

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2393 - L2 Version 3
Chandra X-Ray Center

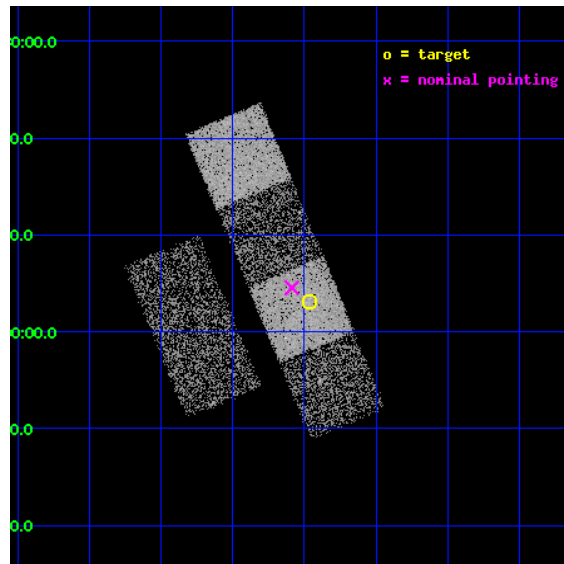
L2 Processing Date : Sep 6 2012

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1 Front

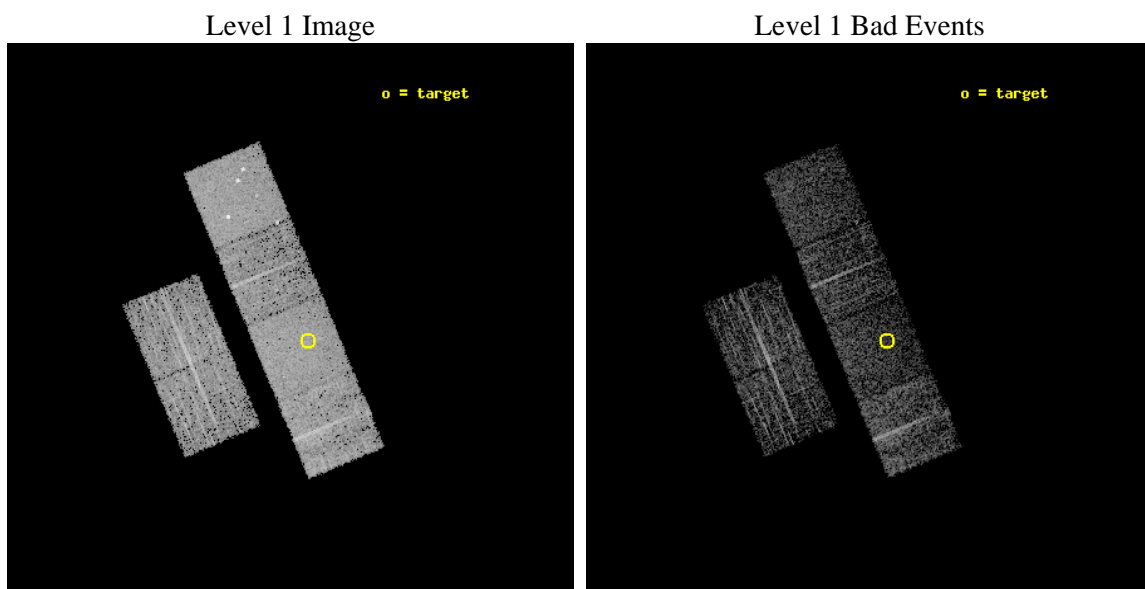
| | | |
|----------|---------------------------------------|---|
| seq_num | 100021 | Sequence number |
| obs_id | 2393 | Observation id |
| title | X-RAY SPECTROSCOPY OF COMET C/1999 T1 | Proposal title |
| observer | Dr. Vladimir Krasnopolsky | Principal investigator |
| object | C/1999 T1 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 233.61661 | Observer's specified target RA [deg] |
| dec_targ | -1.94875 | Observer's specified target Dec [deg] |
| ra_nom | 233.64683750361 | Nominal RA [deg] |
| dec_nom | -1.9243426575664 | Nominal Dec [deg] |
| roll_nom | 67.385335390524 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 3158.4000029266 | Sum of GTIs [s] |
| livetime | 3118.4064403294 | Livetime [s] |
| ontime2 | 3158.4000029266 | Sum of GTIs [s] |
| ontime3 | 3158.2918408364 | Sum of GTIs [s] |
| ontime5 | 3158.3739208281 | Sum of GTIs [s] |
| ontime6 | 3158.3328808397 | Sum of GTIs [s] |
| ontime7 | 3158.4000029266 | Sum of GTIs [s] |
| ontime8 | 3155.0097109824 | Sum of GTIs [s] |
| l2events | 33443 | Number of level 2 events |



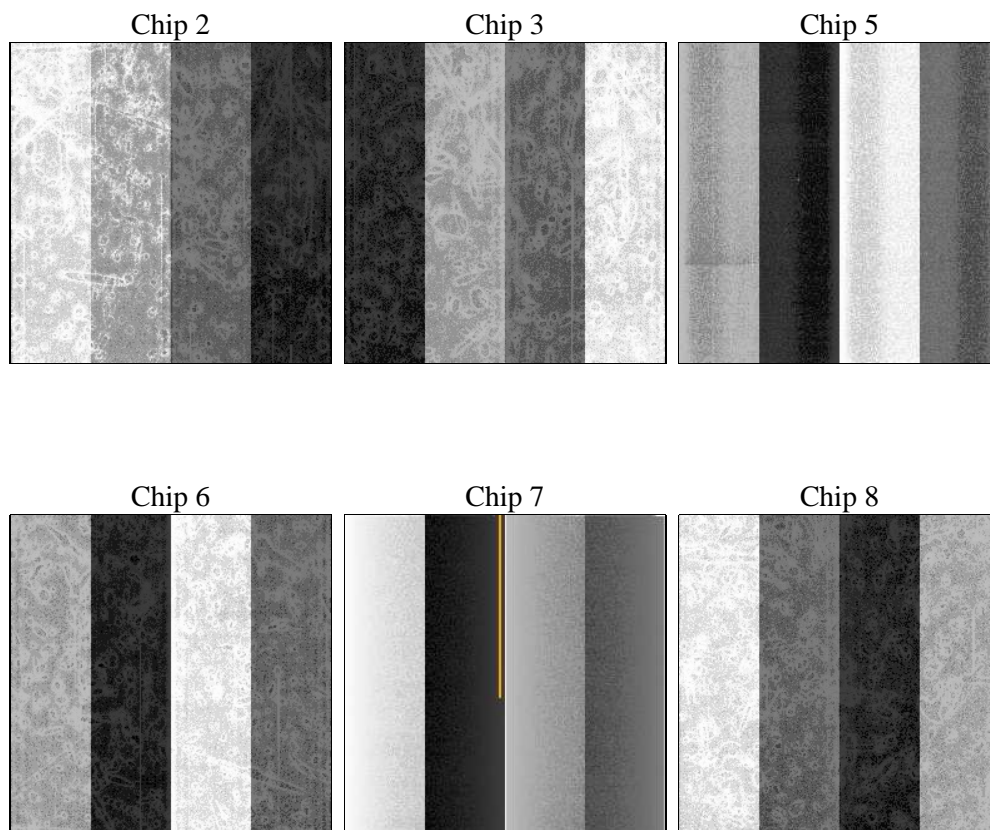
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 3400.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 3158.4000029266 | Sum of GTIs [s] |
| caldsver | 4.5.1.1 | | ontime2 | 3158.4000029266 | Sum of GTIs [s] |
| date | 2012-09-06T11:39:38 | Date and time of file creation | ontime3 | 3158.2918408364 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 3158.3739208281 | Sum of GTIs [s] |
| | | | ontime6 | 3158.3328808397 | Sum of GTIs [s] |
| | | | ontime7 | 3158.4000029266 | Sum of GTIs [s] |
| | | | ontime8 | 3155.0097109824 | Sum of GTIs [s] |
| | | | l1events | 143786 | Number of level 1 events |

2.1.4 Events

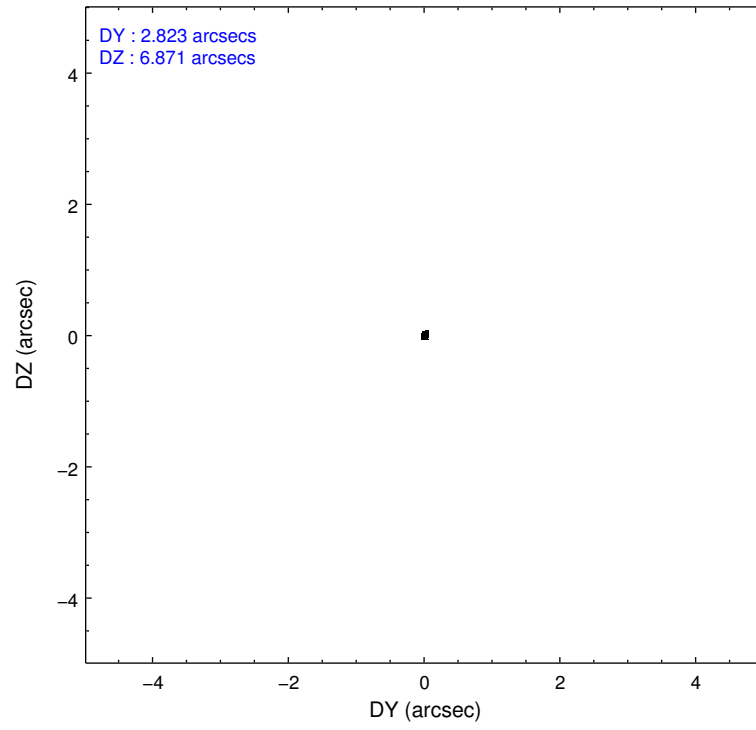
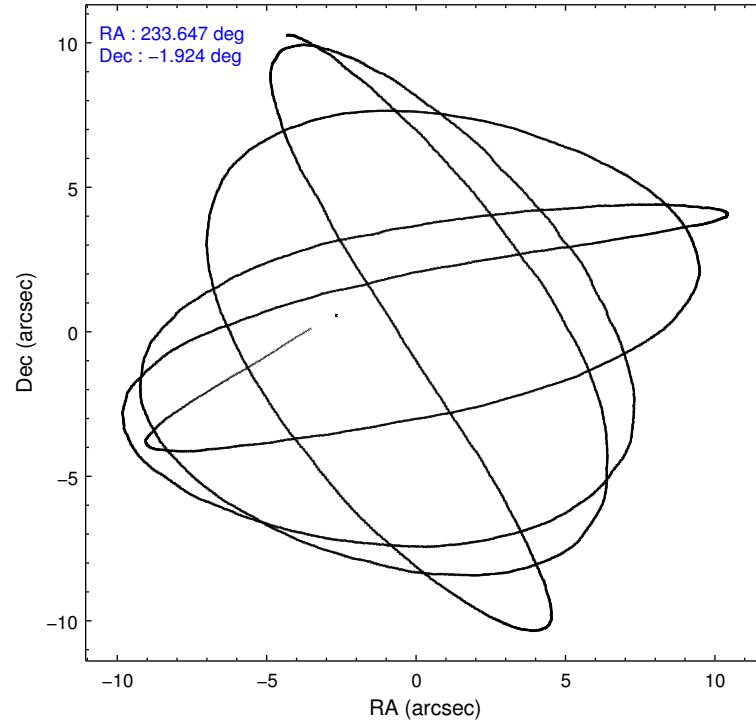
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 21585 | 19726 | 29181 | 19441 | 26410 | 27443 | grade 0 events | 1152 | 1127 | 2704 | 1329 | 1832 | 1959 |
| rejected events | 18984 | 17120 | 14738 | 16574 | 14121 | 21954 | | 5% | 5% | 9% | 6% | 6% | 7% |
| rejected % | 87% | 86% | 50% | 85% | 53% | 79% | grade 1 events | 0 | 8 | 70 | 9 | 16 | 24 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 591 | 592 | 4107 | 616 | 2419 | 1144 |
| | | | | | | | | 2% | 3% | 14% | 3% | 9% | 4% |
| | | | | | | | grade 3 events | 219 | 226 | 597 | 233 | 1126 | 574 |
| | | | | | | | | 1% | 1% | 2% | 1% | 4% | 2% |
| | | | | | | | grade 4 events | 201 | 228 | 593 | 207 | 1110 | 537 |
| | | | | | | | | 0% | 1% | 2% | 1% | 4% | 1% |
| | | | | | | | grade 5 events | 664 | 748 | 2015 | 833 | 2304 | 1019 |
| | | | | | | | | 3% | 3% | 6% | 4% | 8% | 3% |
| | | | | | | | grade 6 events | 440 | 439 | 6459 | 487 | 5809 | 1295 |
| | | | | | | | | 2% | 2% | 22% | 2% | 21% | 4% |
| | | | | | | | grade 7 events | 18318 | 16358 | 12636 | 15727 | 11794 | 20891 |
| | | | | | | | | 84% | 82% | 43% | 80% | 44% | 76% |

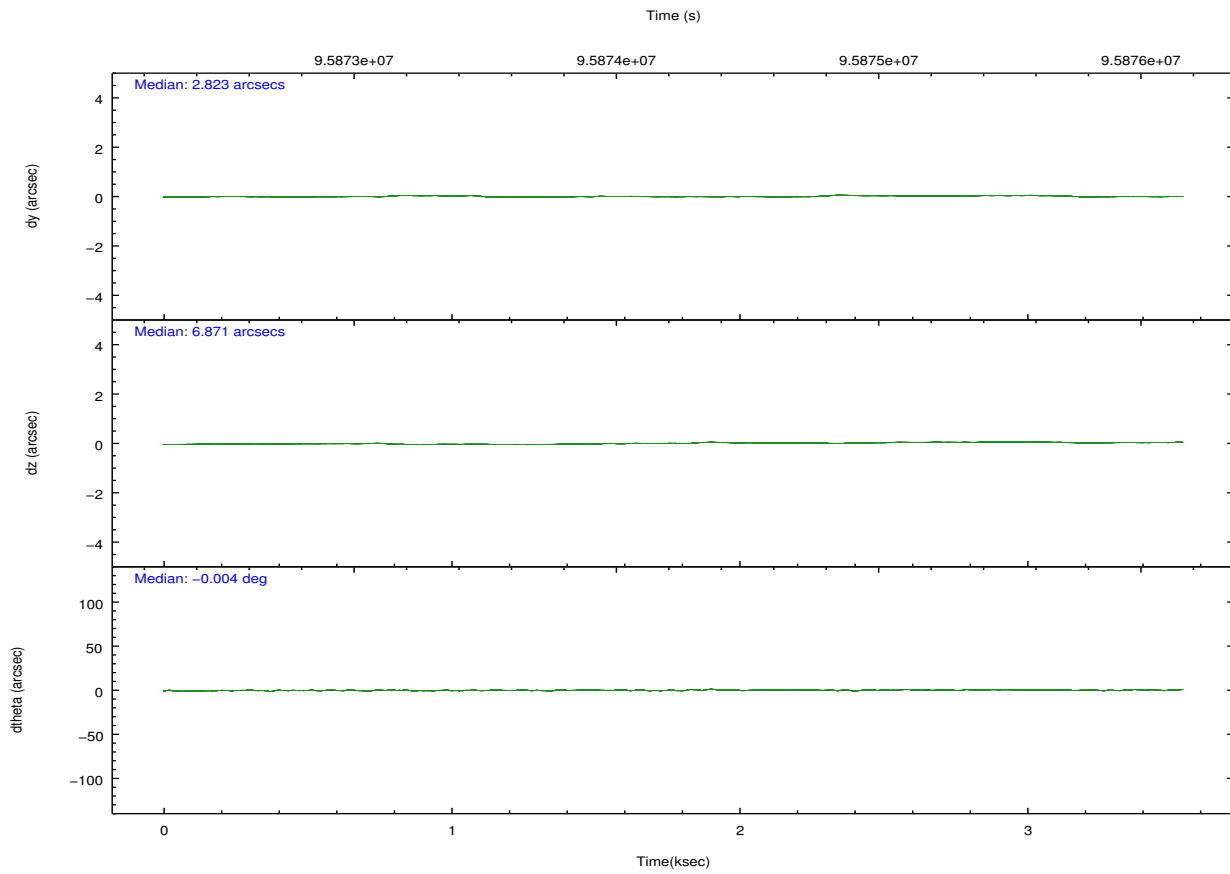
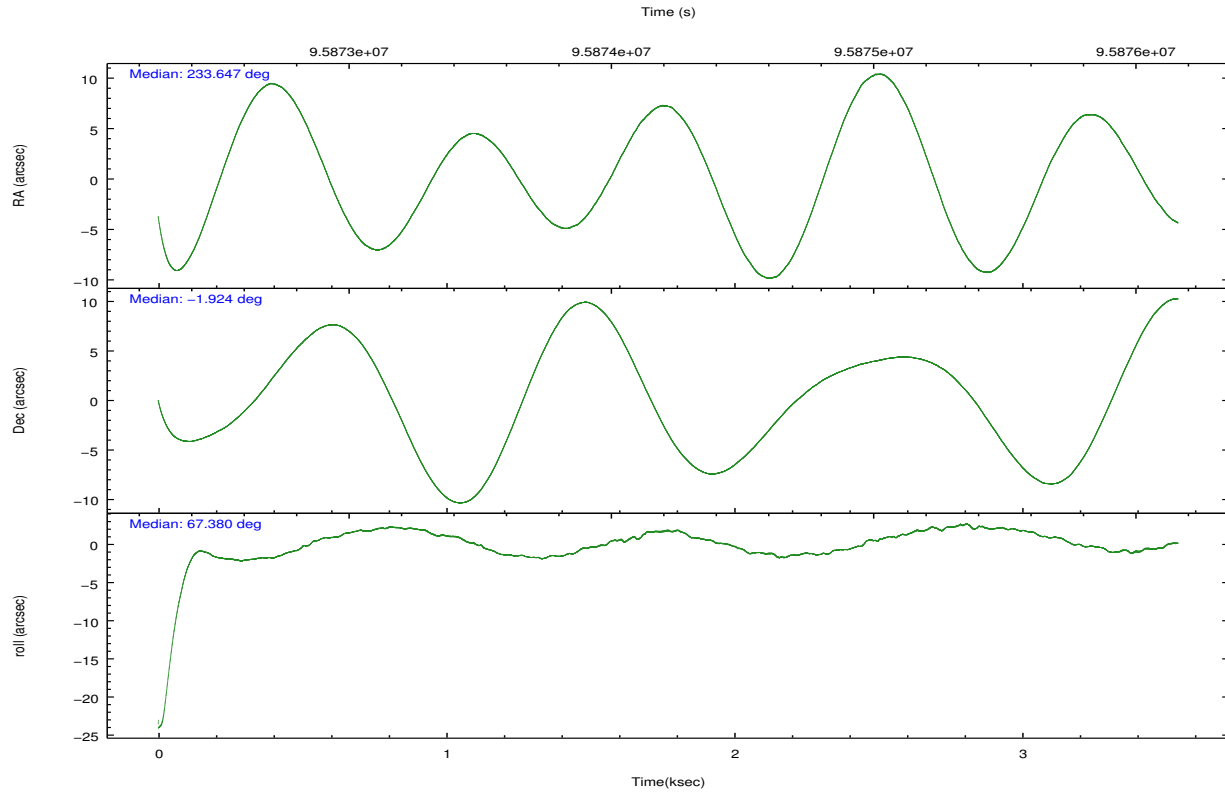
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|
| Instrument | ACIS | ACIS |
| Detector | ACIS-235678 | ACIS-235678 |
| Grating | NONE | NONE |
| Data mode | FAINT | FAINT |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 233.650566 | 233.6468375036103 |
| [deg] Pointing Dec | -1.951432 | -1.924342657566405 |
| [deg] Pointing Roll | 67.228907 | 67.38533539052362 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 |
| [mm] SIM defocus | 0 | 0.001444936568705701 |
| [mm] SIM translation stage pos | -190.132523 | -190.1425803651734 |
| [mm] SIM translation stage offset | 0 | 0.01005778216563158 |
| [s] Observation start time (MET) | 95872587.184000 | 95871720.38392501 |
| Observation start date | 2001-01-14T15:15:23 | 2001-01-14T15:02:00 |
| [s] Observation end time (MET) | 95875987.184000 | 95876679.334116 |
| Observation end date | 2001-01-14T16:12:03 | 2001-01-14T16:24:39 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---------------------------------------|-----------|---------|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |
| Number of optional ACIS chips dropped | 0 | 0 |
| On-chip summing requested | N | N |
| Subarray requested | NONE | NONE |
| Alternating exposures requested | N | N |
| [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



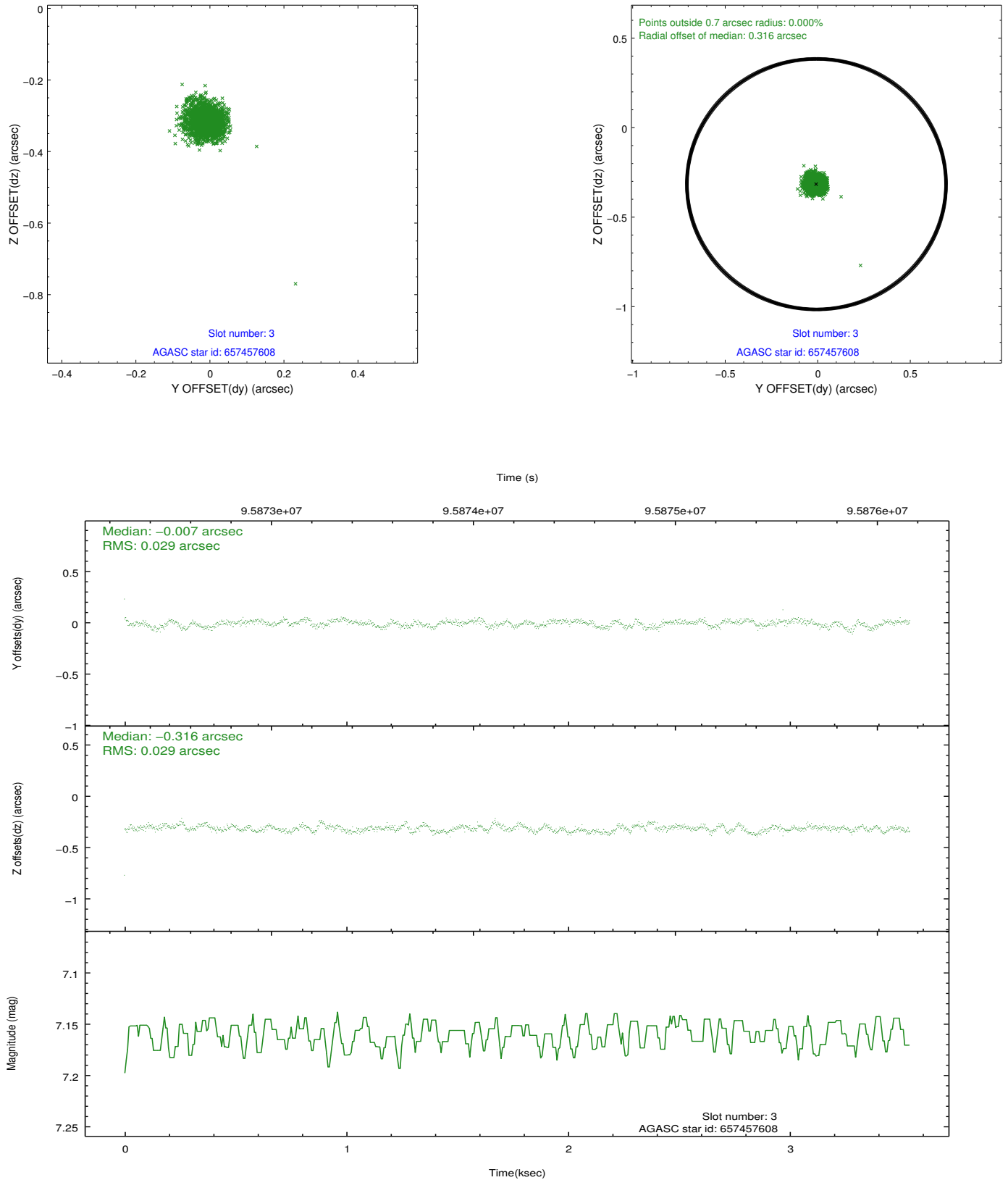


Slot Statistics

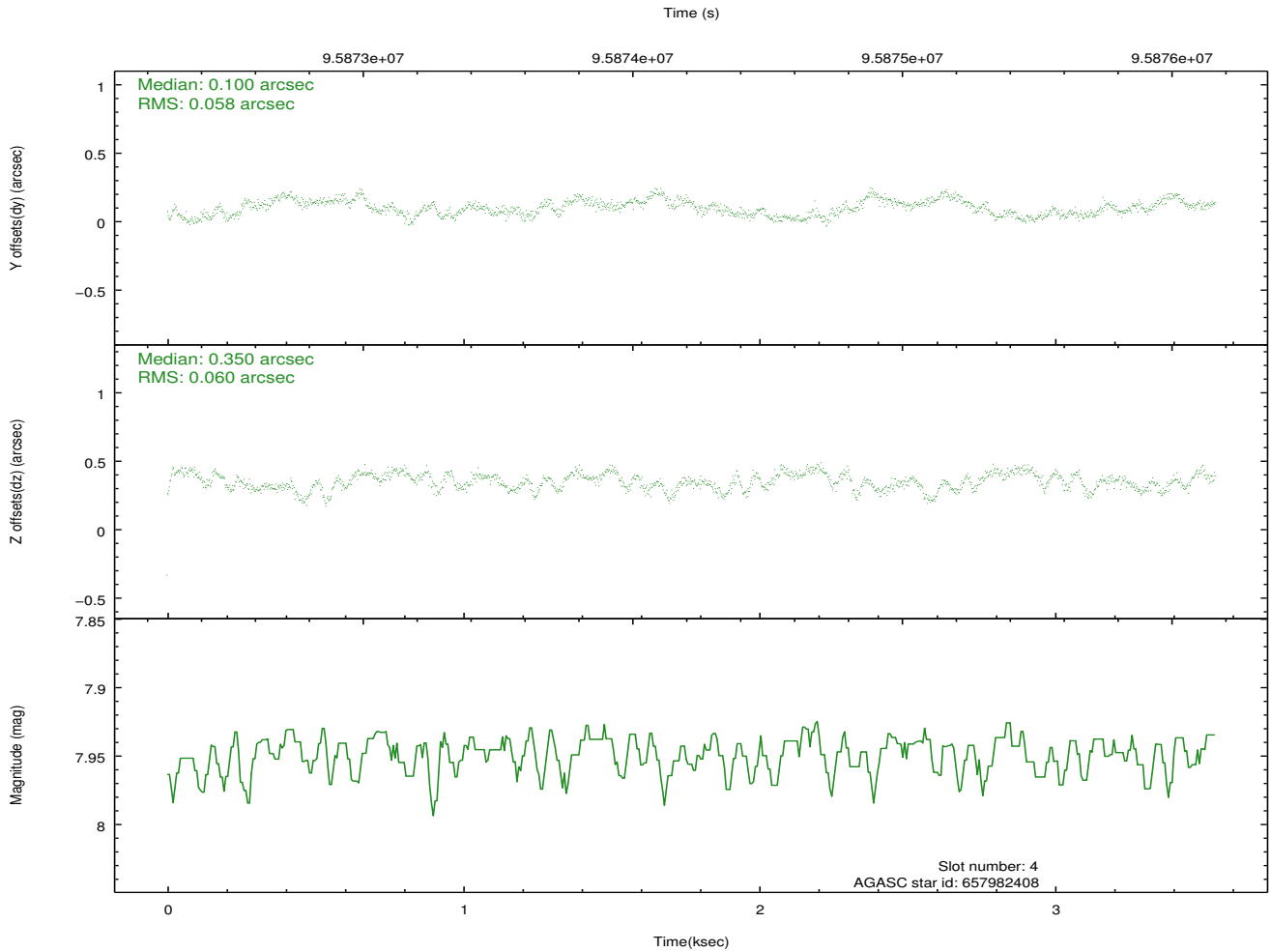
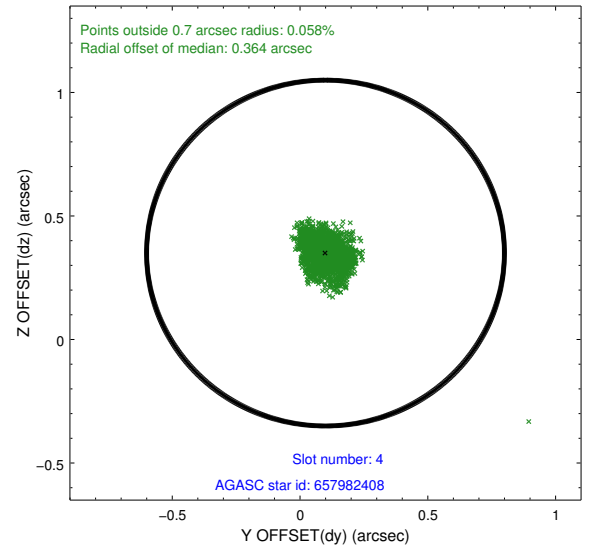
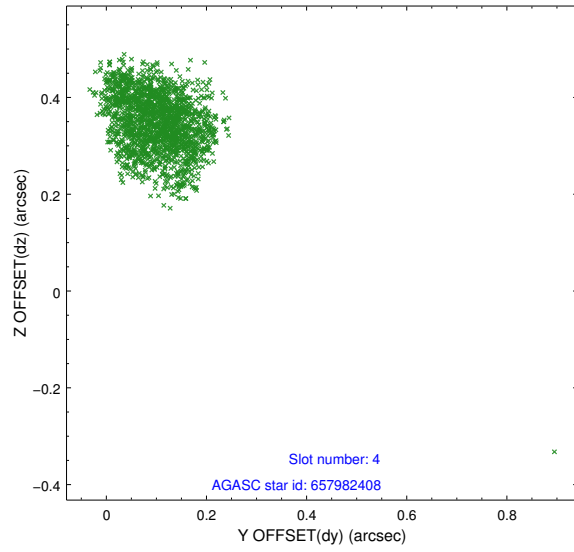
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 864 | -0.009 | 0.017 | 0.007 | 0.010 | 0.000000 | 0.000000 | -755.48 | -1727.96 |
| 1 | FID | ACIS-S-4 | 7.20 | 864 | -0.045 | -0.000 | 0.006 | 0.009 | 0.000000 | 0.000000 | 2156.96 | 178.65 |
| 2 | FID | ACIS-S-5 | 7.24 | 864 | 0.022 | -0.008 | 0.006 | 0.010 | 0.000000 | 0.000000 | -1805.99 | 174.36 |
| 3 | GUIDE | 657457608 | 7.16 | 1729 | -0.007 | -0.316 | 0.041 | 0.067 | 233.101010 | -1.783508 | -208.63 | 2056.49 |
| 4 | GUIDE | 657982408 | 7.95 | 1729 | 0.100 | 0.350 | 0.088 | 0.131 | 234.053369 | -2.516626 | -1315.55 | -2122.39 |
| 5 | GUIDE | 657460064 | 8.51 | 1728 | -0.106 | -0.068 | 0.056 | 0.088 | 233.622615 | -1.450266 | 1623.54 | 789.62 |
| 6 | GUIDE | 657458944 | 8.86 | 1728 | -0.210 | 0.233 | 0.066 | 0.107 | 233.926033 | -1.476362 | 1961.19 | -251.62 |
| 7 | GUIDE | 657982560 | 8.53 | 1728 | 0.221 | -0.199 | 0.077 | 0.123 | 232.953842 | -2.066441 | -1351.54 | 2150.01 |

2.4 Star Slots

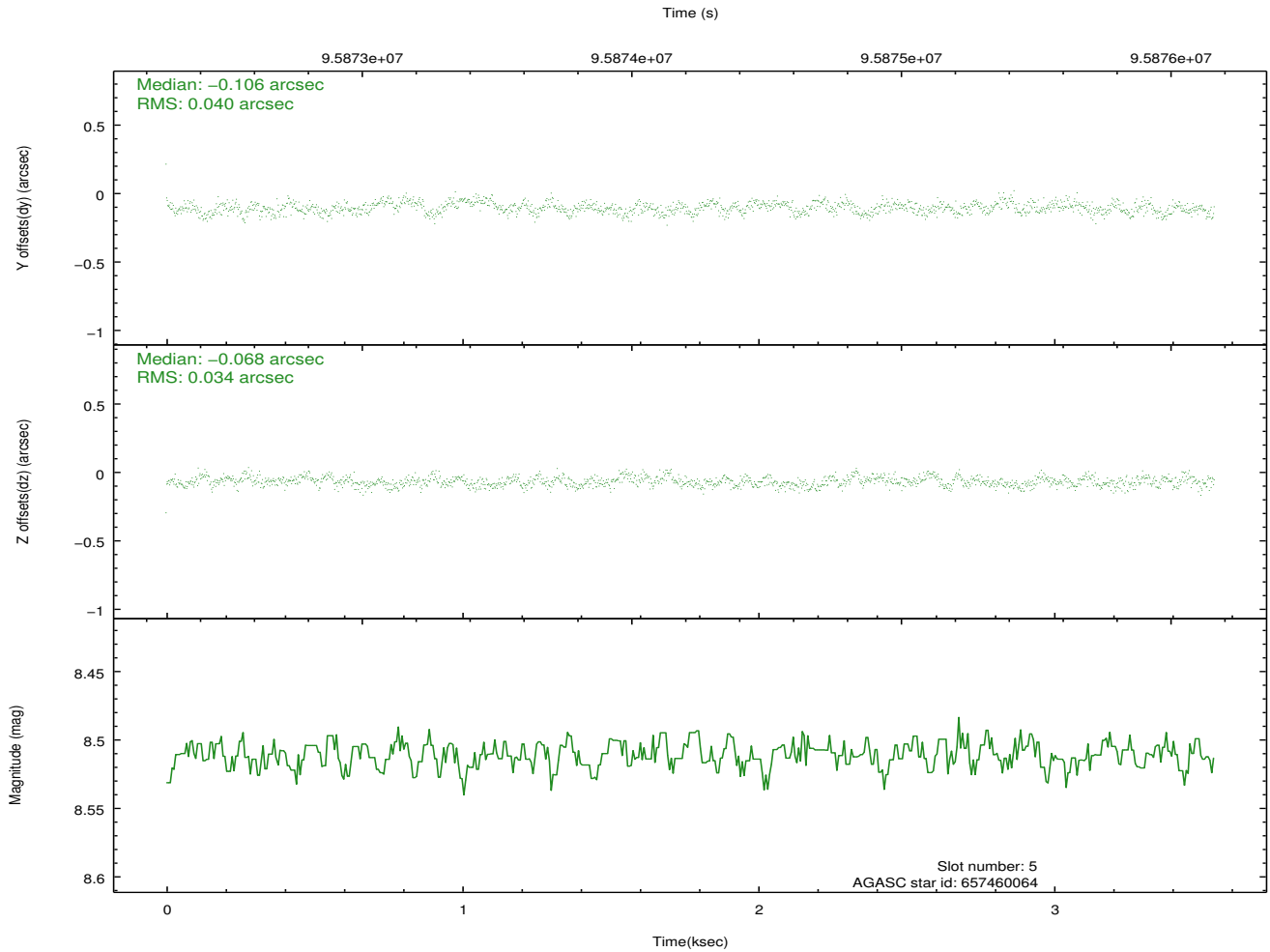
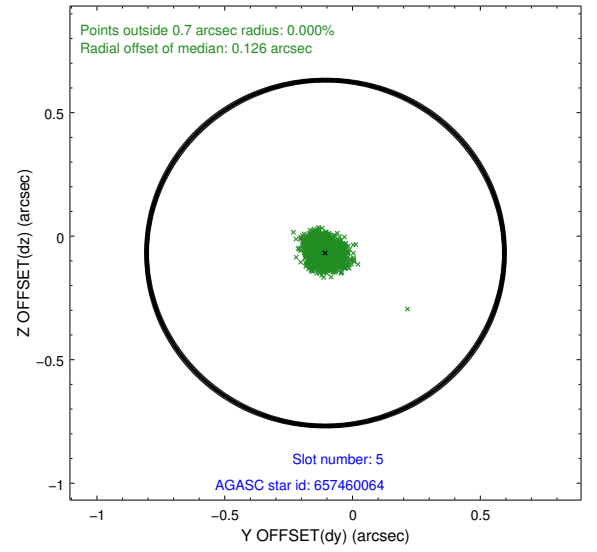
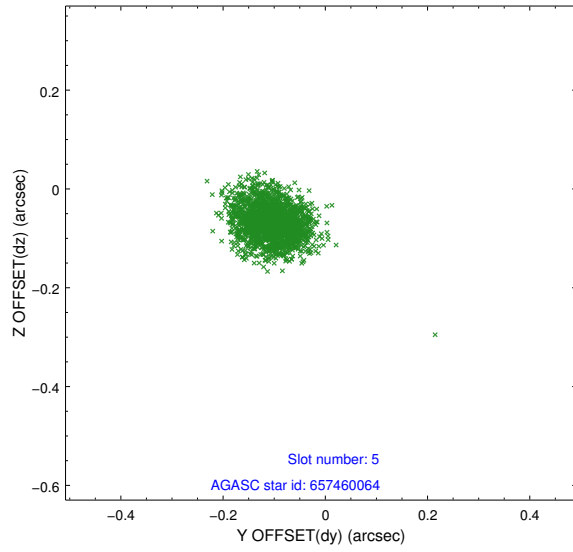
2.4.1 Slot 3



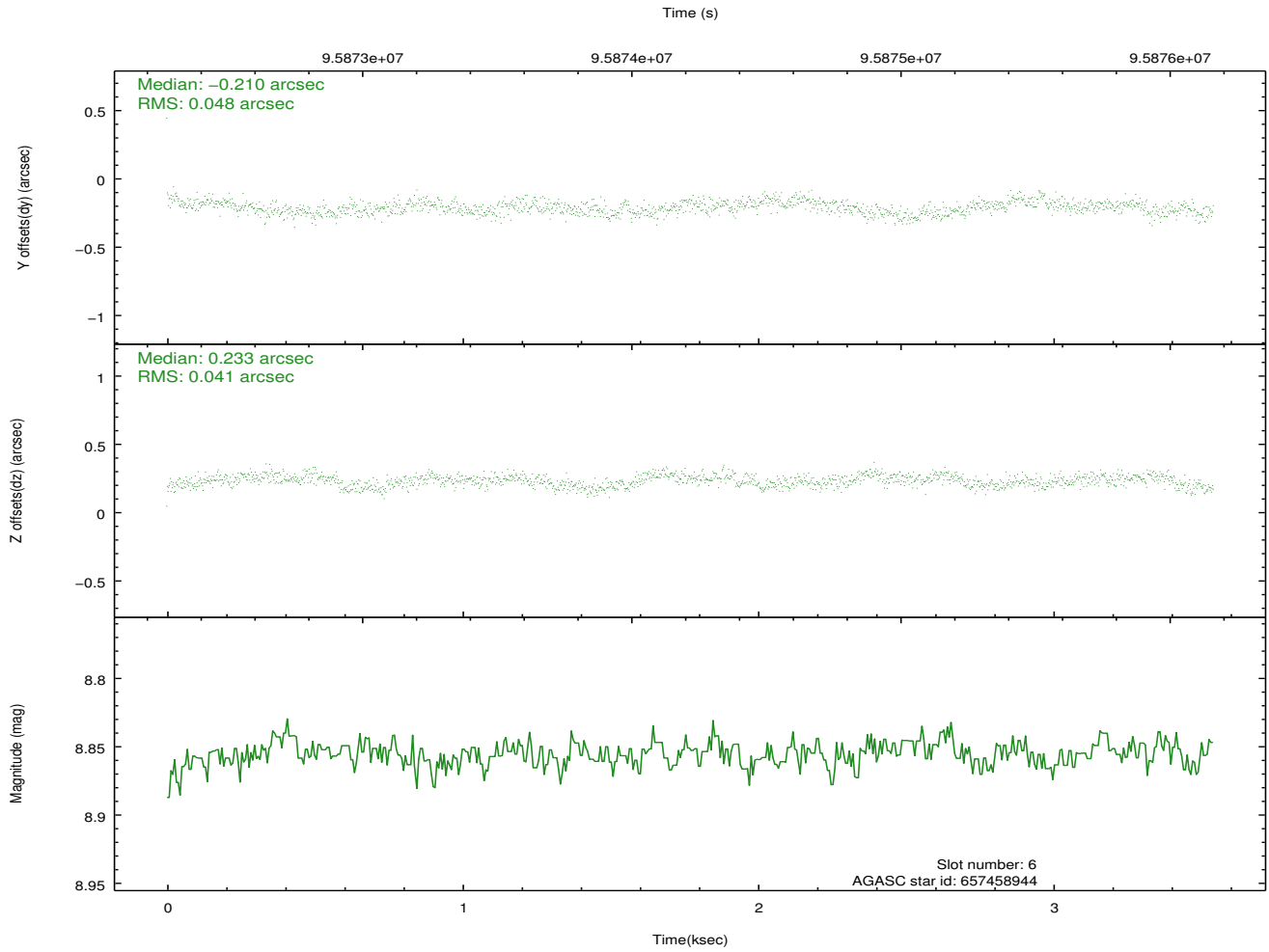
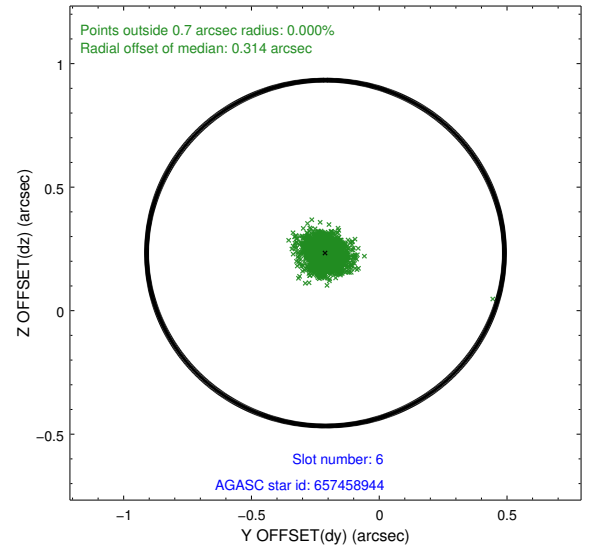
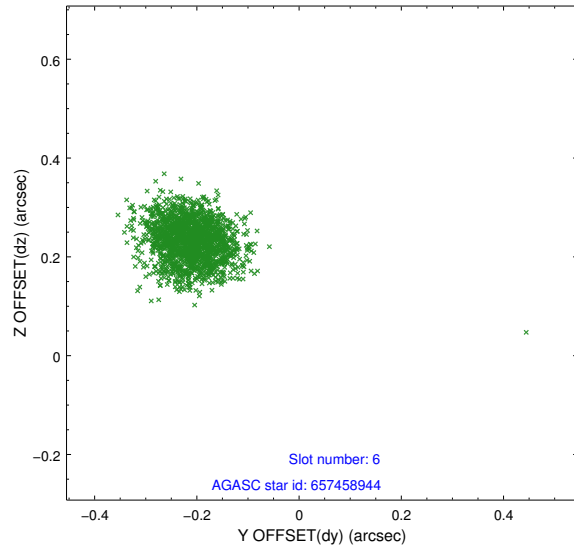
2.4.2 Slot 4



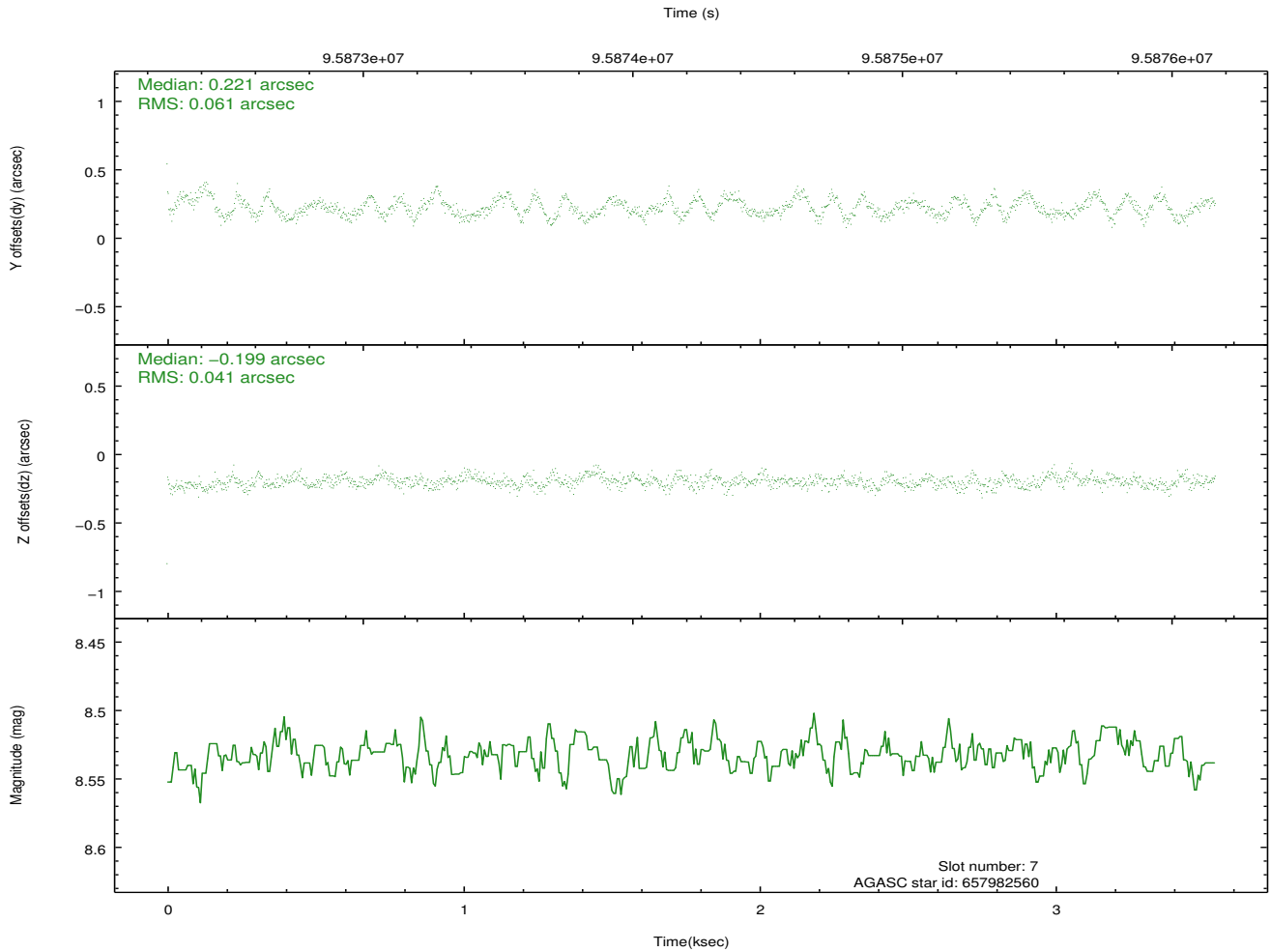
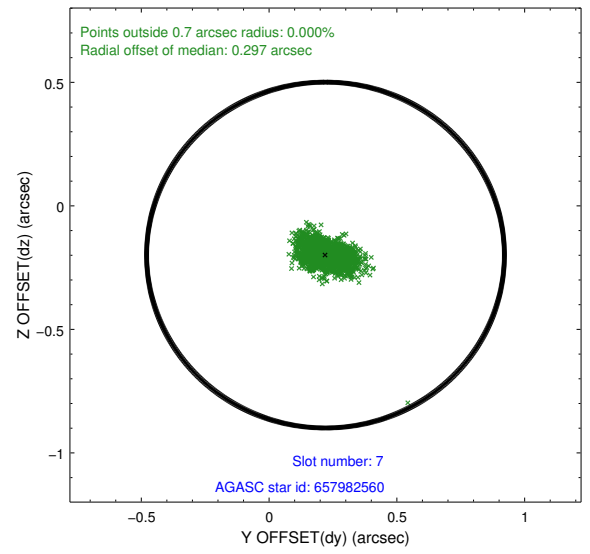
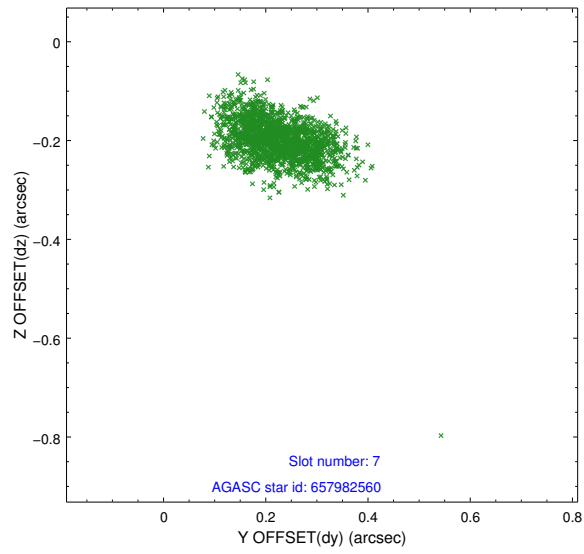
2.4.3 Slot 5



2.4.4 Slot 6

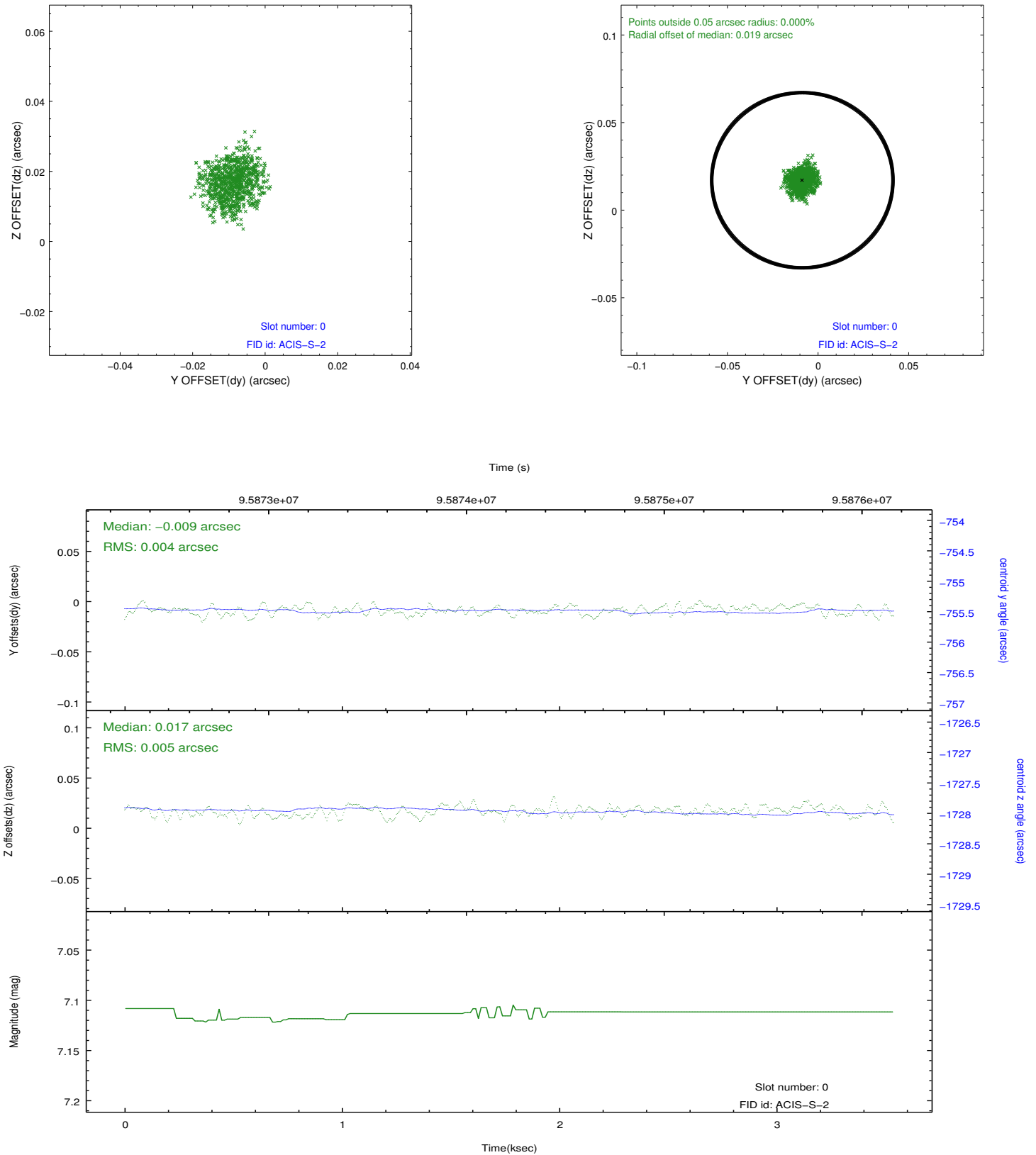


2.4.5 Slot 7

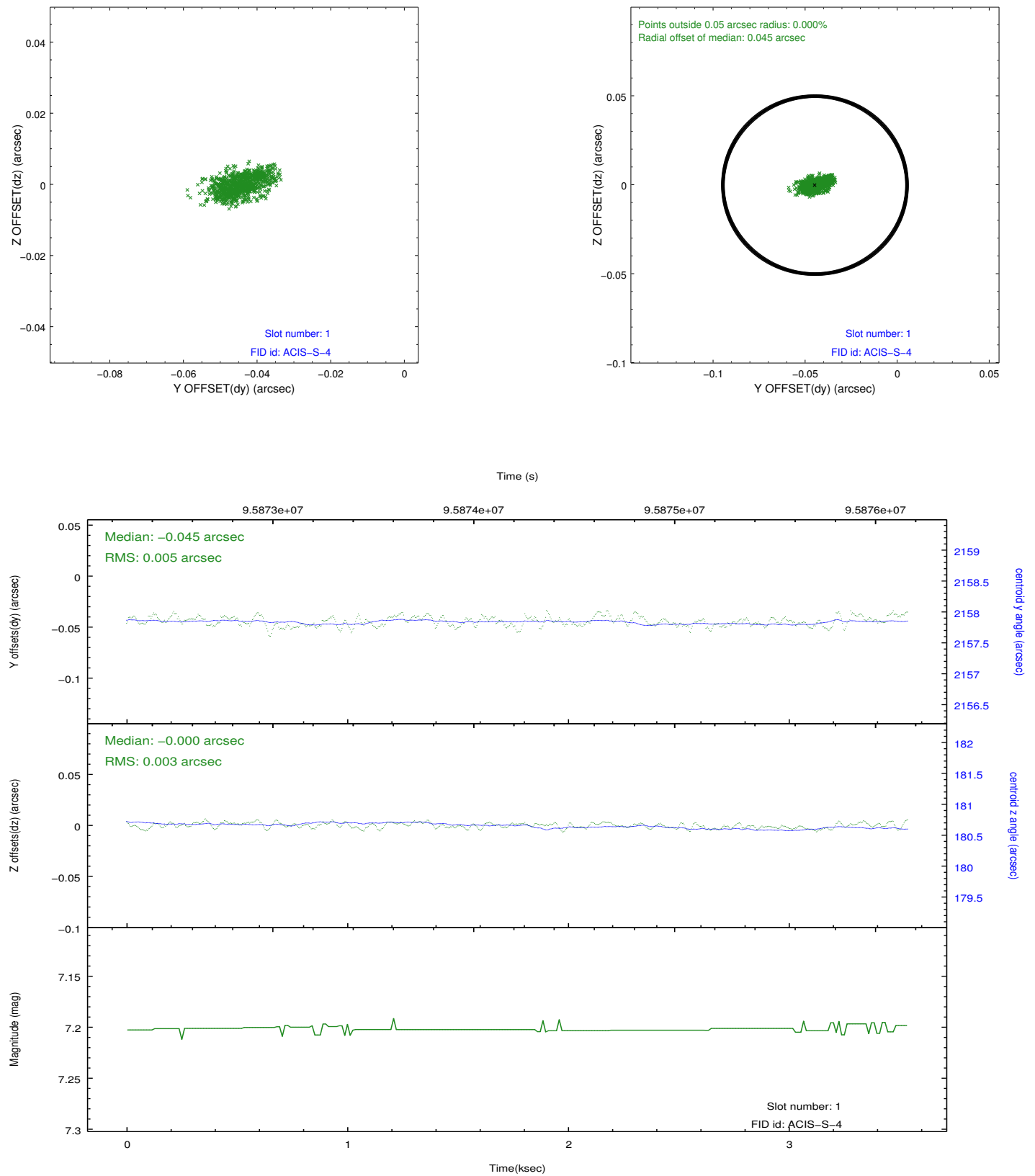


2.5 FID Slots

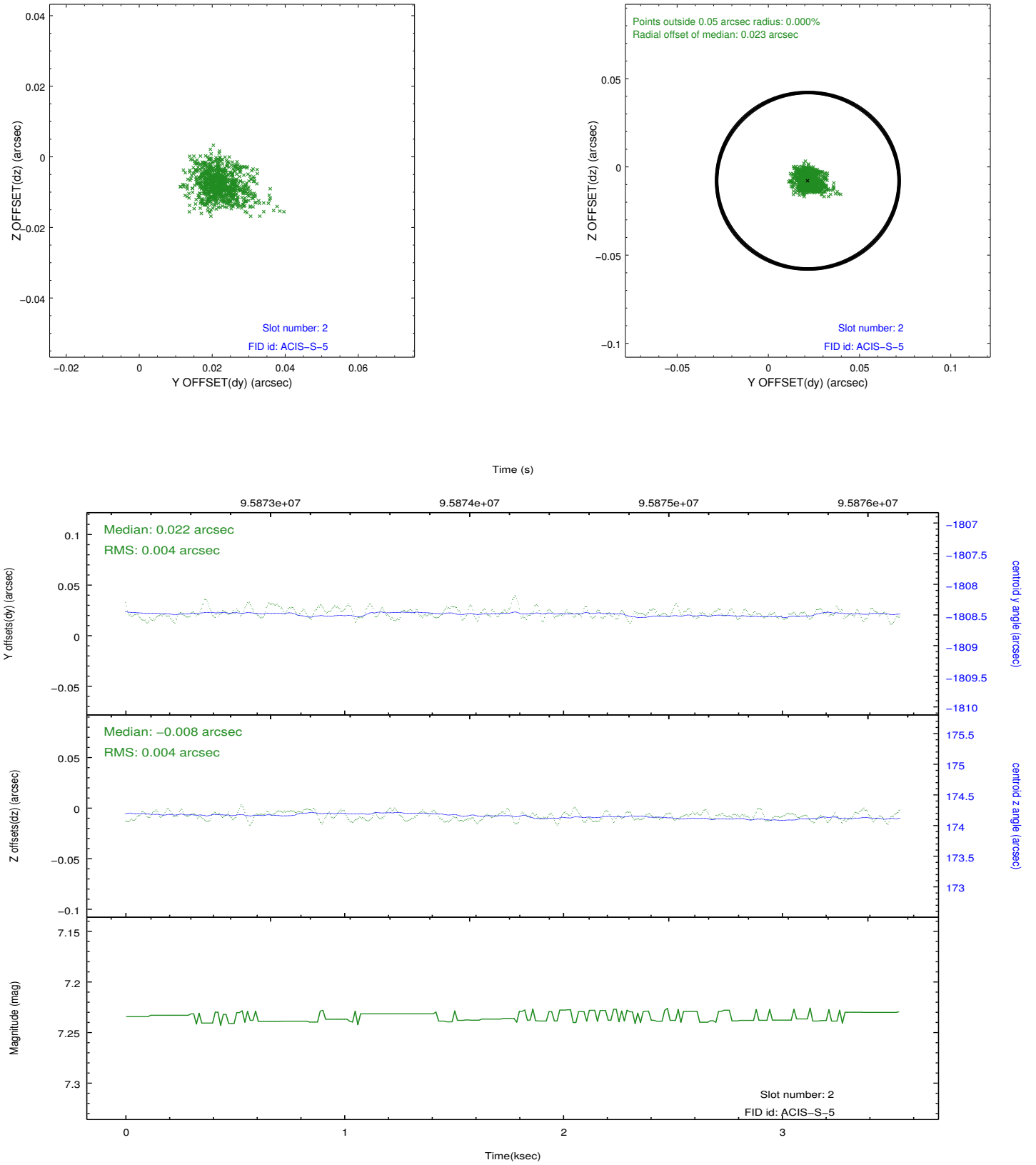
2.5.1 Slot 0



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) | 2012.09.14 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 3.161 |

A.2 Comments

Monitor constraint met. This is a moving target. Users will need to run sso_freeze or similar software to position the events in the reference frame of the target.