

V&V Reference Report

L2 ASCDS Version : 7.6.8

Observation 3545 - L2 Version 001
Chandra X-Ray Center

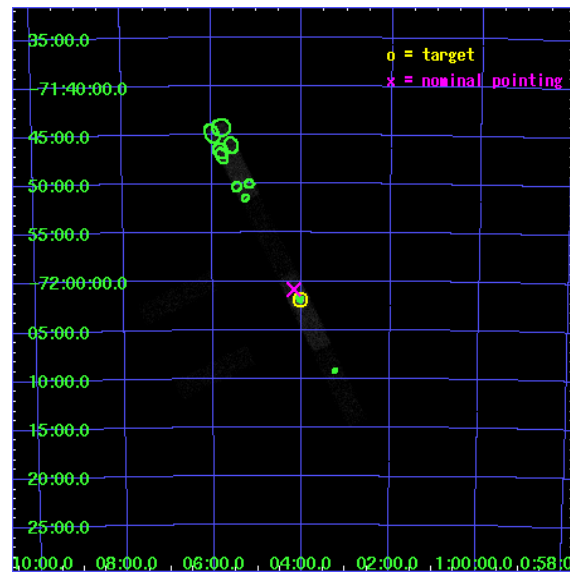
L2 Processing Date : Jul 10 2006

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 |
| 3 | Point Sources | 17 |
| A | Summary | 18 |
| A.1 | Status | 18 |
| A.2 | Comments | 18 |

1 Front

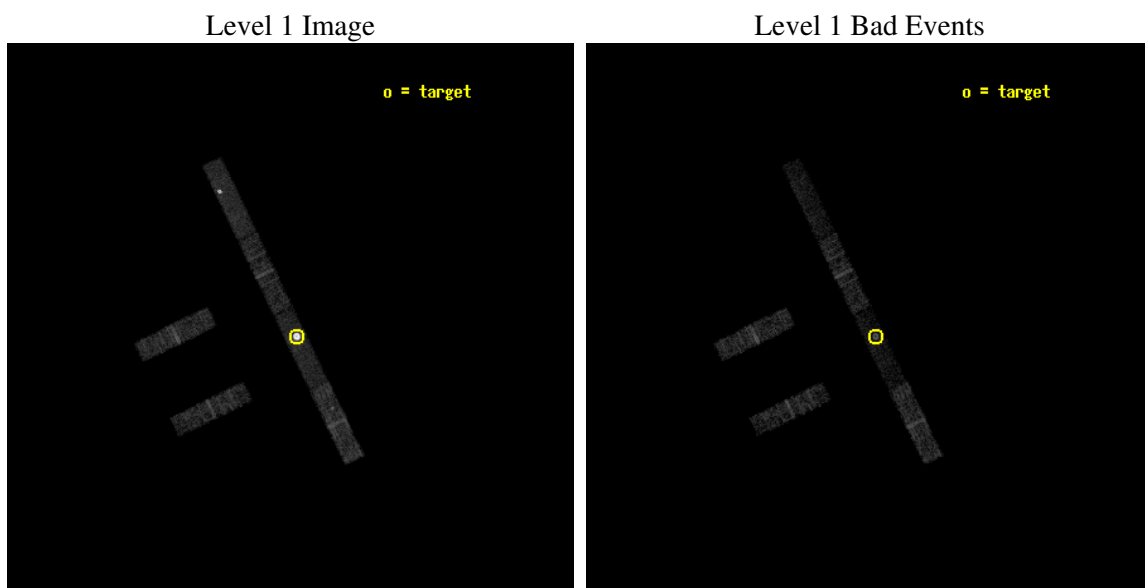
| | |
|----------|--|
| seq_num | 590300 |
| obs_id | 3545 |
| title | AO4B ACIS-S CALIBRATION OBSERVATIONS OF E0102-72 |
| observer | Dr. CXC Calibration |
| object | E0102-72[S3,-120,-1,0,0] |
| dtcycle | 0 |
| cycle | P |
| ra_targ | 16.01 |
| dec_targ | -72.032028 |
| ra_nom | 16.044101897362 |
| dec_nom | -72.014213383307 |
| roll_nom | 64.076977598005 |
| revision | 2 |
| ontime | 8155.3999558091 |
| livetime | 7862.0731537808 |
| ontime2 | 8155.3999558091 |
| ontime3 | 8155.3999558091 |
| ontime5 | 8155.3999558091 |
| ontime6 | 8155.3999558091 |
| ontime7 | 8155.3999558091 |
| ontime8 | 8155.3999558091 |
| l2events | 73539 |



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 2

Chip 3

Chip 5



Chip 6

Chip 7

Chip 8



2.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 0 |
| ascdsver | 7.6.8 |
| caldsver | 3.2.2 |
| date | 2006-07-11T01:46:28 |
| revision | 2 |

| | |
|----------------|-----------------|
| sched_exp_time | 8000.000000 |
| ontime | 9017.5338252485 |
| ontime2 | 9017.5338252485 |
| ontime3 | 9017.5338252485 |
| ontime5 | 9017.5338252485 |
| ontime6 | 9017.5338252485 |
| ontime7 | 9017.5338252485 |
| ontime8 | 9017.5338252485 |
| l1events | 151305 |

2.1.4 Events

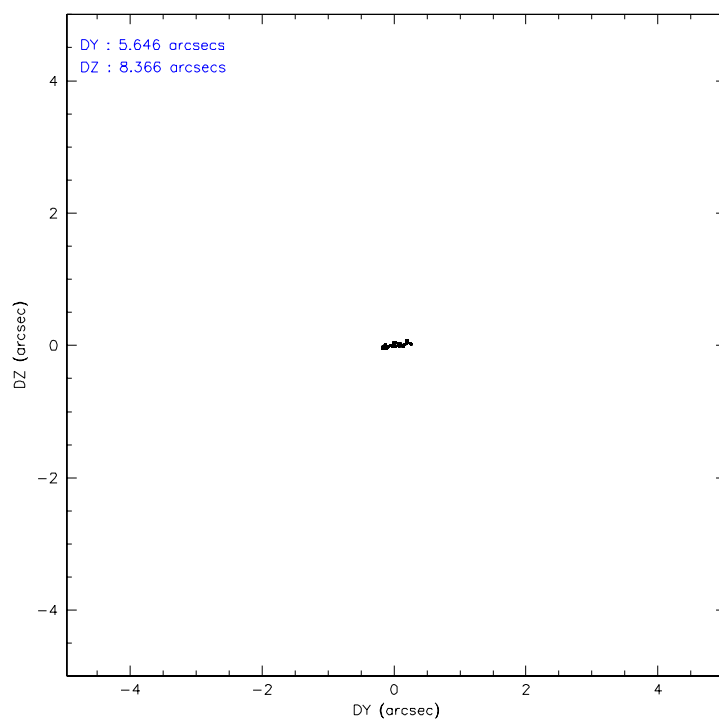
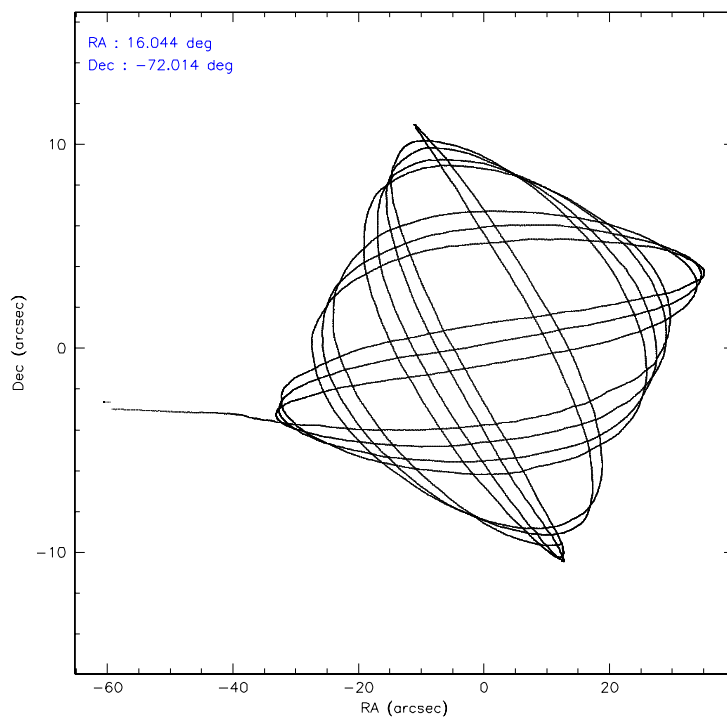
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 15538 | 13254 | 18799 | 13687 | 71693 | 18334 |
| rejected events | 14299 | 12108 | 7817 | 12451 | 8220 | 14774 |
| rejected % | 92% | 91% | 41% | 90% | 11% | 80% |

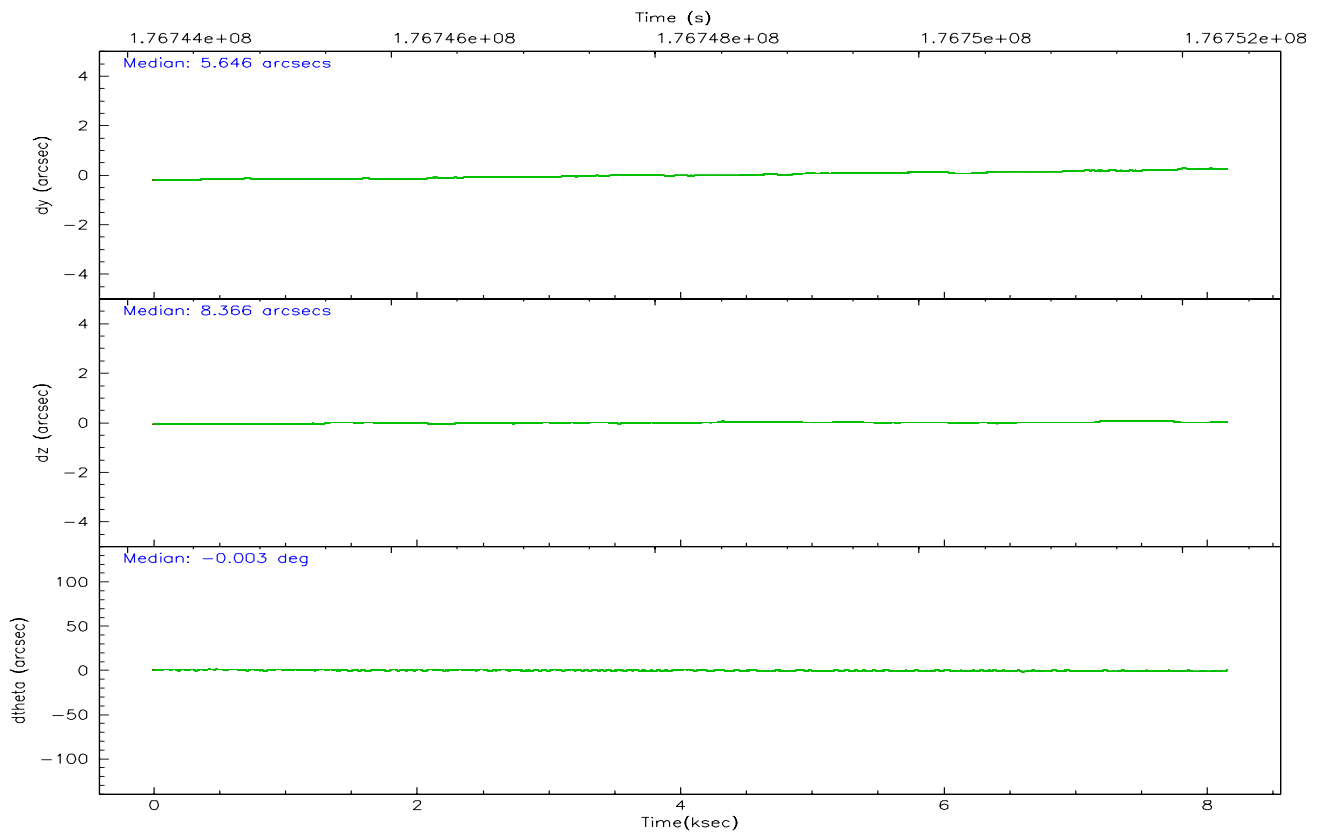
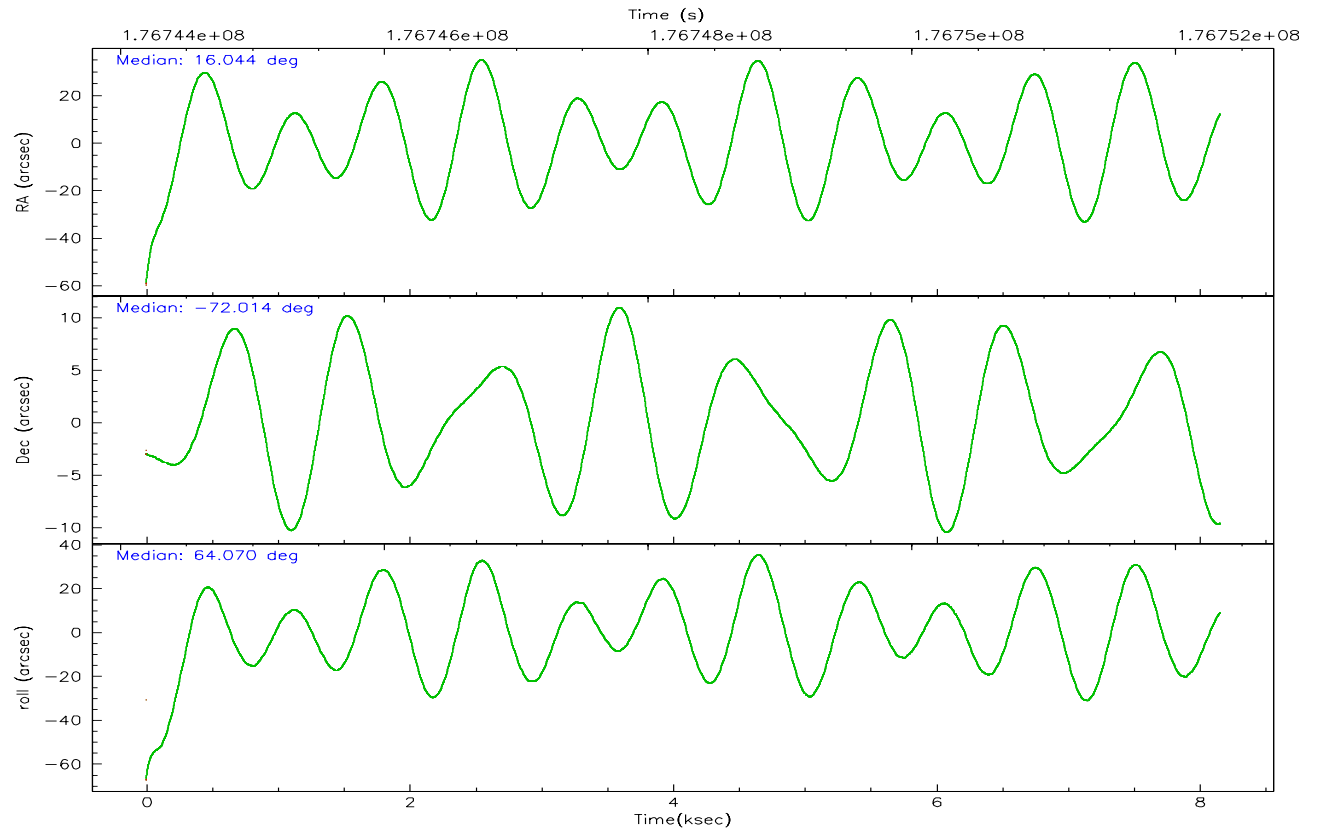
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 418 | 445 | 5515 | 530 | 22302 | 1256 |
| | 2% | 3% | 29% | 3% | 31% | 6% |
| grade 1 events | 5 | 4 | 8 | 5 | 149 | 5 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 281 | 214 | 2359 | 237 | 17498 | 783 |
| | 1% | 1% | 12% | 1% | 24% | 4% |
| grade 3 events | 232 | 207 | 303 | 237 | 7771 | 465 |
| | 1% | 1% | 1% | 1% | 10% | 2% |
| grade 4 events | 219 | 209 | 309 | 244 | 7403 | 405 |
| | 1% | 1% | 1% | 1% | 10% | 2% |
| grade 5 events | 333 | 384 | 828 | 374 | 1479 | 592 |
| | 2% | 2% | 4% | 2% | 2% | 3% |
| grade 6 events | 223 | 193 | 3692 | 246 | 10137 | 975 |
| | 1% | 1% | 19% | 1% | 14% | 5% |
| grade 7 events | 13827 | 11598 | 5785 | 11814 | 4954 | 13853 |
| | 88% | 87% | 30% | 86% | 6% | 75% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 6 | 6 |
| Detector | ACIS-235678 | ACIS-235678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | On-chip summing requested | N | N |
| Observation mode | POINTING | POINTING | Subarray requested | 1/4 | 1/4 |
| Pointing RA | 16.051818 | 16.04410189736228 | Subarray start row | 0 | 385 |
| Pointing Dec | -72.041311 | -72.01421338330697 | Subarray row count | 1024 | 256 |
| Pointing Roll | 63.927672 | 64.07697759800456 | Alternating exposures requested | N | N |
| Window start time | 174614464.184000 | 174614464.184000 | Primary exposure time | 0.000000 | 1.1 |
| Window stop time | 177292864.184000 | 177292864.184000 | | | |
| SIM focus pos (mm) | -0.684267 | -0.6828225247311905 | | | |
| SIM defocus (mm) | 0 | 0.001444936568705701 | | | |
| SIM translation stage pos (mm) | -190.132523 | -190.1400660498719 | | | |
| SIM translation stage offset (mm) | 0 | 0.00754346686406393 | | | |
| Observation start time | 176744343.184000 | 176743149.98166 | | | |
| Observation start date | 2003-08-08T15:37:59 | 2003-08-08T15:19:09 | | | |
| Observation end time | 176752343.184000 | 176752477.48206 | | | |
| Observation end date | 2003-08-08T17:51:19 | 2003-08-08T17:54:37 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



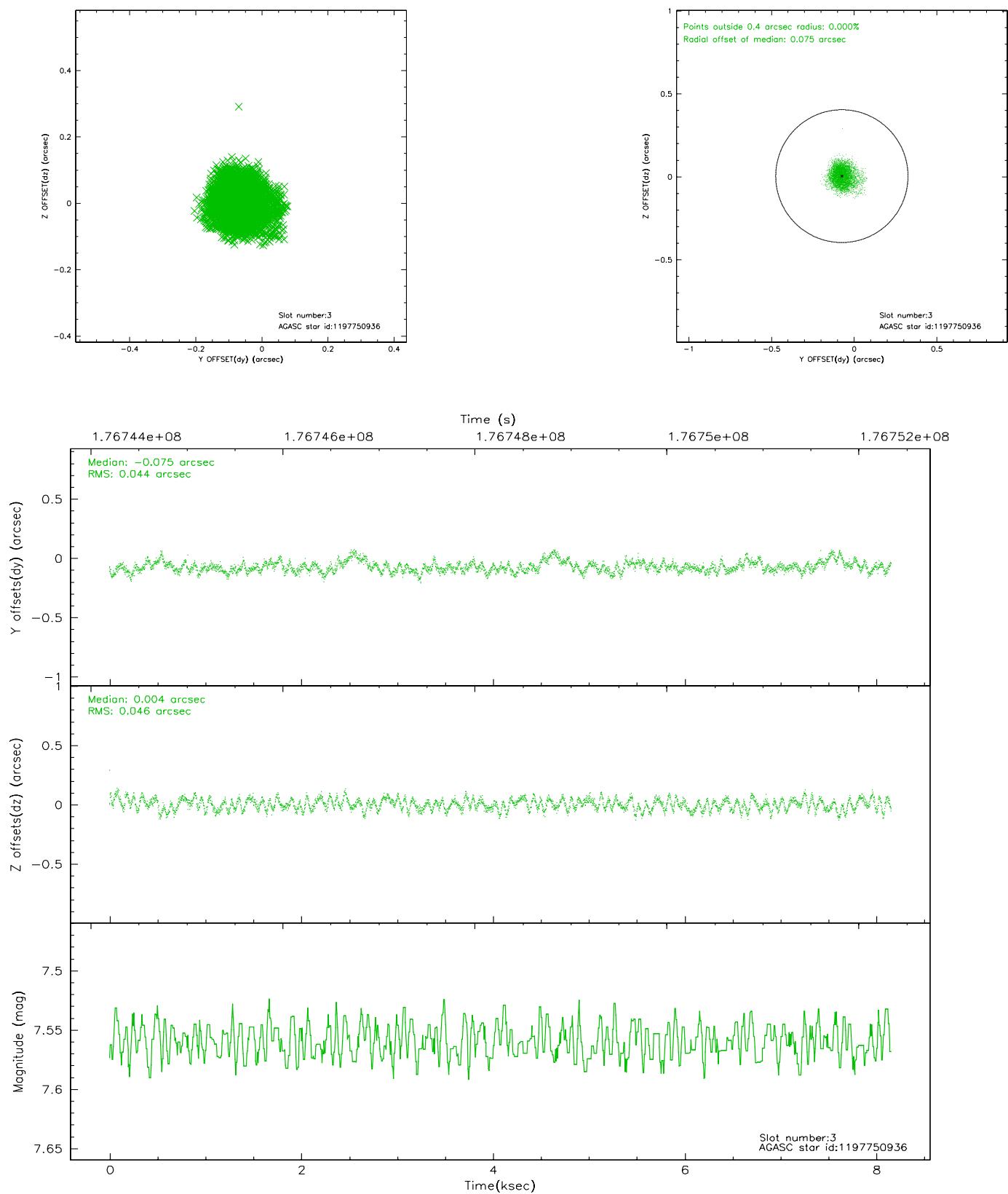


Slot Statistics

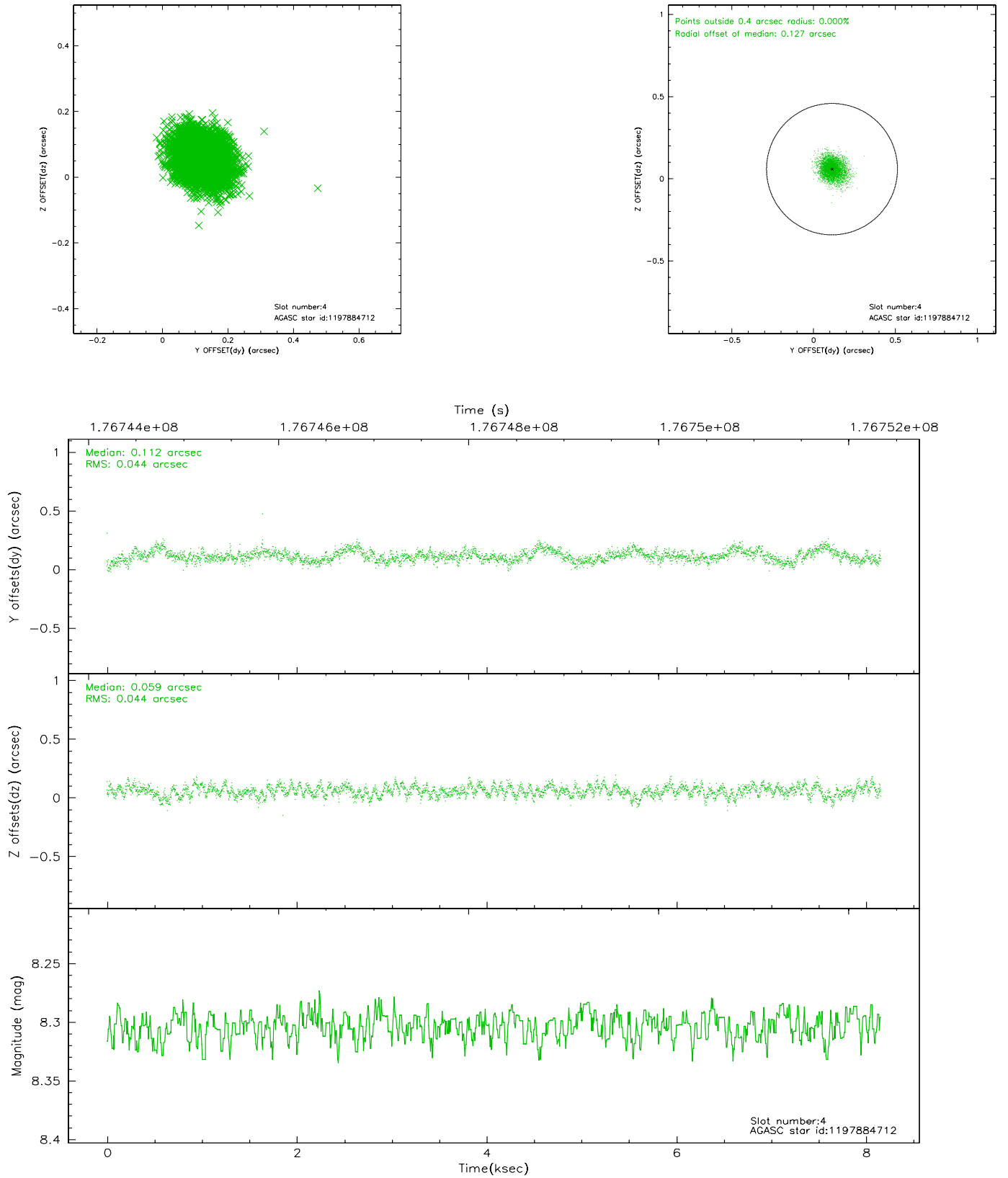
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|-------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 1990 | -0.023 | -0.018 | 0.006 | 0.011 | 0.000000 | 0.000000 | -758.42 | -1729.57 |
| 1 | FID | ACIS-S-4 | 7.21 | 1990 | 0.024 | 0.016 | 0.005 | 0.010 | 0.000000 | 0.000000 | 2154.62 | 178.19 |
| 2 | FID | ACIS-S-5 | 7.23 | 1990 | -0.032 | 0.011 | 0.007 | 0.011 | 0.000000 | 0.000000 | -1810.36 | 172.70 |
| 3 | GUIDE | 1197750936 | 7.56 | 3980 | -0.075 | 0.004 | 0.068 | 0.109 | 15.387940 | -71.549550 | 1254.03 | 1455.54 |
| 4 | GUIDE | 1197884712 | 8.30 | 3980 | 0.112 | 0.059 | 0.066 | 0.109 | 16.087398 | -72.252690 | -665.55 | -369.40 |
| 5 | GUIDE | 1197885104 | 9.36 | 3978 | -0.001 | 0.083 | 0.092 | 0.151 | 17.845067 | -72.189368 | 362.75 | -2020.73 |
| 6 | GUIDE | 1197885328 | 7.22 | 3980 | -0.034 | -0.127 | 0.056 | 0.089 | 16.283090 | -71.733943 | 1108.87 | 250.76 |
| 7 | GUIDE | 1197750824 | 10.11 | 3974 | 0.004 | -0.022 | 0.162 | 0.310 | 14.791487 | -71.393477 | 1445.46 | 2318.75 |

2.4 Star Slots

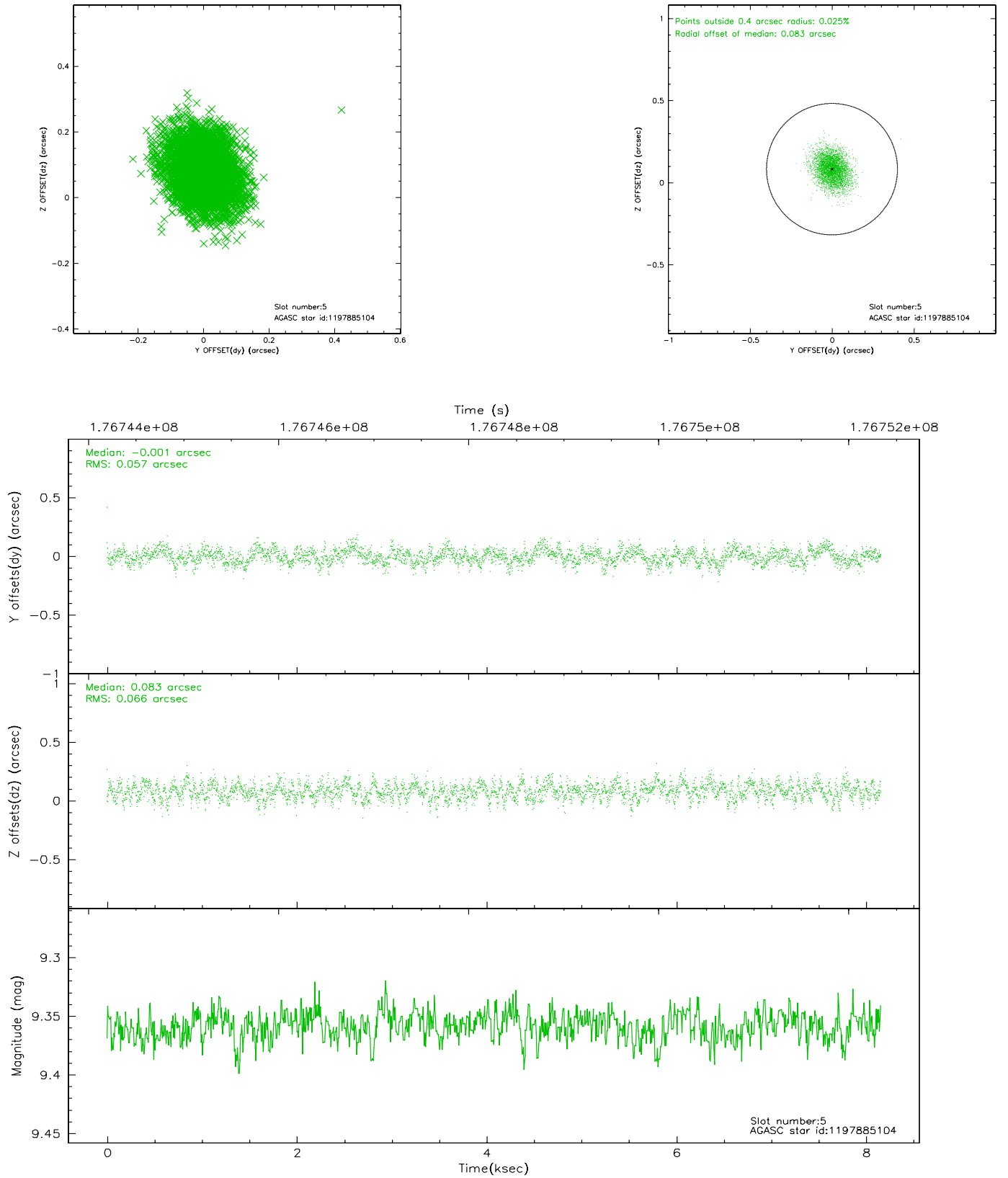
2.4.1 Slot 3



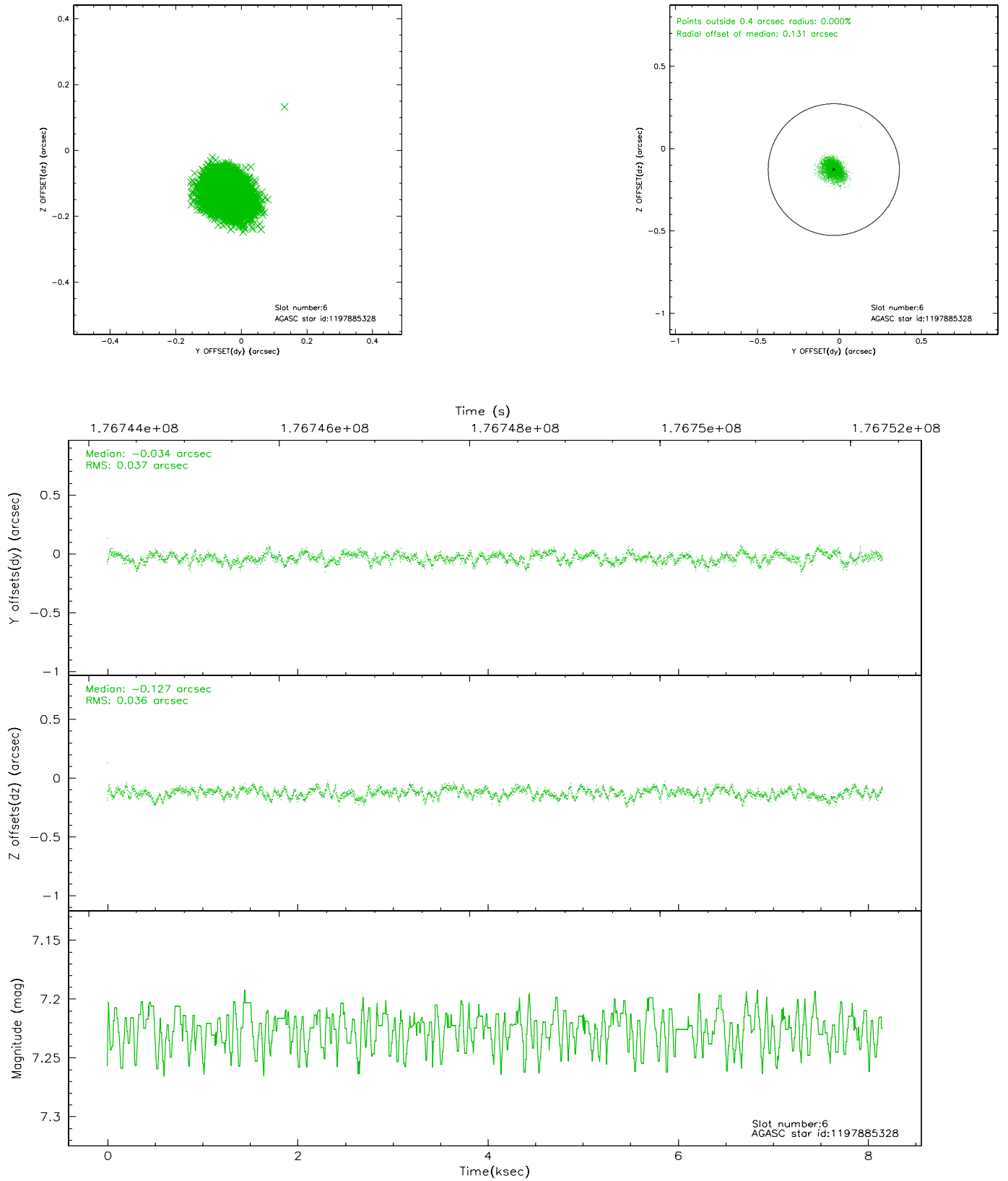
2.4.2 Slot 4



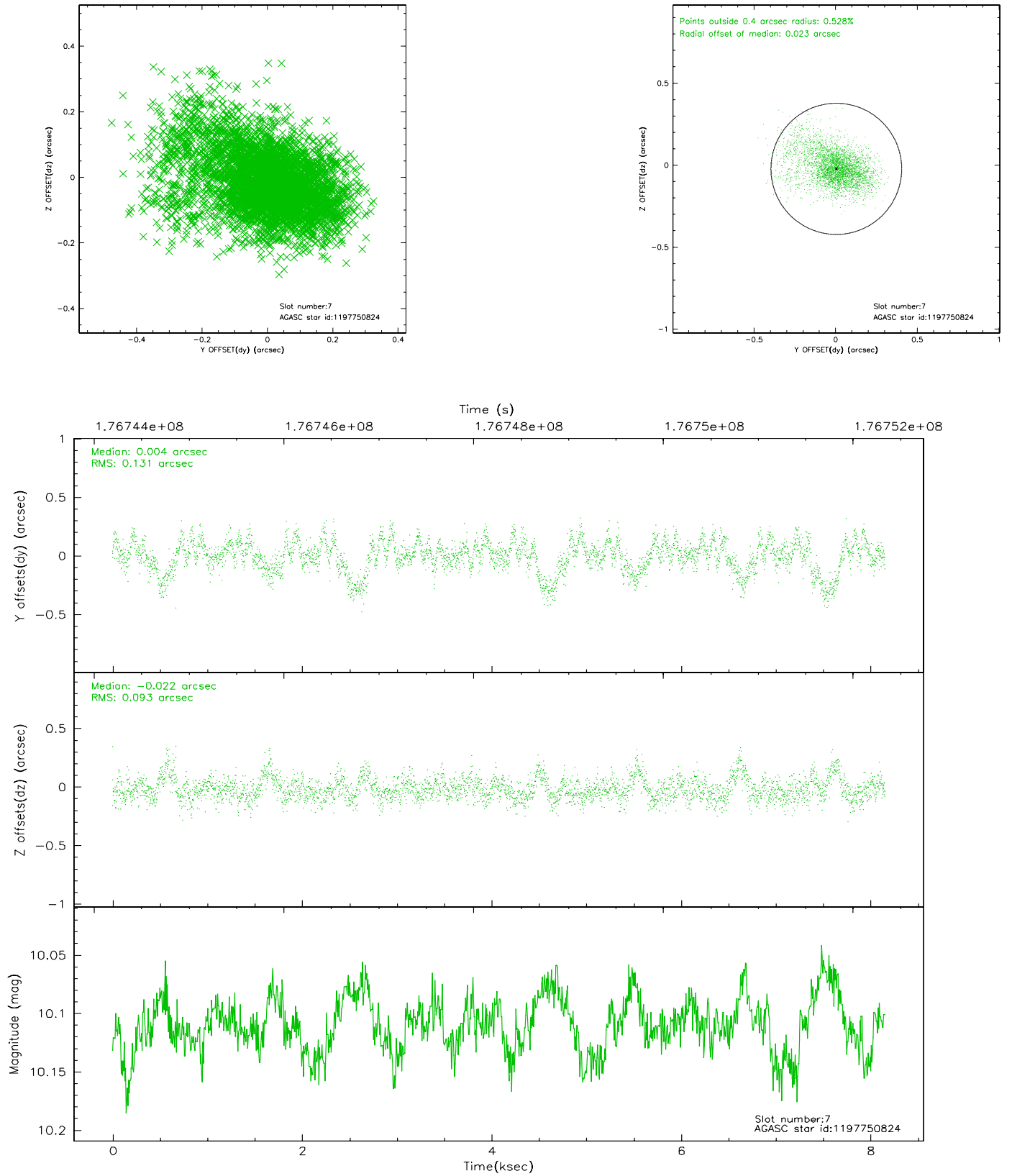
2.4.3 Slot 5



2.4.4 Slot 6

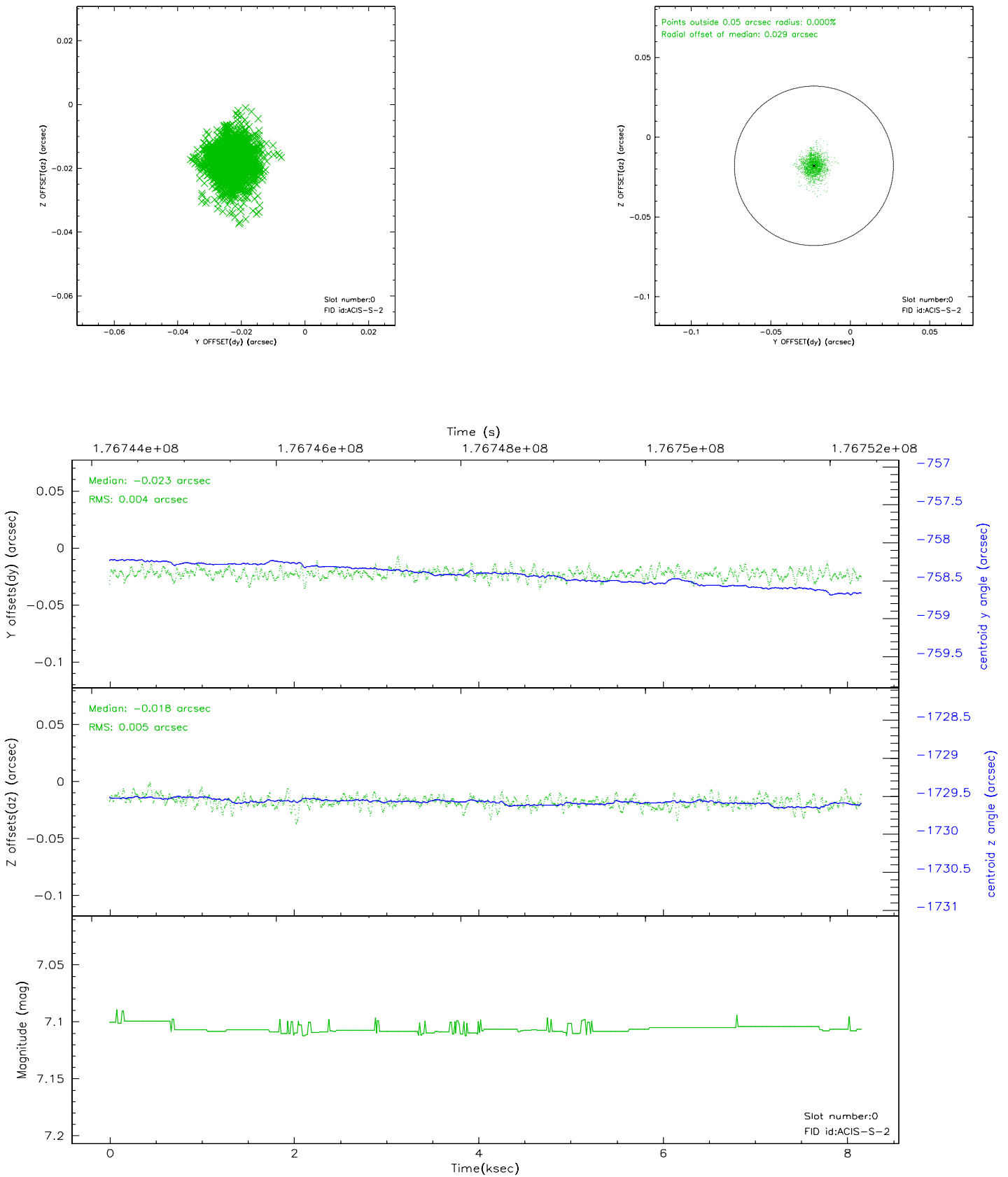


2.4.5 Slot 7

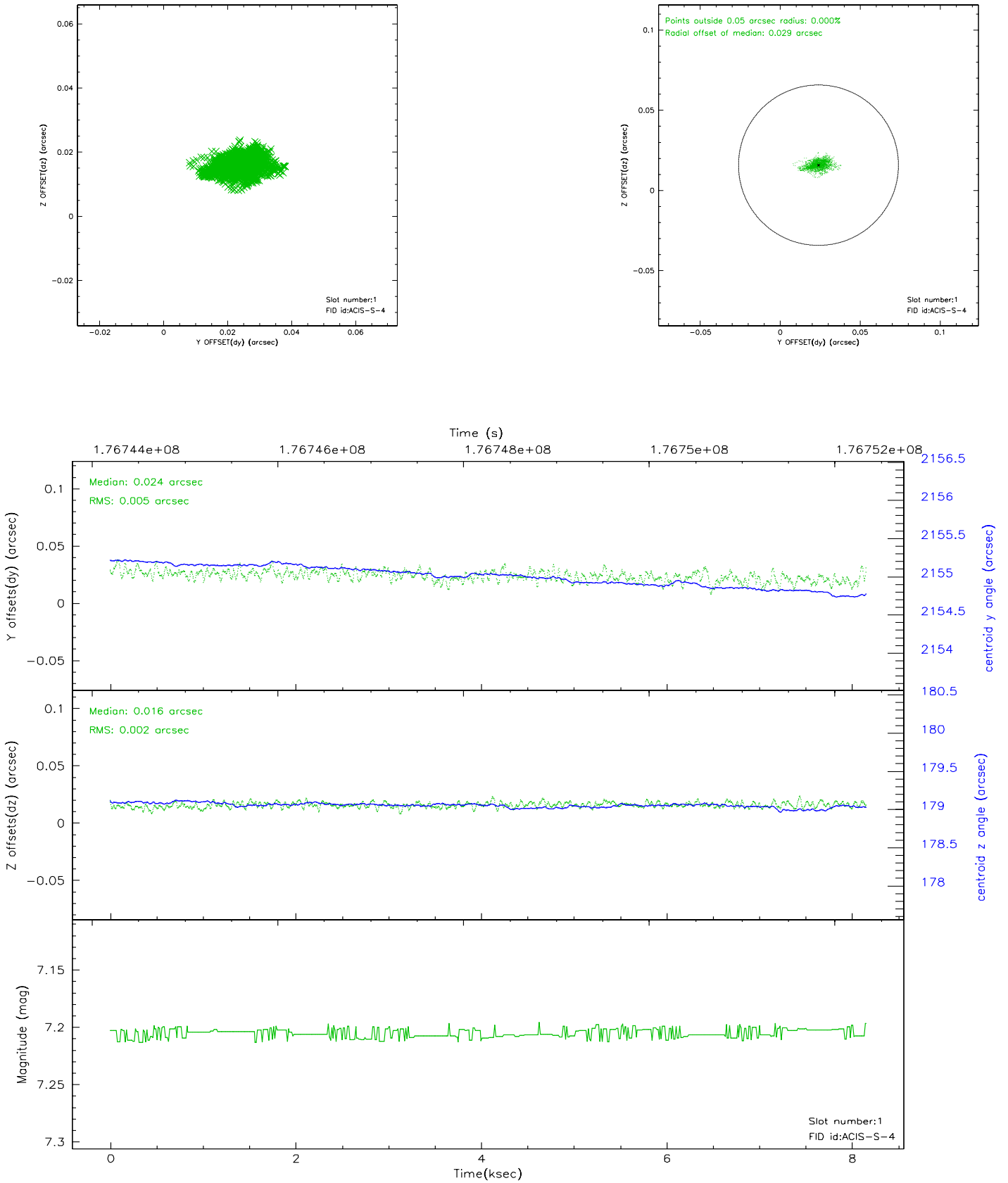


2.5 FID Slots

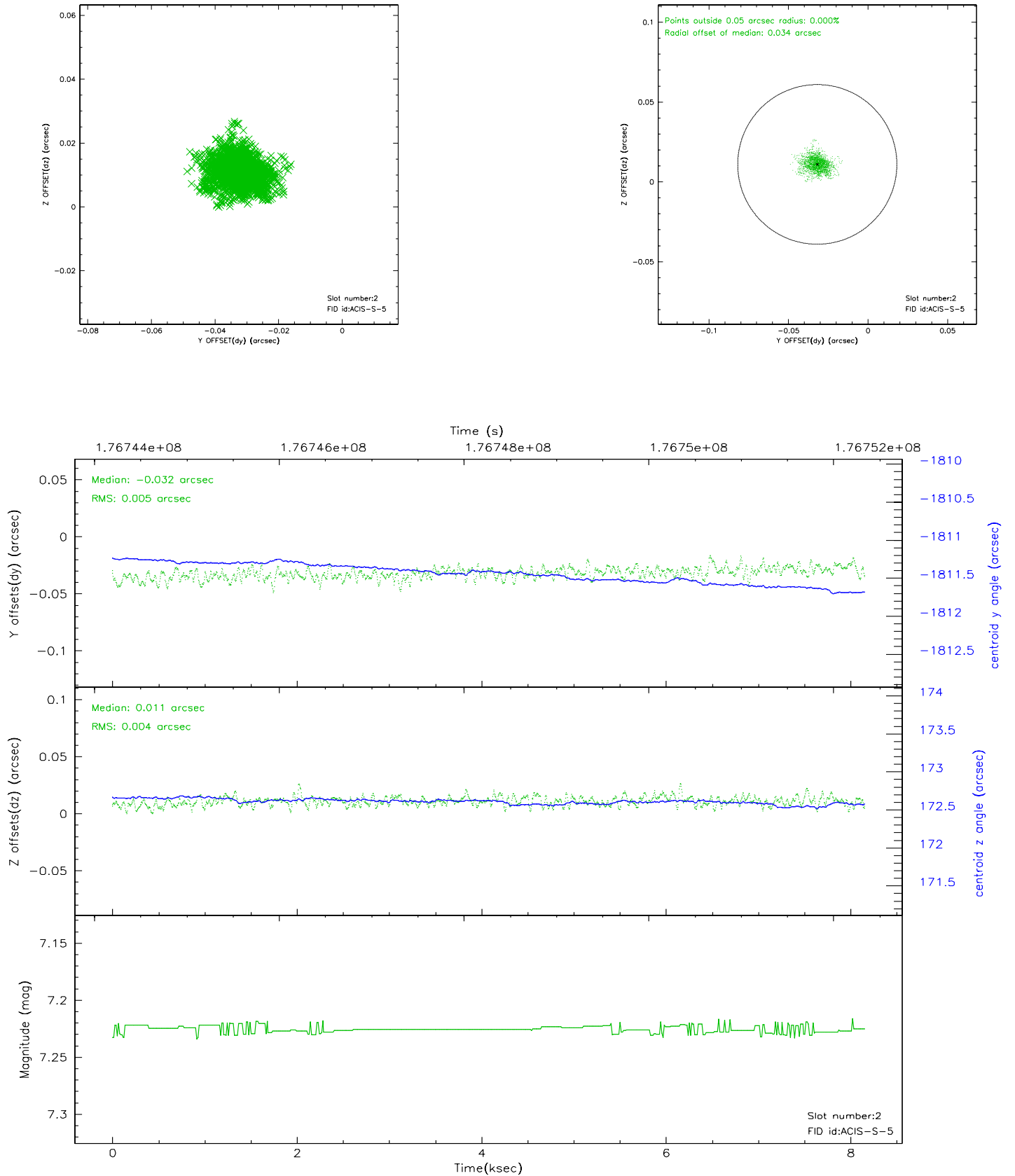
2.5.1 Slot 0



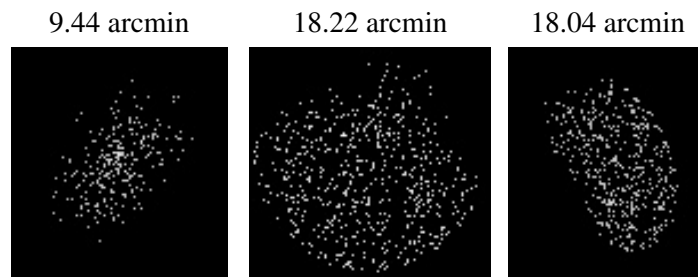
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2006.07.11 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 8.155 |

A.2 Comments

Window constraint met.