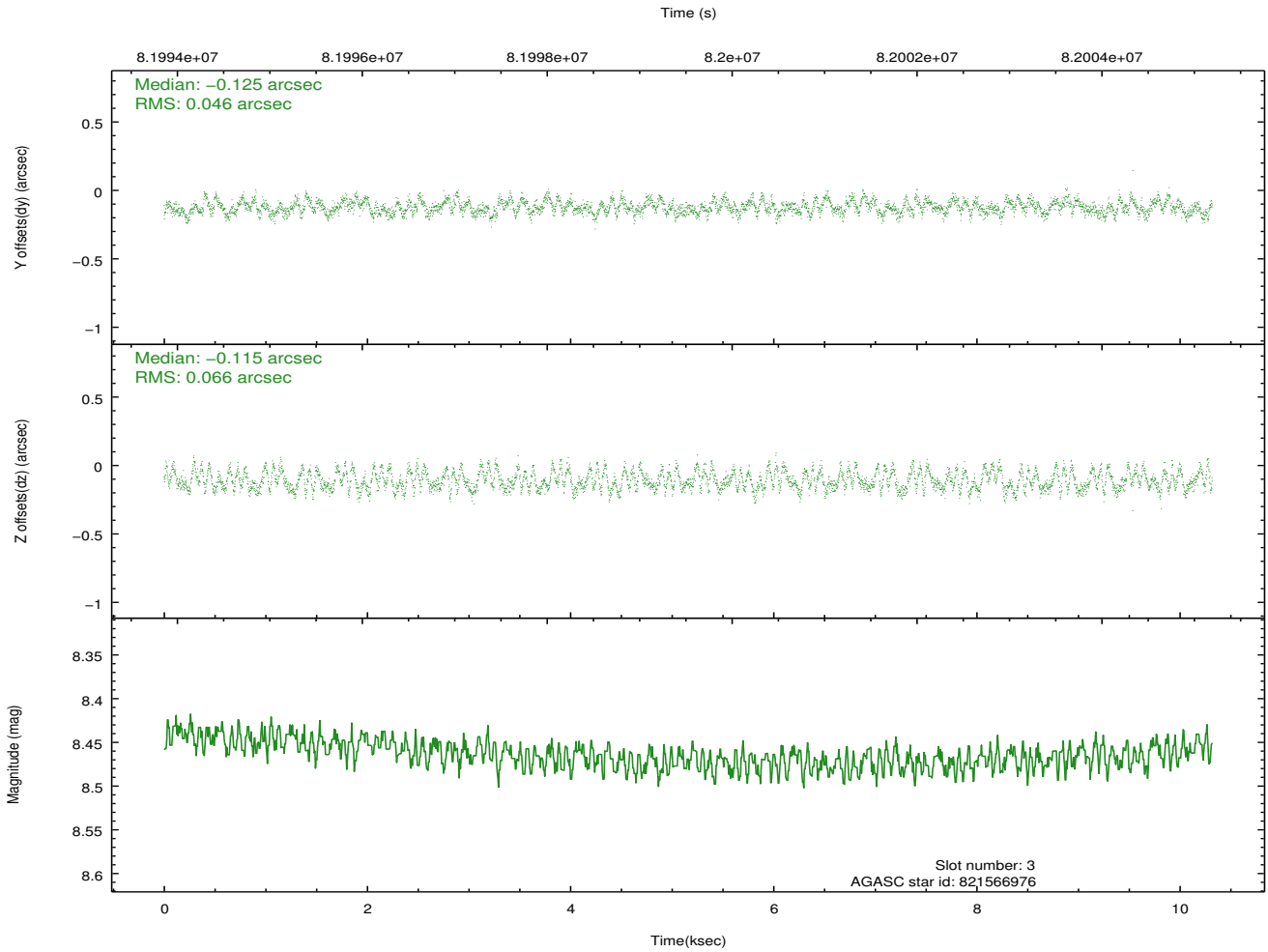
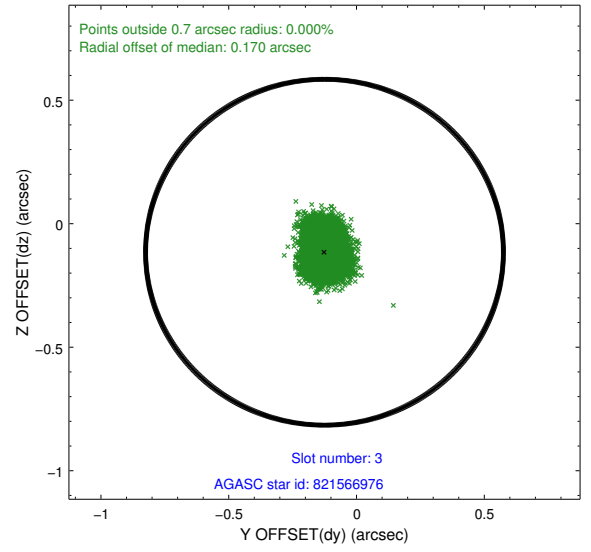
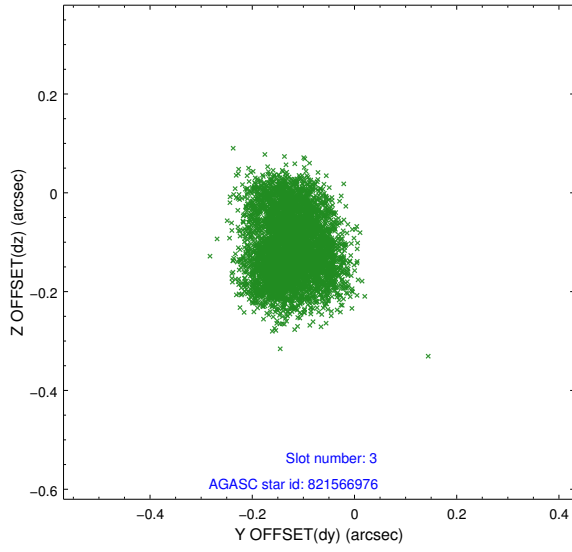


Slot Statistics

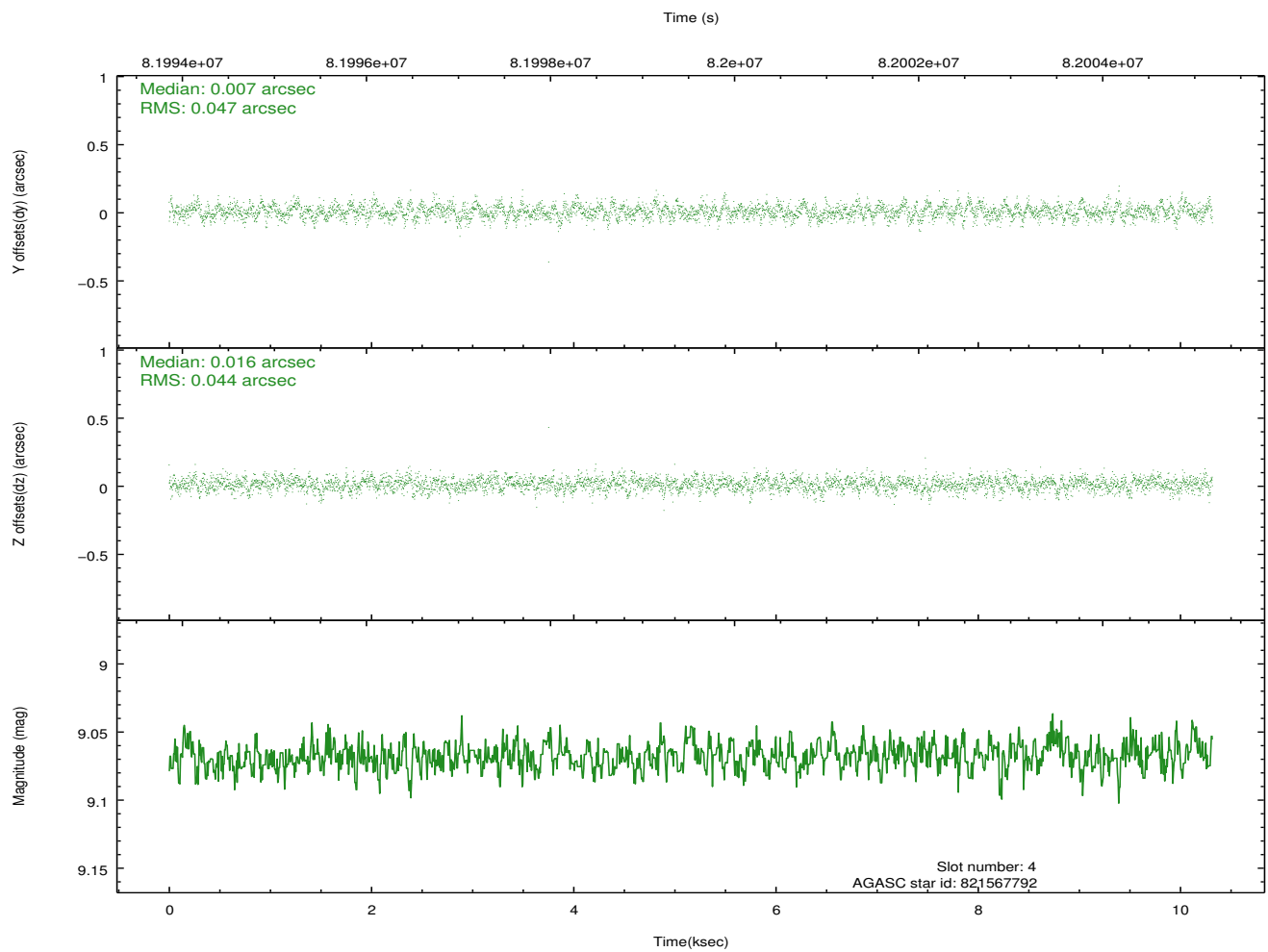
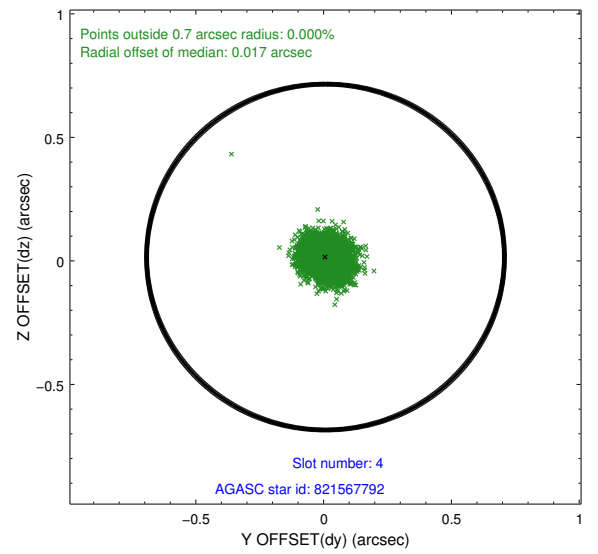
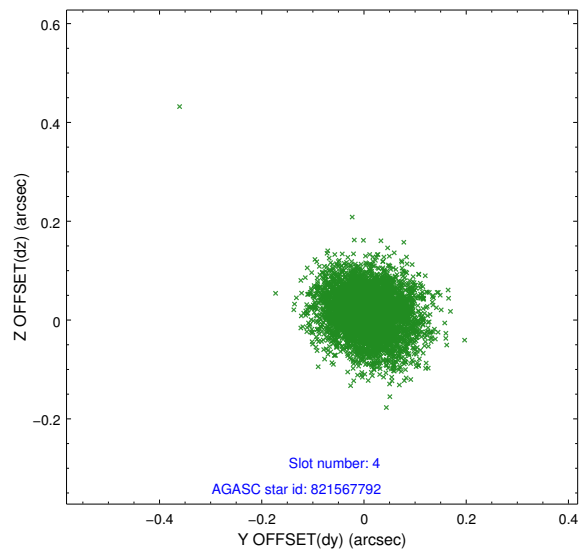
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-2 | 7.15 | 2517 | -0.030 | -0.020 | 0.010 | 0.017 | 0.000000 | 0.000000 | -755.22 | -834.54 |
| 1 | FID | ACIS-I-4 | 7.19 | 2516 | -0.032 | 0.031 | 0.007 | 0.013 | 0.000000 | 0.000000 | 2158.61 | 1071.42 |
| 2 | FID | ACIS-I-5 | 7.23 | 2516 | -0.040 | 0.058 | 0.010 | 0.017 | 0.000000 | 0.000000 | -1808.40 | 1069.88 |
| 3 | GUIDE | 821566976 | 8.46 | 5031 | -0.125 | -0.115 | 0.088 | 0.134 | 272.948338 | -16.893938 | -639.44 | -2369.77 |
| 4 | GUIDE | 821567792 | 9.07 | 5032 | 0.007 | 0.016 | 0.067 | 0.112 | 273.058733 | -17.376535 | 1050.90 | -1817.24 |
| 5 | GUIDE | 821571088 | 9.38 | 5033 | 0.202 | -0.064 | 0.071 | 0.116 | 273.658262 | -17.362946 | 798.91 | 227.75 |
| 6 | GUIDE | 821703096 | 9.30 | 5034 | 0.029 | 0.138 | 0.099 | 0.155 | 274.181701 | -17.480385 | 1046.85 | 2058.61 |
| 7 | GUIDE | 821186248 | 9.26 | 5027 | -0.110 | 0.020 | 0.104 | 0.162 | 274.245729 | -16.758560 | -1561.13 | 2032.45 |

2.4 Star Slots

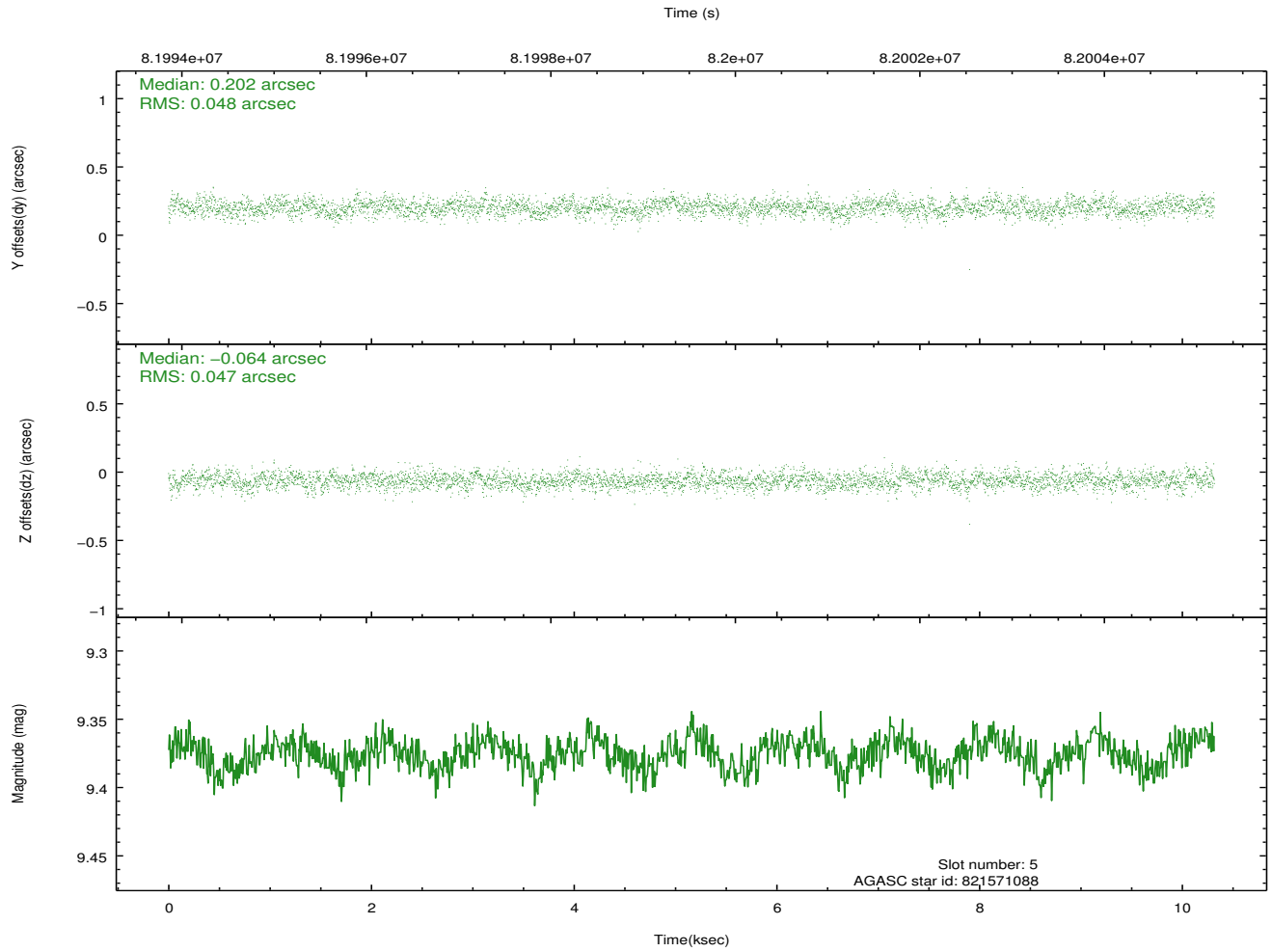
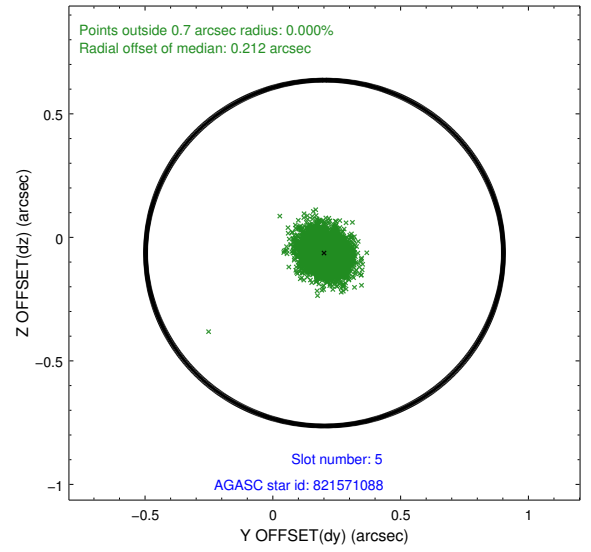
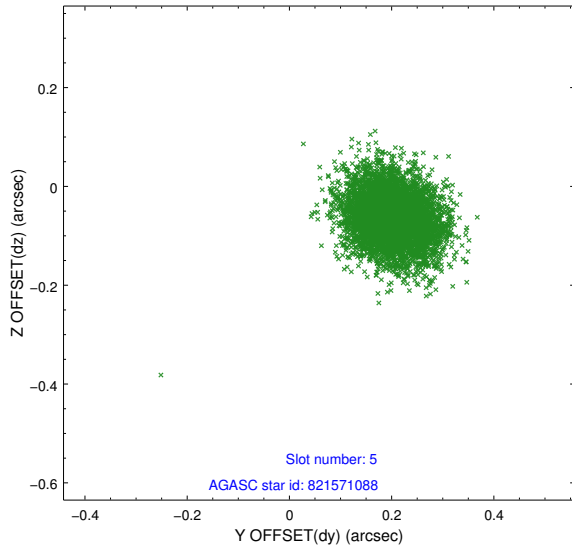
2.4.1 Slot 3



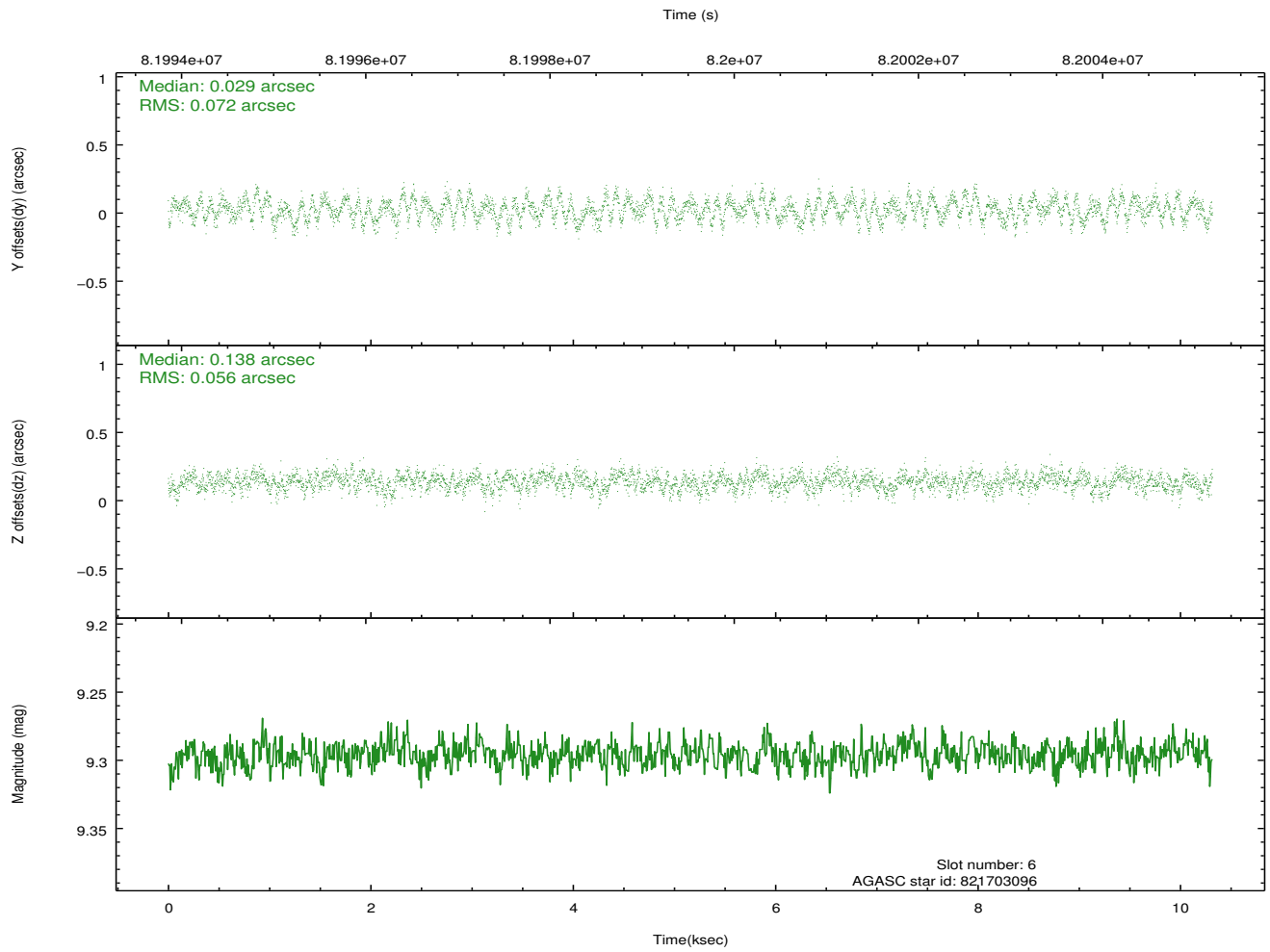
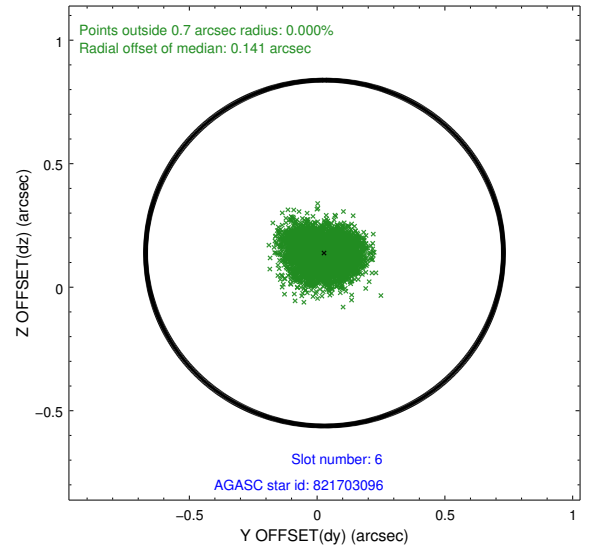
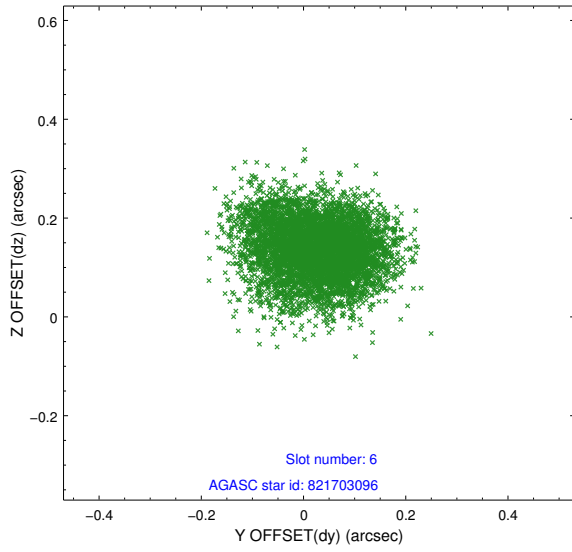
2.4.2 Slot 4



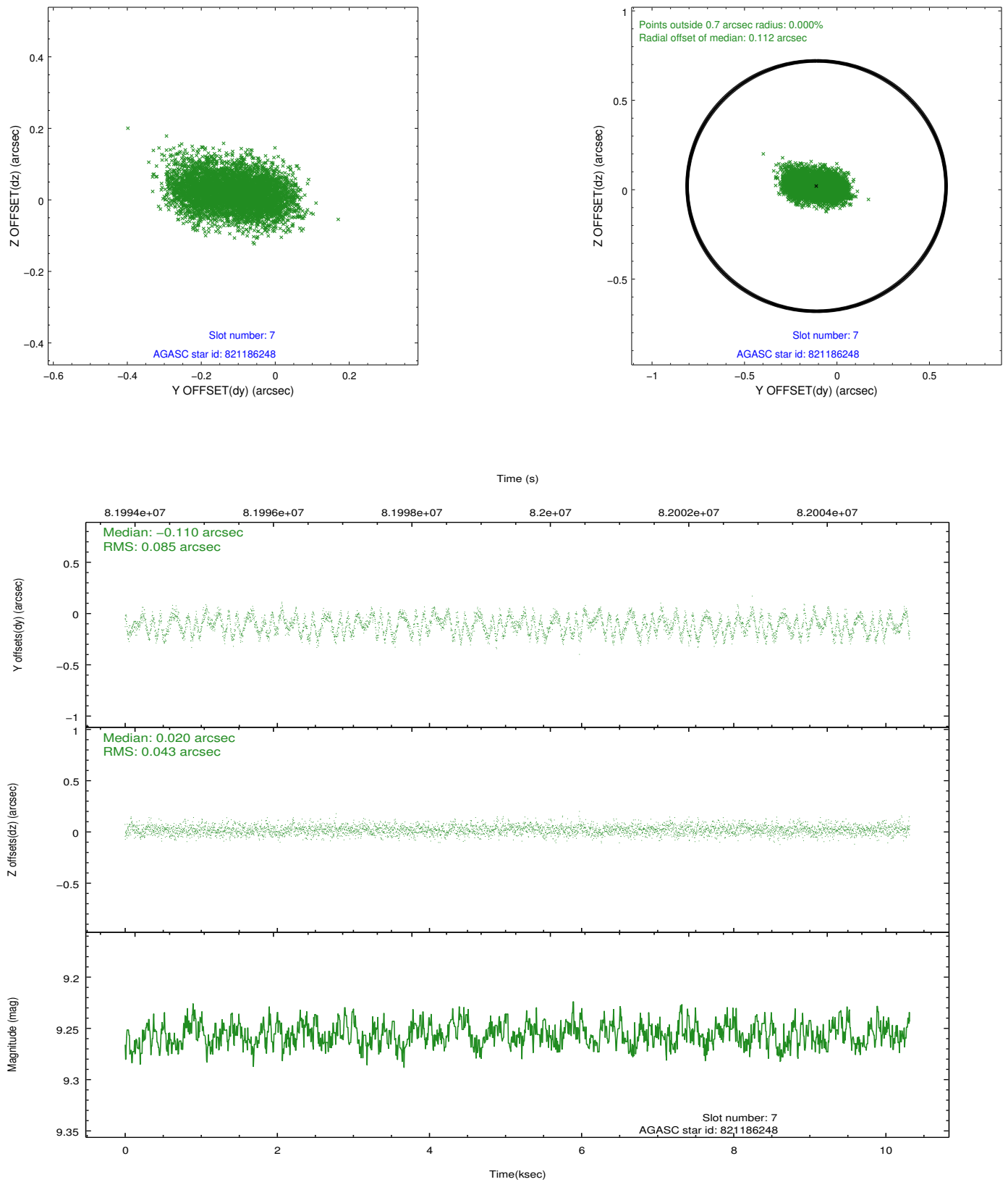
2.4.3 Slot 5



2.4.4 Slot 6

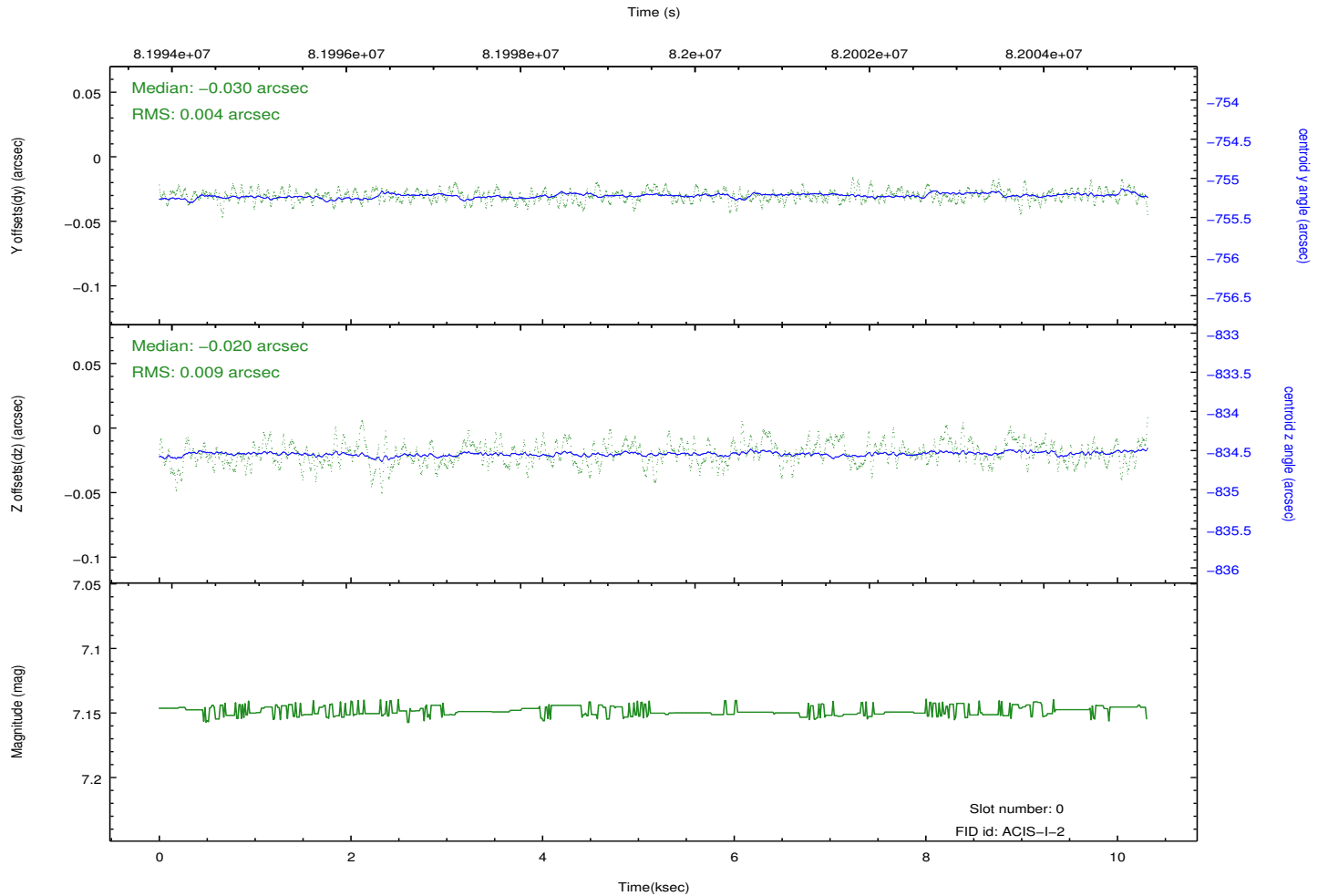
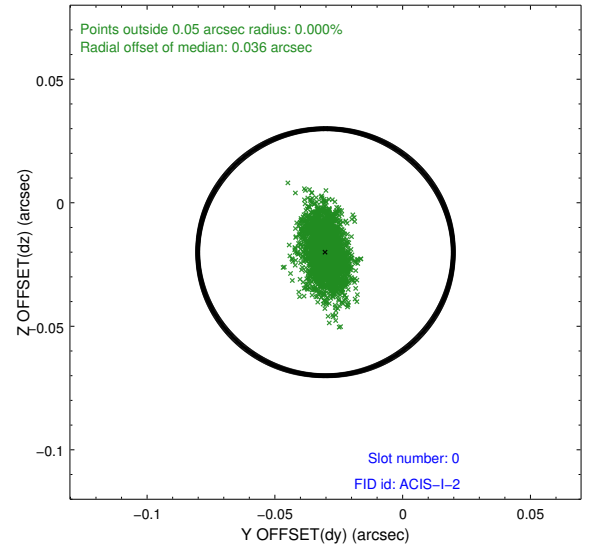
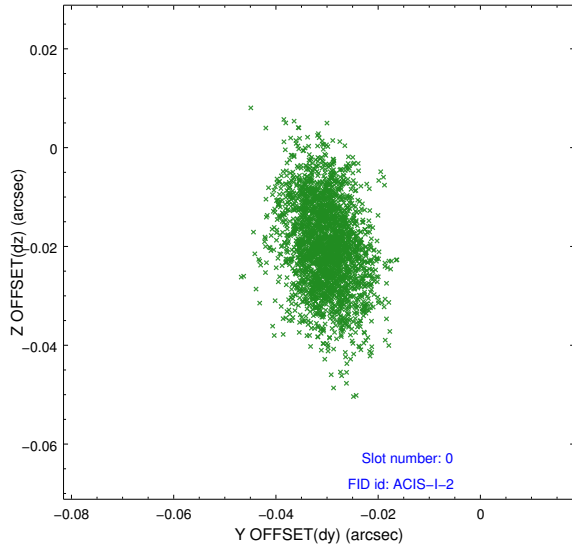


2.4.5 Slot 7

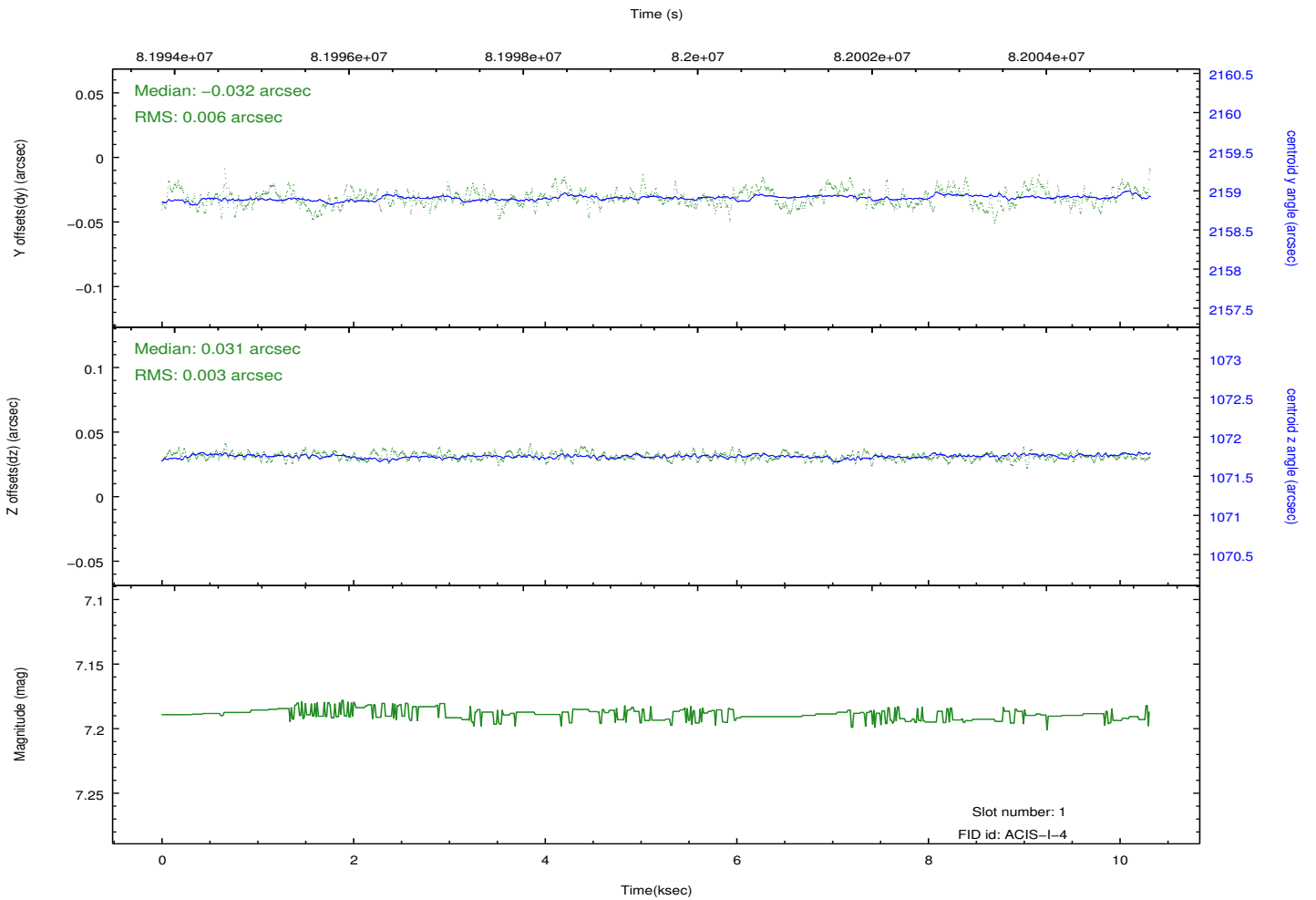
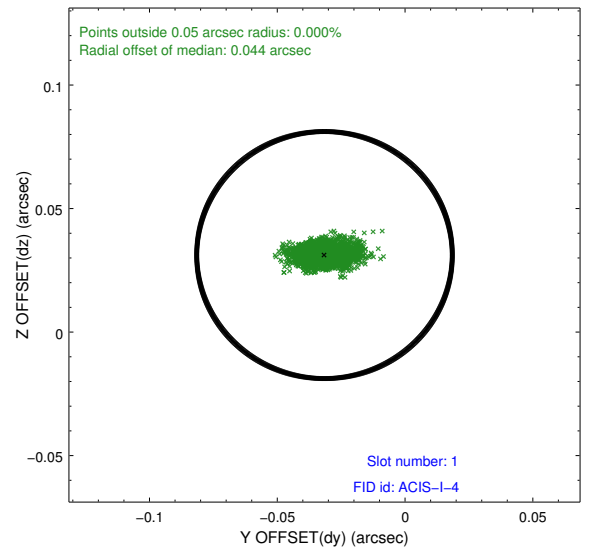
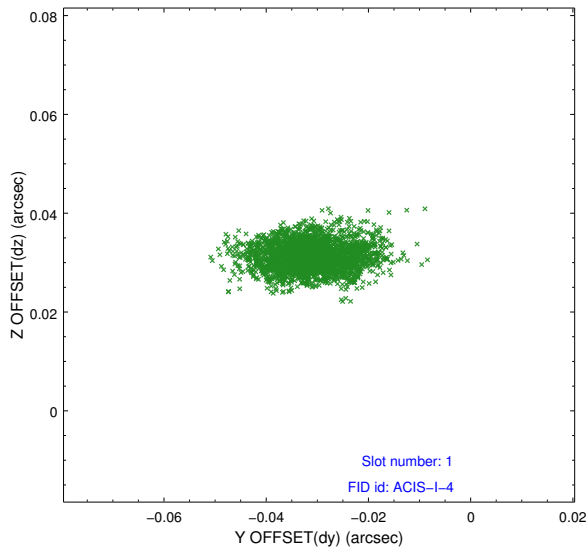


2.5 FID Slots

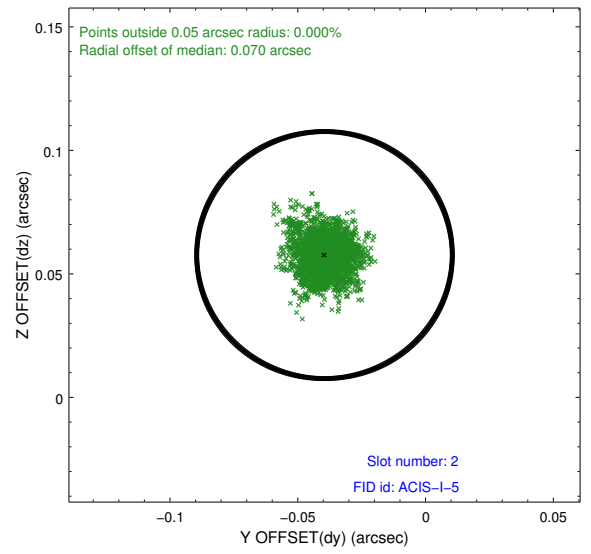
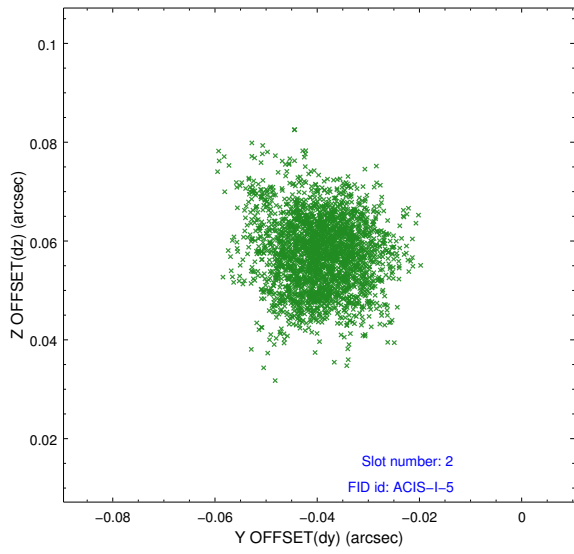
2.5.1 Slot 0



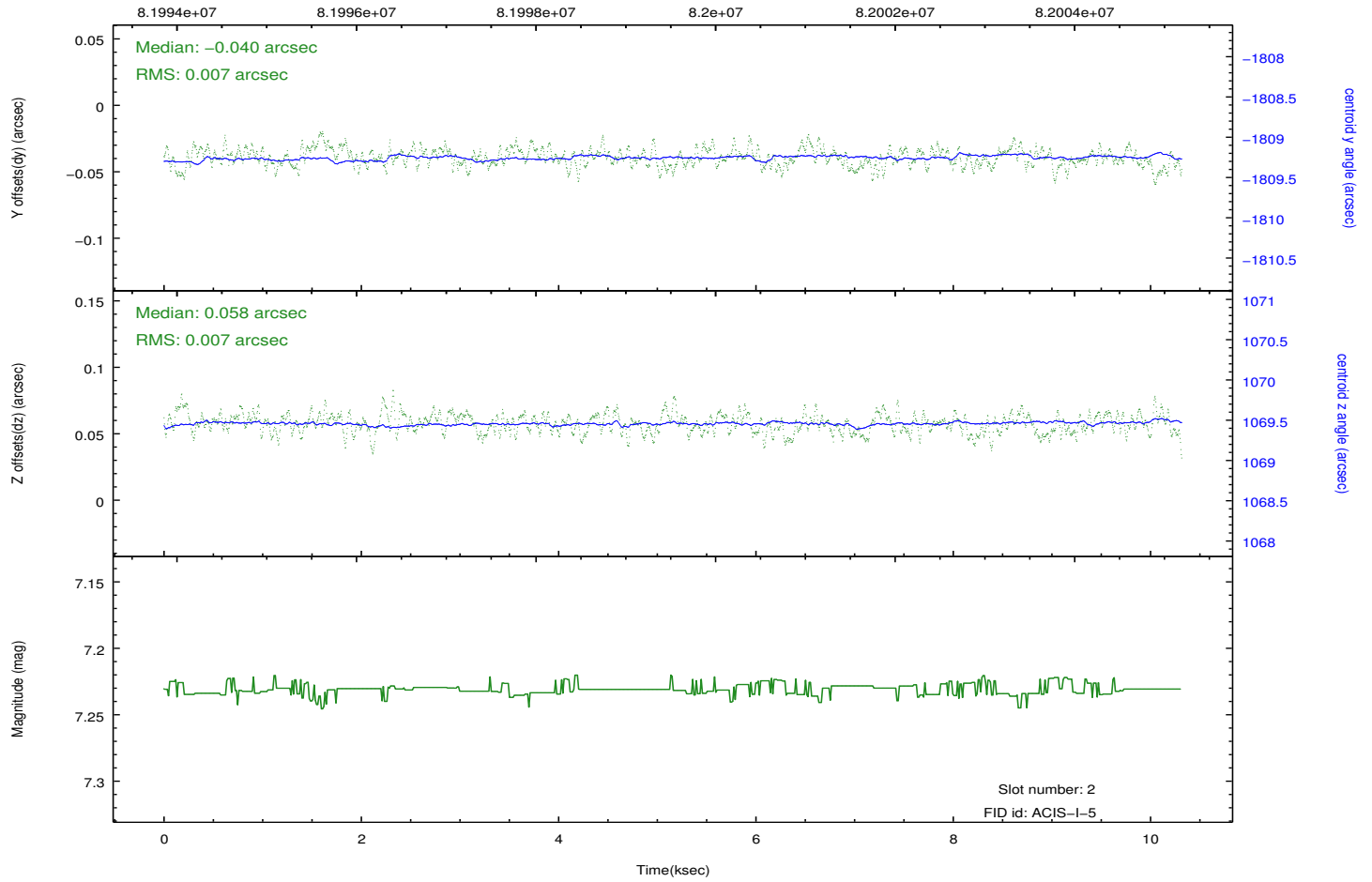
2.5.2 Slot 1



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.09.06 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 9.76 |

A.2 Comments