

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9094 - L2 Version 2
Chandra X-Ray Center

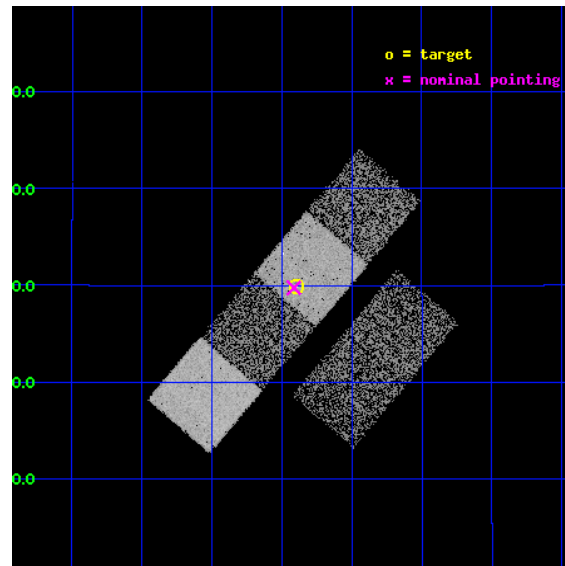
L2 Processing Date : May 7 2012

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1 Front

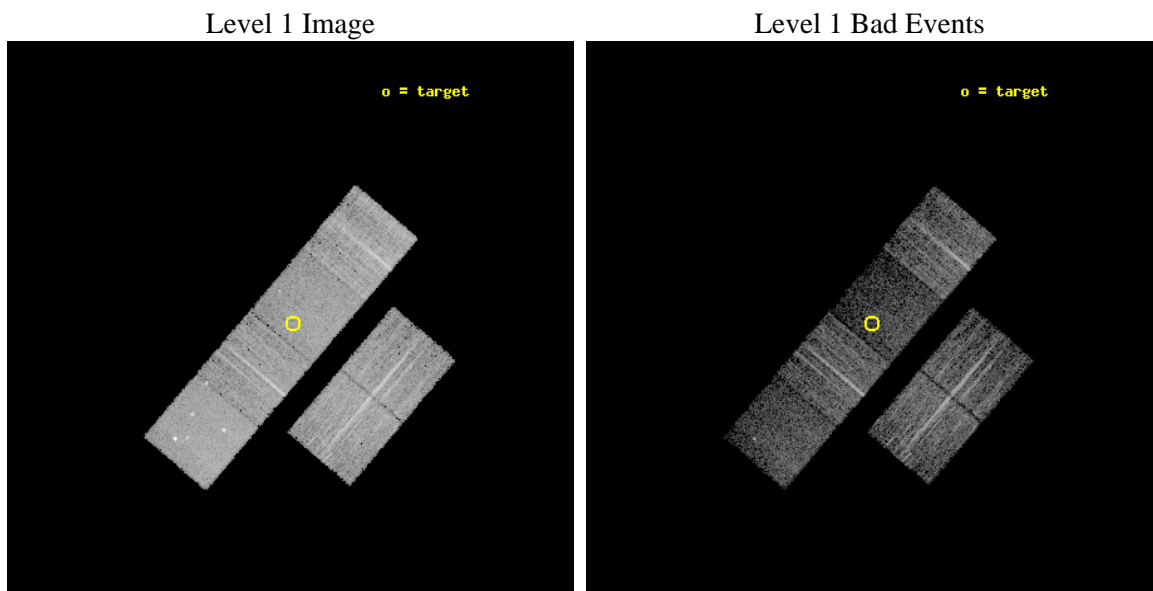
| | | |
|----------|---|---|
| seq_num | 500957 | Sequence number |
| obs_id | 9094 | Observation id |
| title | Chandra Observations of Young, Energetic Supernovae | Proposal title |
| observer | Prof. David Pooley | Principal investigator |
| object | SN 2001em | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 325.59875 | Observer's specified target RA [deg] |
| dec_targ | 12.497472 | Observer's specified target Dec [deg] |
| ra_nom | 325.60347474688 | Nominal RA [deg] |
| dec_nom | 12.495871714387 | Nominal Dec [deg] |
| roll_nom | 310.4143205486 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 5039.9999812841 | Sum of GTIs [s] |
| livetime | 4976.1804667975 | Livetime [s] |
| ontime2 | 5039.9999812841 | Sum of GTIs [s] |
| ontime3 | 5039.9999812841 | Sum of GTIs [s] |
| ontime5 | 5039.9999812841 | Sum of GTIs [s] |
| ontime6 | 5039.9999812841 | Sum of GTIs [s] |
| ontime7 | 5039.9999812841 | Sum of GTIs [s] |
| ontime8 | 5039.9999812841 | Sum of GTIs [s] |
| l2events | 55466 | Number of level 2 events |



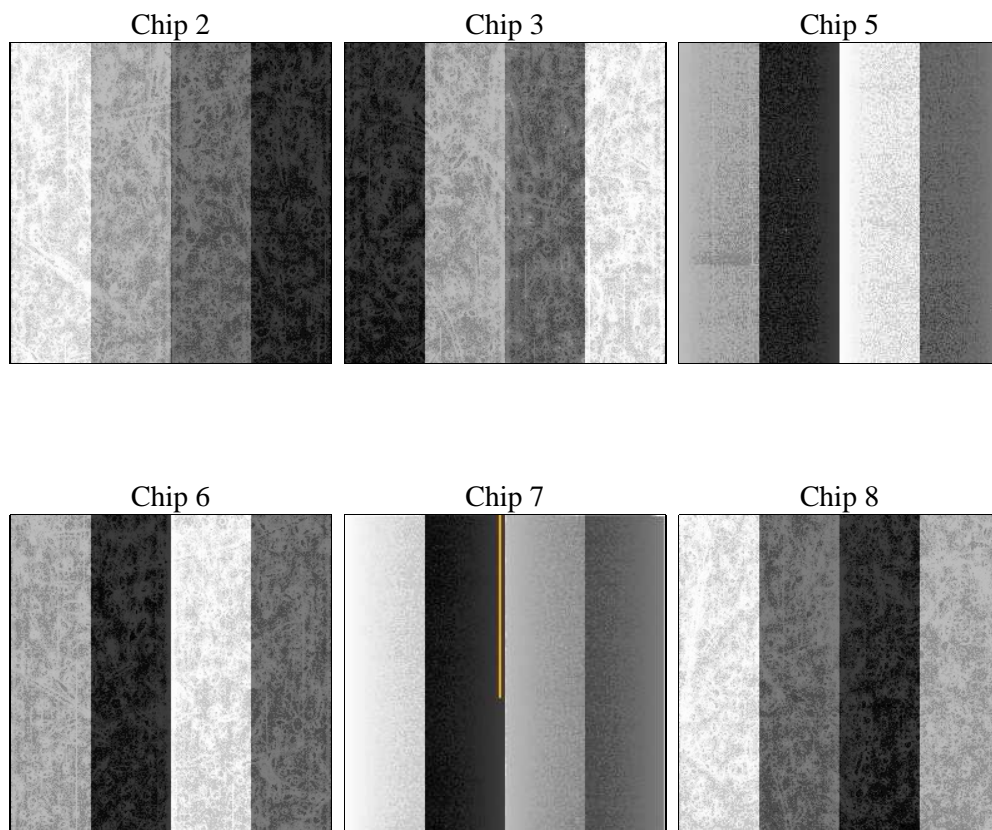
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 5000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.4 | Processing system revision | ontime | 5039.9999812841 | Sum of GTIs [s] |
| caldsver | 4.4.9 | | ontime2 | 5039.9999812841 | Sum of GTIs [s] |
| date | 2012-05-07T14:34:31 | Date and time of file creation | ontime3 | 5039.9999812841 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime5 | 5039.9999812841 | Sum of GTIs [s] |
| | | | ontime6 | 5039.9999812841 | Sum of GTIs [s] |
| | | | ontime7 | 5039.9999812841 | Sum of GTIs [s] |
| | | | ontime8 | 5039.9999812841 | Sum of GTIs [s] |
| | | | l1events | 262671 | Number of level 1 events |

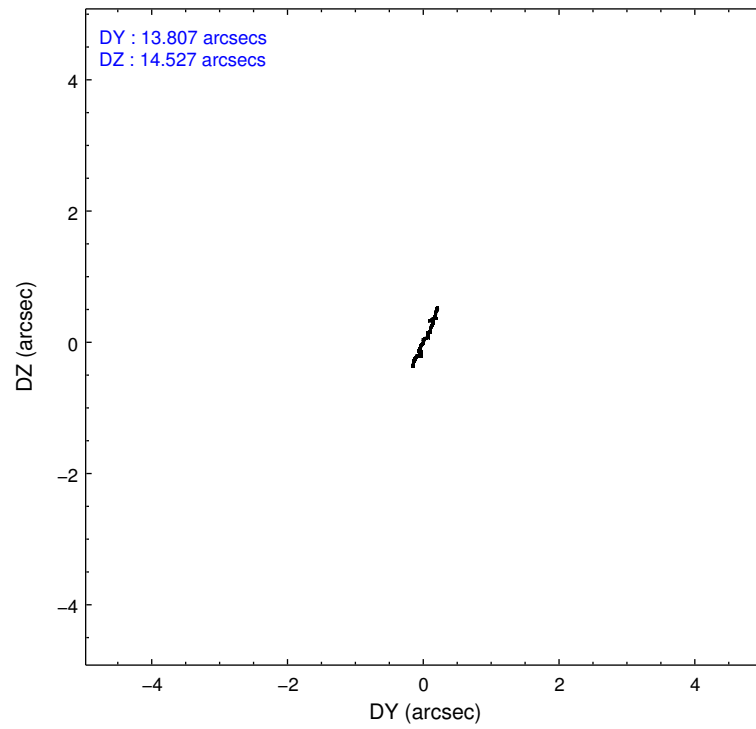
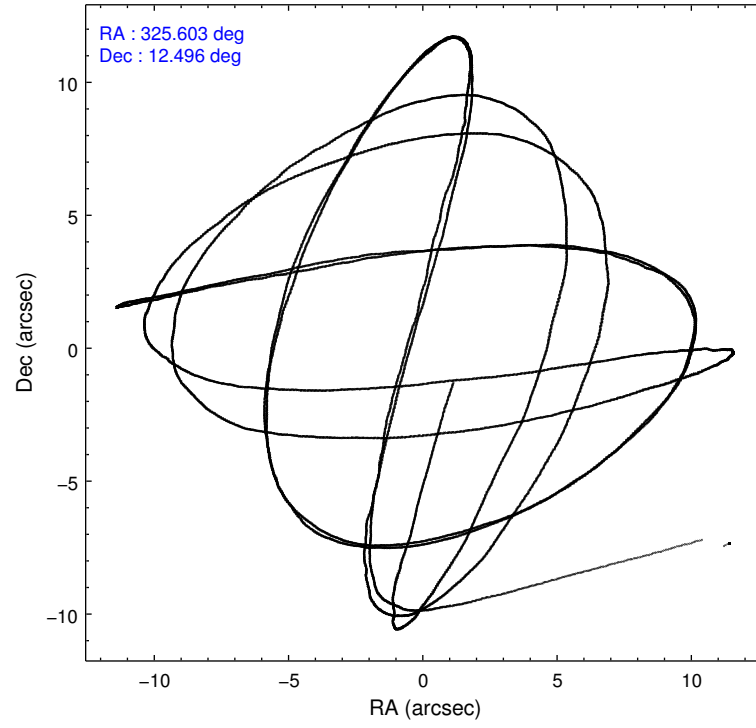
2.1.4 Events

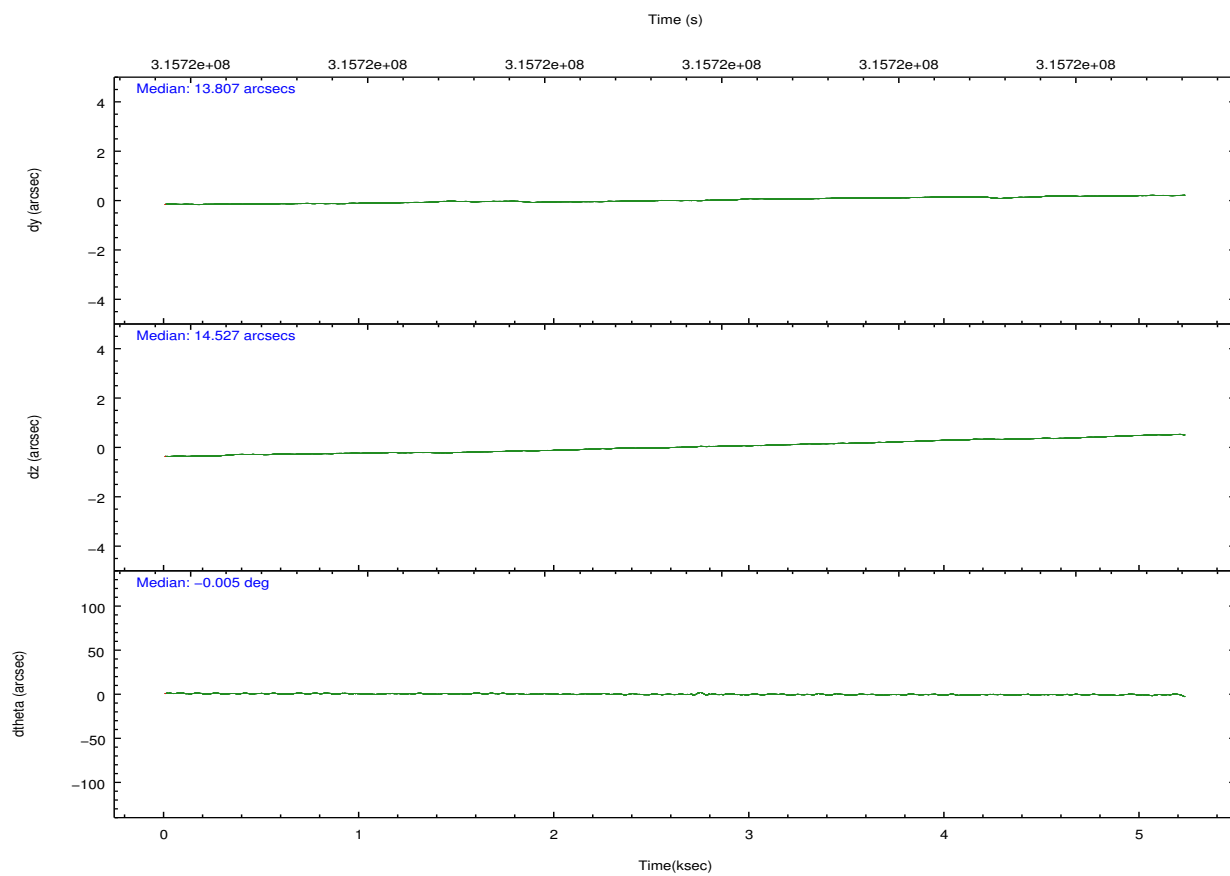
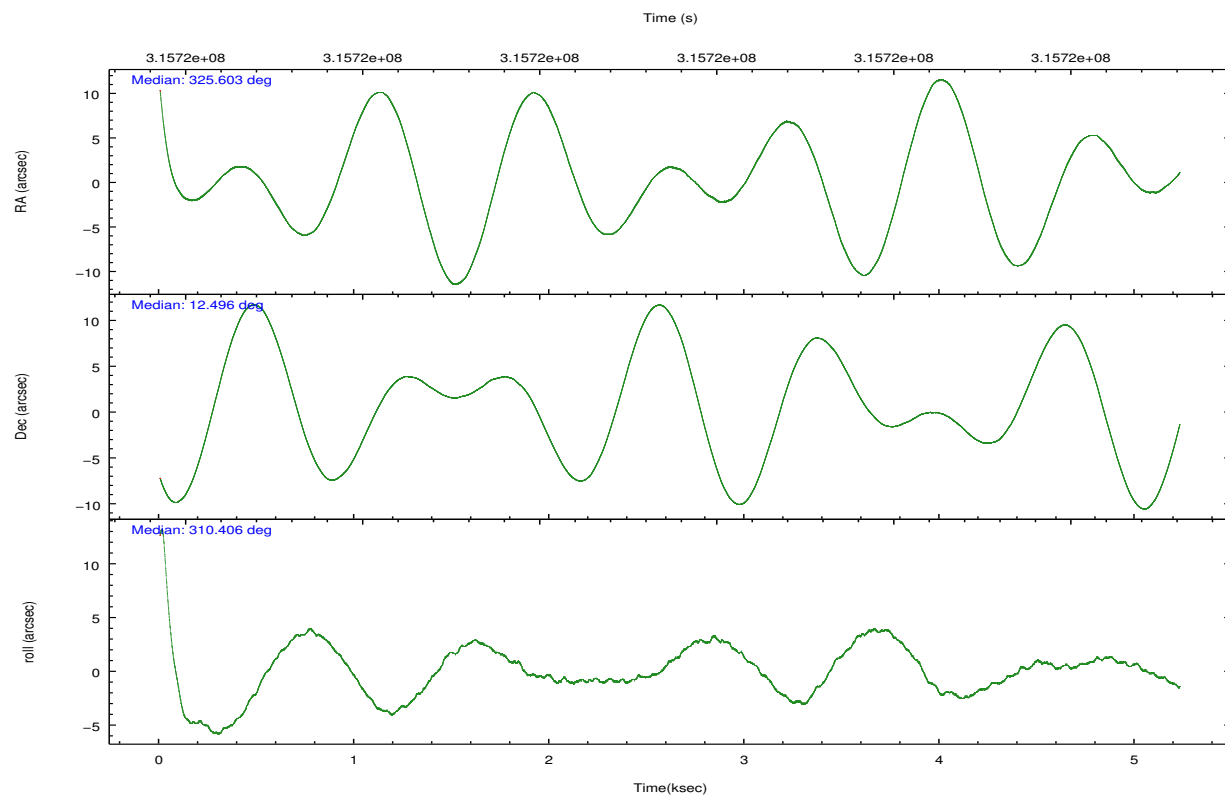
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 44508 | 37990 | 50934 | 40700 | 37321 | 51218 | grade 0 events | 1352 | 1323 | 3696 | 1431 | 1947 | 3421 |
| rejected events | 40866 | 34441 | 23445 | 36743 | 18942 | 38930 | | 3% | 3% | 7% | 3% | 5% | 6% |
| rejected % | 91% | 90% | 46% | 90% | 50% | 76% | grade 1 events | 27 | 20 | 238 | 18 | 49 | 36 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 858 | 734 | 8387 | 885 | 3945 | 2872 |
| | | | | | | | | 1% | 1% | 16% | 2% | 10% | 5% |
| | | | | | | | grade 3 events | 378 | 409 | 1066 | 451 | 1706 | 1354 |
| | | | | | | | | 0% | 1% | 2% | 1% | 4% | 2% |
| | | | | | | | grade 4 events | 414 | 401 | 1027 | 423 | 1720 | 1359 |
| | | | | | | | | 0% | 1% | 2% | 1% | 4% | 2% |
| | | | | | | | grade 5 events | 1099 | 1292 | 3721 | 1335 | 3997 | 2031 |
| | | | | | | | | 2% | 3% | 7% | 3% | 10% | 3% |
| | | | | | | | grade 6 events | 642 | 685 | 13351 | 772 | 9087 | 3320 |
| | | | | | | | | 1% | 1% | 26% | 1% | 24% | 6% |
| | | | | | | | grade 7 events | 39738 | 33126 | 19448 | 35385 | 14870 | 36825 |
| | | | | | | | | 89% | 87% | 38% | 86% | 39% | 71% |

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 | VFAINT | VFAINT | CCD I0 on | N | N |
| Observation mode | POINTING | POINTING | CCD I1 on | N | N |
| [deg] Pointing RA | 325.576967 | 325.6034747468809 | CCD I2 on | O1 | Y |
| [deg] Pointing Dec | 12.504788 | 12.49587171438652 | CCD I3 on | O2 | Y |
| [deg] Pointing Roll | 310.263391 | 310.4143205486035 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | Y | Y |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | Y | Y |
| [mm] SIM translation stage pos | -190.132523 | -190.1425803651734 | CCD S3 on | Y | Y |
| [mm] SIM translation stage offset | 0 | 0.01005778216563158 | CCD S4 on | Y | Y |
| [s] Observation start time (MET) | 315718348.184000 | 315717311.39931 | CCD S5 on | N | N |
| Observation start date | 2008-01-03T03:31:23 | 2008-01-03T03:15:11 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 315723348.184000 | 315724660.13717 | On-chip summing requested | N | N |
| Observation end date | 2008-01-03T04:54:43 | 2008-01-03T05:17:40 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



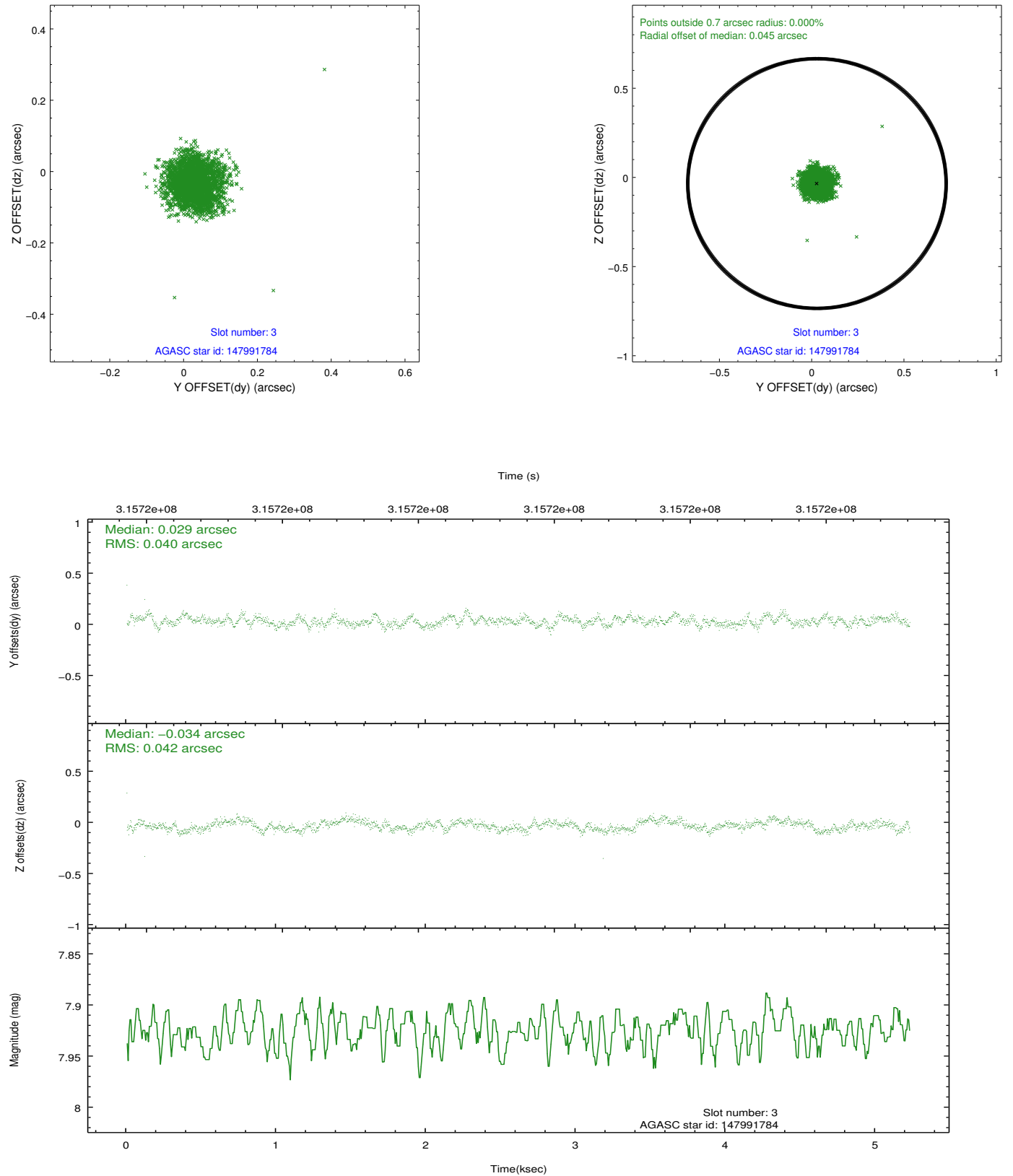


Slot Statistics

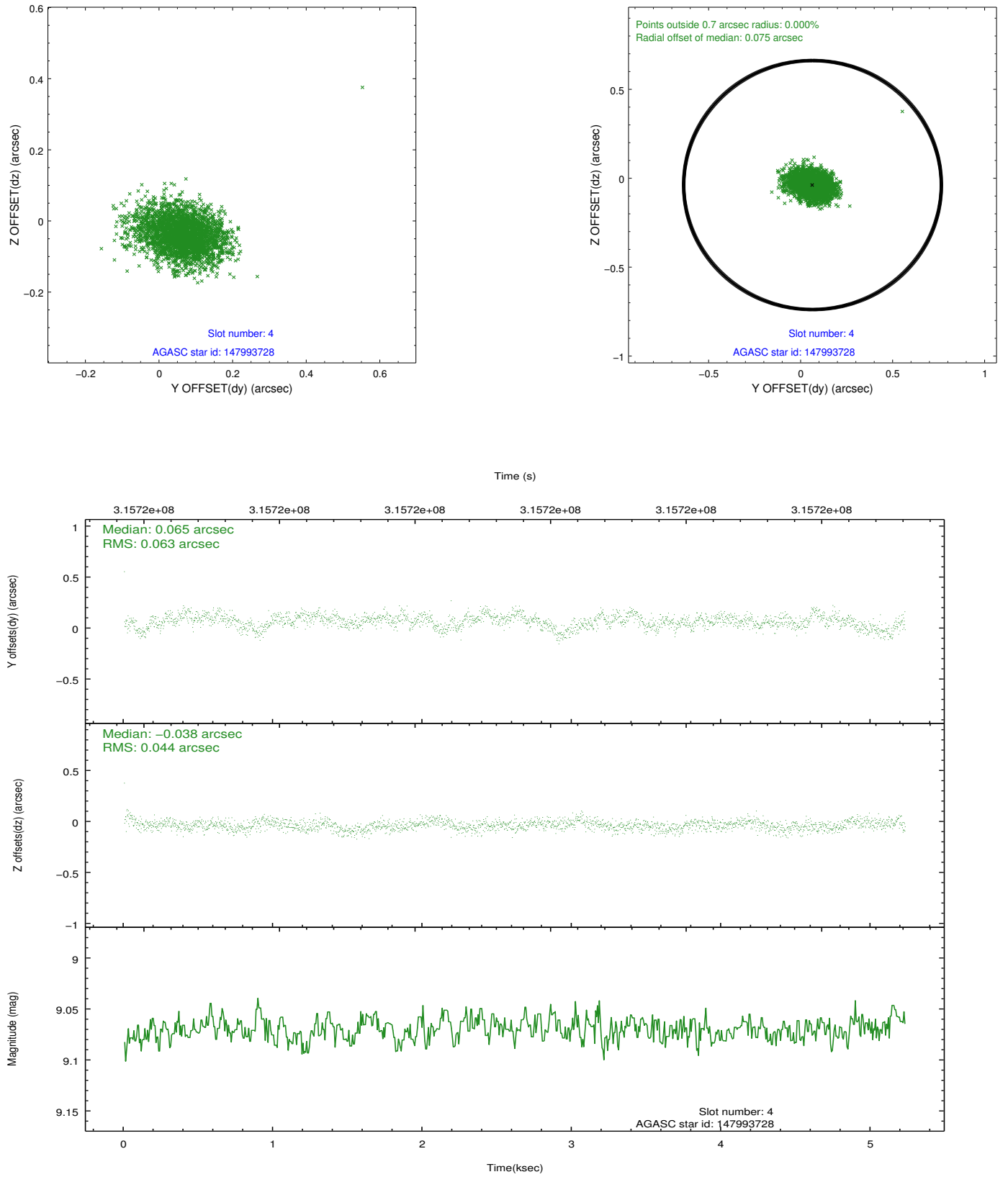
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.09 | 1276 | -0.062 | -0.038 | 0.011 | 0.018 | 0.000000 | 0.000000 | -766.81 | -1735.92 |
| 1 | FID | ACIS-S-4 | 7.19 | 1276 | 0.186 | 0.040 | 0.010 | 0.016 | 0.000000 | 0.000000 | 2146.17 | 171.47 |
| 2 | FID | ACIS-S-5 | 7.22 | 1276 | -0.154 | 0.007 | 0.010 | 0.016 | 0.000000 | 0.000000 | -1818.28 | 166.39 |
| 3 | GUIDE | 147991784 | 7.92 | 2550 | 0.029 | -0.034 | 0.061 | 0.094 | 325.826731 | 12.518355 | 530.56 | 702.24 |
| 4 | GUIDE | 147993728 | 9.07 | 2547 | 0.065 | -0.038 | 0.080 | 0.133 | 325.561791 | 11.853388 | 1755.50 | -1555.46 |
| 5 | GUIDE | 147995656 | 8.71 | 2551 | 0.022 | -0.021 | 0.070 | 0.120 | 325.586526 | 11.818453 | 1908.30 | -1571.22 |
| 6 | GUIDE | 147864216 | 9.17 | 2549 | 0.018 | -0.008 | 0.096 | 0.152 | 325.021145 | 12.092394 | -132.02 | -2451.64 |
| 7 | GUIDE | 148382064 | 7.71 | 2550 | -0.127 | 0.106 | 0.063 | 0.101 | 325.510881 | 13.289123 | -2304.61 | 1647.64 |

2.4 Star Slots

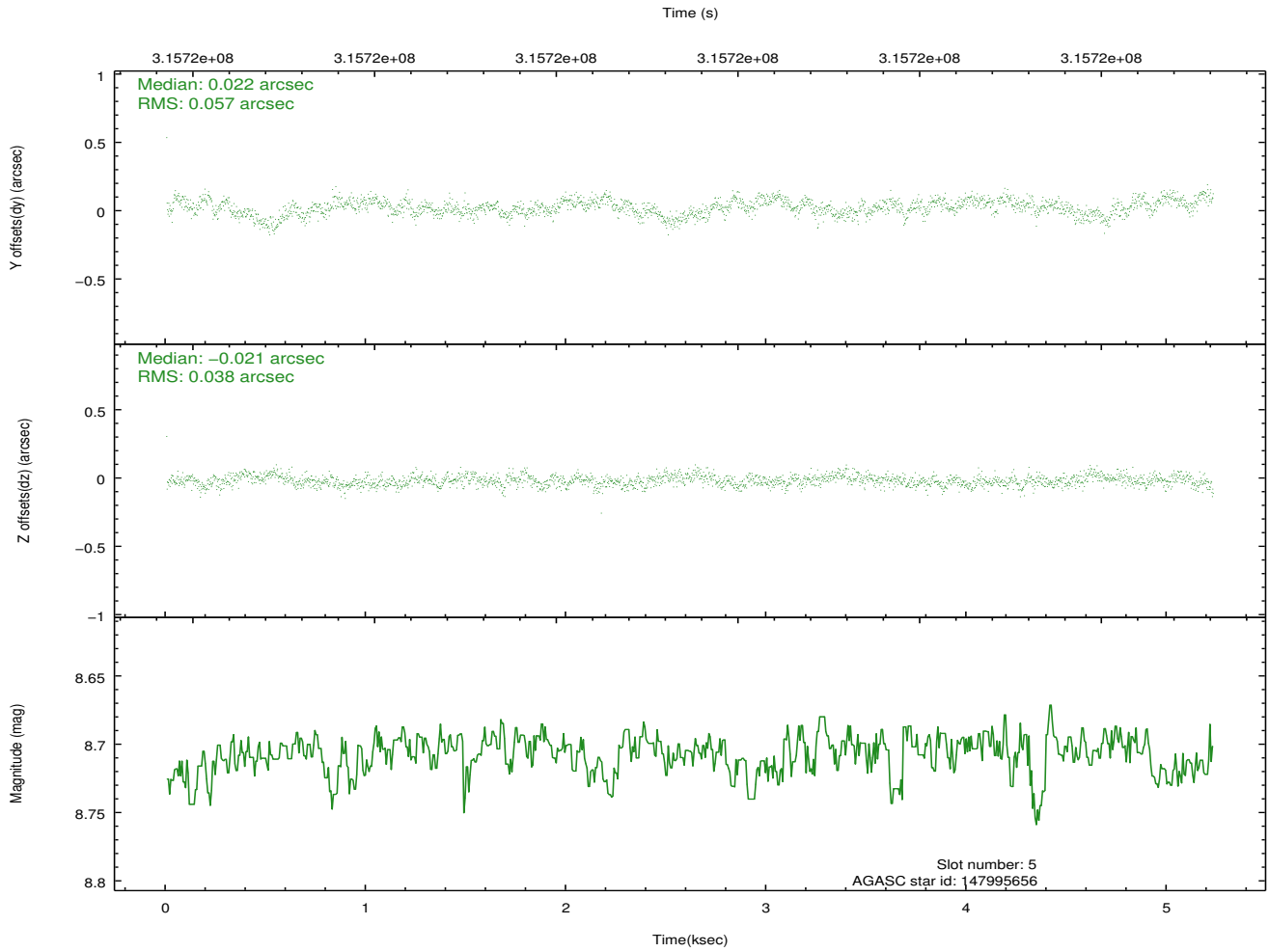
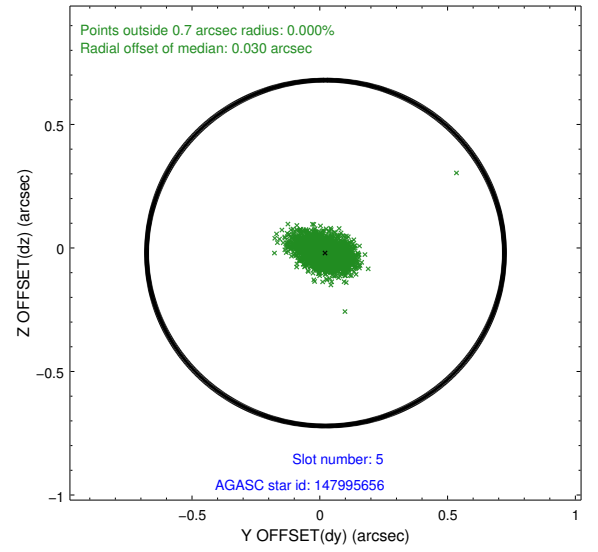
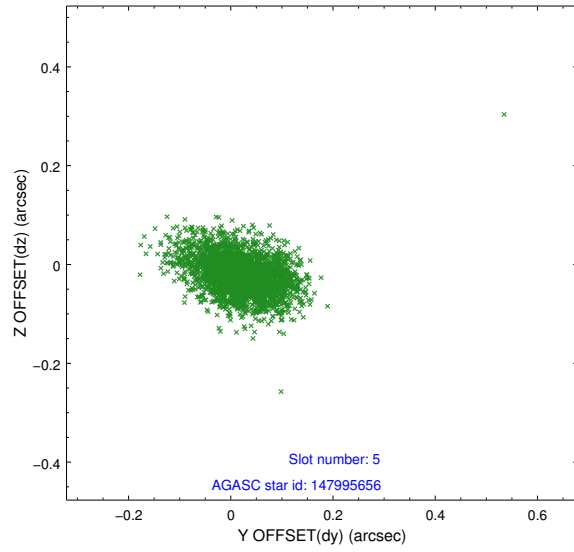
2.4.1 Slot 3



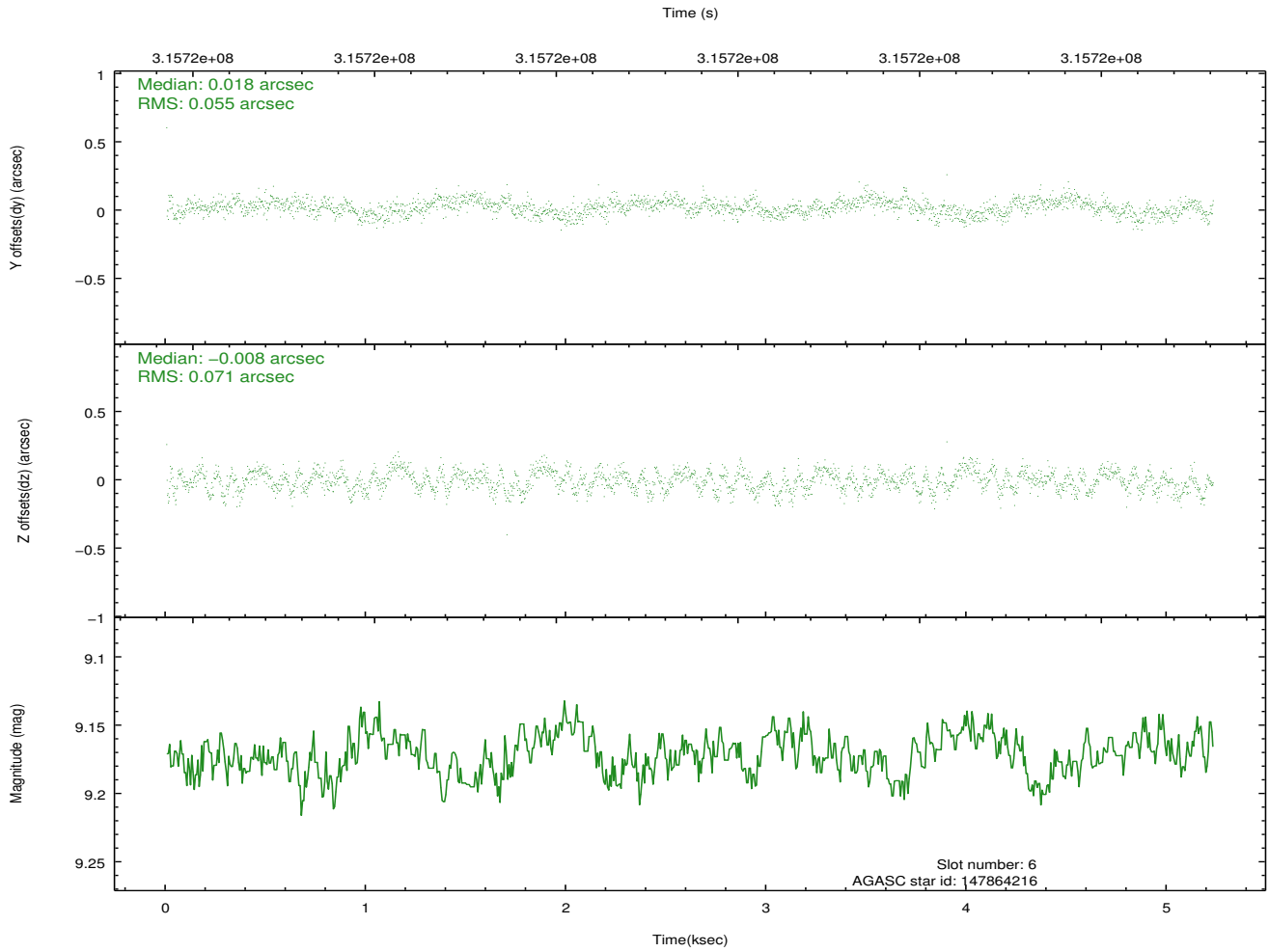
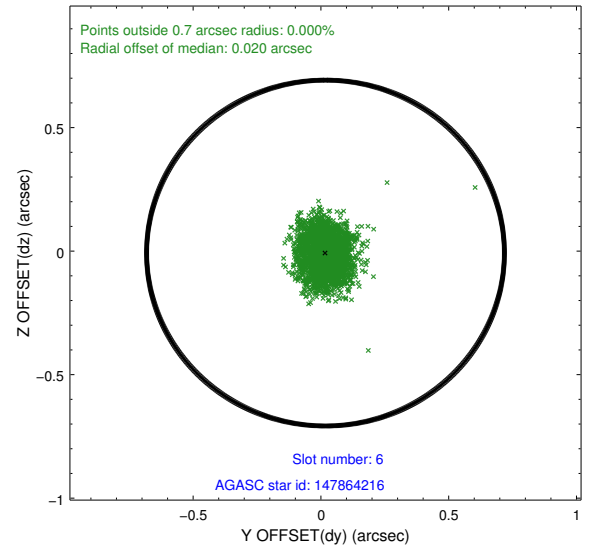
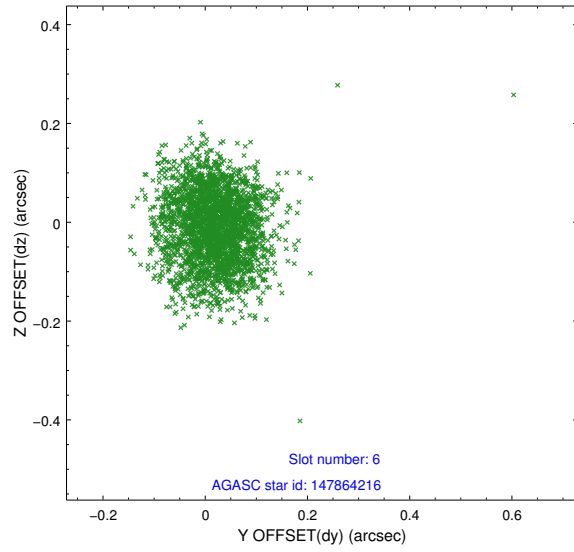
2.4.2 Slot 4



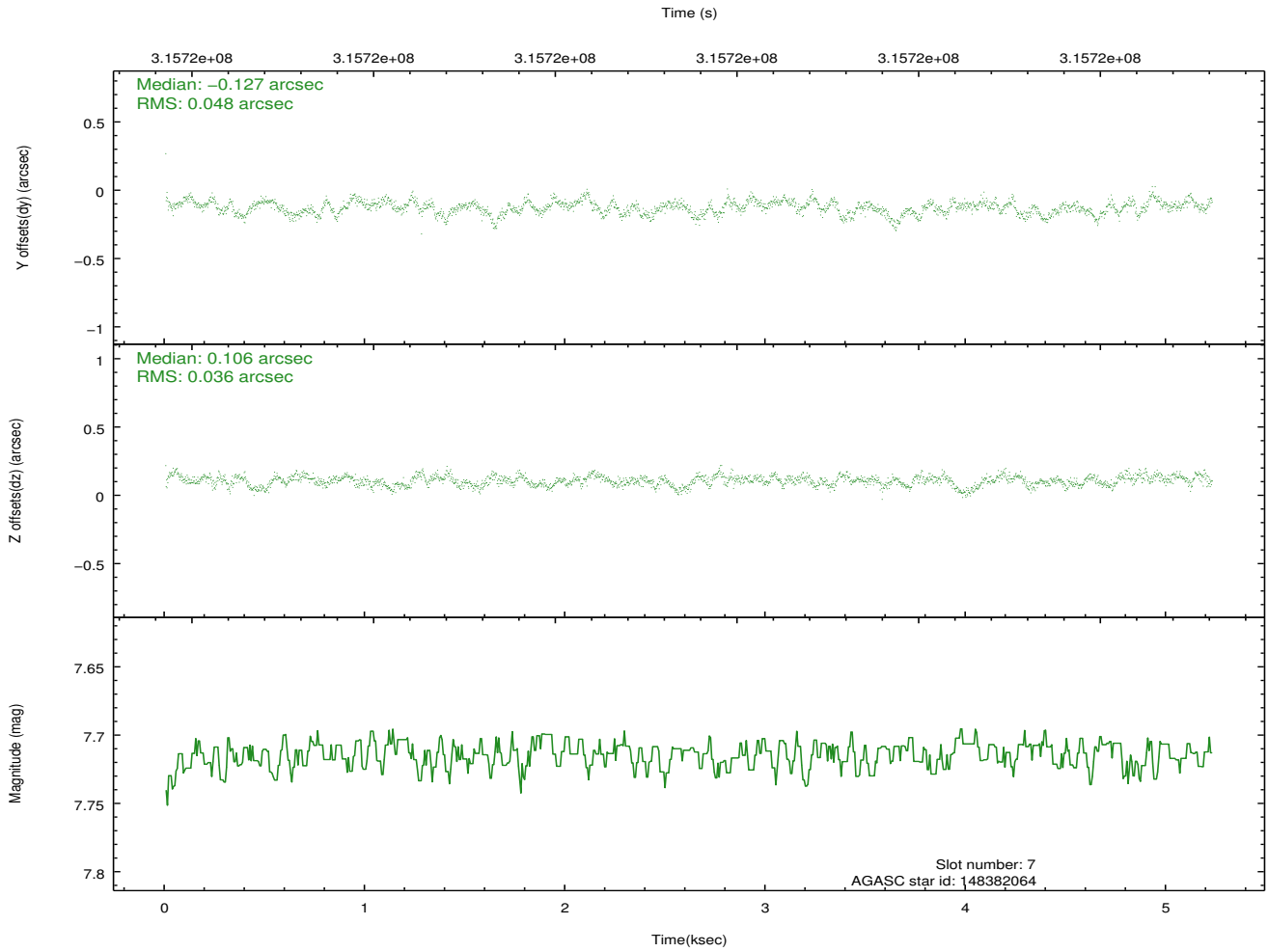
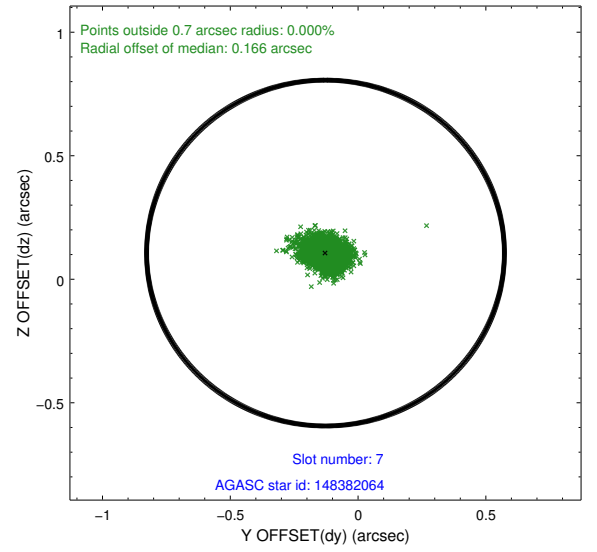
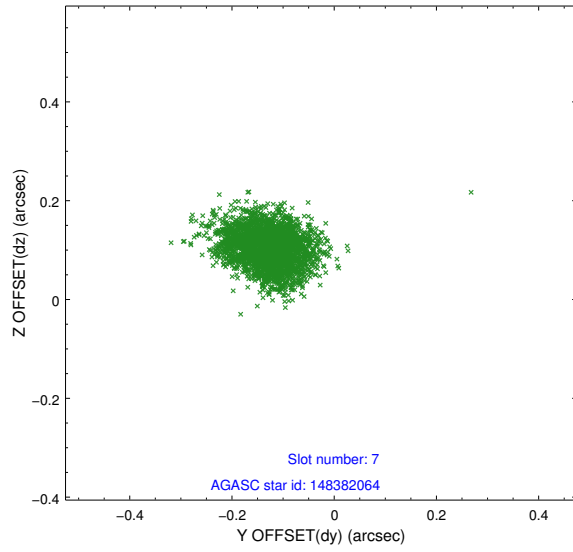
2.4.3 Slot 5



2.4.4 Slot 6

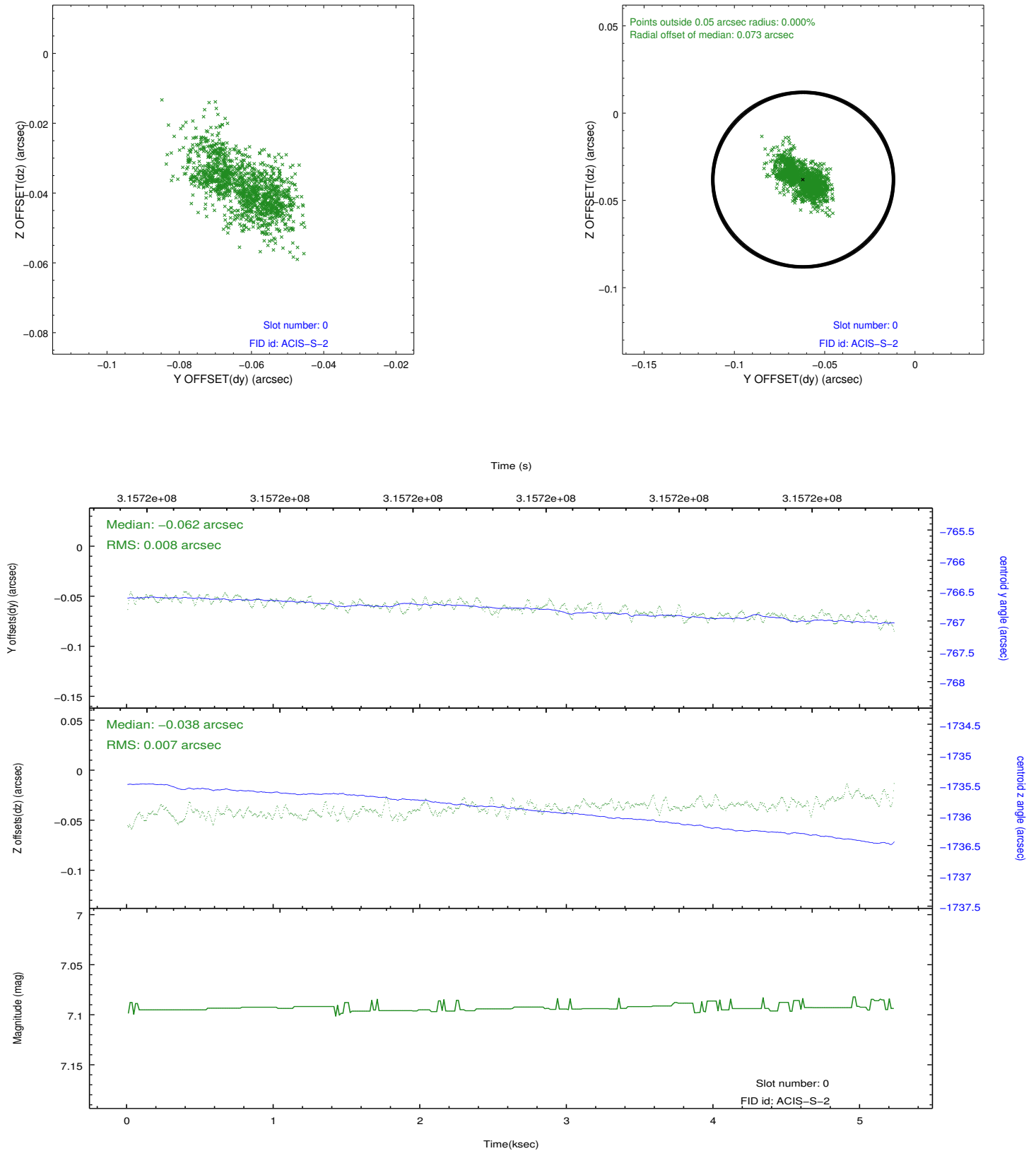


2.4.5 Slot 7

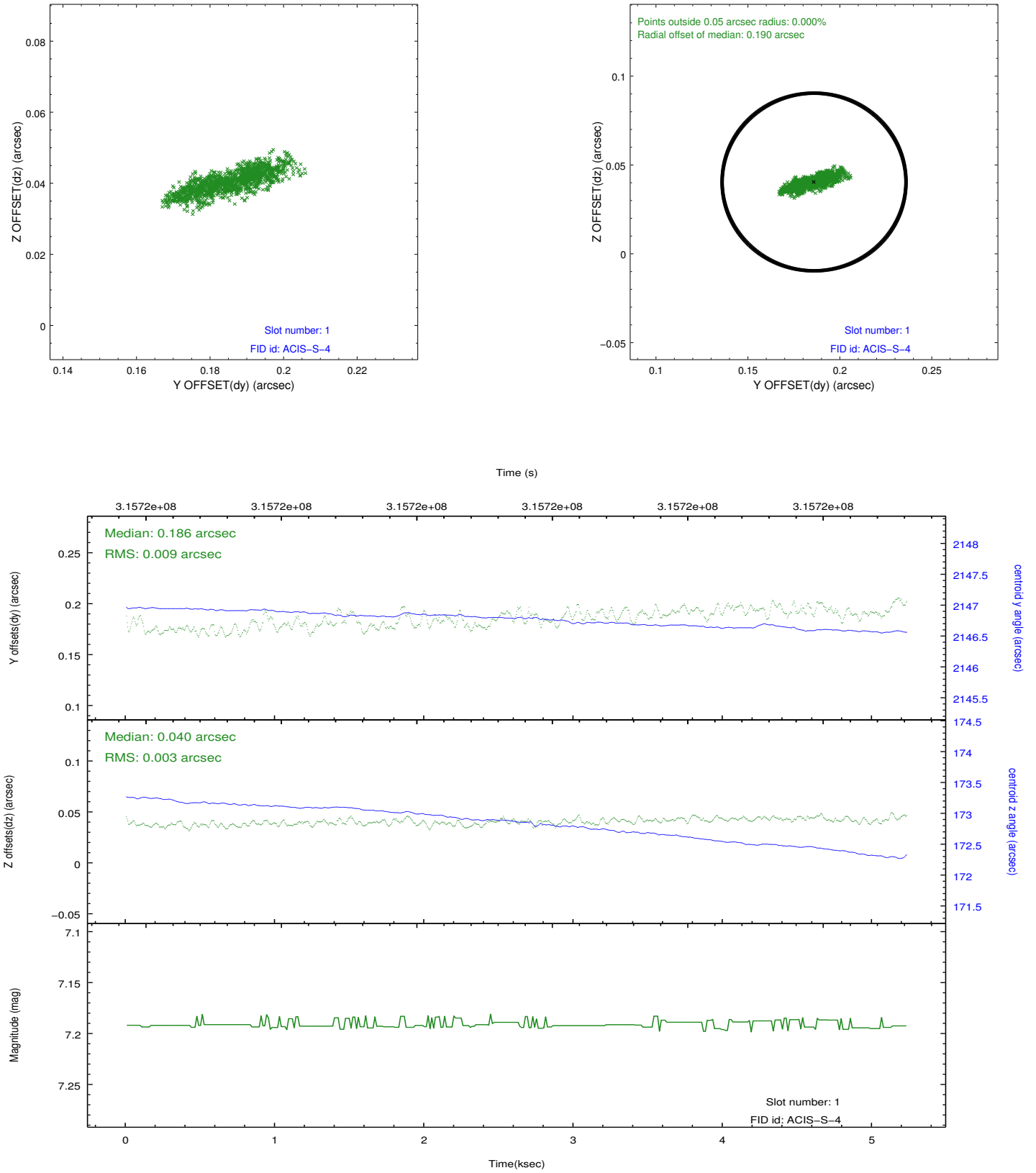


2.5 FID Slots

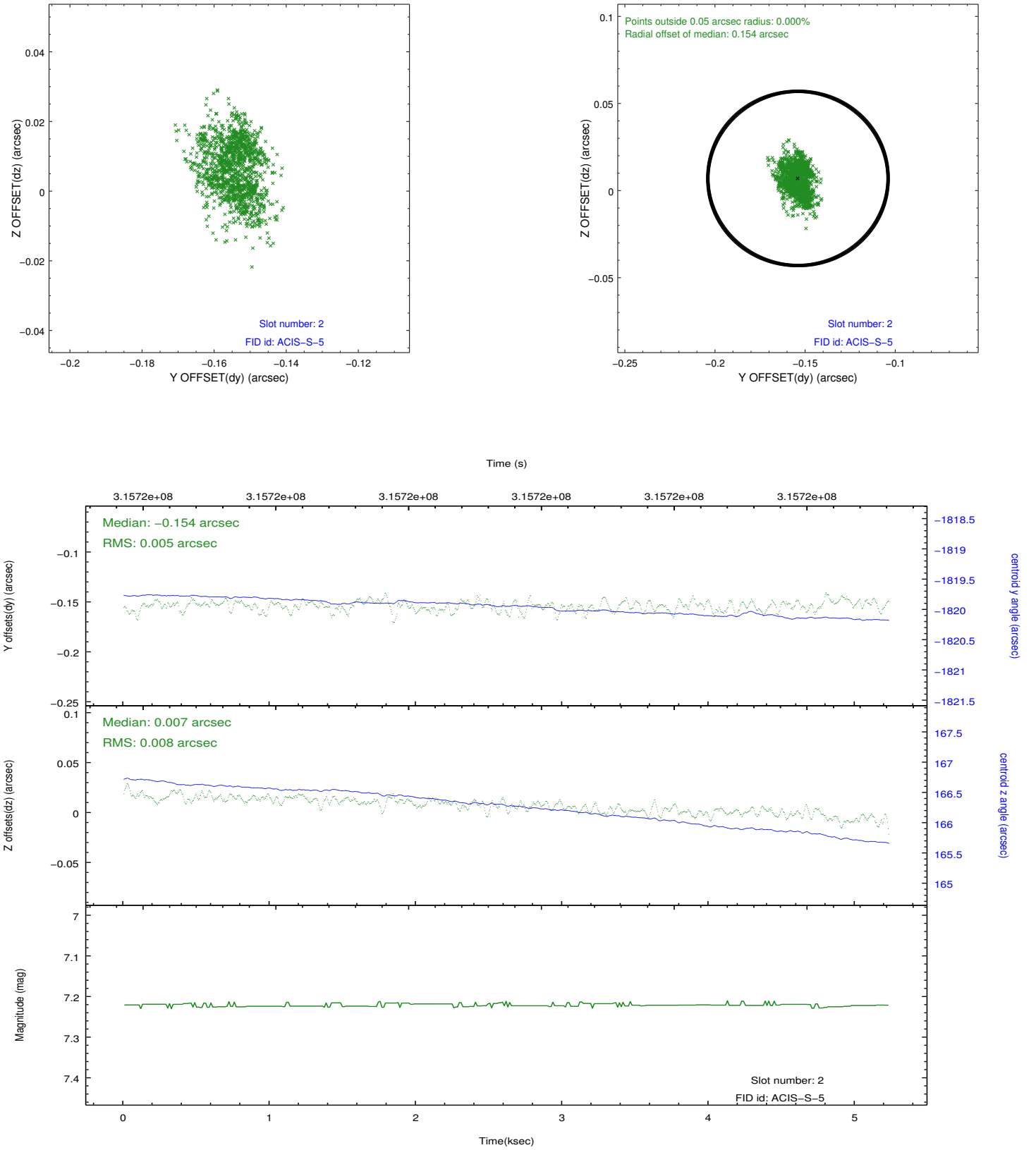
2.5.1 Slot 0



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) | 2012.05.09 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 5.03999998 |

A.2 Comments