

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 3978 - L2 Version 4
Chandra X-Ray Center

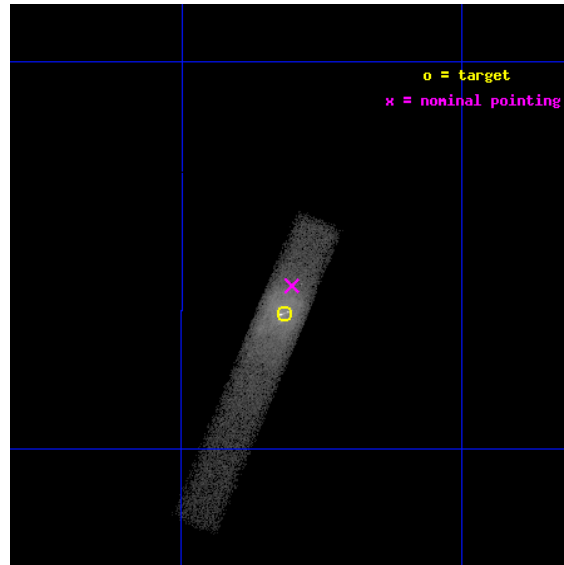
L2 Processing Date : Oct 24 2012

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1 Front

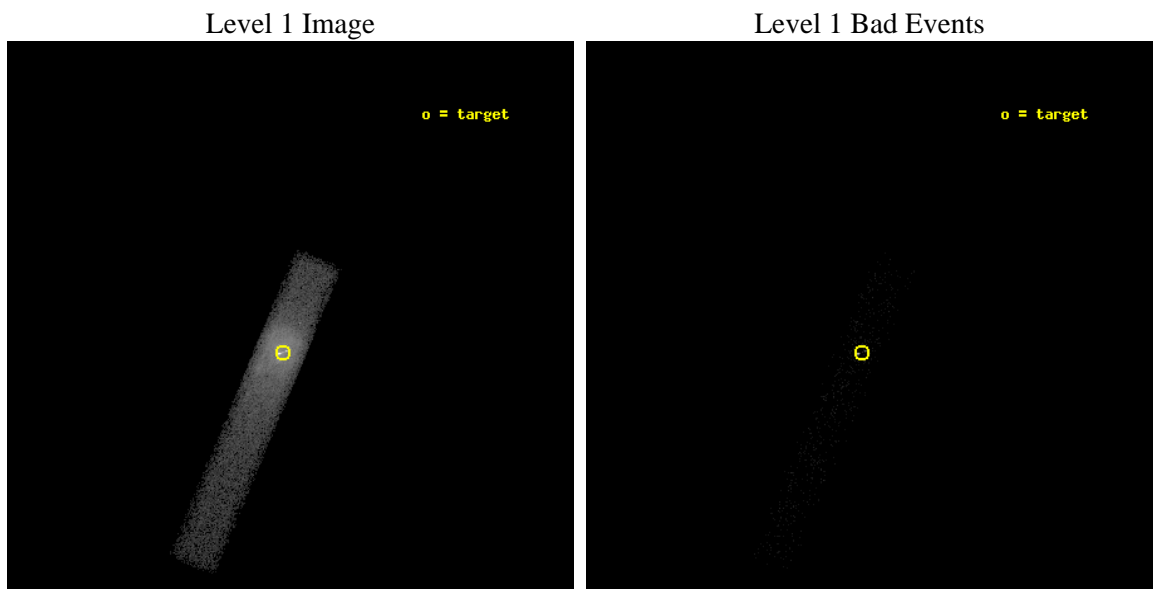
| | | |
|-----------|--|---|
| seq_num | 700657 | Sequence number |
| obs_id | 3978 | Observation id |
| title | X-RAY VARIABILITY IN THE JET AND CORE OF M87 | Proposal title |
| observer | Dr. Daniel Harris | Principal investigator |
| object | M87 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 187.704167 | Observer's specified target RA [deg] |
| dec_targ | 12.391667 | Observer's specified target Dec [deg] |
| ra_nom | 187.70080803348 | Nominal RA [deg] |
| dec_nom | 12.403547238419 | Nominal Dec [deg] |
| roll_nom | 112.75048059023 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 5349.6000796854 | Sum of GTIs [s] |
| liveltime | 4851.8048972297 | Livetime [s] |
| ontime7 | 5349.6000796854 | Sum of GTIs [s] |
| l2events | 60242 | Number of level 2 events |



2 OBI

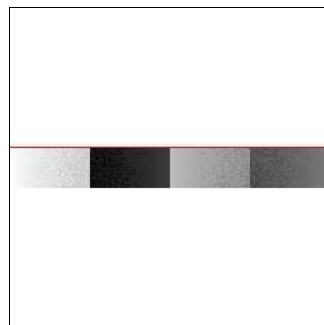
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 5000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 5349.6000796854 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime7 | 5349.6000796854 | Sum of GTIs [s] |
| date | 2012-10-24T12:59:22 | Date and time of file creation | l1events | 67218 | Number of level 1 events |
| revision | 4 | Processing version of data | | | |

2.1.4 Events

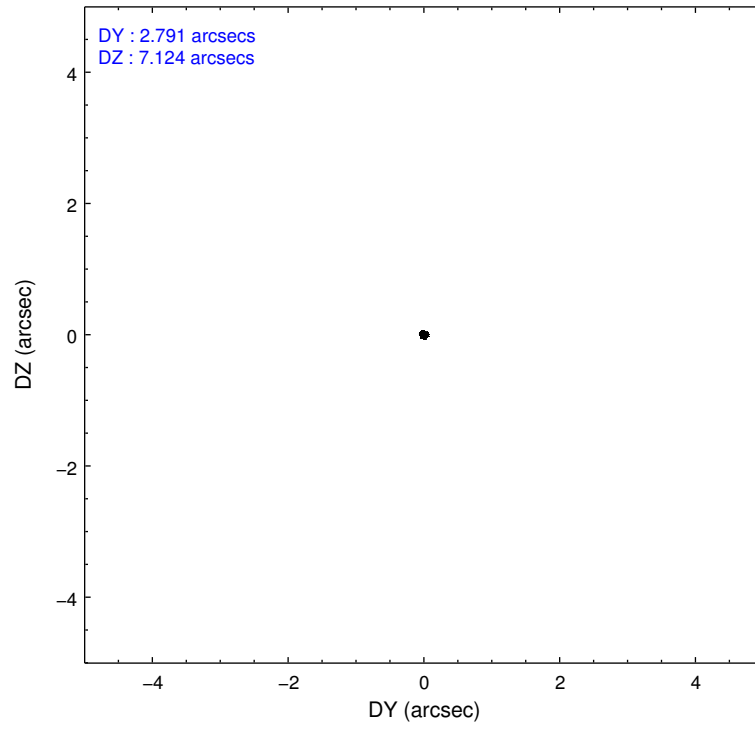
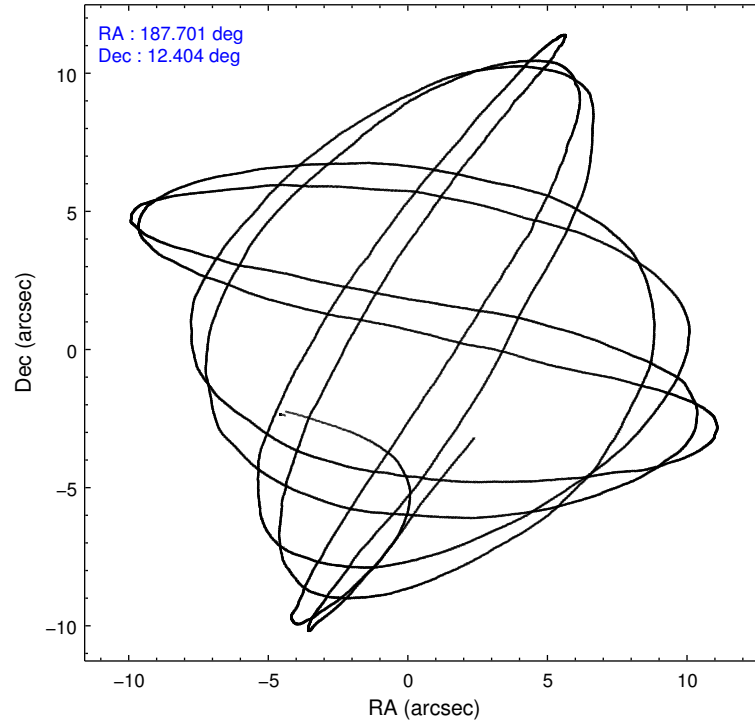
| | |
|-----------------|--------------|
| | ccd 7 |
| level 1 events | 67218 |
| rejected events | 6265 |
| rejected % | 9% |

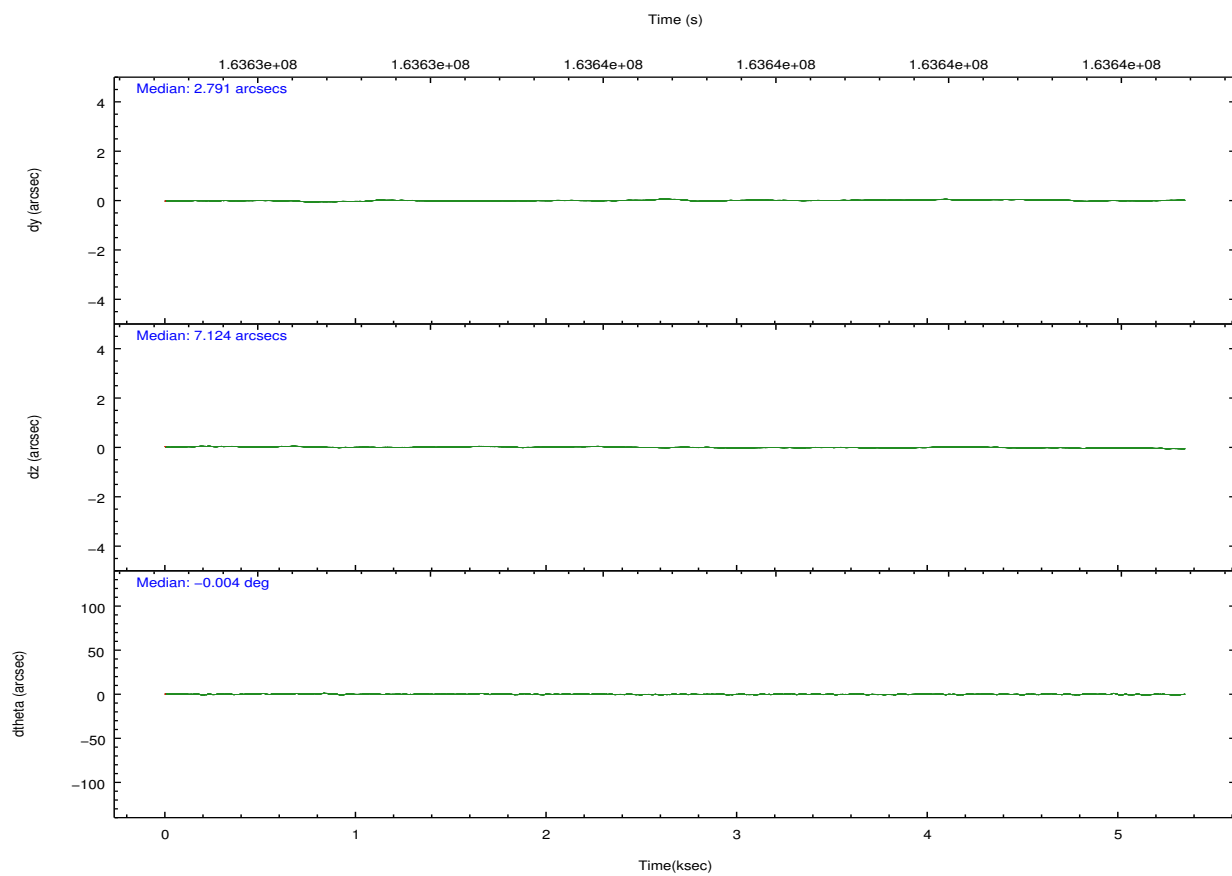
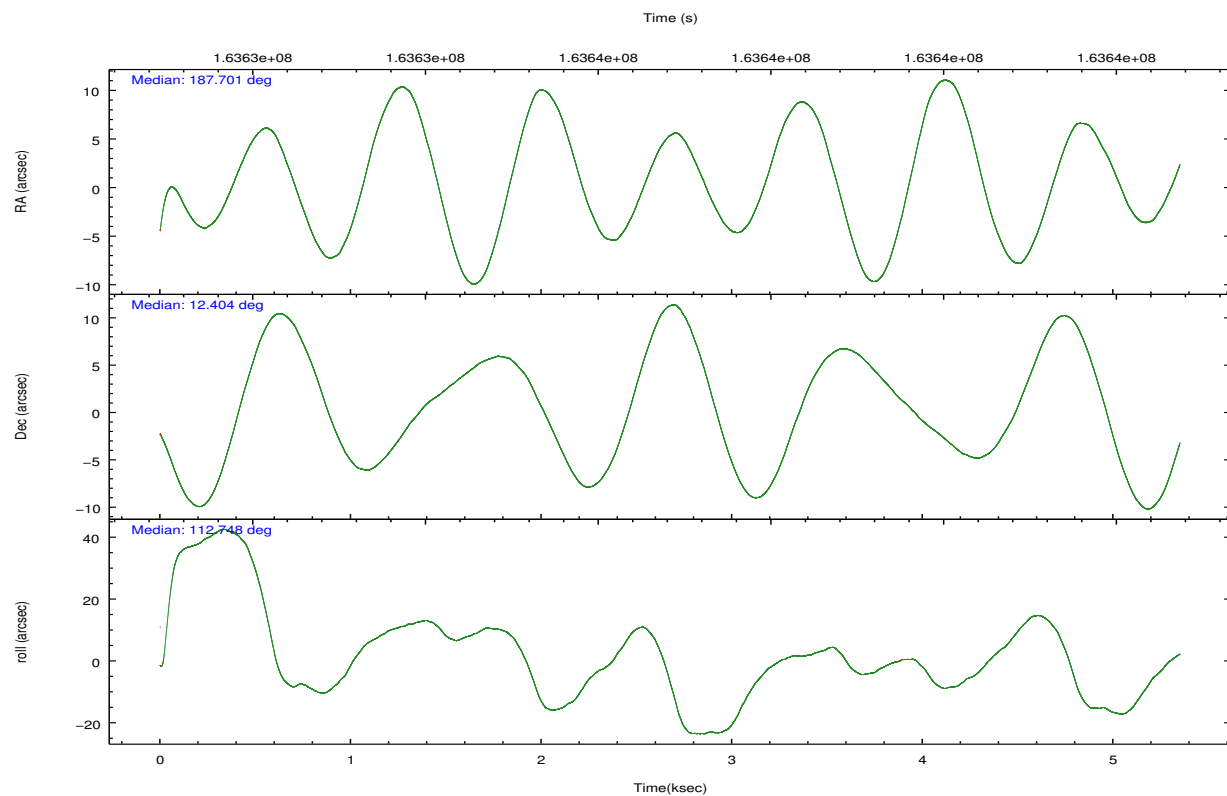
| | |
|----------------|--------------|
| | ccd 7 |
| grade 0 events | 20935 |
| | 31% |
| grade 1 events | 183 |
| | 0% |
| grade 2 events | 15990 |
| | 23% |
| grade 3 events | 7402 |
| | 11% |
| grade 4 events | 7244 |
| | 10% |
| grade 5 events | 1189 |
| | 1% |
| grade 6 events | 11152 |
| | 16% |
| grade 7 events | 3123 |
| | 4% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-7 | ACIS-7 | 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 | 187.723306 | 187.7008080334809 | Subarray requested | CUSTOM | 1/8 |
| [deg] Pointing Dec | 12.387528 | 12.40354723841908 | Subarray start row | 449 | 449 |
| [deg] Pointing Roll | 112.589138 | 112.750480590232 | Subarray row count | 128 | 128 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | Alternating exposures requested | N | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | [s] Primary exposure time | 0.000000 | 0.4 |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 163633089.184000 | 163632035.15084 | | | |
| Observation start date | 2003-03-09T21:37:05 | 2003-03-09T21:20:35 | | | |
| [s] Observation end time (MET) | 163638089.184000 | 163638623.85111 | | | |
| Observation end date | 2003-03-09T23:00:25 | 2003-03-09T23:10:23 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



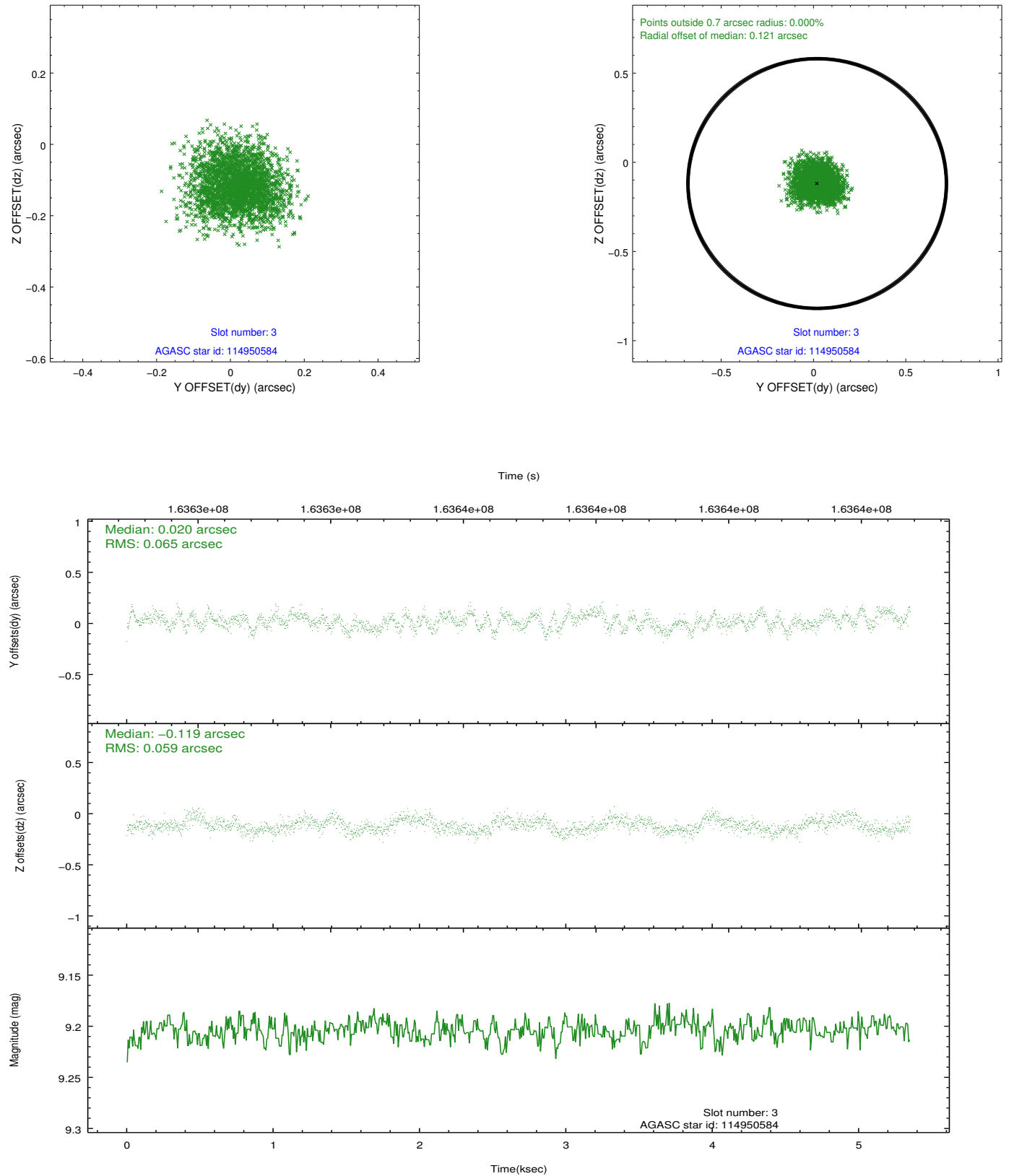


Slot Statistics

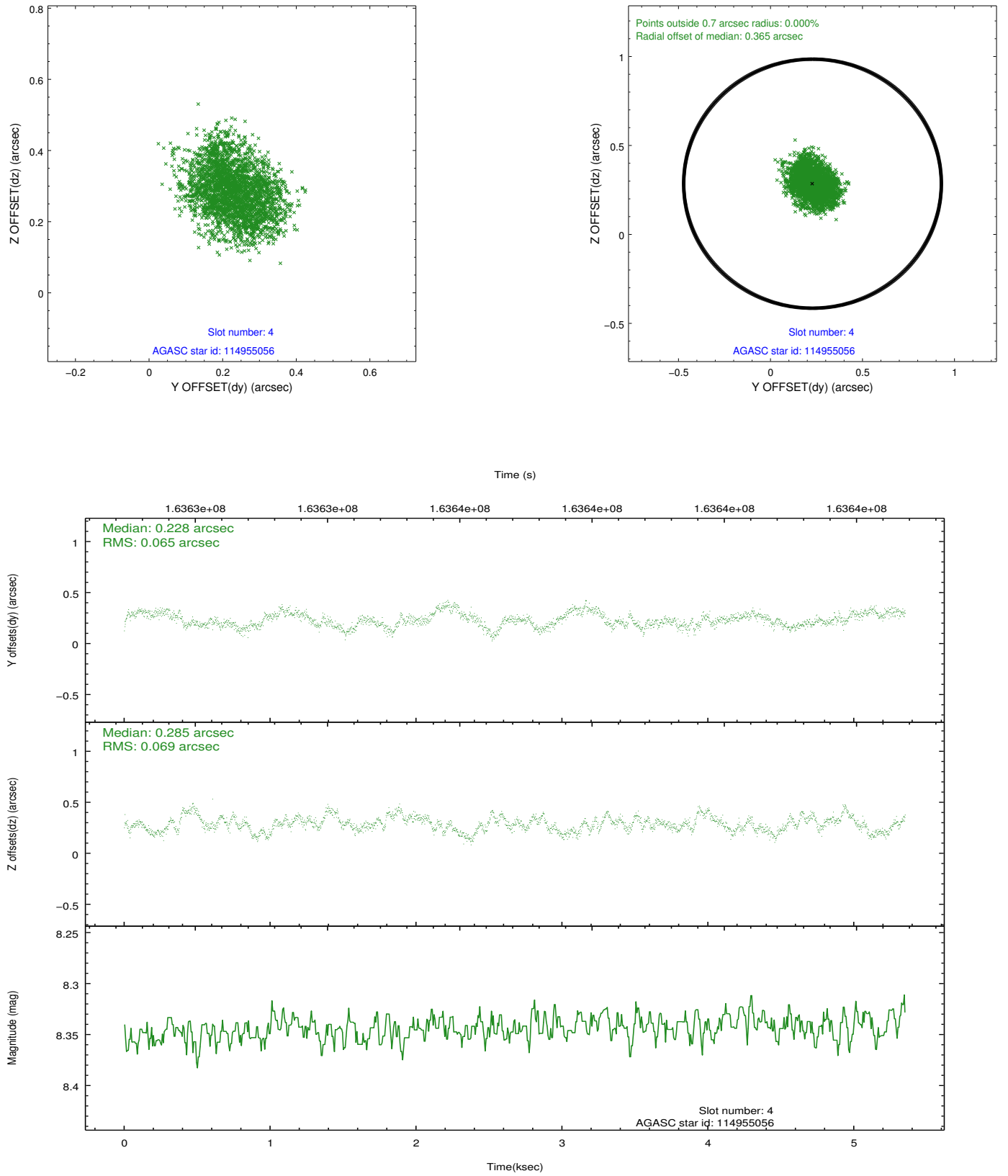
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|-------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 1306 | -0.025 | 0.000 | 0.007 | 0.011 | 0.000000 | 0.000000 | -755.44 | -1728.30 |
| 1 | FID | ACIS-S-4 | 7.20 | 1306 | -0.004 | 0.012 | 0.006 | 0.010 | 0.000000 | 0.000000 | 2157.33 | 179.05 |
| 2 | FID | ACIS-S-5 | 7.24 | 1305 | -0.003 | -0.003 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1806.82 | 173.96 |
| 3 | GUIDE | 114950584 | 9.20 | 2611 | 0.020 | -0.119 | 0.094 | 0.149 | 187.487323 | 11.827248 | -1542.26 | 1542.01 |
| 4 | GUIDE | 114955056 | 8.34 | 2609 | 0.228 | 0.285 | 0.105 | 0.158 | 187.914001 | 12.127854 | -1120.70 | -260.14 |
| 5 | GUIDE | 114956608 | 9.67 | 2608 | 0.041 | -0.052 | 0.129 | 0.204 | 187.452443 | 11.725979 | -1831.87 | 1795.96 |
| 6 | GUIDE | 114952792 | 9.51 | 2600 | -0.257 | 0.168 | 0.157 | 0.246 | 187.070263 | 12.344747 | 741.84 | 2179.38 |
| 7 | BAD | 115349744 | 10.31 | 2507 | -0.019 | -0.286 | 0.357 | 0.485 | 186.878186 | 12.752529 | 2357.75 | 2234.29 |

2.4 Star Slots

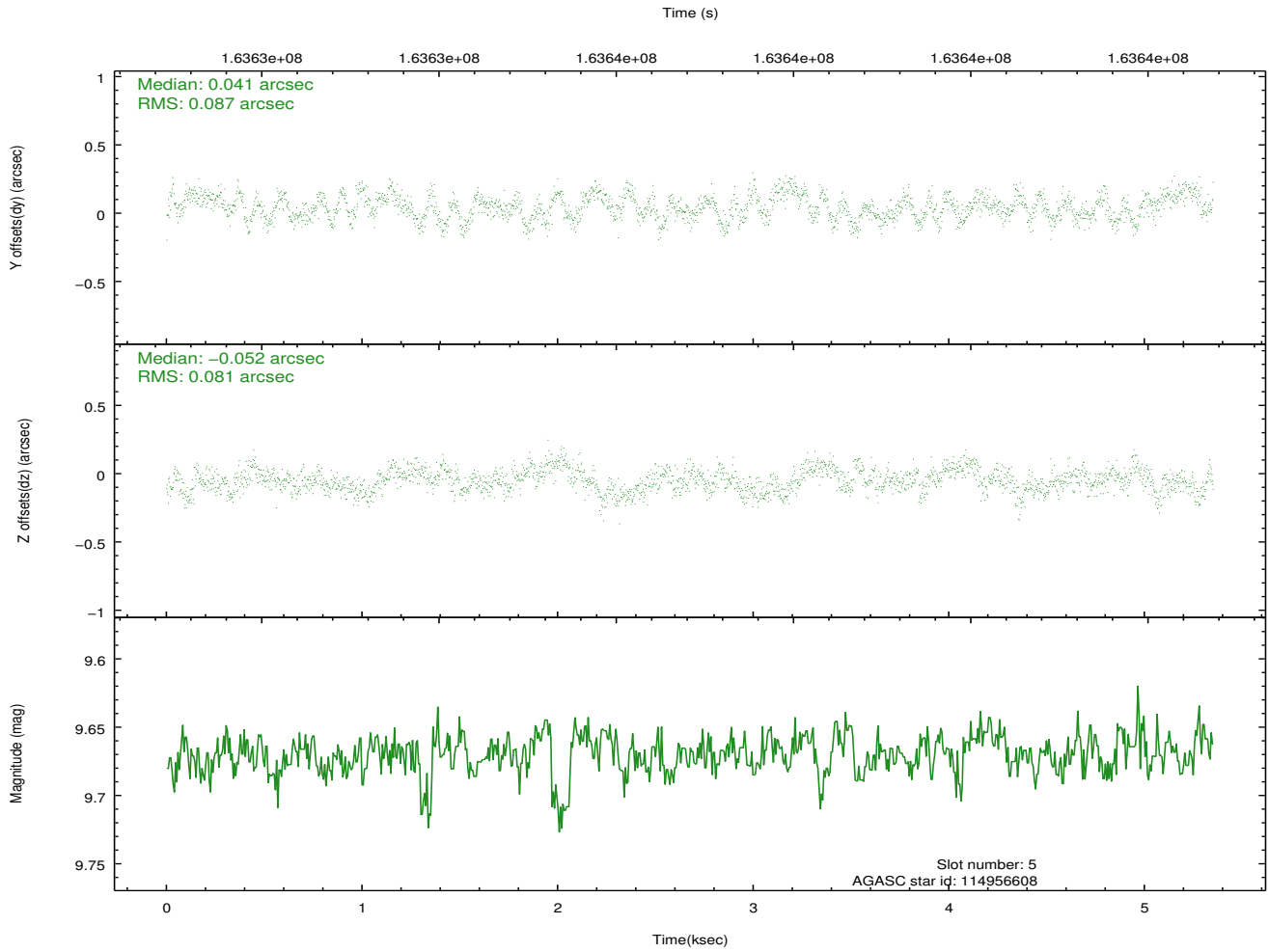
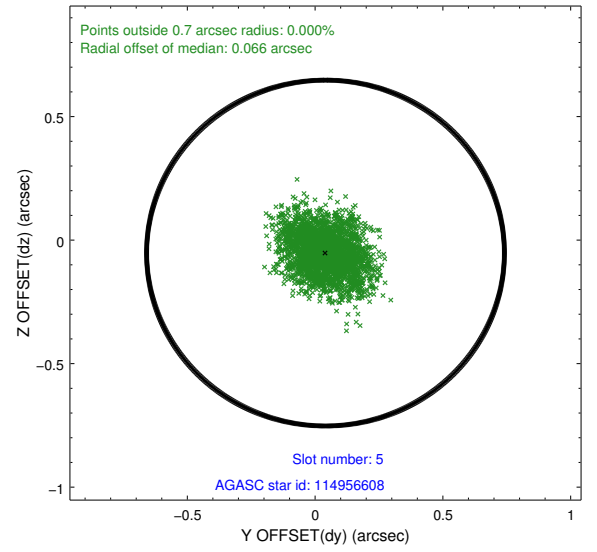
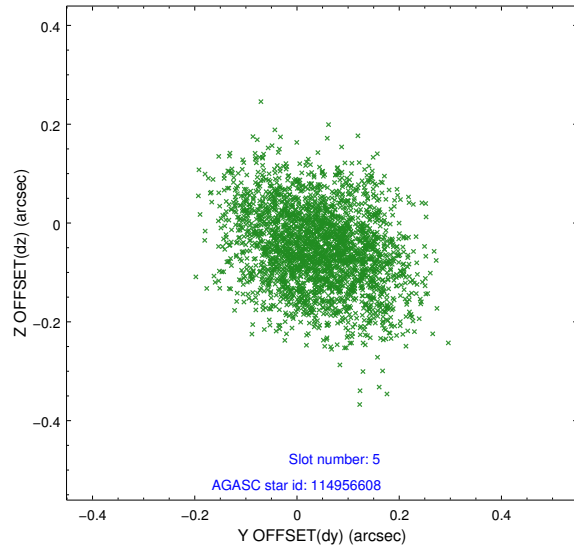
2.4.1 Slot 3



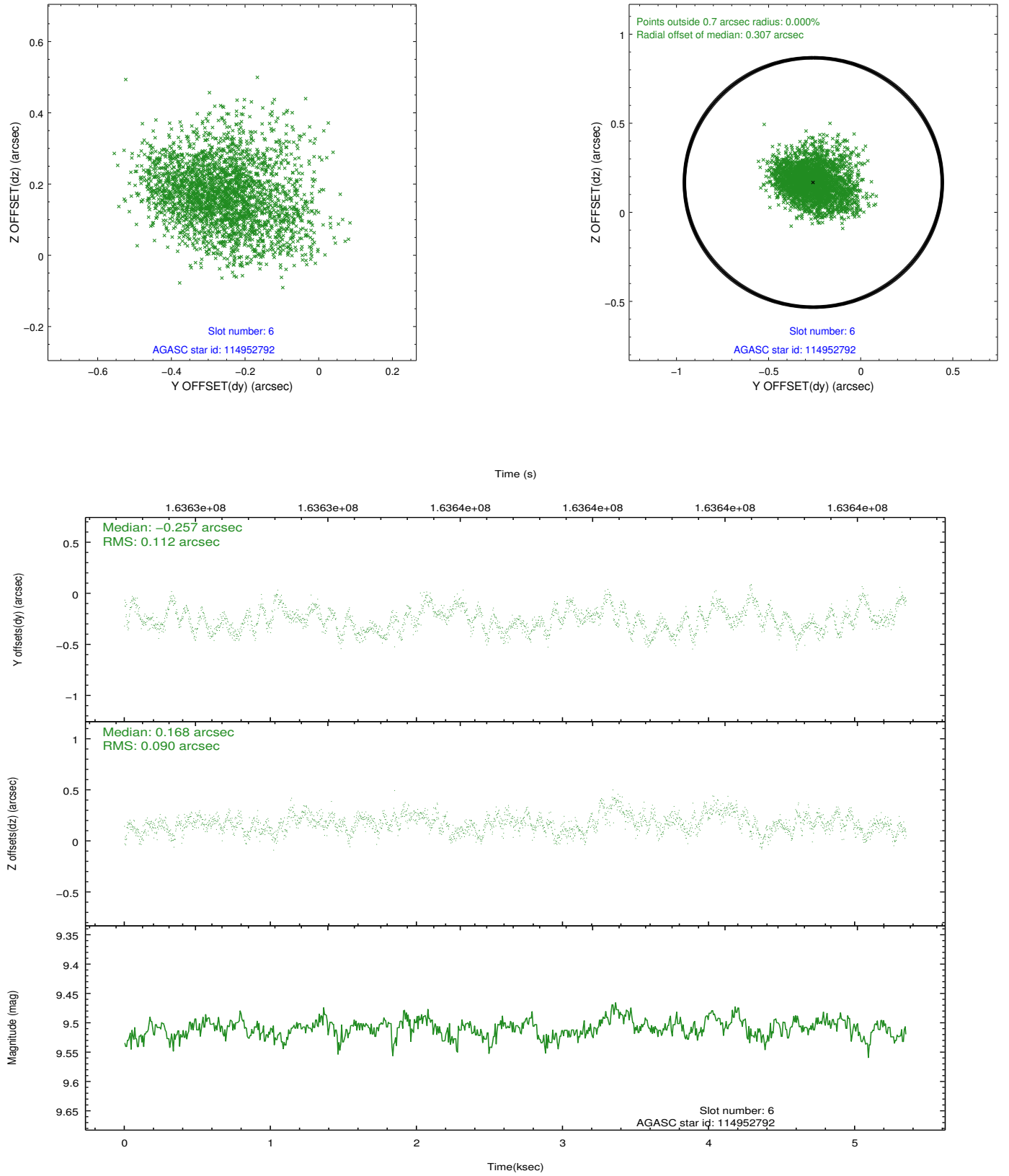
2.4.2 Slot 4



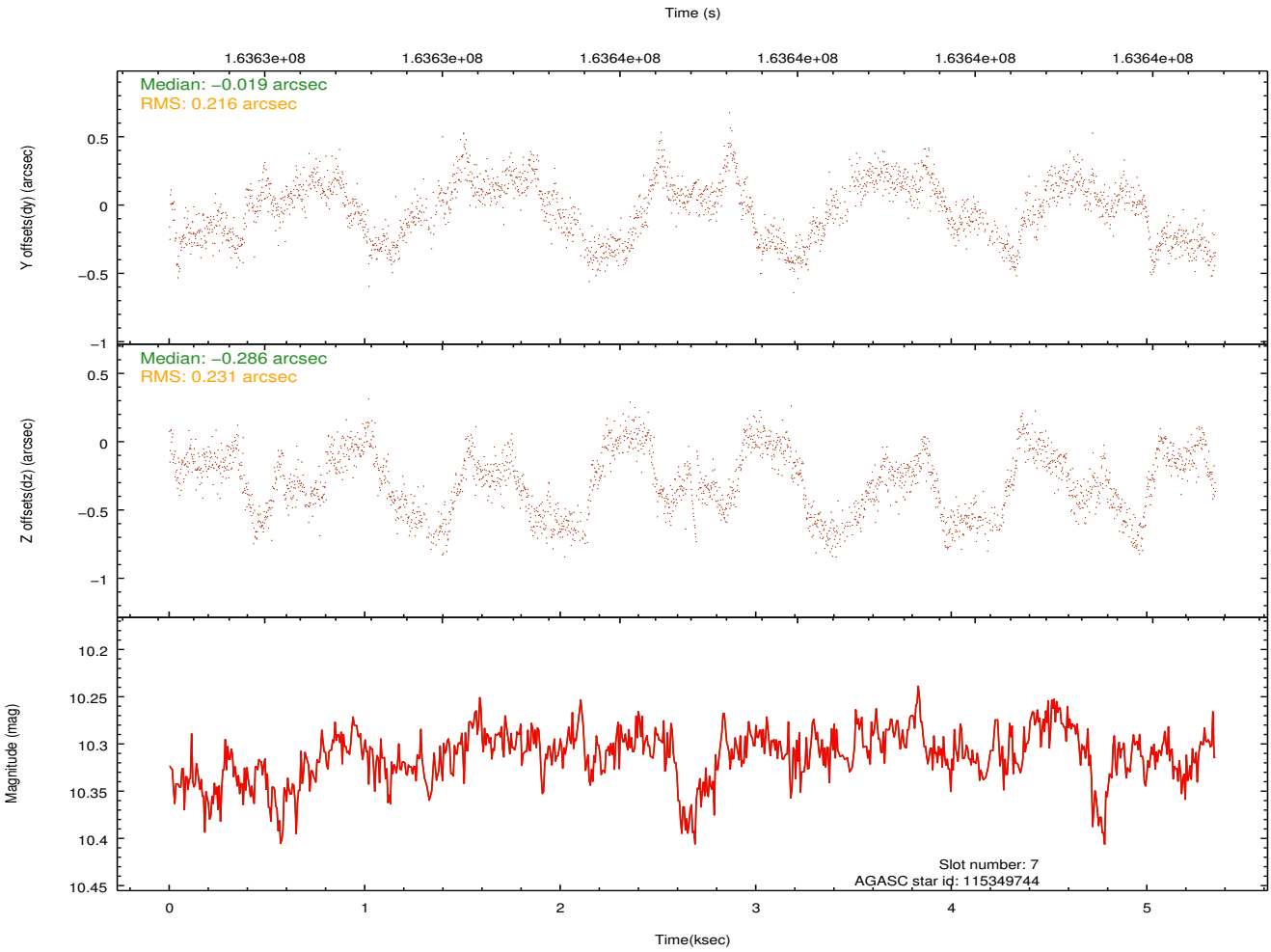
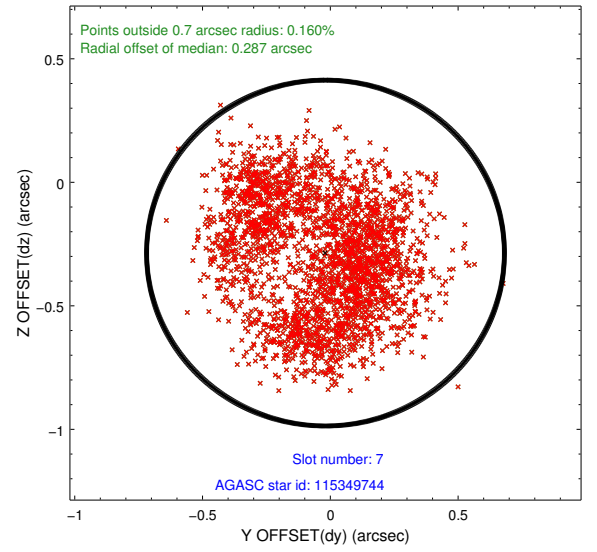
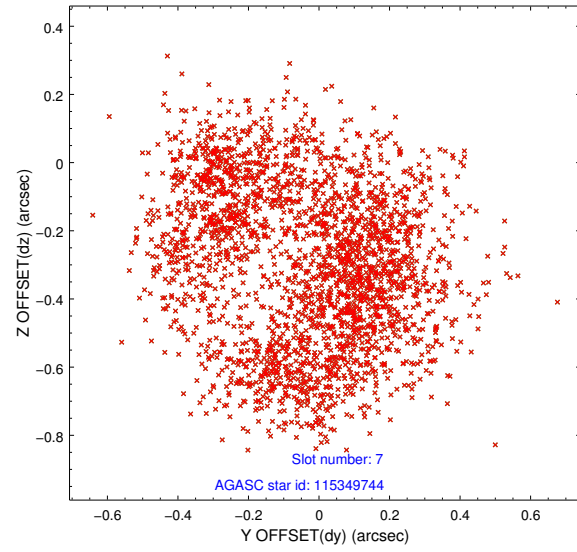
2.4.3 Slot 5



2.4.4 Slot 6

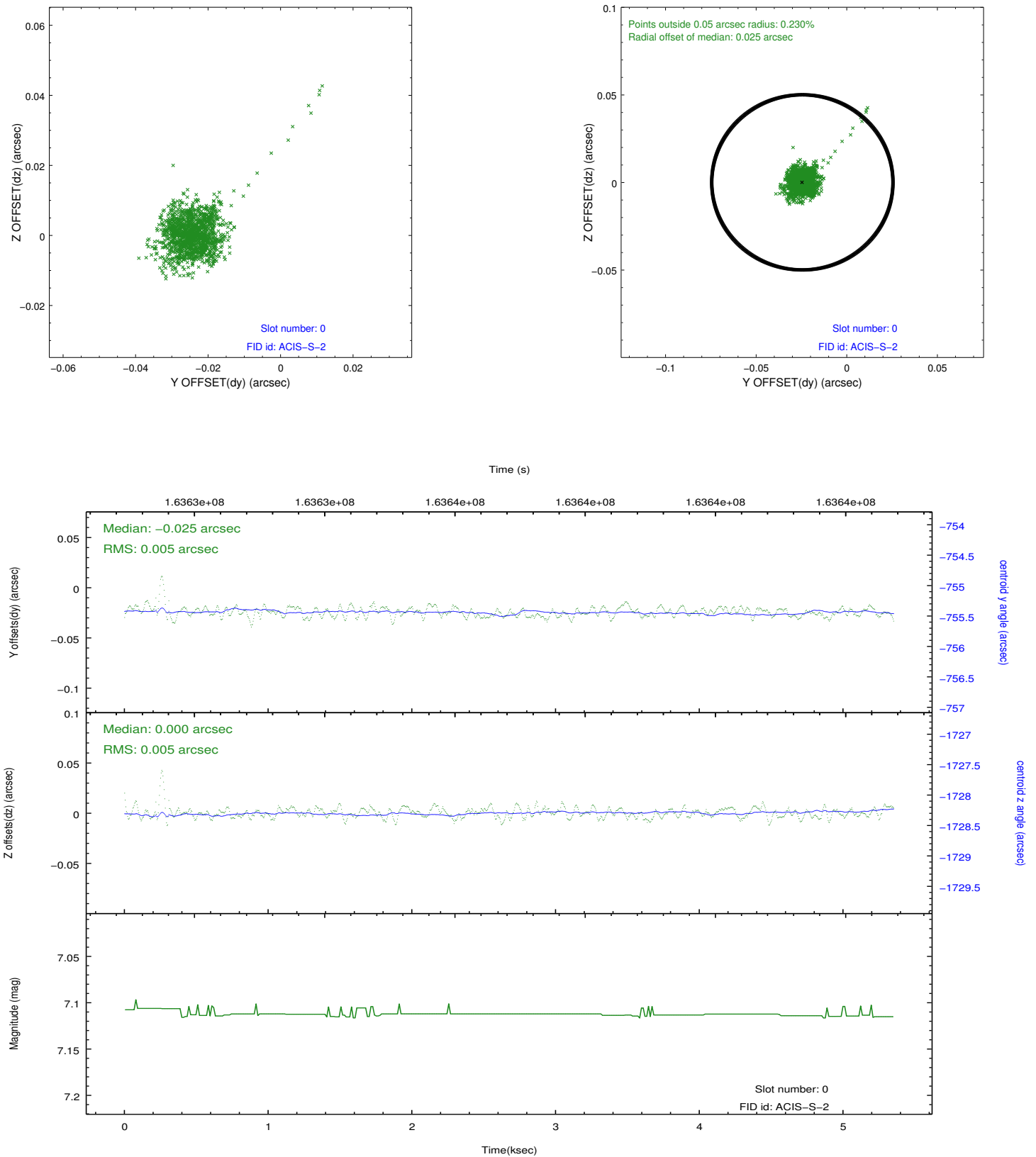


2.4.5 Slot 7

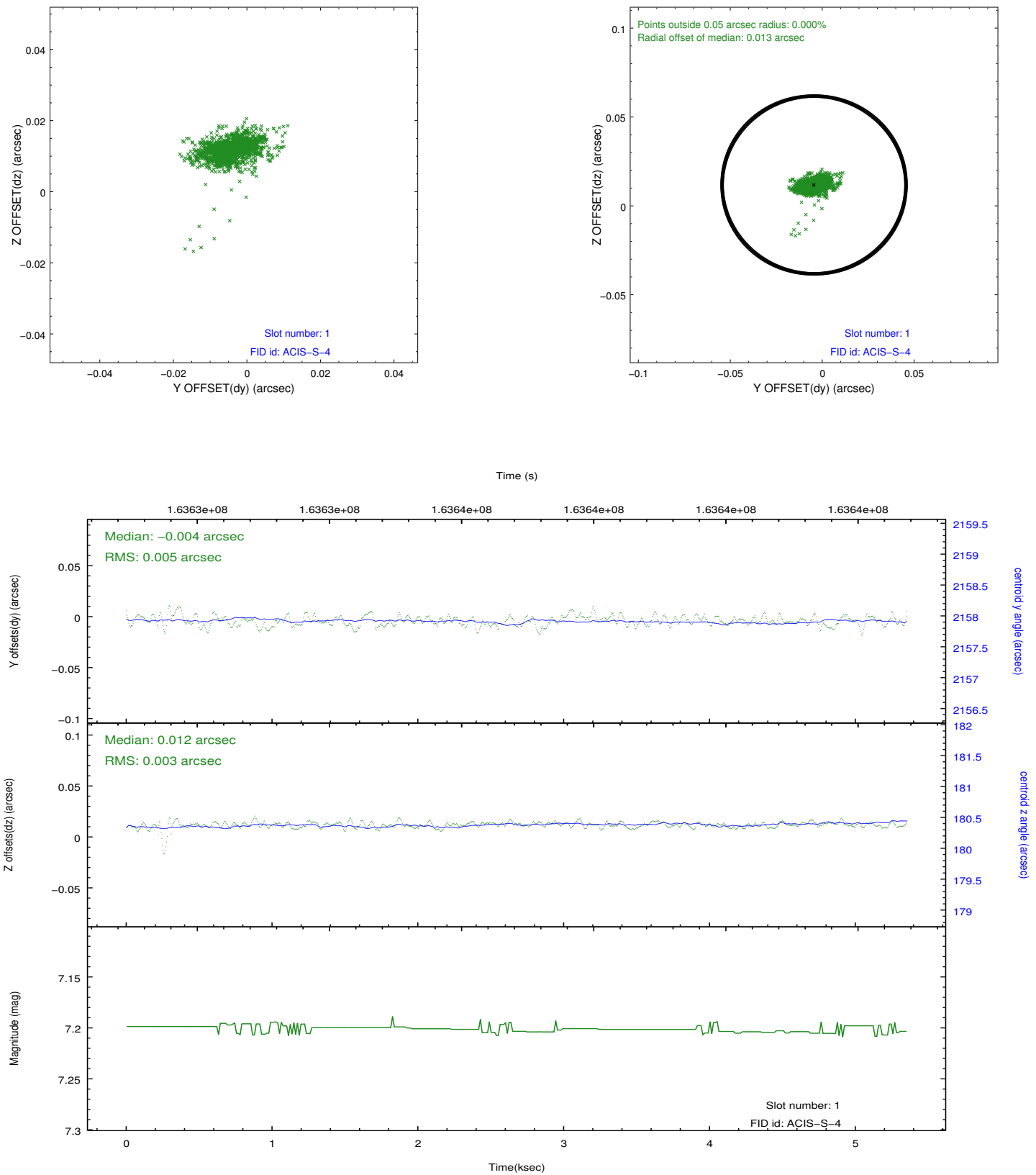


2.5 FID Slots

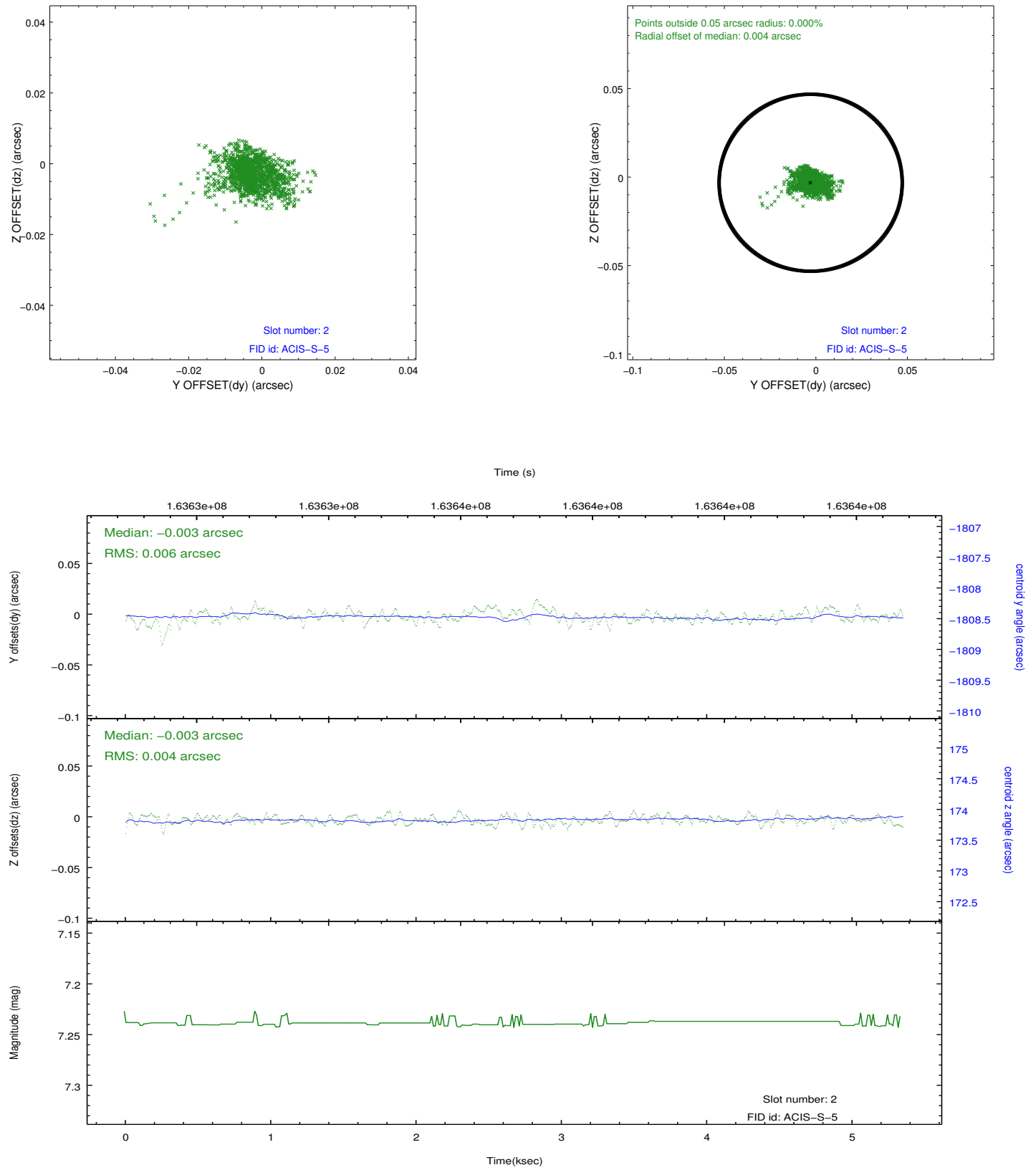
2.5.1 Slot 0



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) | 2012.11.07 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 5.349 |

A.2 Comments