

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 12727 - L2 Version 2
Chandra X-Ray Center

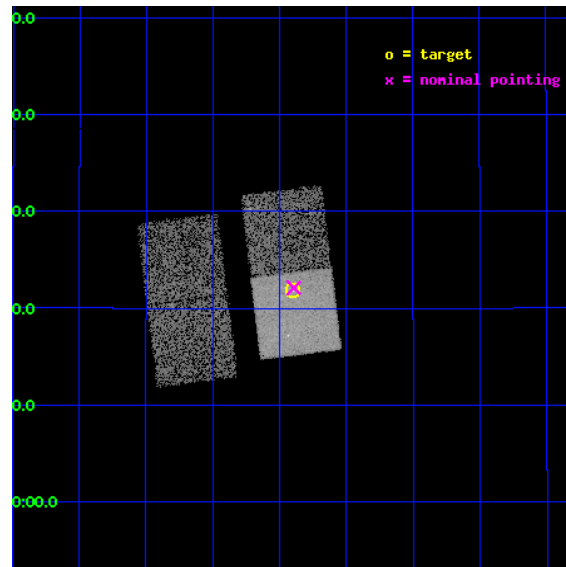
L2 Processing Date : Jul 7 2012

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Bias | 3 |
| 2.1.3 | Parameters | 4 |
| 2.1.4 | Events | 4 |
| 2.2 | Compared Parameters | 5 |
| 2.3 | Aspect | 6 |
| 2.4 | Star Slots | 9 |
| 2.4.1 | Slot 3 | 9 |
| 2.4.2 | Slot 4 | 10 |
| 2.4.3 | Slot 5 | 11 |
| 2.4.4 | Slot 6 | 12 |
| 2.4.5 | Slot 7 | 13 |
| 2.5 | FID Slots | 14 |
| 2.5.1 | Slot 0 | 14 |
| 2.5.2 | Slot 1 | 15 |
| 2.5.3 | Slot 2 | 16 |
| A | Summary | 17 |
| A.1 | Status | 17 |
| A.2 | Comments | 17 |

1 Front

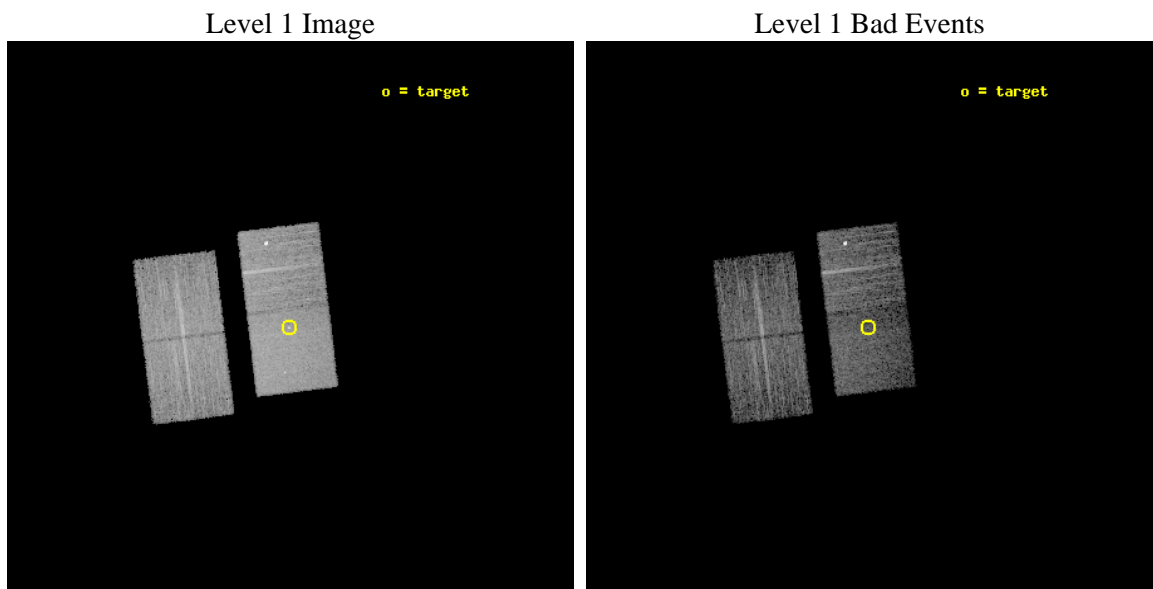
| | | |
|----------|---|---|
| seq_num | 702363 | Sequence number |
| obs_id | 12727 | Observation id |
| title | Completing the Chandra 3C Snapshot Survey: Extragalactic Radio Sources with $z < 0.3$ | Proposal title |
| observer | Dr. Daniel Harris | Principal investigator |
| object | 3C 166 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 101.350417 | Observer's specified target RA [deg] |
| dec_targ | 21.364222 | Observer's specified target Dec [deg] |
| ra_nom | 101.34815438986 | Nominal RA [deg] |
| dec_nom | 21.368654410076 | Nominal Dec [deg] |
| roll_nom | 83.018460943346 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 8050.6678009033 | Sum of GTIs [s] |
| livetime | 7945.4798992691 | Livetime [s] |
| ontime2 | 8050.5446808934 | Sum of GTIs [s] |
| ontime3 | 8050.5857208967 | Sum of GTIs [s] |
| ontime6 | 8050.6267609 | Sum of GTIs [s] |
| ontime7 | 8050.6678009033 | Sum of GTIs [s] |
| l2events | 48175 | Number of level 2 events |



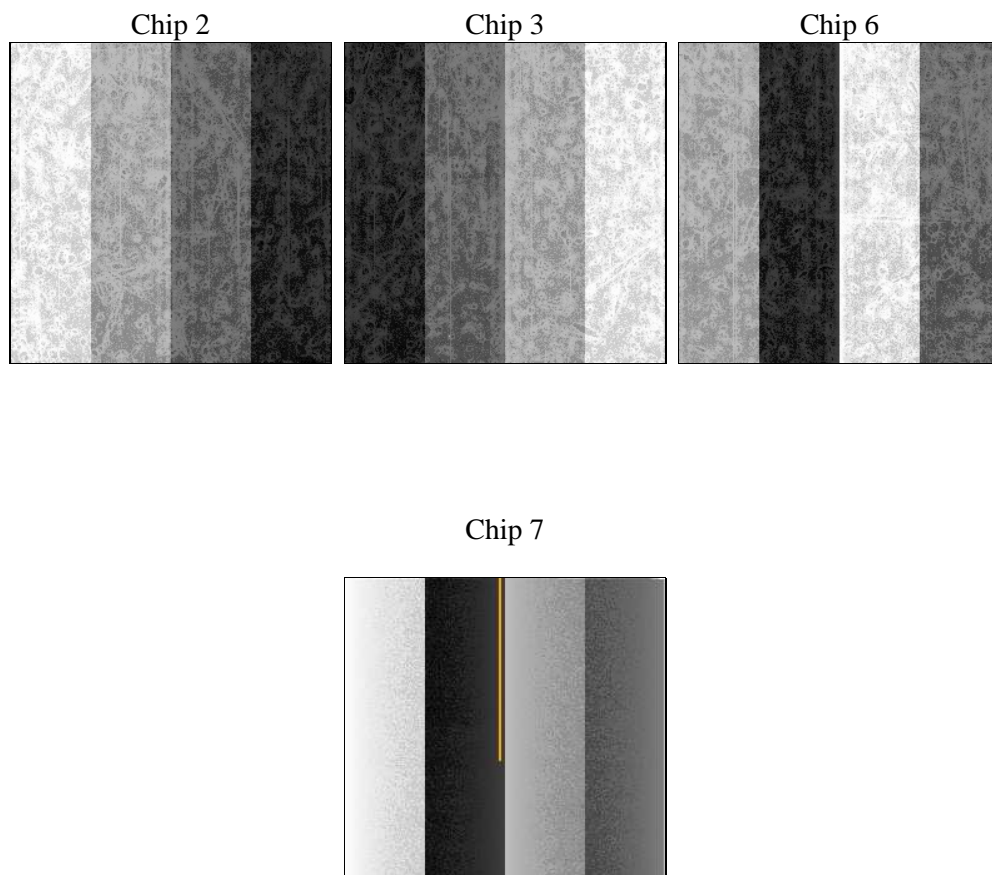
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 8000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 8050.6678009033 | Sum of GTIs [s] |
| caldbver | 4.5.0 | | ontime2 | 8050.5446808934 | Sum of GTIs [s] |
| date | 2012-07-07T16:56:48 | Date and time of file creation | ontime3 | 8050.5857208967 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime6 | 8050.6267609 | Sum of GTIs [s] |
| | | | ontime7 | 8050.6678009033 | Sum of GTIs [s] |
| | | | l1events | 245511 | Number of level 1 events |

2.1.4 Events

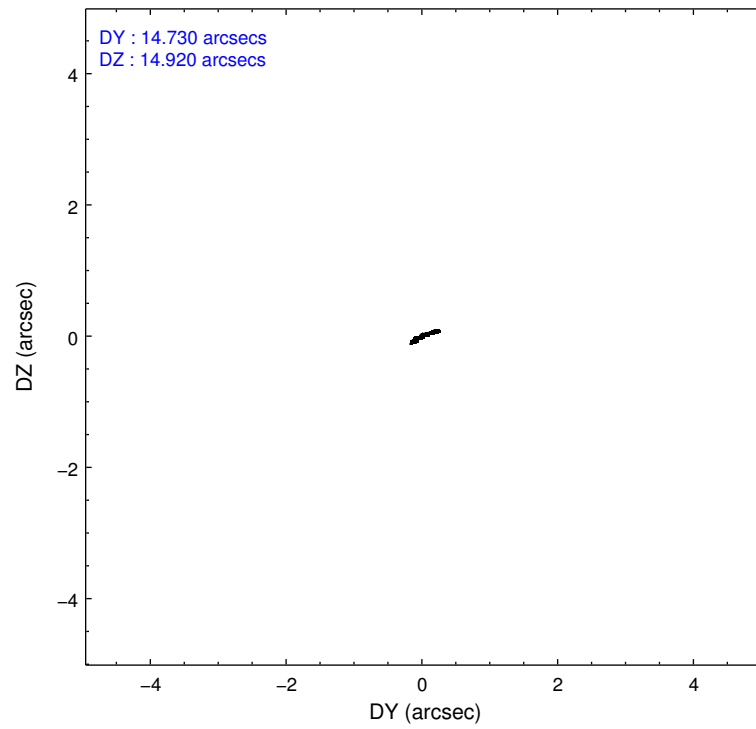
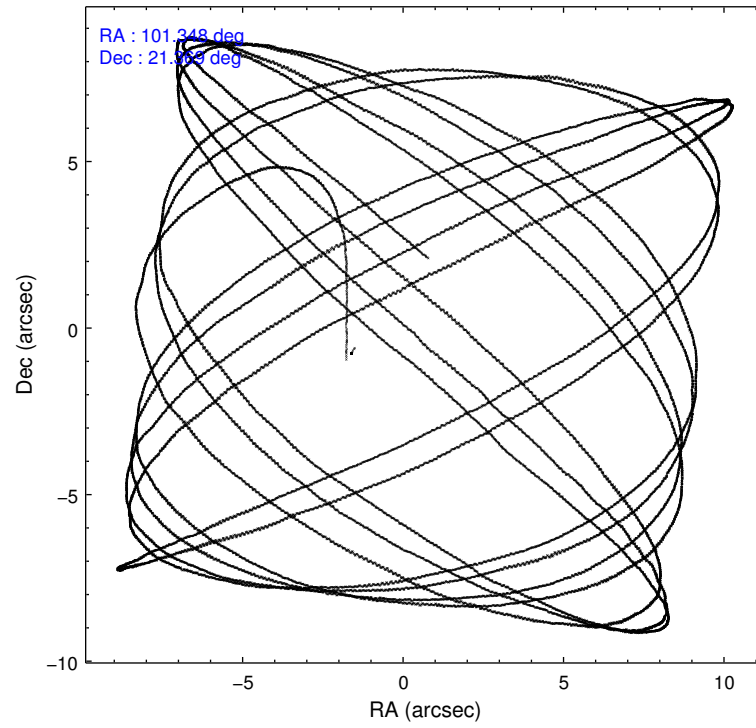
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|
| level 1 events | 56102 | 55432 | 61486 | 72491 |
| rejected events | 50086 | 49580 | 54902 | 39473 |
| rejected % | 89% | 89% | 89% | 54% |

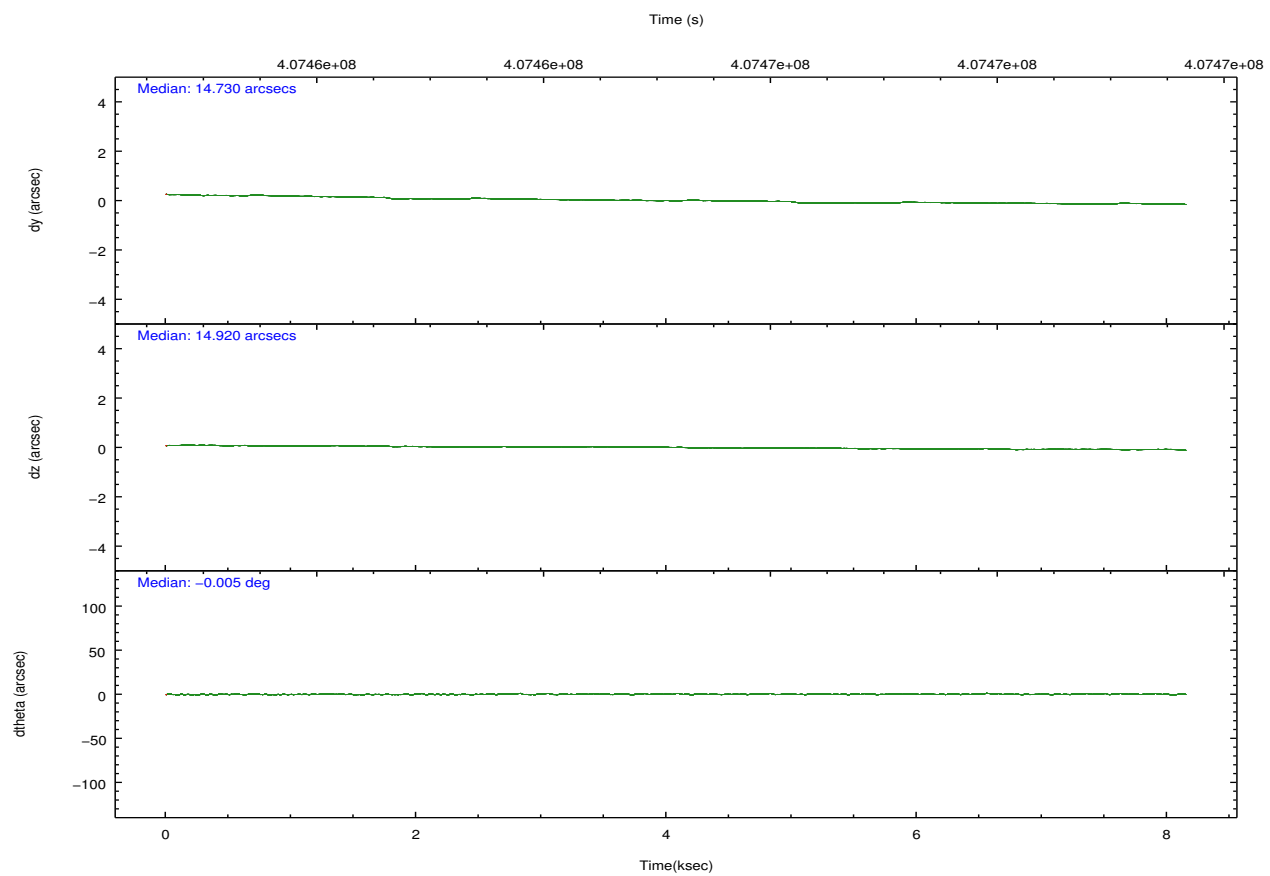
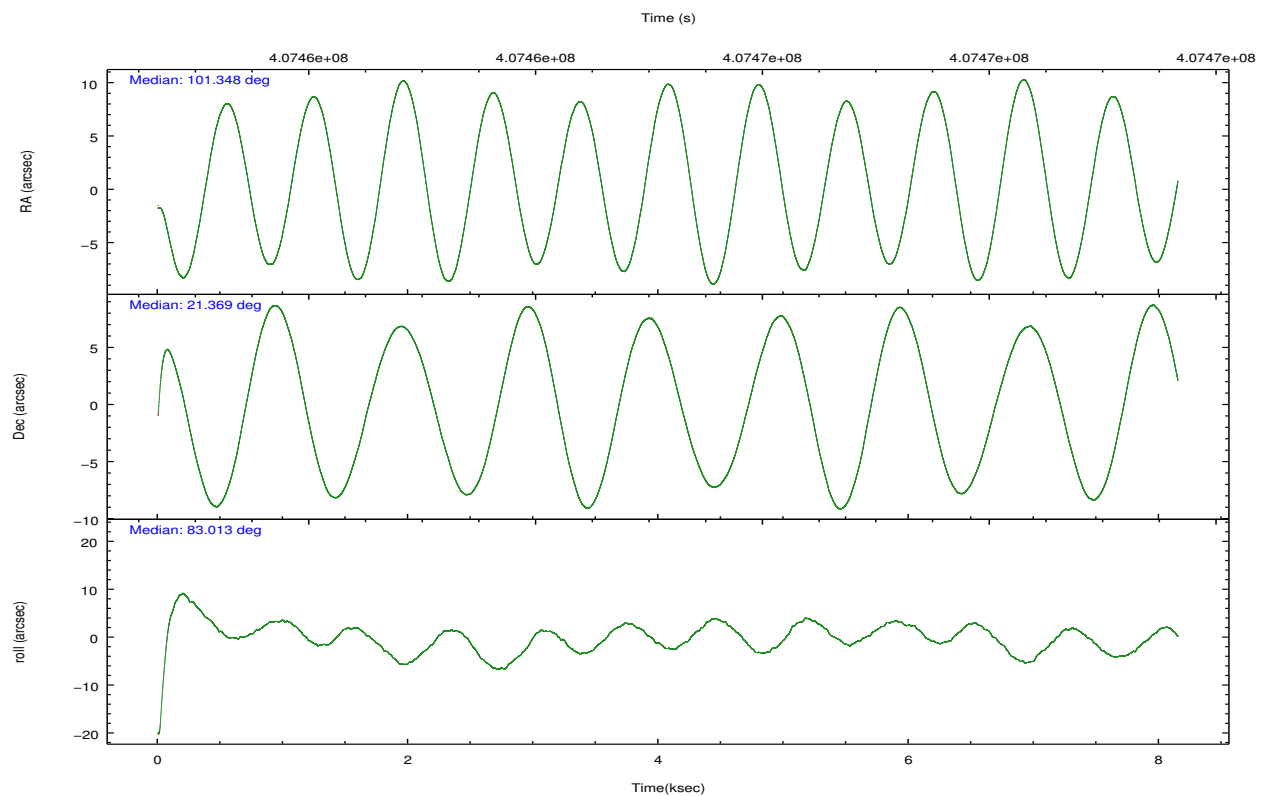
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|----------------|-------|-------|-------|-------|
| grade 0 events | 2099 | 2043 | 2268 | 3093 |
| | 3% | 3% | 3% | 4% |
| grade 1 events | 33 | 43 | 2497 | 100 |
| | 0% | 0% | 4% | 0% |
| grade 2 events | 1472 | 1286 | 1524 | 6733 |
| | 2% | 2% | 2% | 9% |
| grade 3 events | 593 | 682 | 654 | 2961 |
| | 1% | 1% | 1% | 4% |
| grade 4 events | 670 | 645 | 701 | 2867 |
| | 1% | 1% | 1% | 3% |
| grade 5 events | 2333 | 2558 | 2717 | 7387 |
| | 4% | 4% | 4% | 10% |
| grade 6 events | 1185 | 1200 | 1439 | 17390 |
| | 2% | 2% | 2% | 23% |
| grade 7 events | 47717 | 46975 | 49686 | 31960 |
| | 85% | 84% | 80% | 44% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-2367 | ACIS-2367 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | CCD I0 on | N | N |
| Observation mode | POINTING | POINTING | CCD I1 on | N | N |
| [deg] Pointing RA | 101.360089 | 101.3481543898575 | CCD I2 on | O1 | Y |
| [deg] Pointing Dec | 21.343611 | 21.36865441007648 | CCD I3 on | O2 | Y |
| [deg] Pointing Roll | 82.857524 | 83.01846094334648 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | N | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | Y | Y |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | CCD S3 on | Y | Y |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 407461244.184000 | 407460243.12982 | CCD S5 on | N | N |
| Observation start date | 2010-11-29T23:39:38 | 2010-11-29T23:24:03 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 407469244.184000 | 407470093.38033 | On-chip summing requested | N | N |
| Observation end date | 2010-11-30T01:52:58 | 2010-11-30T02:08:13 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect



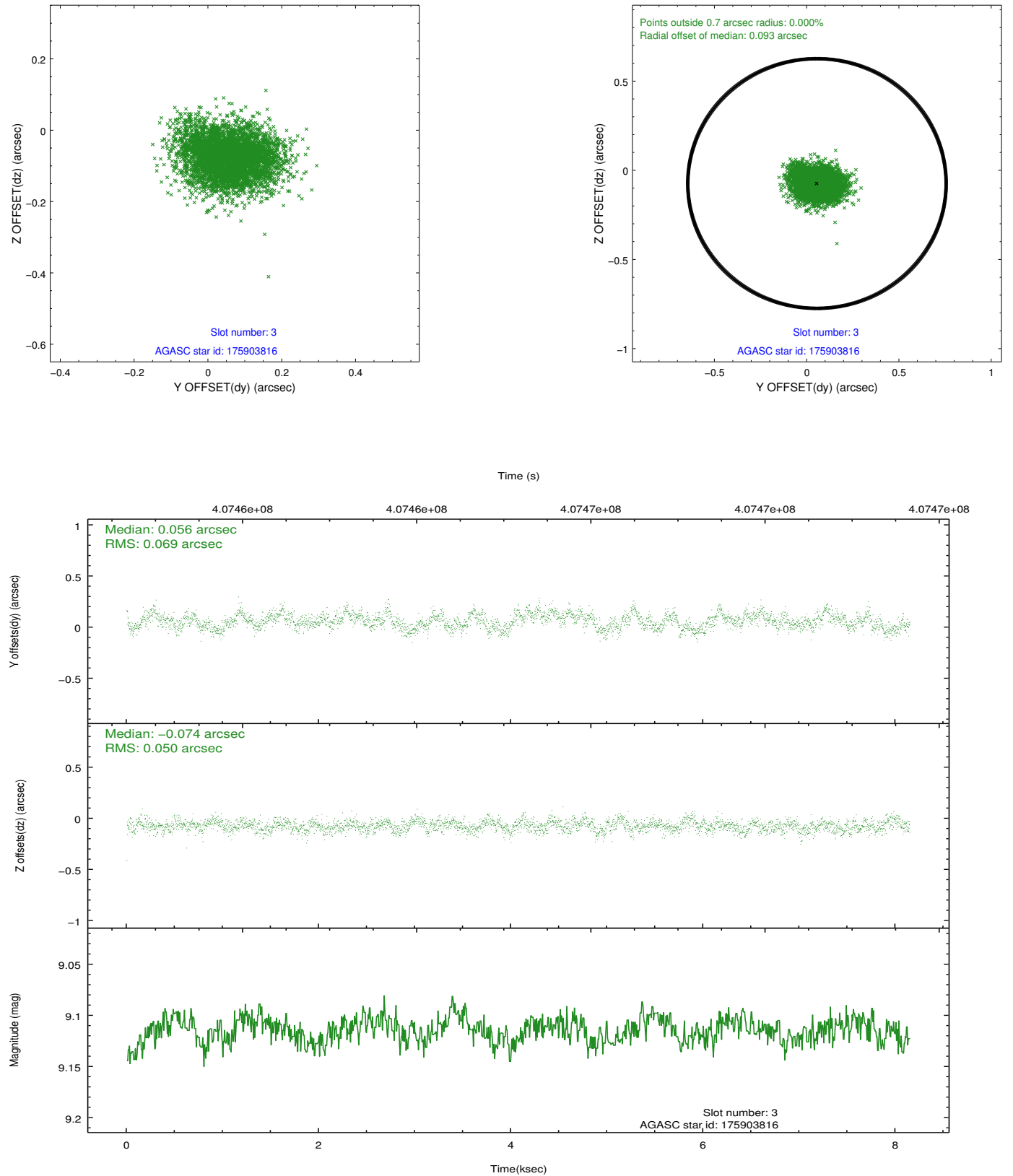


Slot Statistics

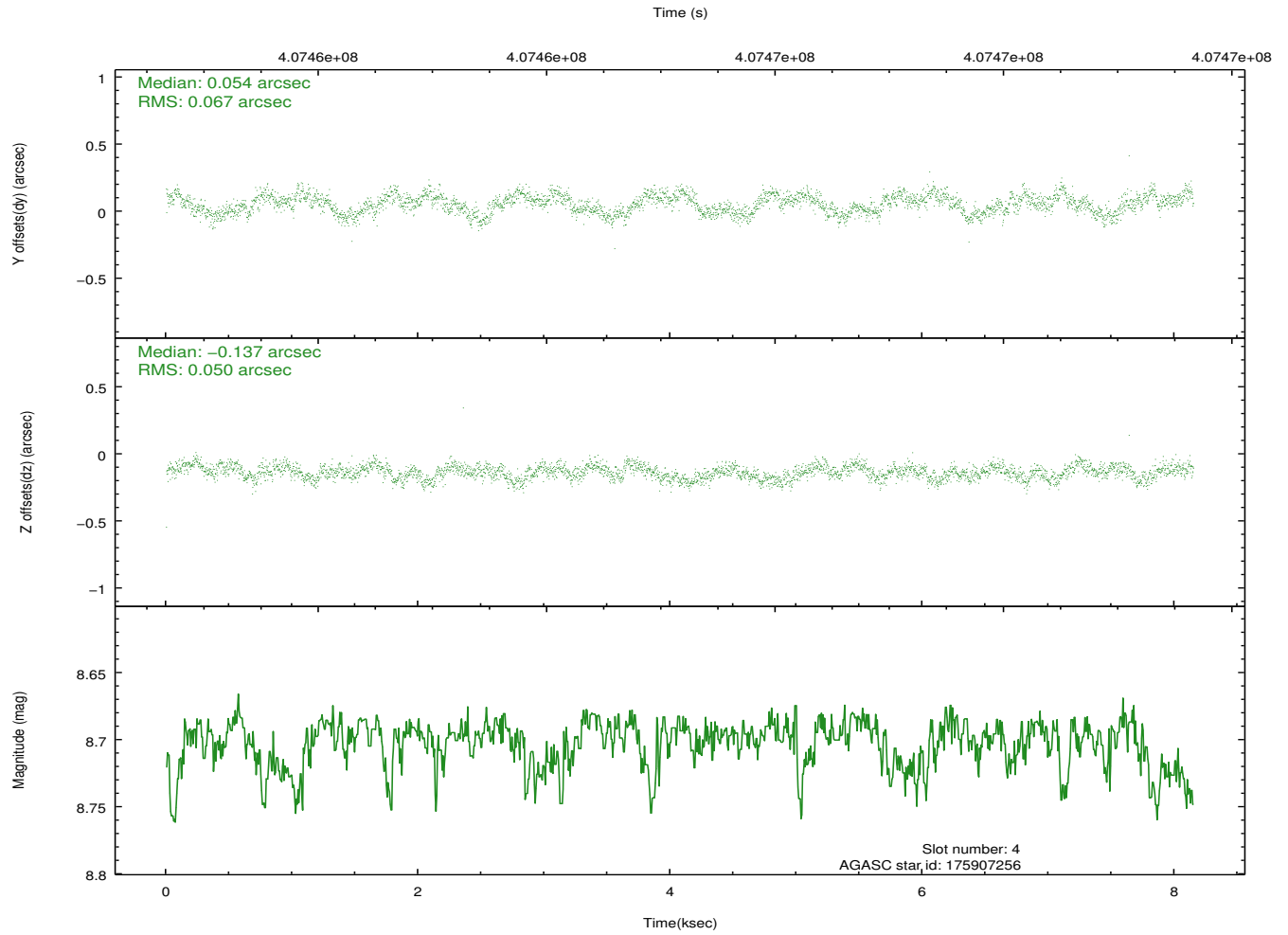
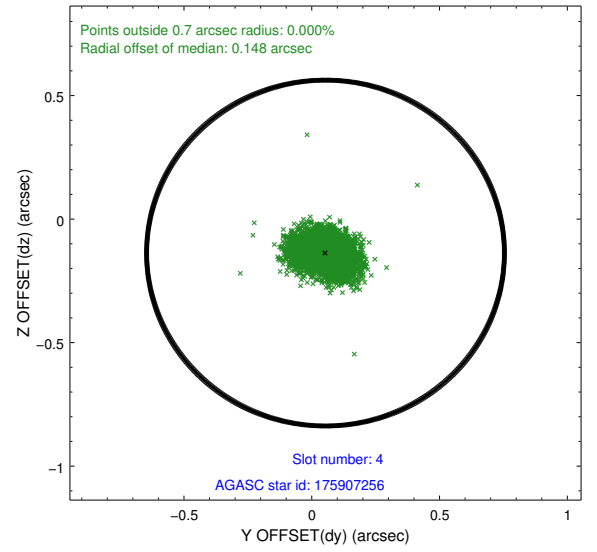
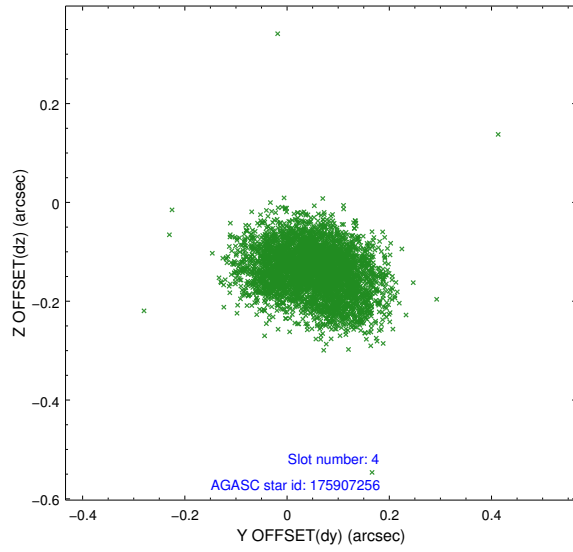
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 6.90 | 1988 | -0.105 | -0.044 | 0.007 | 0.012 | 0.000000 | 0.000000 | -767.79 | -1736.34 |
| 1 | FID | ACIS-S-4 | 6.98 | 1988 | 0.244 | 0.062 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2145.50 | 171.57 |
| 2 | FID | ACIS-S-5 | 7.01 | 1988 | -0.170 | -0.009 | 0.006 | 0.011 | 0.000000 | 0.000000 | -1819.84 | 165.91 |
| 3 | GUIDE | 175903816 | 9.11 | 3973 | 0.056 | -0.074 | 0.090 | 0.149 | 100.804823 | 20.947030 | -1645.58 | 1674.88 |
| 4 | GUIDE | 175907256 | 8.70 | 3974 | 0.054 | -0.137 | 0.089 | 0.141 | 101.006410 | 20.921394 | -1655.17 | 991.19 |
| 5 | GUIDE | 175912208 | 8.62 | 3973 | -0.079 | 0.184 | 0.064 | 0.105 | 101.934701 | 21.403431 | 456.25 | -1883.50 |
| 6 | GUIDE | 175907520 | 9.01 | 3964 | -0.153 | -0.095 | 0.095 | 0.156 | 101.231775 | 22.033726 | 2412.11 | 733.44 |
| 7 | GUIDE | 175902760 | 8.59 | 3972 | 0.124 | 0.125 | 0.068 | 0.110 | 101.771118 | 20.783160 | -1827.65 | -1622.94 |

2.4 Star Slots

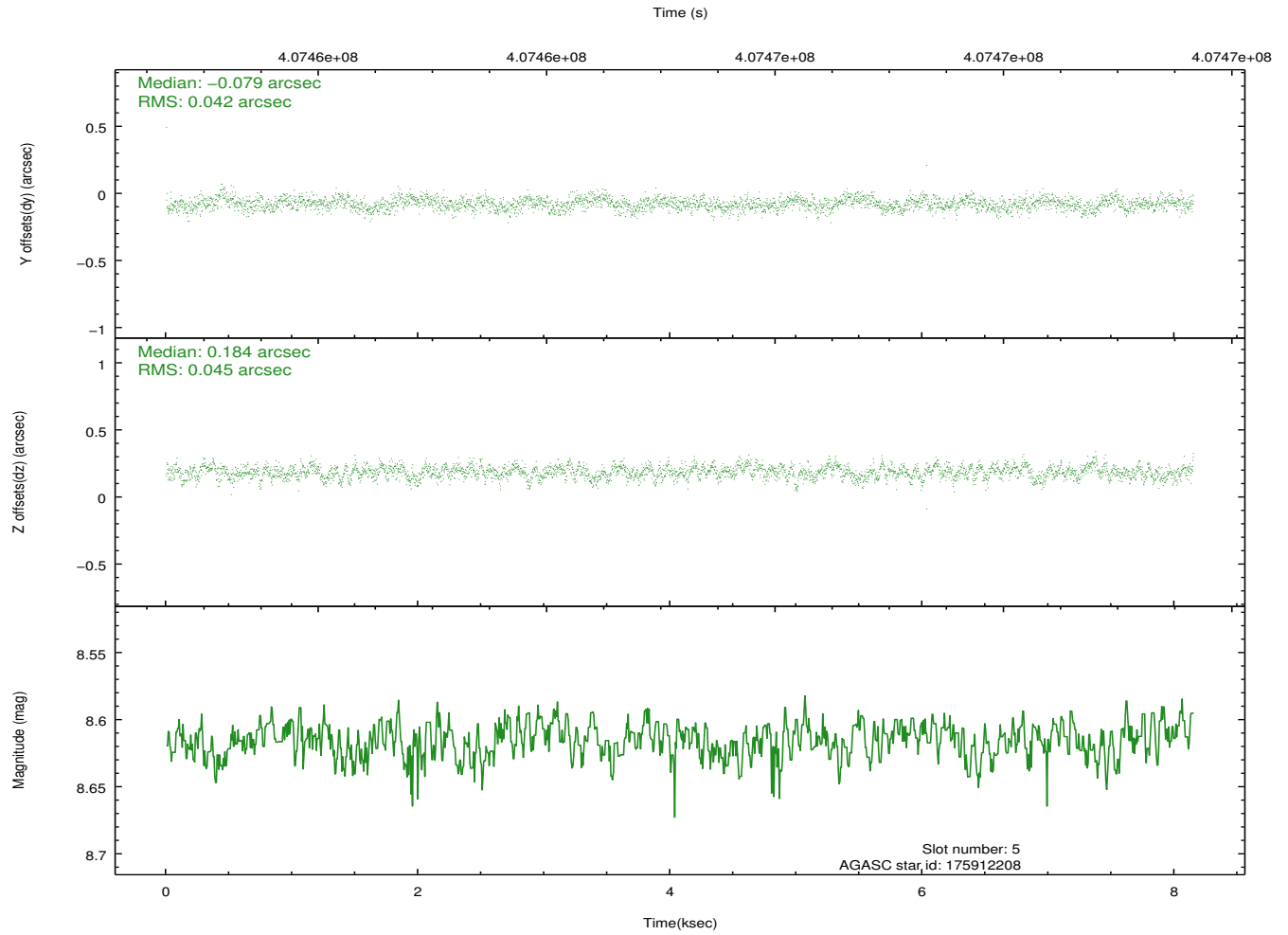
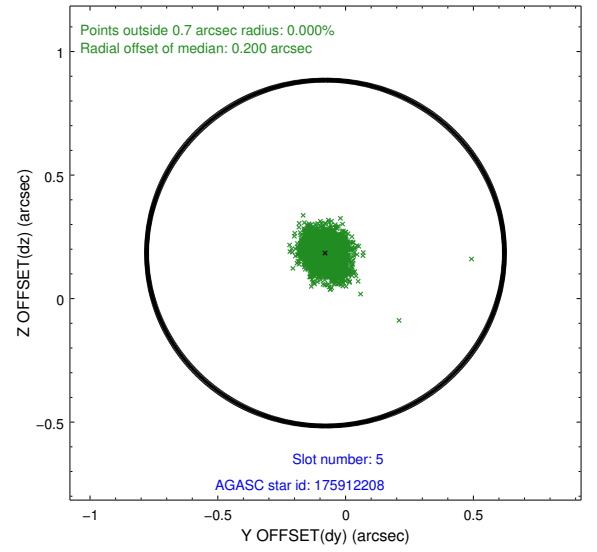
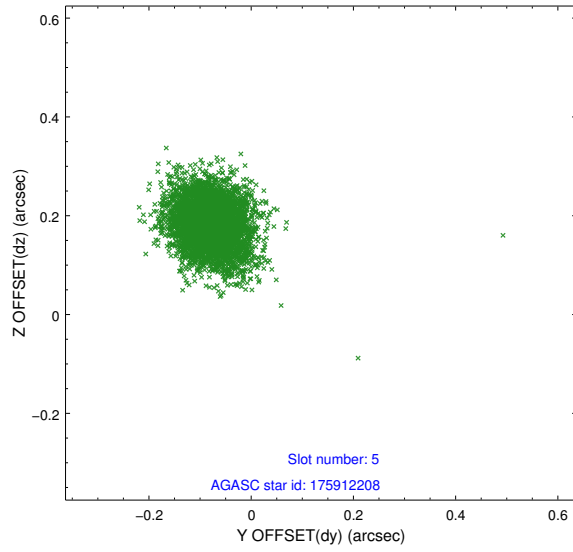
2.4.1 Slot 3



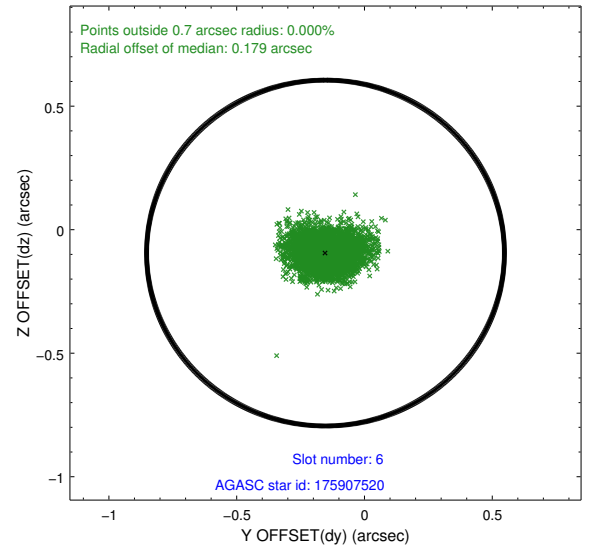
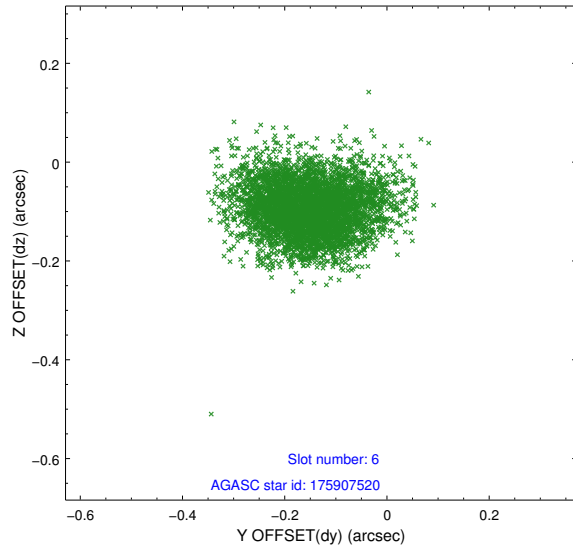
2.4.2 Slot 4



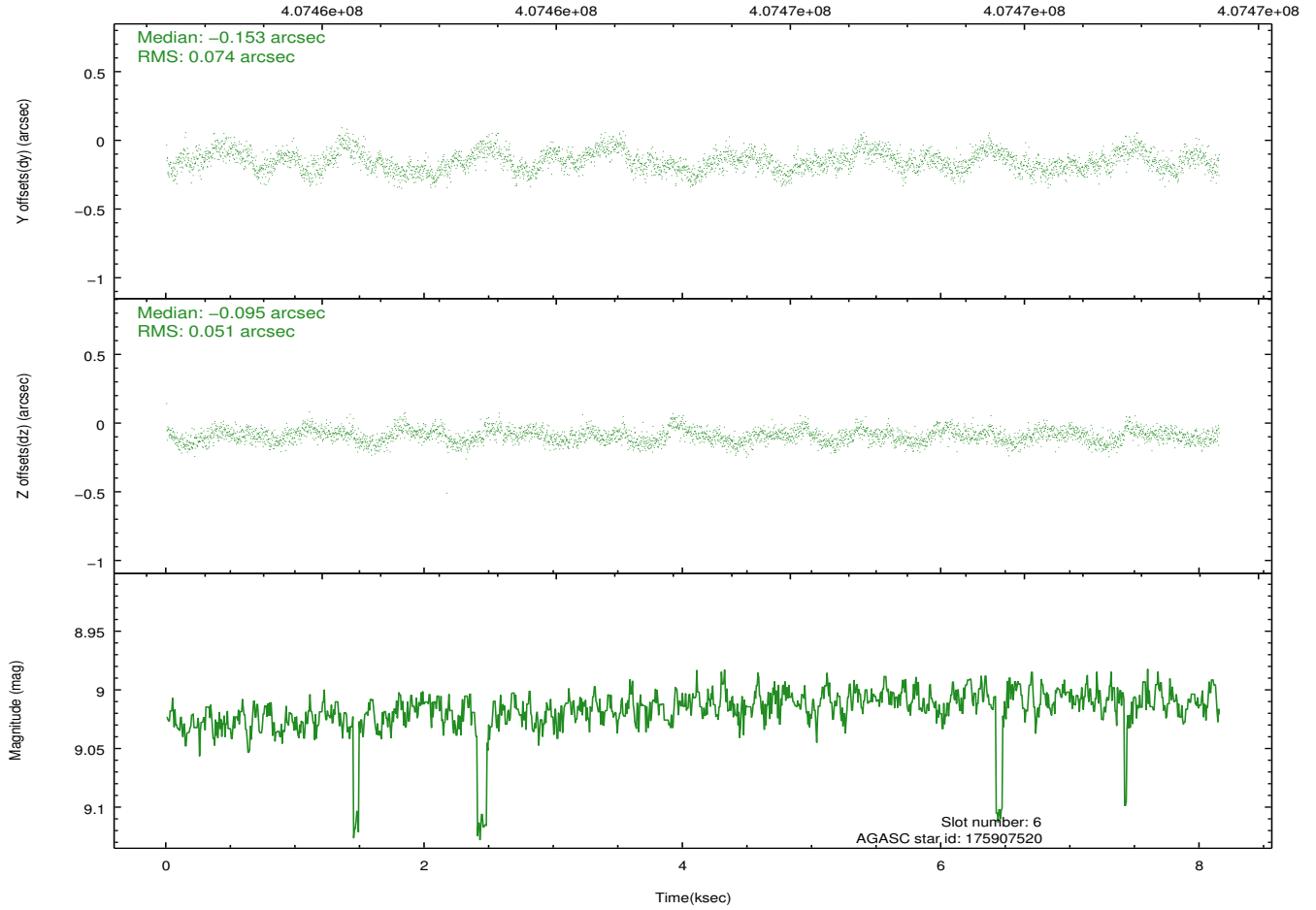
2.4.3 Slot 5



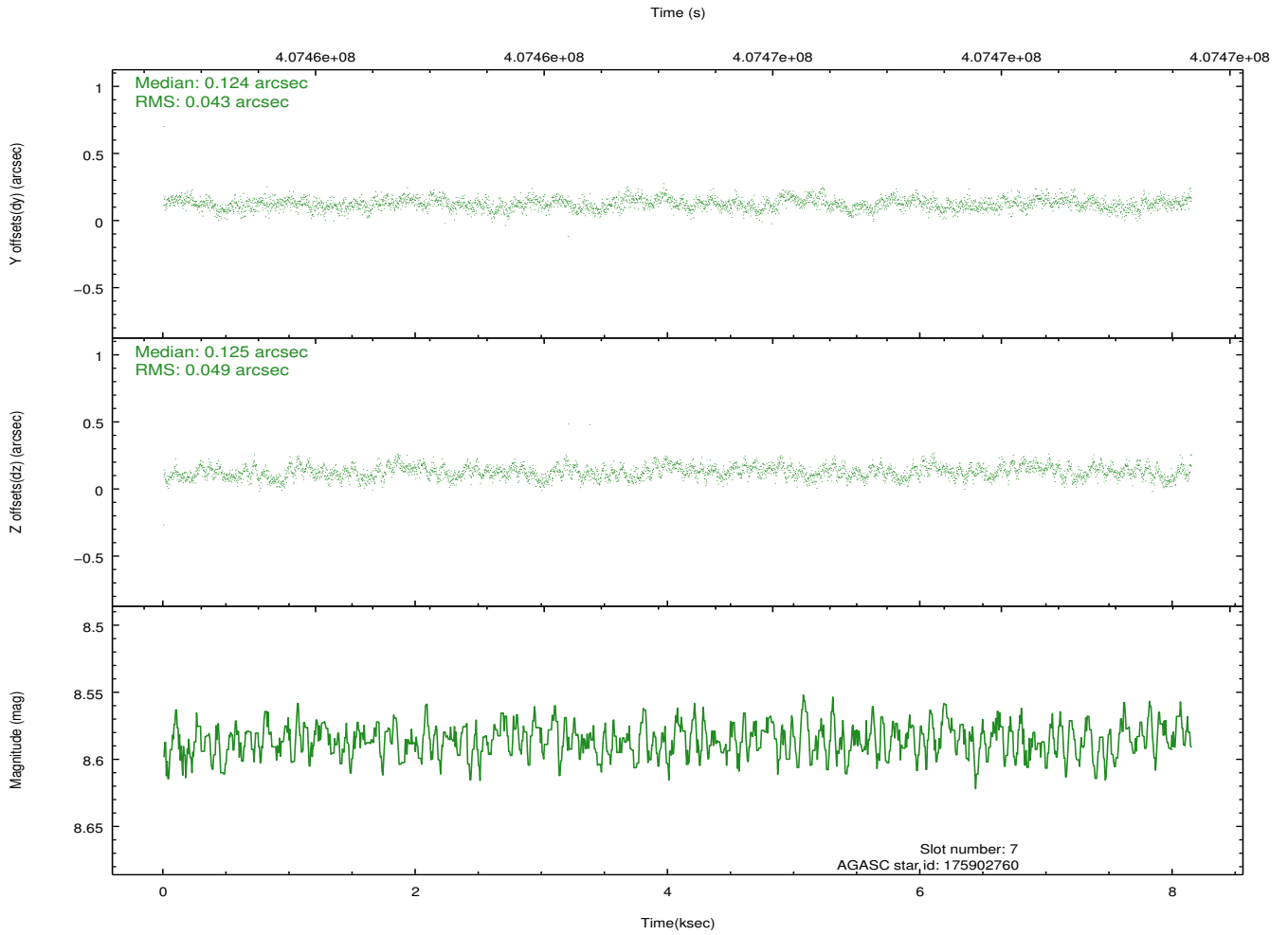
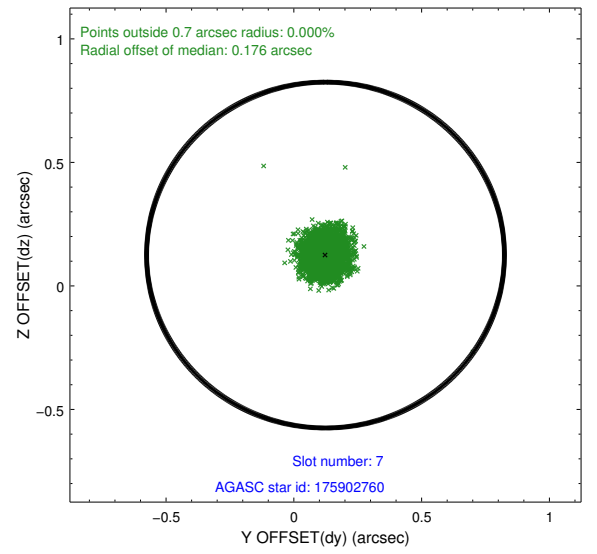
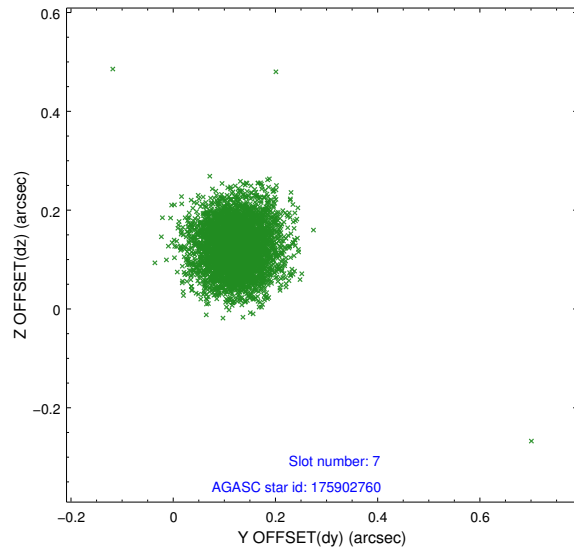
2.4.4 Slot 6



Time (s)

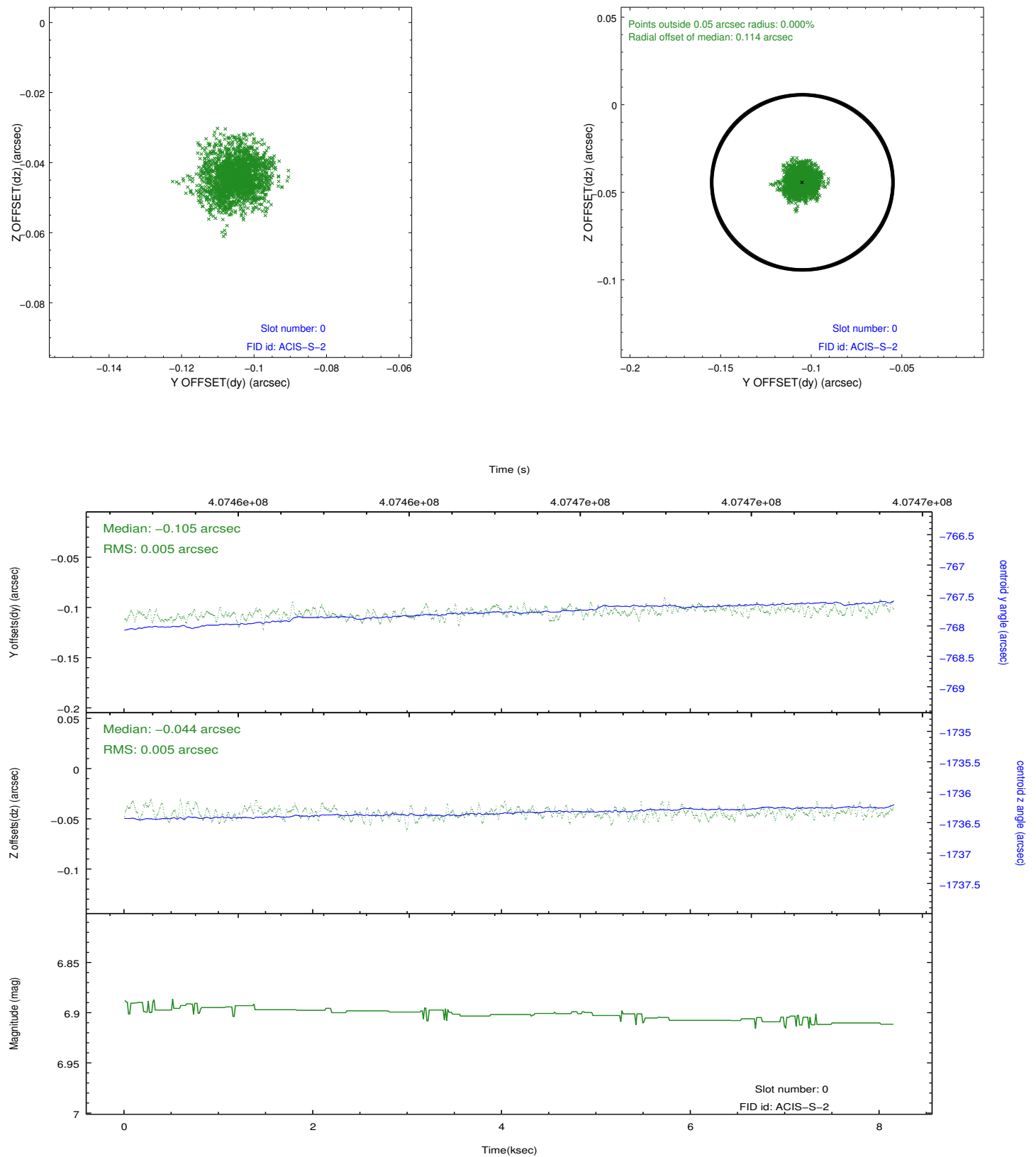


2.4.5 Slot 7

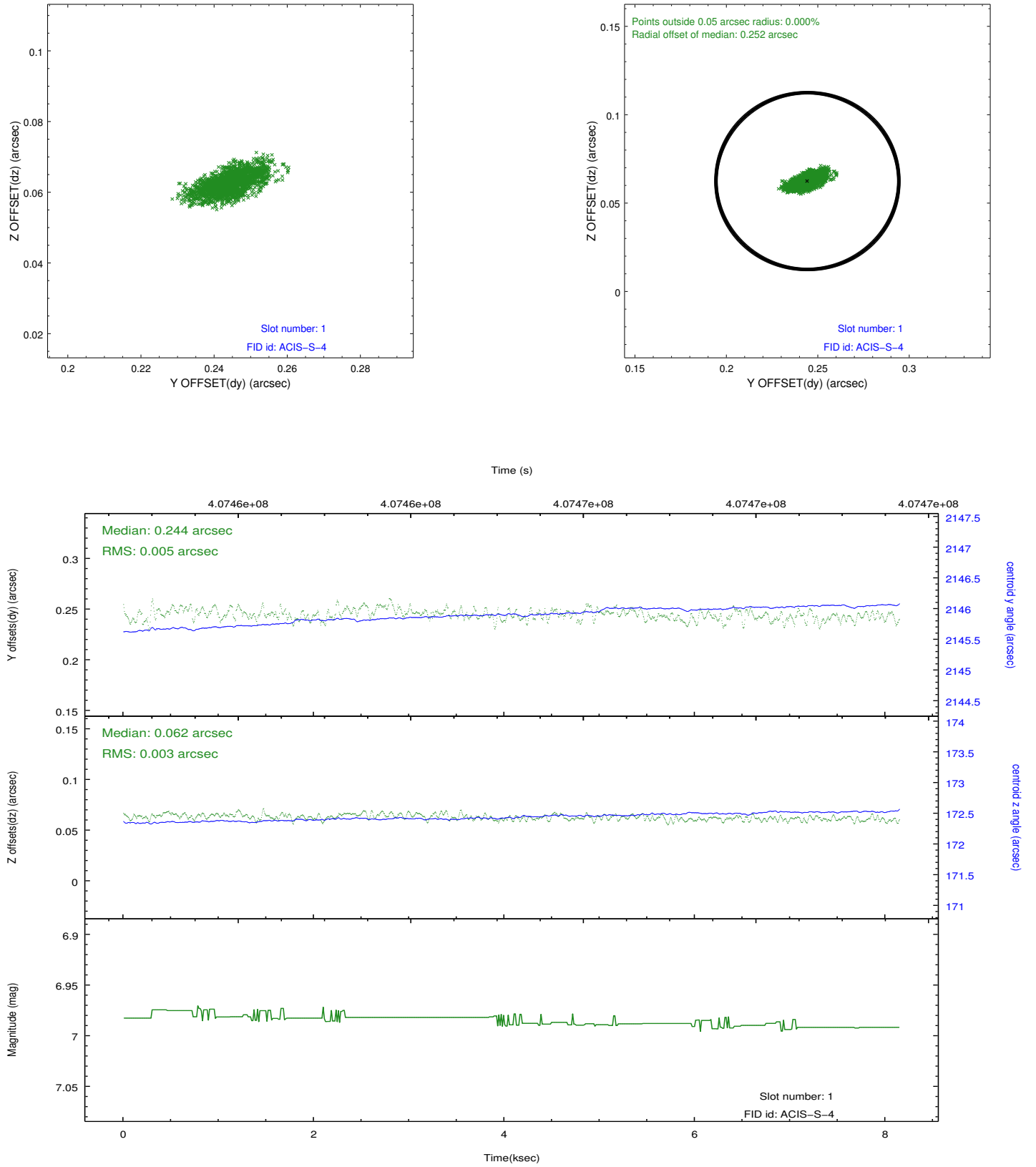


2.5 FID Slots

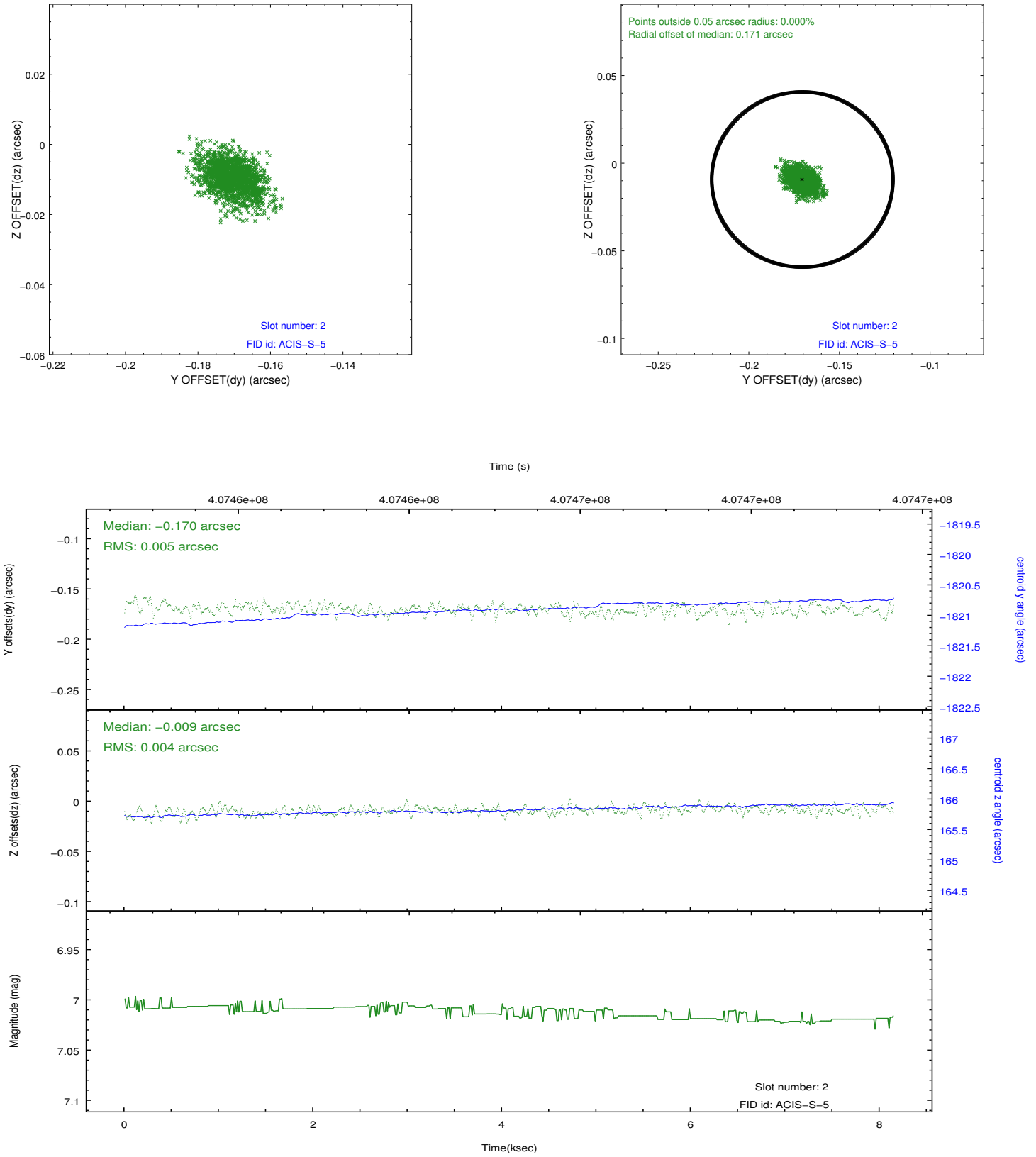
2.5.1 Slot 0



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) | 2012.07.17 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 8.0506677955985 |

A.2 Comments