

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 1575 - L2 Version 3
Chandra X-Ray Center

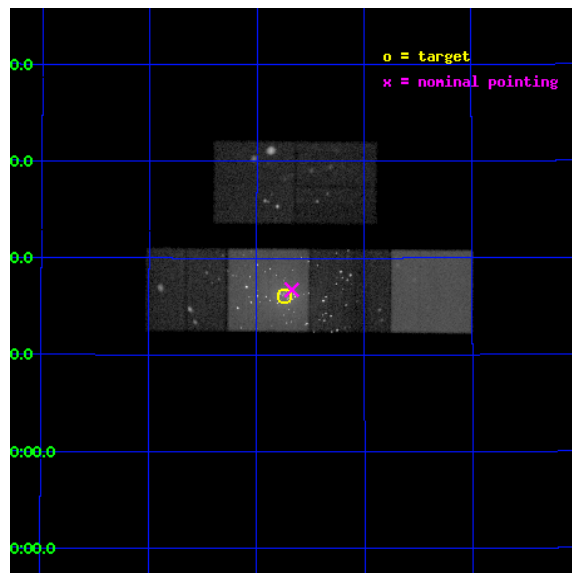
L2 Processing Date : Sep 25 2012

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1 Front

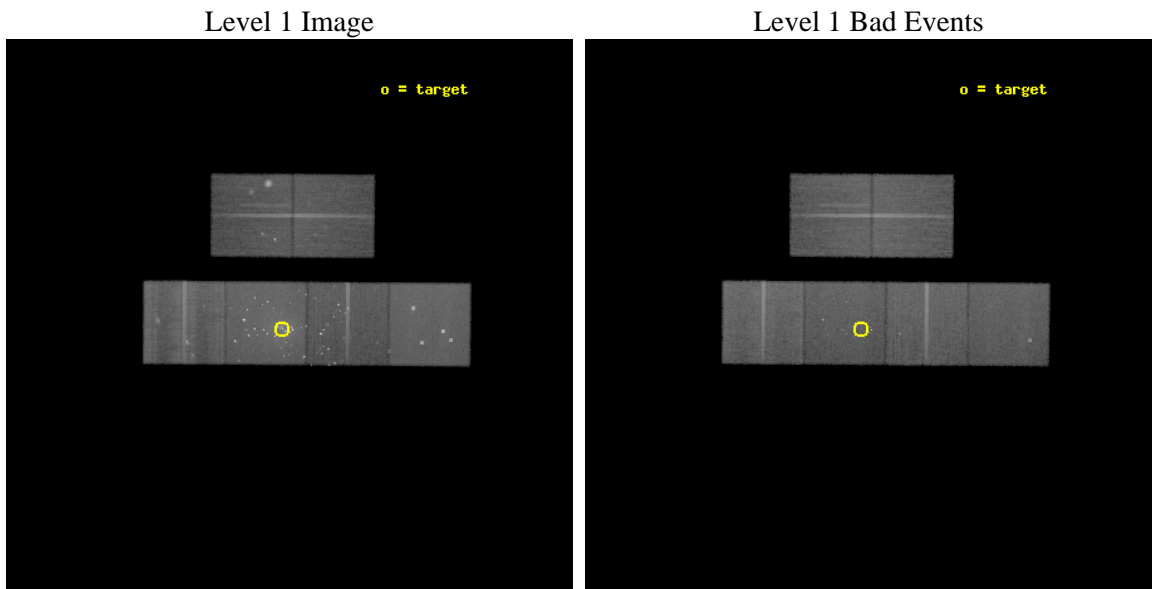
| | | |
|----------|--------------------|--|
| seq_num | 600132 | Sequence number |
| obs_id | 1575 | Observation id |
| title | M31 NUCLEAR REGION | Proposal title |
| observer | Dr. Stephen Murray | Principal investigator |
| object | M31 NUCLEUS | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 10.685 | Observer's specified target RA [deg] |
| dec_targ | 41.268972 | Observer's specified target Dec [deg] |
| ra_nom | 10.668403294059 | Nominal RA [deg] |
| dec_nom | 41.278943379023 | Nominal Dec [deg] |
| roll_nom | 180.42070157758 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 38147.200035512 | Sum of GTIs [s] |
| livetime | 37664.157219177 | Livetime [s] |
| ontime2 | 38147.200035512 | Sum of GTIs [s] |
| ontime3 | 38147.200035512 | Sum of GTIs [s] |
| ontime5 | 38147.200035512 | Sum of GTIs [s] |
| ontime6 | 38143.959075272 | Sum of GTIs [s] |
| ontime7 | 38147.200035512 | Sum of GTIs [s] |
| ontime8 | 38147.200035512 | Sum of GTIs [s] |
| l2events | 585513 | Number of level 2 events |



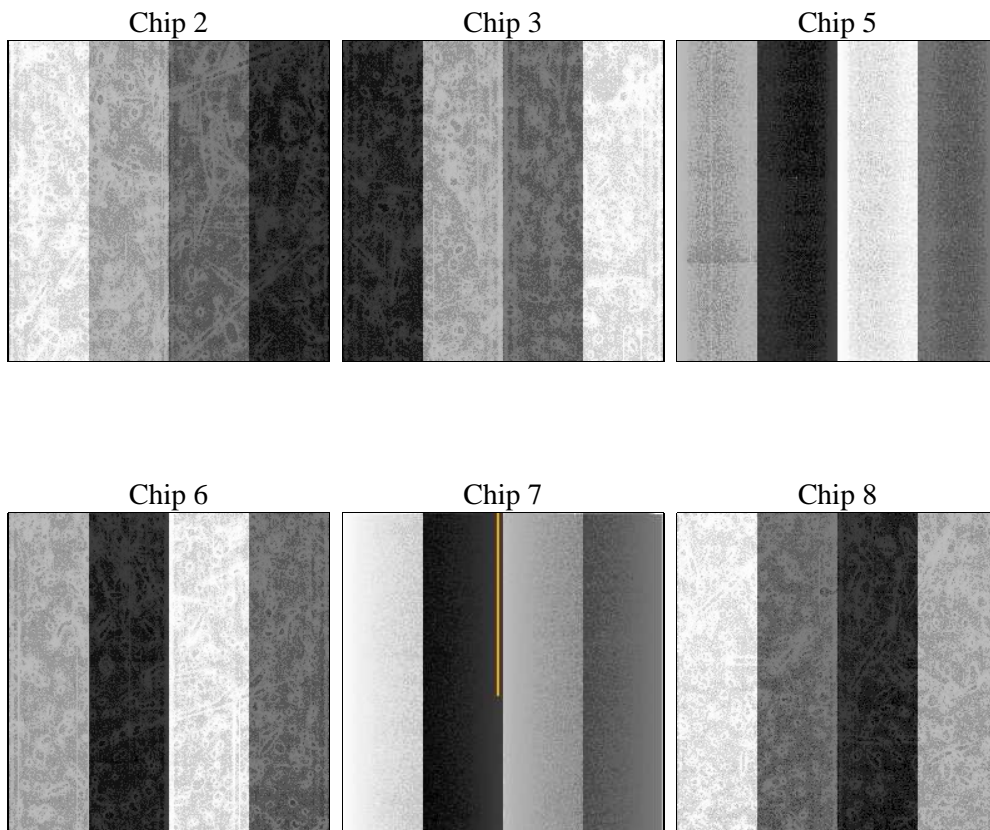
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 38000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 38147.200035512 | Sum of GTIs [s] |
| caldbver | 4.5.1.1 | | ontime2 | 38147.200035512 | Sum of GTIs [s] |
| date | 2012-09-25T03:32:55 | Date and time of file creation | ontime3 | 38147.200035512 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 38147.200035512 | Sum of GTIs [s] |
| | | | ontime6 | 38143.959075272 | Sum of GTIs [s] |
| | | | ontime7 | 38147.200035512 | Sum of GTIs [s] |
| | | | ontime8 | 38147.200035512 | Sum of GTIs [s] |
| | | | l1events | 1991413 | Number of level 1 events |

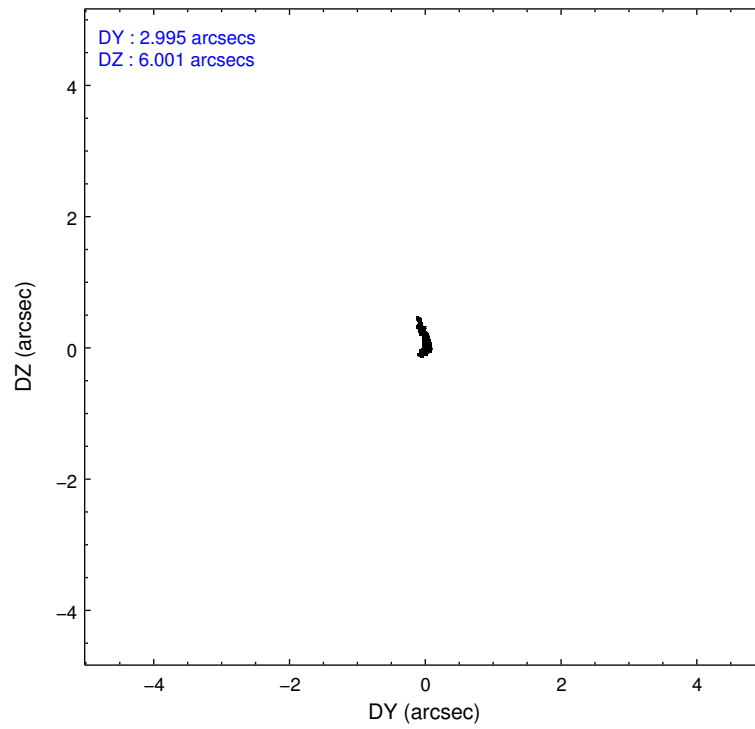
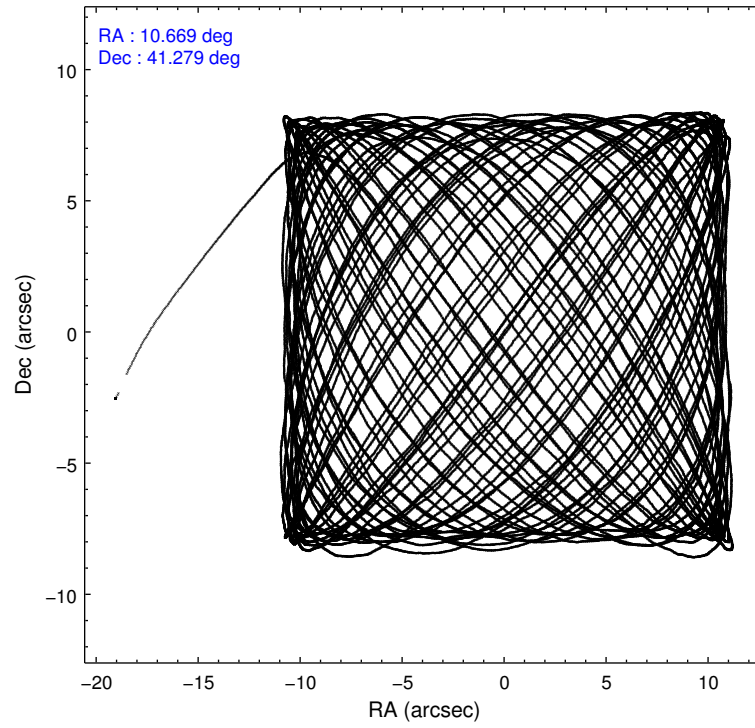
2.1.4 Events

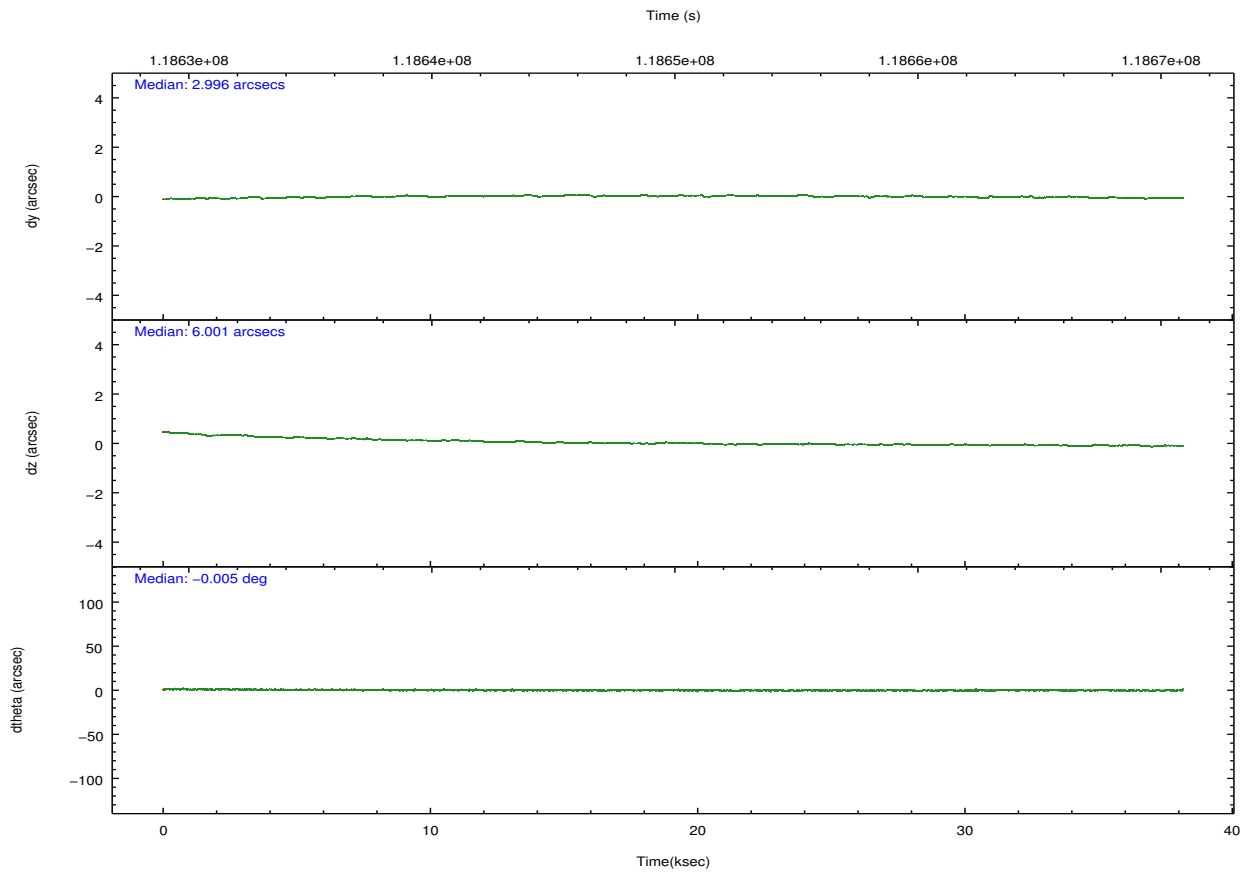
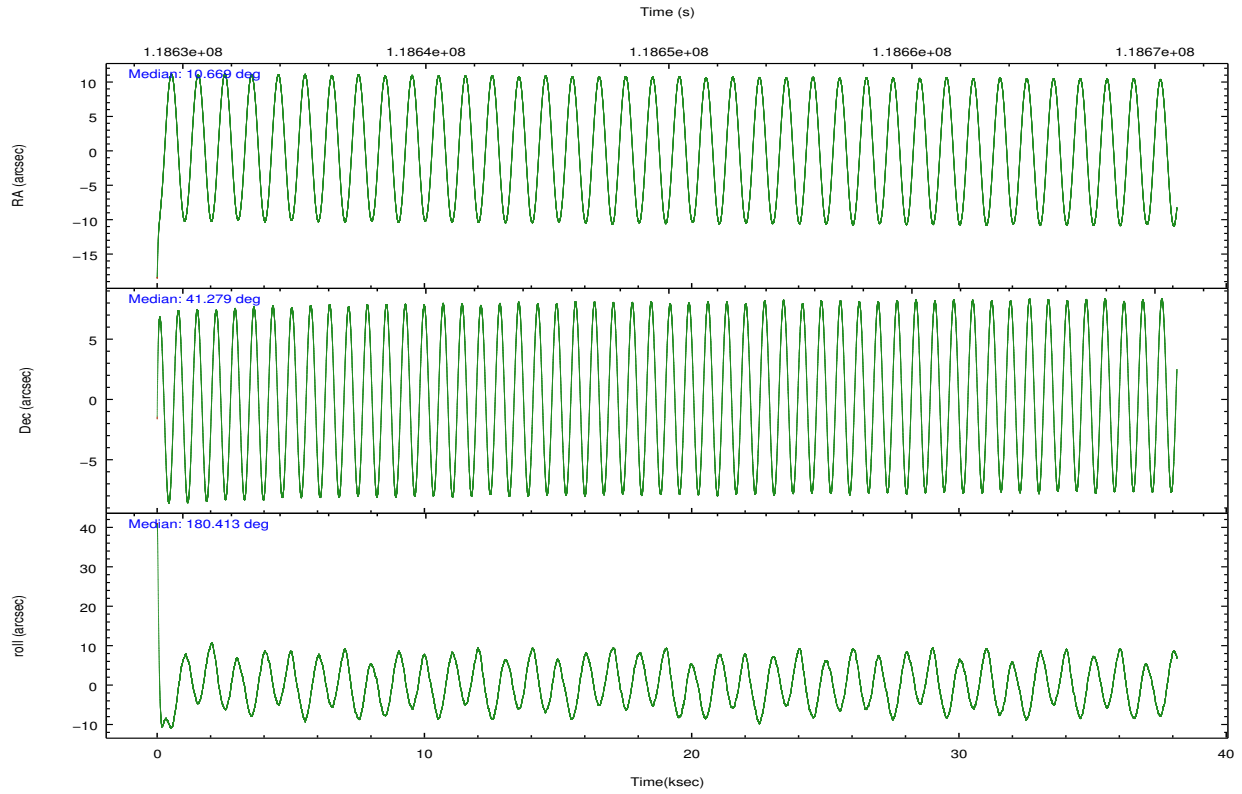
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 253615 | 255710 | 366703 | 284231 | 477740 | 353414 | grade 0 events | 13653 | 27456 | 41659 | 36437 | 63488 | 37931 |
| rejected events | 223262 | 209071 | 188661 | 225341 | 192453 | 248480 | | 5% | 10% | 11% | 12% | 13% | 10% |
| rejected % | 88% | 81% | 51% | 79% | 40% | 70% | grade 1 events | 133 | 161 | 2088 | 416 | 1432 | 275 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 7228 | 8179 | 46918 | 9847 | 67035 | 19428 |
| | | | | | | | | 2% | 3% | 12% | 3% | 14% | 5% |
| | | | | | | | grade 3 events | 2559 | 3198 | 7514 | 3679 | 30444 | 14192 |
| | | | | | | | | 1% | 1% | 2% | 1% | 6% | 4% |
| | | | | | | | grade 4 events | 2711 | 3140 | 7219 | 3691 | 30172 | 12638 |
| | | | | | | | | 1% | 1% | 1% | 1% | 6% | 3% |
| | | | | | | | grade 5 events | 8384 | 9068 | 25480 | 10349 | 33327 | 13484 |
| | | | | | | | | 3% | 3% | 6% | 3% | 6% | 3% |
| | | | | | | | grade 6 events | 5339 | 5849 | 81644 | 6670 | 100048 | 24973 |
| | | | | | | | | 2% | 2% | 22% | 2% | 20% | 7% |
| | | | | | | | grade 7 events | 213608 | 198659 | 154181 | 213142 | 151794 | 230493 |
| | | | | | | | | 84% | 77% | 42% | 74% | 31% | 65% |

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 | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 10.699499 | 10.66840329405934 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 41.293023 | 41.27894337902278 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 180.243541 | 180.4207015775753 | [s] Primary exposure time | 0.000000 | 3.2 |
| [s] Window start time (MET) | 118281664.184000 | 118281664.184000 | | | |
| [s] Window stop time (MET) | 120787264.184000 | 120787264.184000 | | | |
| [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) | 118631004.184000 | 118629223.296 | | | |
| Observation start date | 2001-10-05T01:02:20 | 2001-10-05T00:33:43 | | | |
| [s] Observation end time (MET) | 118669004.184000 | 118669138.33509 | | | |
| Observation end date | 2001-10-05T11:35:40 | 2001-10-05T11:38:58 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



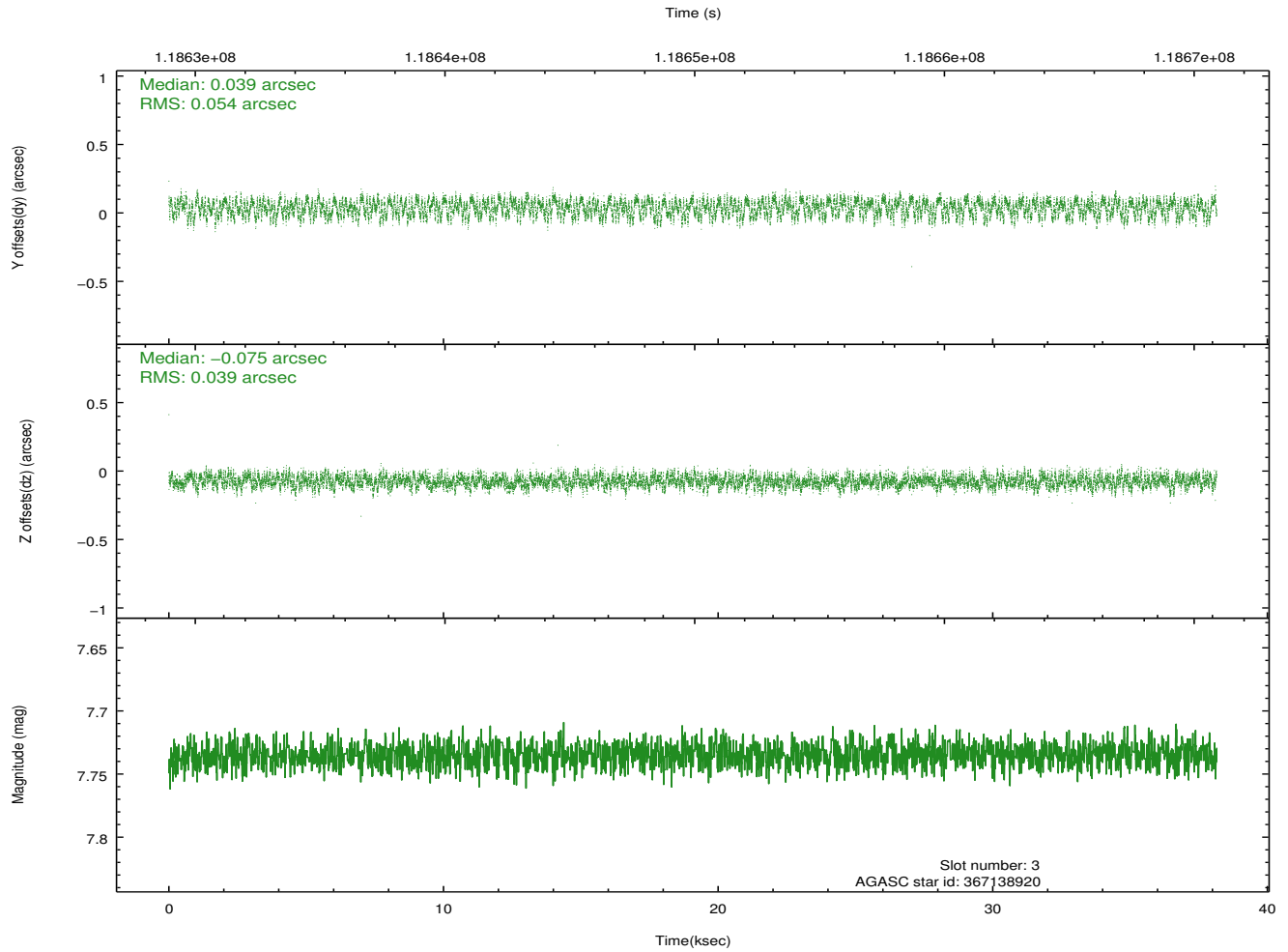
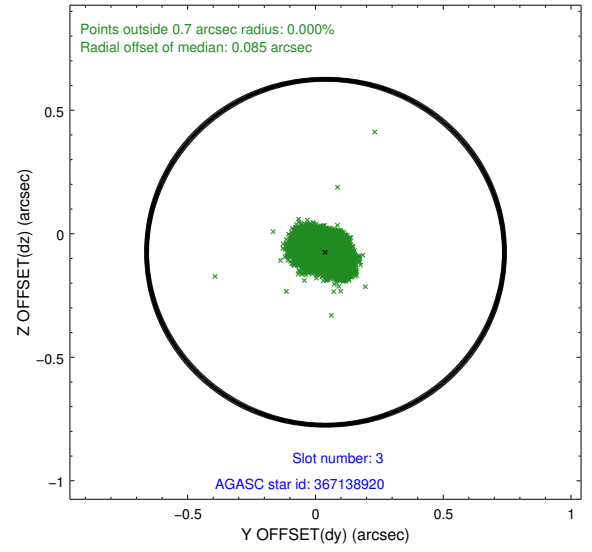
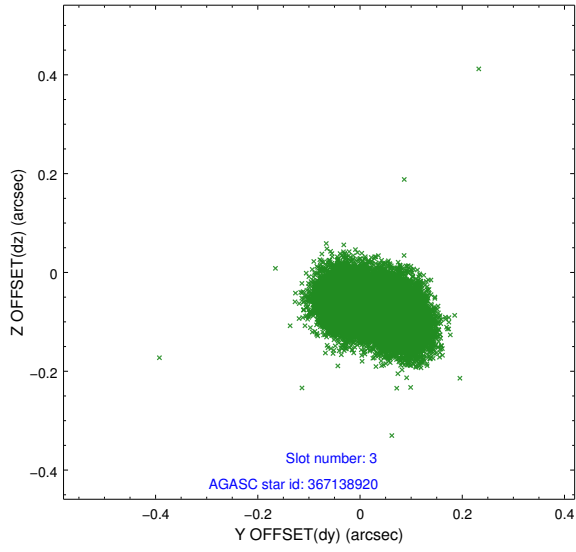


Slot Statistics

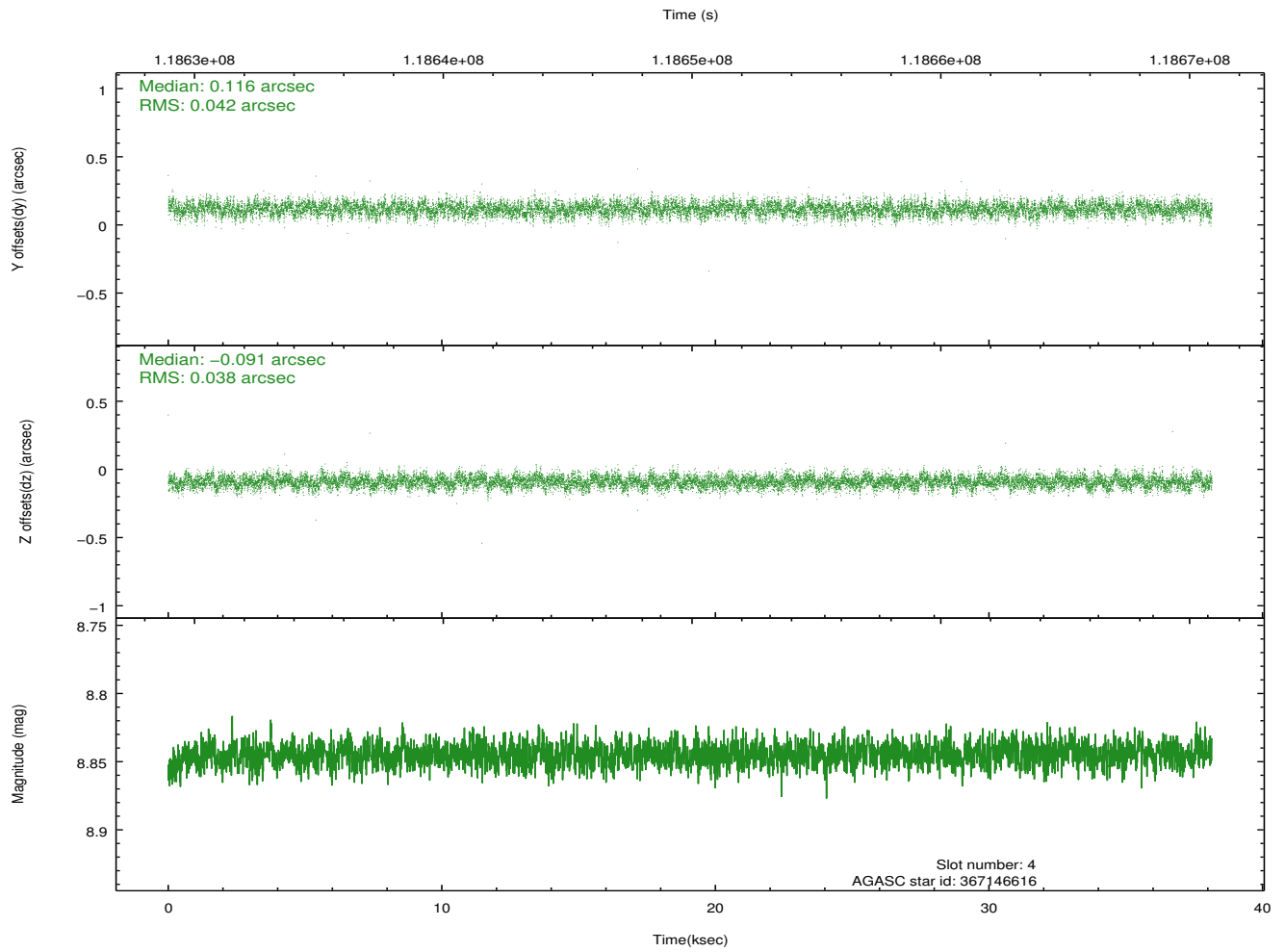
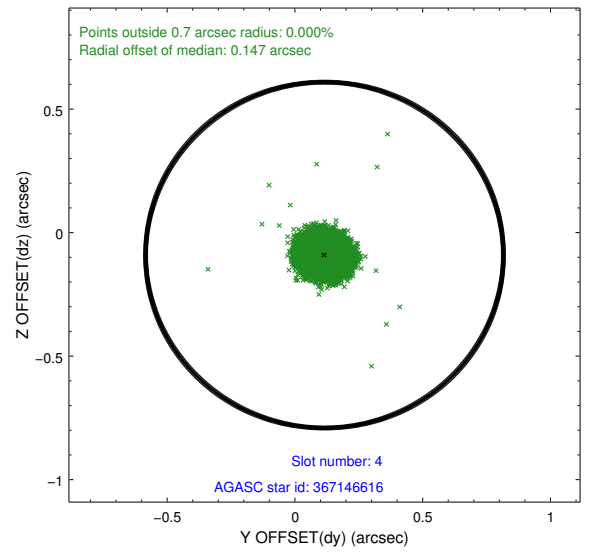
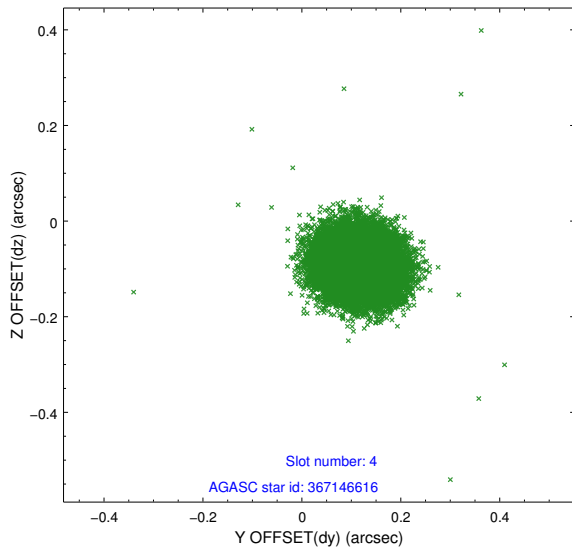
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.12 | 9307 | -0.030 | 0.009 | 0.007 | 0.011 | 0.000000 | 0.000000 | -755.63 | -1727.20 |
| 1 | FID | ACIS-S-4 | 7.20 | 9307 | -0.022 | 0.012 | 0.006 | 0.013 | 0.000000 | 0.000000 | 2157.61 | 181.32 |
| 2 | FID | ACIS-S-5 | 7.24 | 9307 | 0.021 | -0.012 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1808.42 | 174.92 |
| 3 | GUIDE | 367138920 | 7.73 | 18612 | 0.039 | -0.075 | 0.072 | 0.112 | 11.513485 | 40.808909 | -2209.74 | 1741.91 |
| 4 | GUIDE | 367146616 | 8.84 | 18604 | 0.116 | -0.091 | 0.060 | 0.097 | 11.418645 | 41.190163 | -1945.48 | 370.52 |
| 5 | GUIDE | 367671800 | 9.39 | 18603 | -0.131 | 0.104 | 0.103 | 0.161 | 10.554735 | 41.964935 | 378.56 | -2420.42 |
| 6 | GUIDE | 367658664 | 9.59 | 18599 | 0.006 | 0.004 | 0.077 | 0.127 | 10.374070 | 41.369746 | 879.30 | -281.35 |
| 7 | GUIDE | 367665472 | 9.48 | 18596 | -0.029 | 0.055 | 0.077 | 0.127 | 10.241611 | 41.730843 | 1224.92 | -1584.19 |

2.4 Star Slots

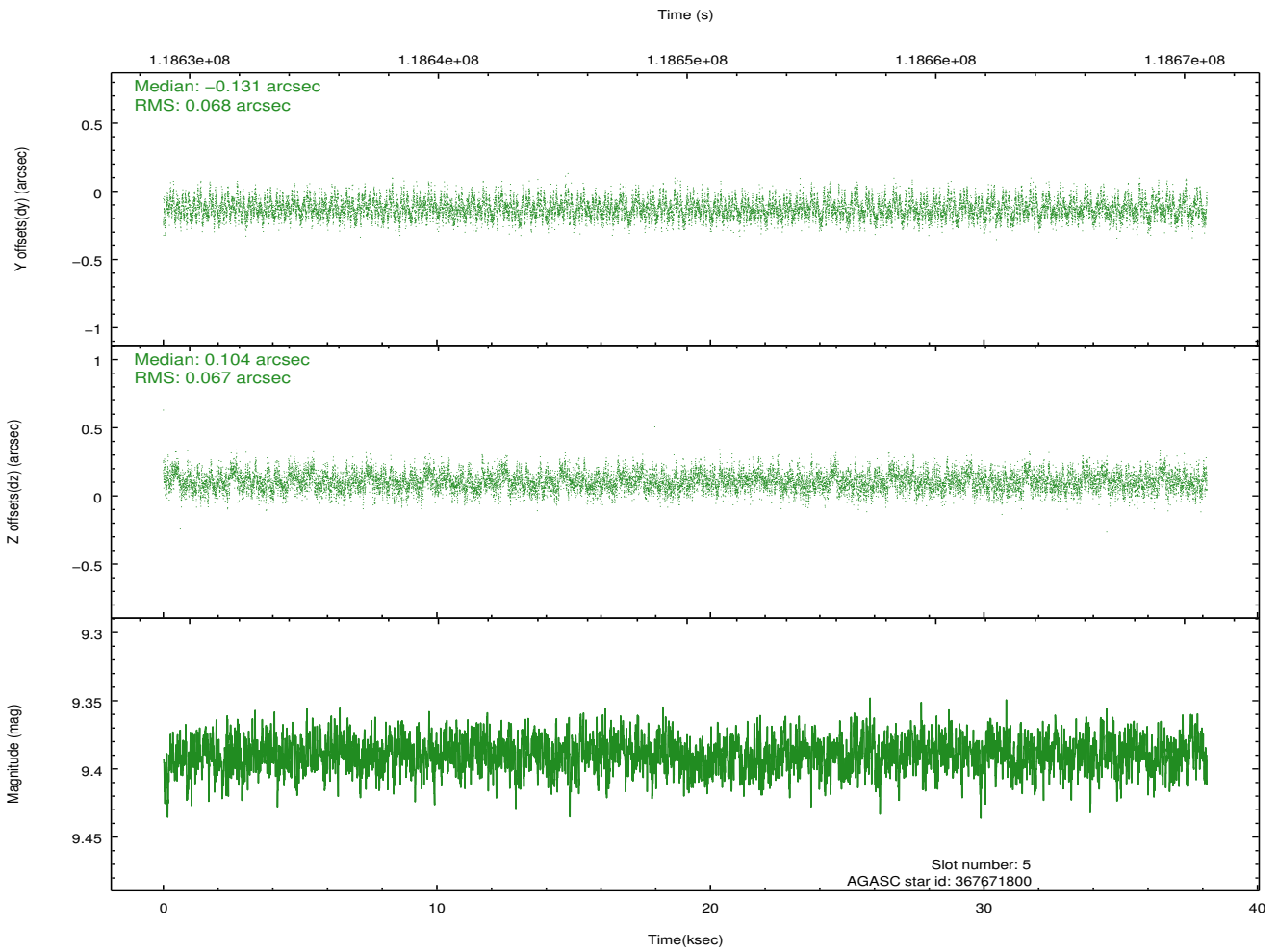
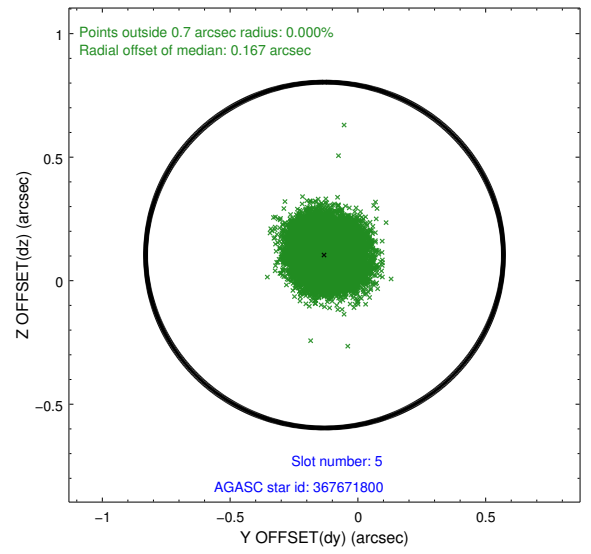
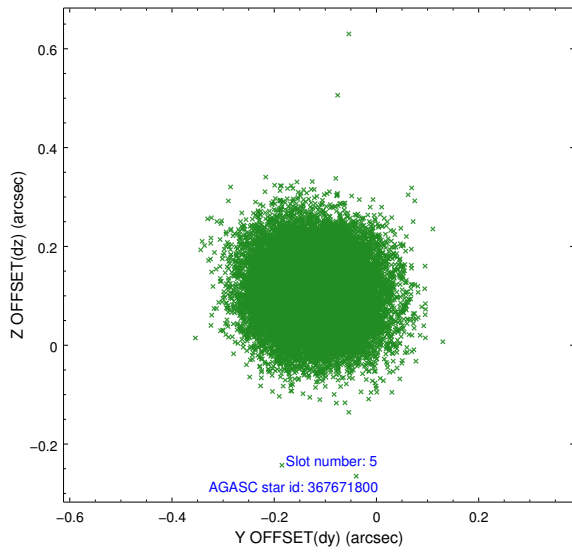
2.4.1 Slot 3



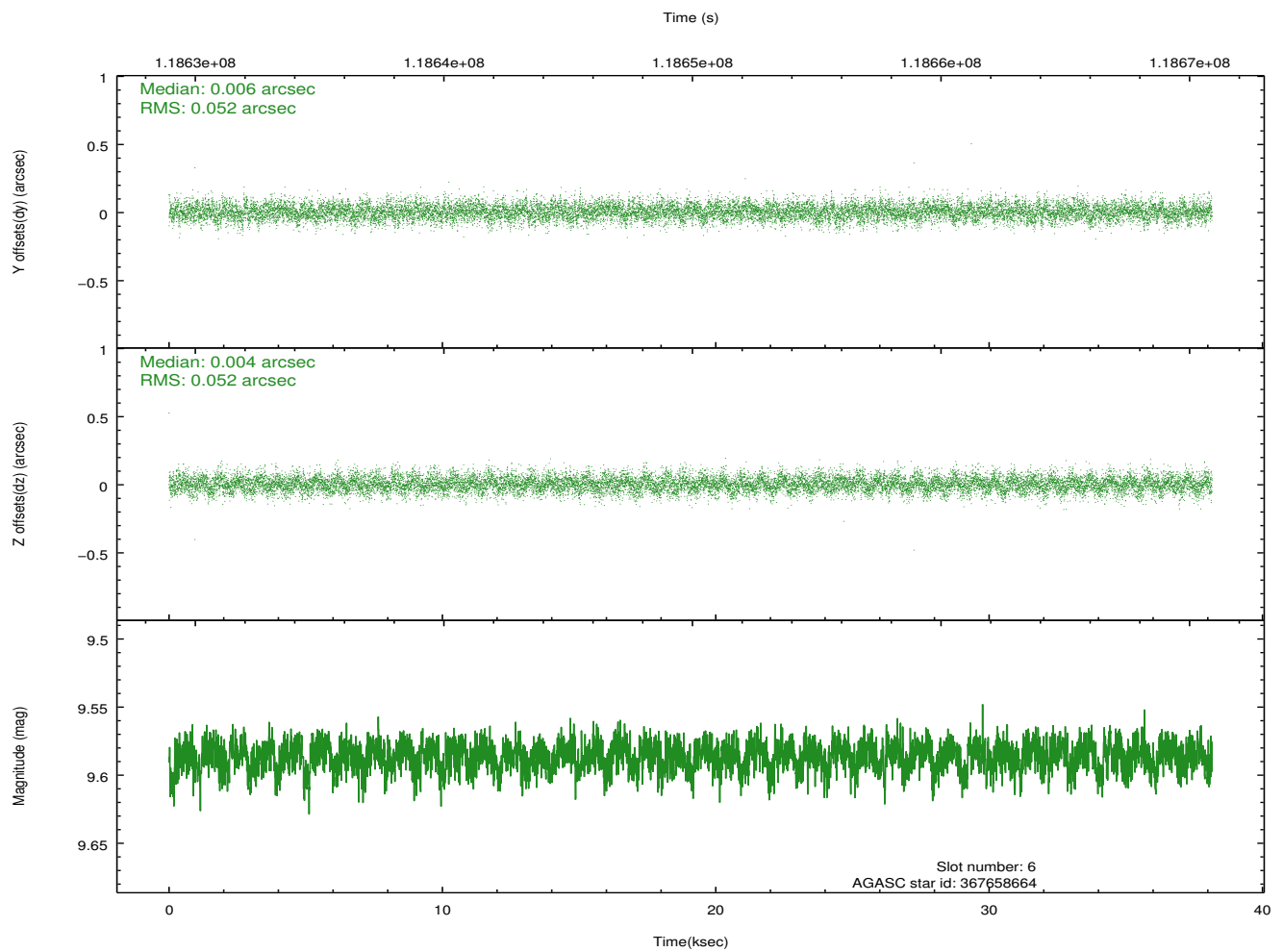
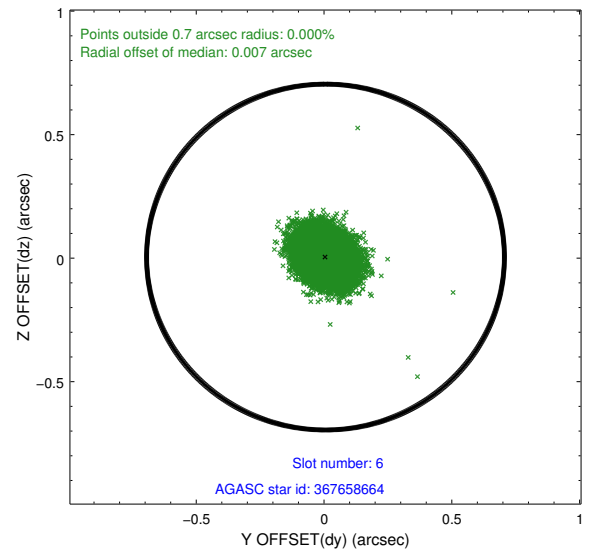
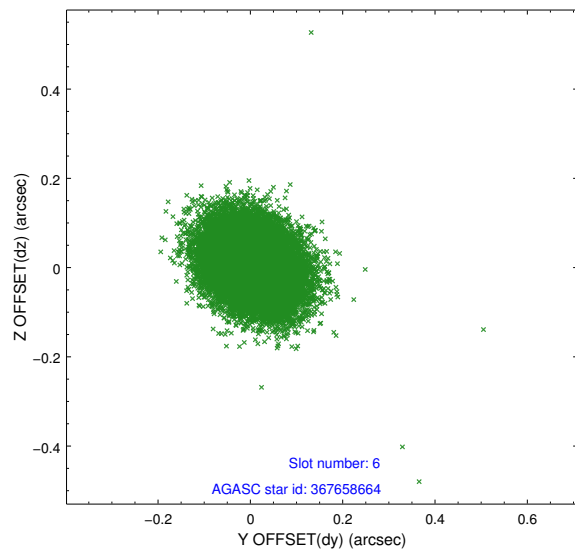
2.4.2 Slot 4



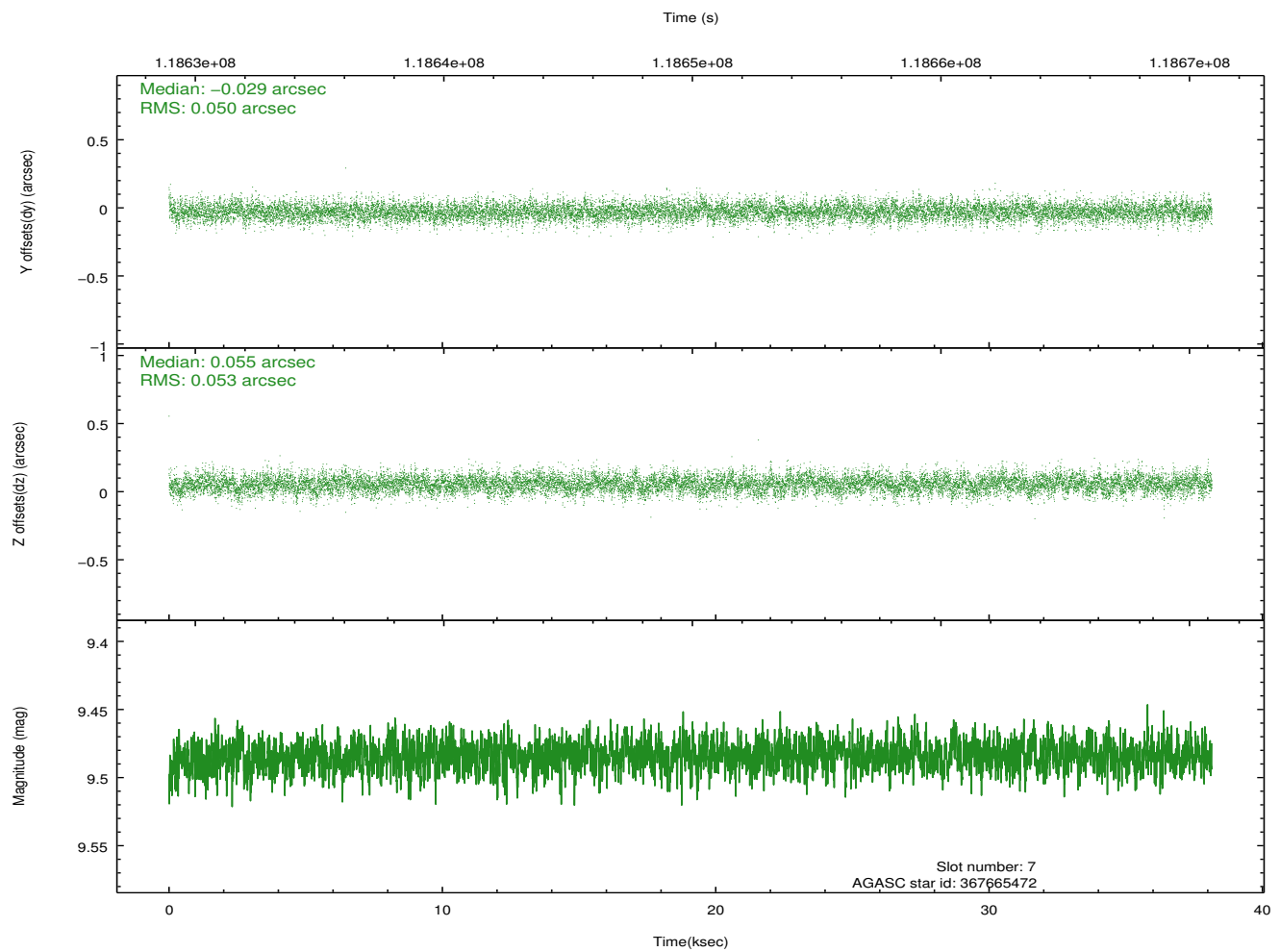
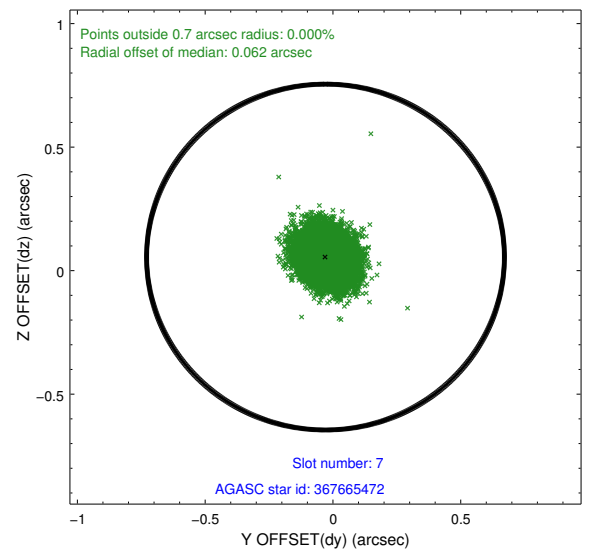
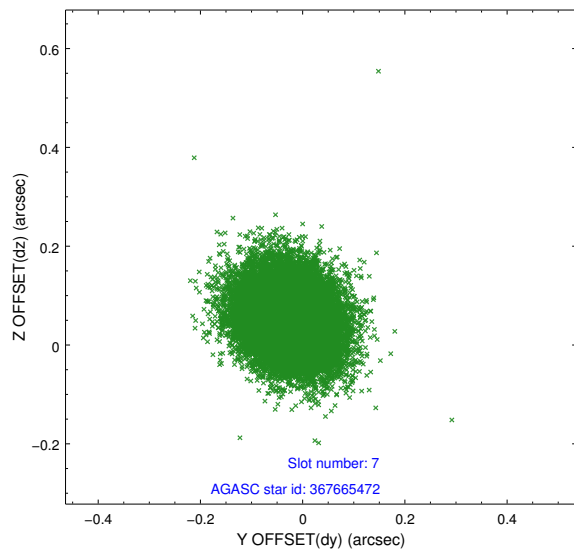
2.4.3 Slot 5



2.4.4 Slot 6

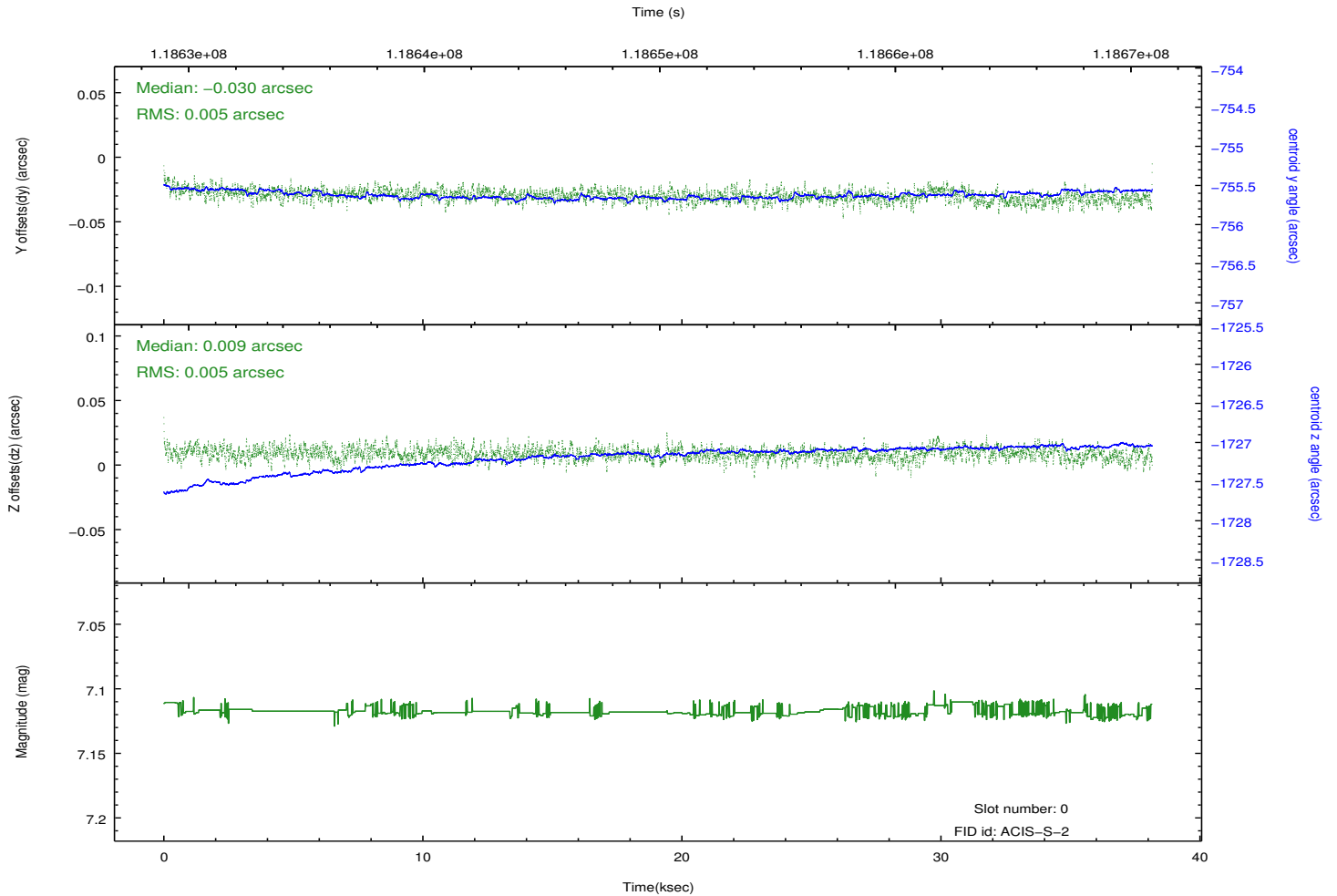
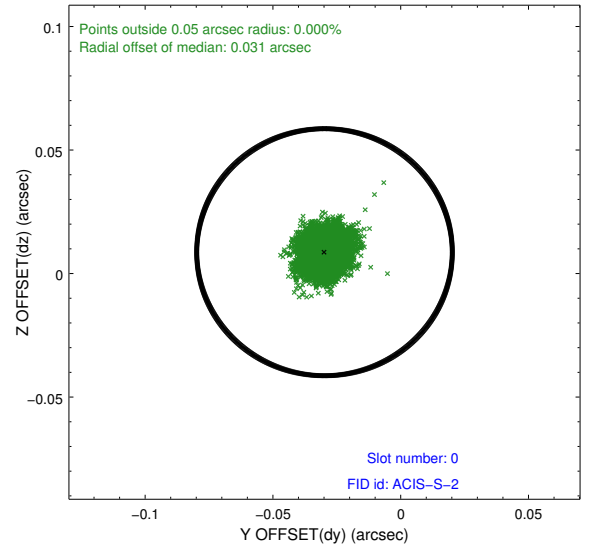
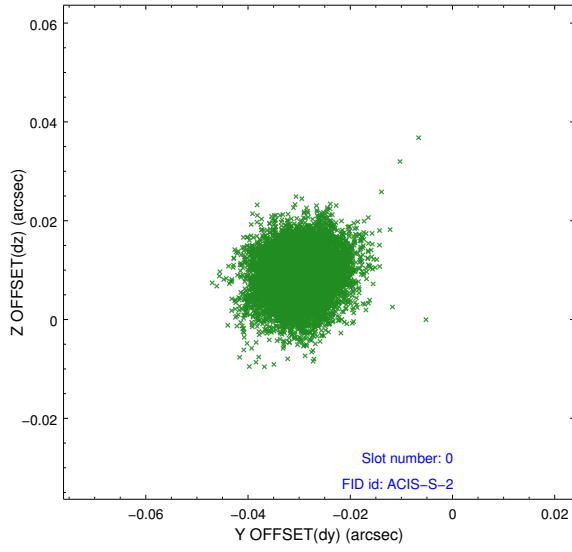


2.4.5 Slot 7

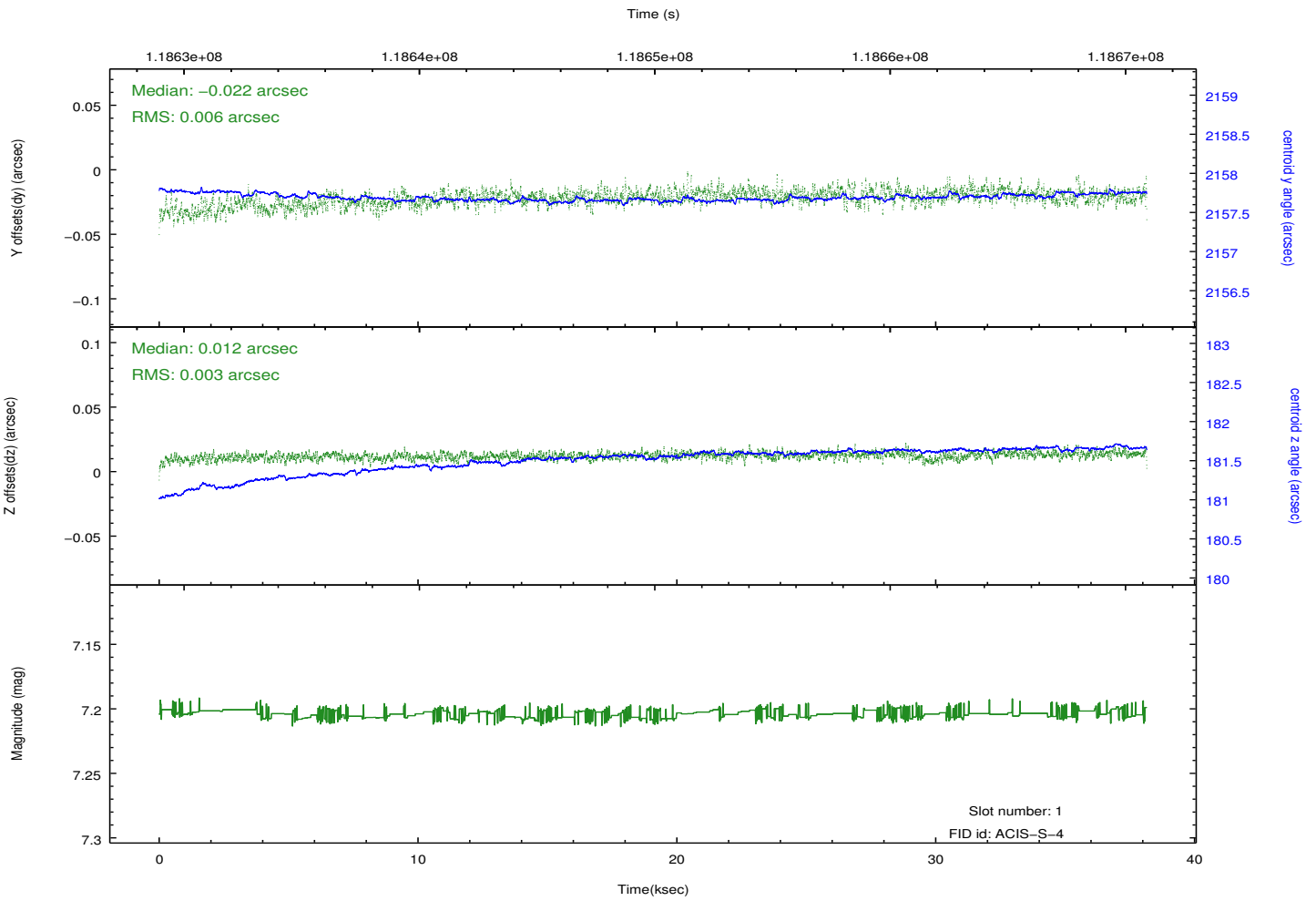
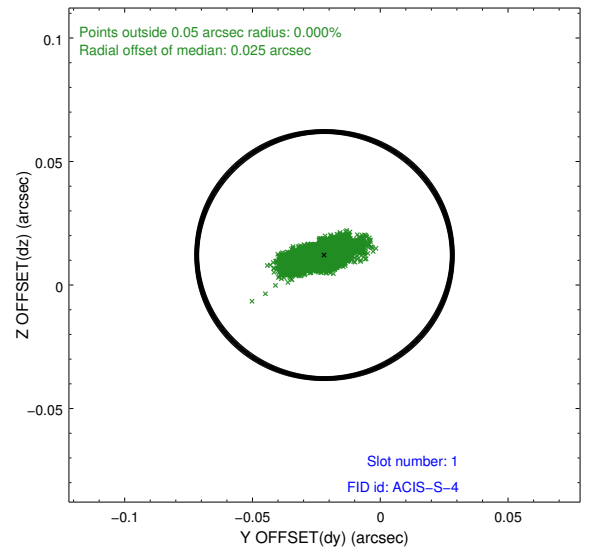
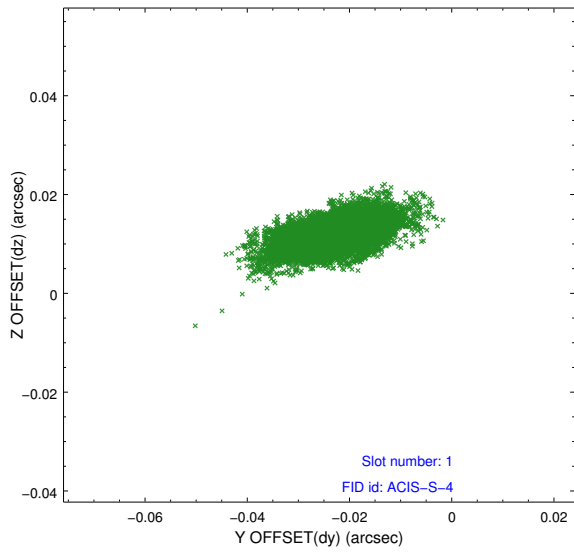


2.5 FID Slots

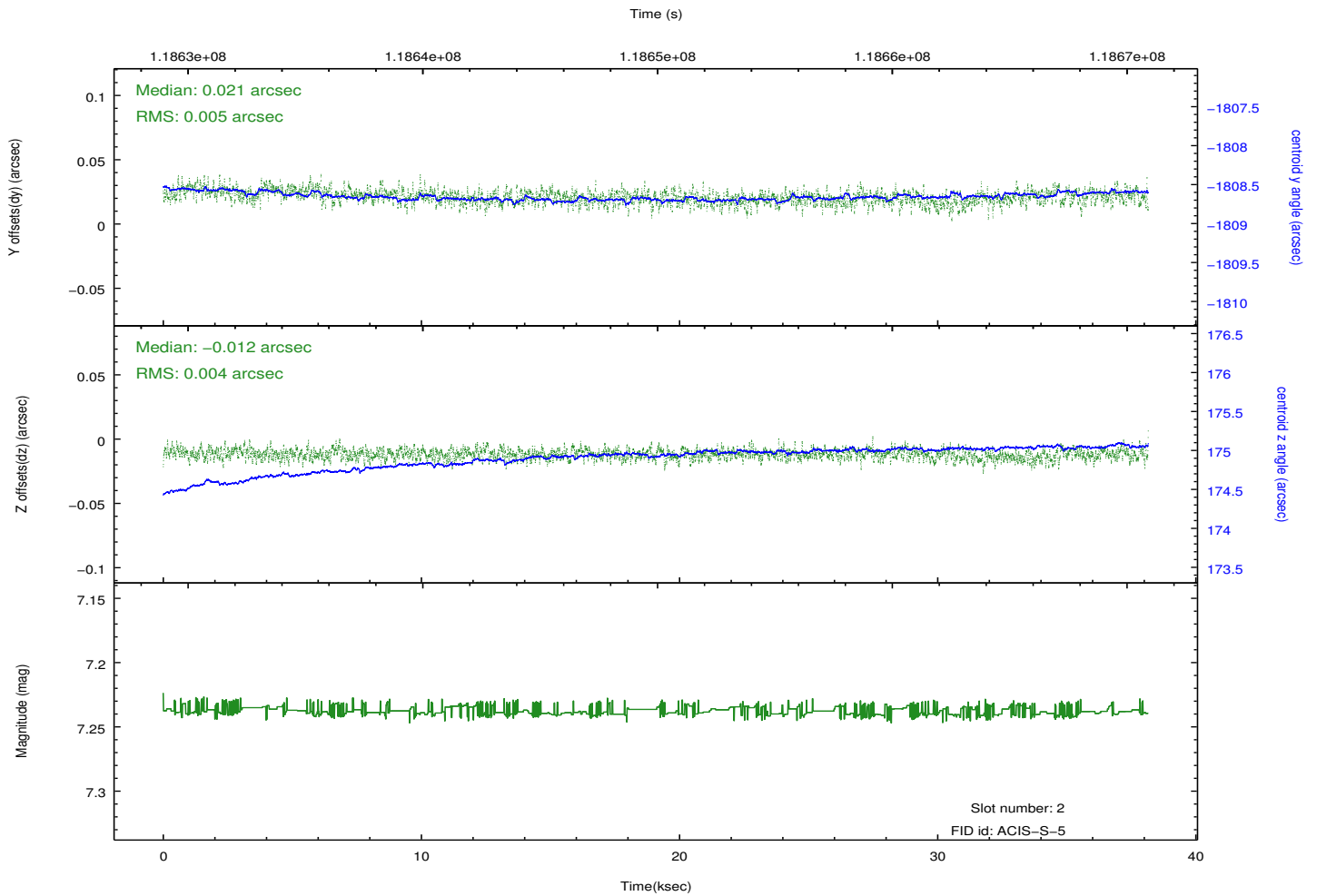
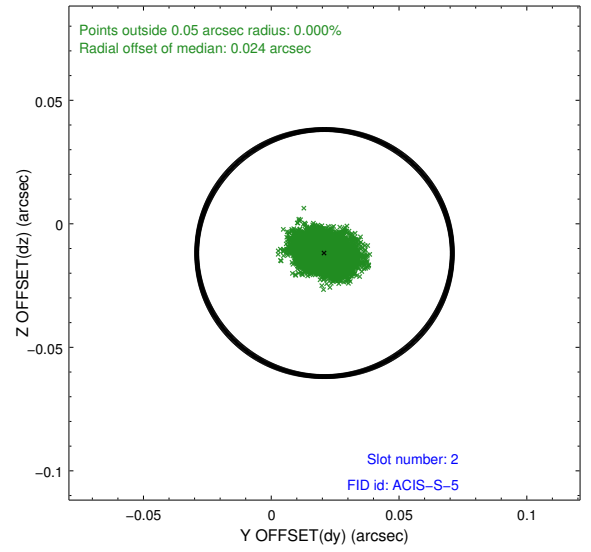
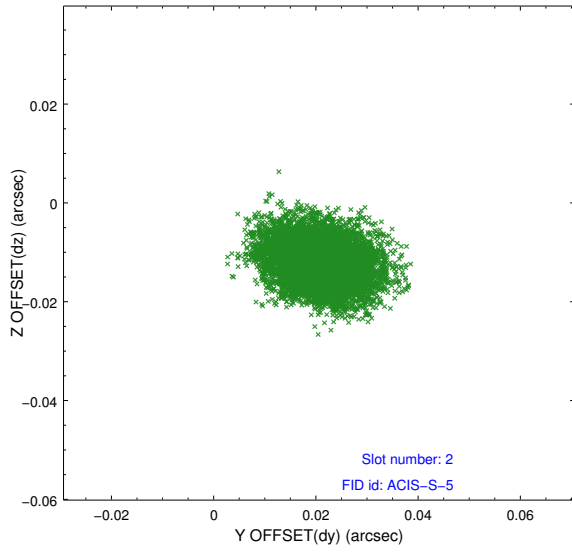
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.09.27 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 38.147 |

A.2 Comments

Window constraint met.