

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 2365 - L2 Version 002
Chandra X-Ray Center

L2 Processing Date : Feb 6 2007

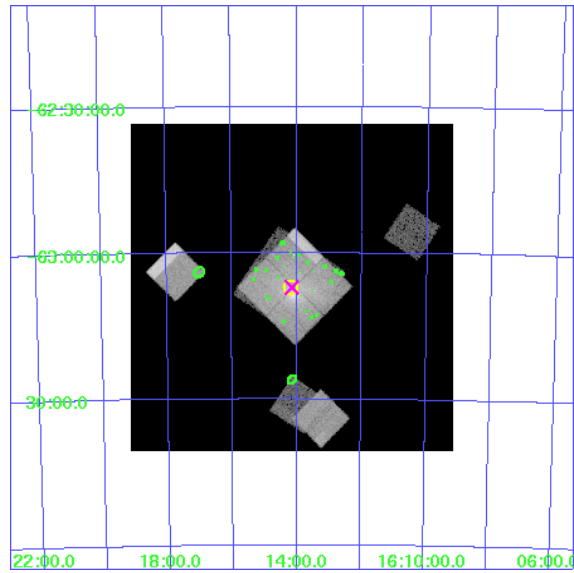
Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 3 |
| 2 | OBI | 4 |
| 2.1 | OBI | 4 |
| 2.1.1 | Images | 4 |
| 2.1.2 | Bias | 4 |
| 2.1.3 | Parameters | 5 |
| 2.1.4 | Events | 5 |
| 2.2 | Compared Parameters | 6 |
| 2.3 | Aspect | 7 |
| 2.4 | Star Slots | 10 |
| 2.4.1 | Slot 3 | 10 |
| 2.4.2 | Slot 4 | 11 |
| 2.4.3 | Slot 5 | 12 |
| 2.4.4 | Slot 6 | 13 |
| 2.4.5 | Slot 7 | 14 |
| 2.5 | FID Slots | 15 |
| 2.5.1 | Slot 0 | 15 |
| 2.5.2 | Slot 1 | 16 |
| 3 | OBI | 17 |
| 3.1 | OBI | 17 |
| 3.1.1 | Images | 17 |
| 3.1.2 | Bias | 17 |
| 3.1.3 | Parameters | 18 |
| 3.1.4 | Events | 18 |
| 3.2 | Compared Parameters | 19 |
| 3.3 | Aspect | 20 |
| 3.4 | Star Slots | 23 |
| 3.4.1 | Slot 3 | 23 |
| 3.4.2 | Slot 4 | 24 |
| 3.4.3 | Slot 5 | 25 |
| 3.4.4 | Slot 6 | 26 |
| 3.4.5 | Slot 7 | 27 |

| | | |
|----------|----------------------|-----------|
| 3.5 | FID Slots | 28 |
| 3.5.1 | Slot 0 | 28 |
| 3.5.2 | Slot 1 | 29 |
| 4 | Point Sources | 30 |
| A | Summary | 31 |
| A.1 | Status | 31 |
| A.2 | Comments | 31 |

1 Front

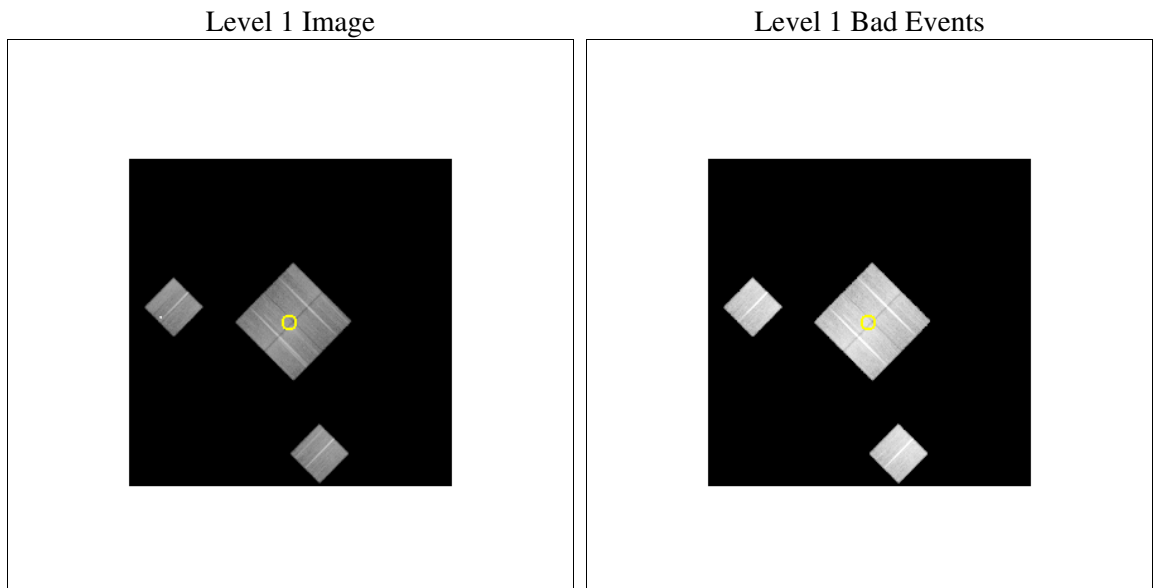
| | |
|----------|---|
| seq_num | 900131 |
| obs_id | 2365 |
| title | A SURVEY OF X-RAY SELECTED SNR CANDIDATES |
| observer | Dr. Martin Weisskopf |
| object | 1RXSJ161411.3-630657 |
| dtcycle | 0 |
| cycle | P |
| ra_targ | 243.545833 |
| dec_targ | -63.115833 |
| ra_nom | 243.53615619326 |
| dec_nom | -63.117571543337 |
| roll_nom | 224.70783799579 |
| revision | 5 |
| ontime | 33372.677120402 |
| livetime | 32950.09218809 |
| ontime0 | 33382.40003109 |
| ontime1 | 33379.159070835 |
| ontime2 | 33379.159050912 |
| ontime3 | 33372.677120402 |
| ontime4 | 33379.159070849 |
| ontime9 | 33379.159070835 |
| l2events | 181308 |



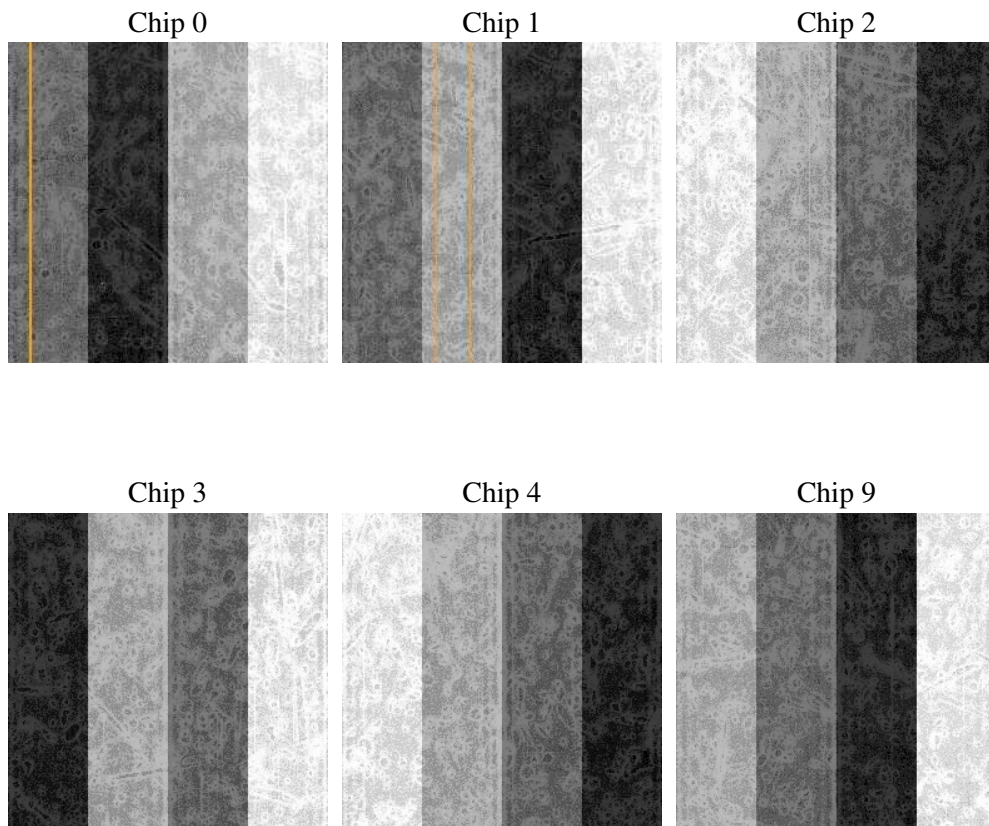
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 0 |
| ascdsver | 7.6.10 |
| caldsver | 3.3.0 |
| date | 2007-02-06T15:53:30 |
| revision | 6 |

| | |
|----------------|-----------------|
| sched_exp_time | 33400.000000 |
| ontime | 24217.518072143 |
| ontime0 | 24224.00002256 |
| ontime1 | 24220.759062305 |
| ontime2 | 24224.00002256 |
| ontime3 | 24217.518072143 |
| ontime4 | 24220.75906232 |
| ontime9 | 24224.00002256 |
| l1events | 1081946 |

2.1.4 Events

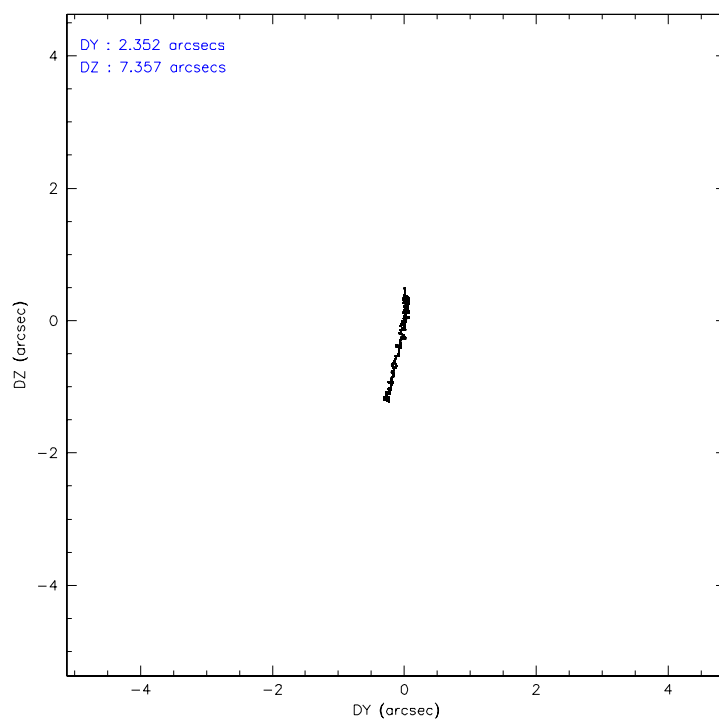
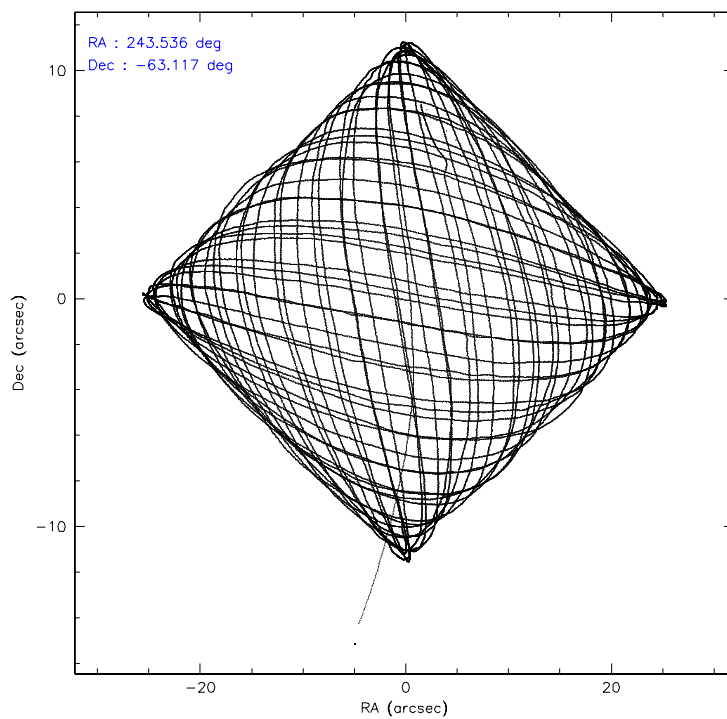
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 4 | ccd 9 |
|-----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 152047 | 163732 | 194099 | 176604 | 204562 | 190902 |
| rejected events | 121943 | 130494 | 157706 | 152256 | 167990 | 145080 |
| rejected % | 80% | 79% | 81% | 86% | 82% | 75% |

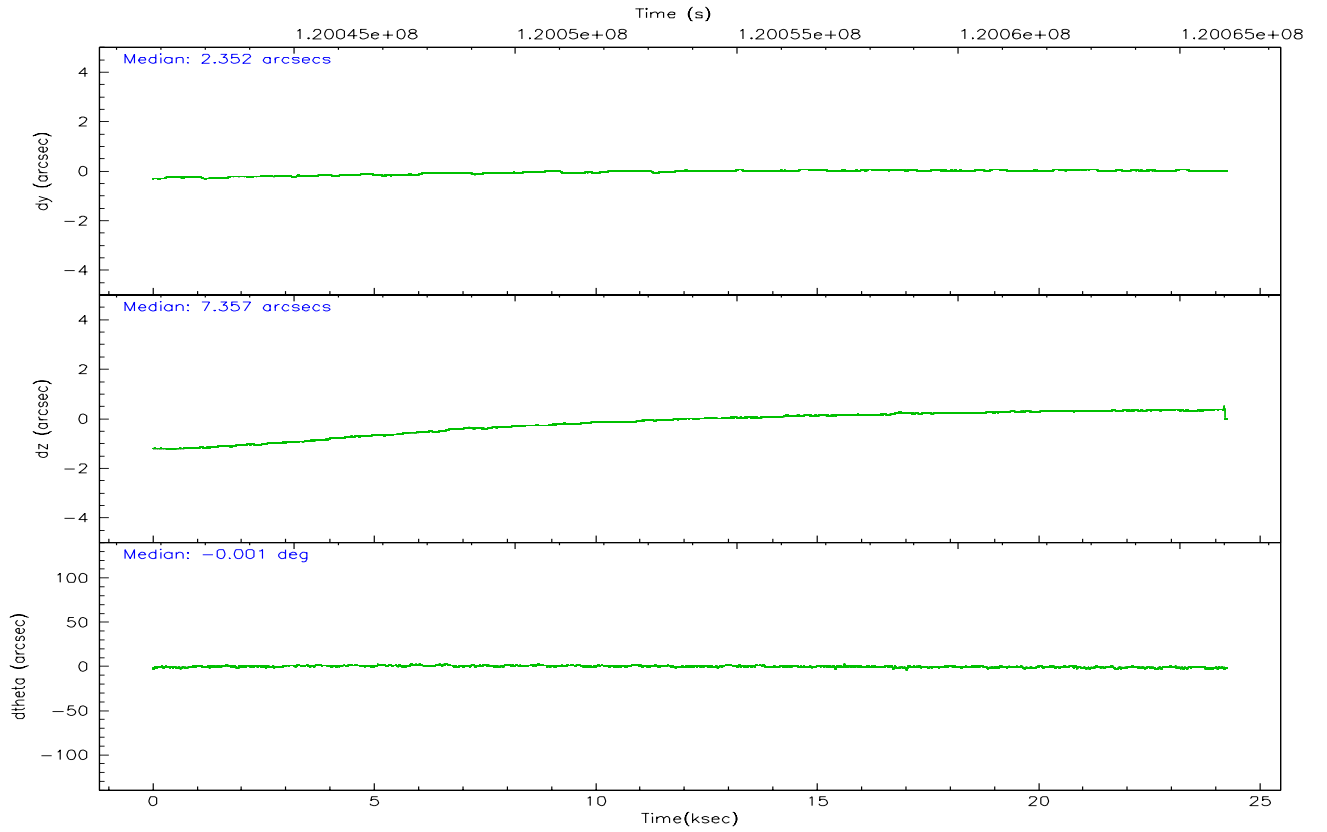
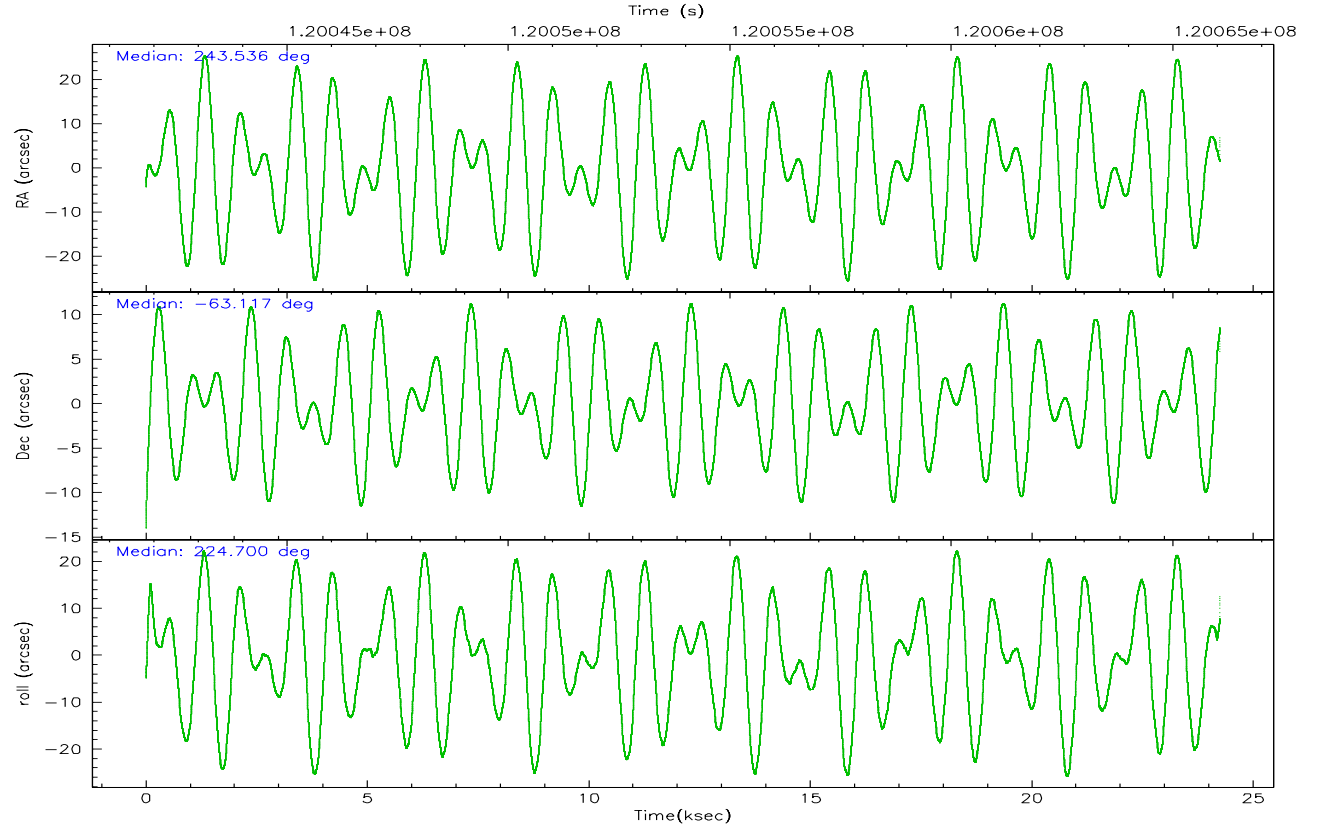
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 4 | ccd 9 |
|----------------|--------|--------|--------|--------|--------|--------|
| grade 0 events | 18639 | 16583 | 23170 | 14111 | 22984 | 25840 |
| | 12% | 10% | 11% | 7% | 11% | 13% |
| grade 1 events | 150 | 91 | 183 | 109 | 284 | 123 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 5151 | 7241 | 5653 | 3998 | 6324 | 9697 |
| | 3% | 4% | 2% | 2% | 3% | 5% |
| grade 3 events | 1839 | 2312 | 1853 | 1777 | 2061 | 2144 |
| | 1% | 1% | 0% | 1% | 1% | 1% |
| grade 4 events | 1858 | 2022 | 3009 | 1804 | 2439 | 1923 |
| | 1% | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 3936 | 4495 | 4073 | 4566 | 4280 | 4950 |
| | 2% | 2% | 2% | 2% | 2% | 2% |
| grade 6 events | 2751 | 5217 | 2872 | 2789 | 2894 | 6399 |
| | 1% | 3% | 1% | 1% | 1% | 3% |
| grade 7 events | 117723 | 125771 | 153286 | 147450 | 163296 | 139826 |
| | 77% | 76% | 78% | 83% | 79% | 73% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 6 | 6 |
| Detector | ACIS-012349 | ACIS-012349 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| Pointing RA | 243.552043 | 243.5361561932617 | Subarray requested | NONE | NONE |
| Pointing Dec | -63.091103 | -63.11757154333742 | Alternating exposures requested | N | N |
| Pointing Roll | 224.513328 | 224.7078379957937 | Primary exposure time | 0.000000 | 3.2 |
| SIM focus pos (mm) | -0.782348 | -0.7809083437167272 | | | |
| SIM defocus (mm) | 0 | 0.001439871863259334 | | | |
| SIM translation stage pos (mm) | -233.592463 | -233.5874344608287 | | | |
| SIM translation stage offset (mm) | 0 | -0.005018542100998502 | | | |
| Observation start time | 120041958.184000 | 120041637.47704 | | | |
| Observation start date | 2001-10-21T08:58:14 | 2001-10-21T08:53:57 | | | |
| Observation end time | 120075358.184000 | 120066089.36552 | | | |
| Observation end date | 2001-10-21T18:14:54 | 2001-10-21T15:41:29 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



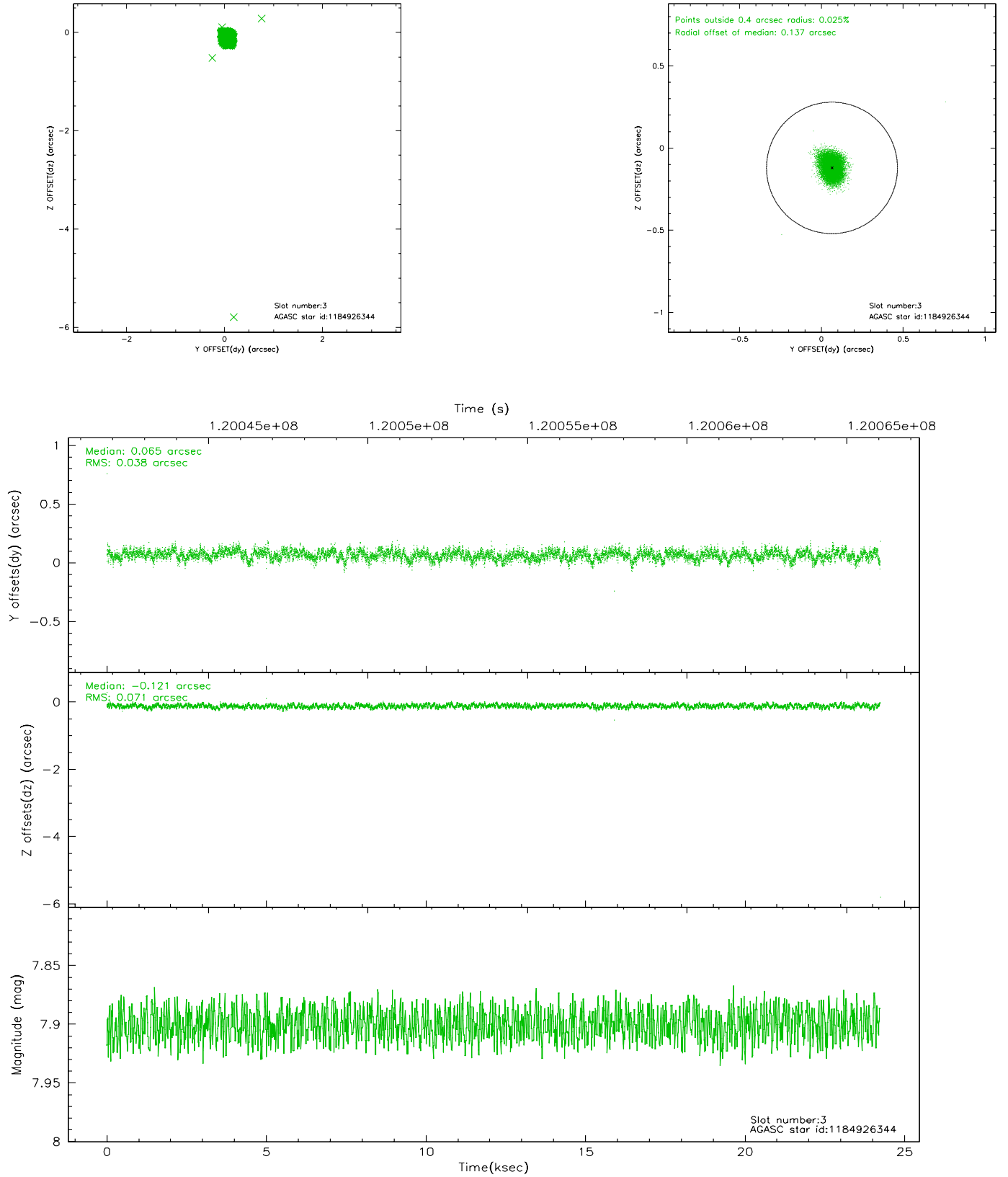


Slot Statistics

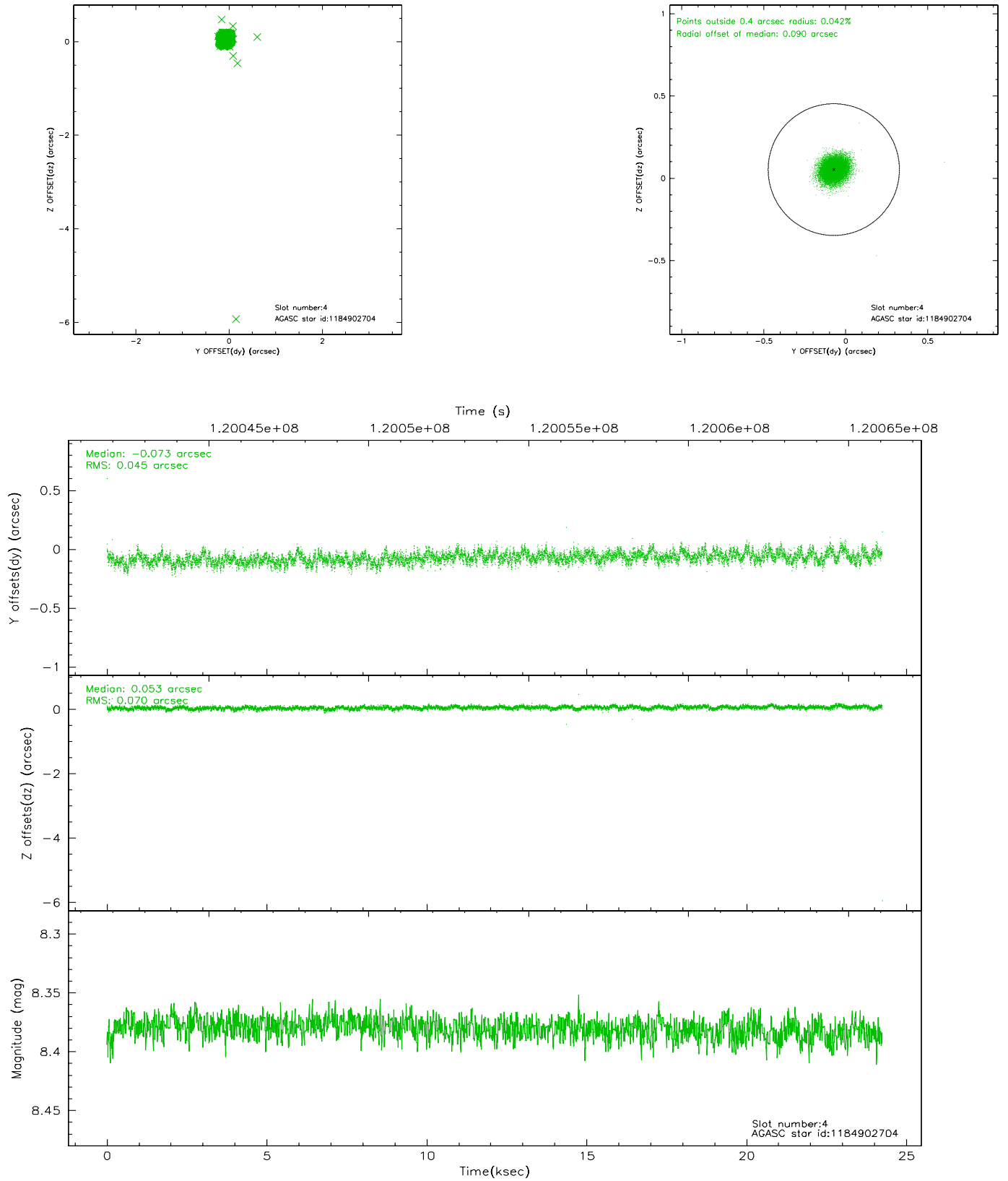
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|---------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.25 | 5903 | -0.050 | 0.038 | 0.016 | 0.025 | 0.000000 | 0.000000 | 937.45 | -830.55 |
| 1 | FID | ACIS-I-5 | 7.24 | 5903 | -0.011 | 0.012 | 0.016 | 0.025 | 0.000000 | 0.000000 | -1810.53 | 1066.89 |
| 2 | OMITTED | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |
| 3 | GUIDE | 1184926344 | 7.90 | 11821 | 0.065 | -0.121 | 0.066 | 0.103 | 242.612098 | -62.922909 | 681.89 | -1503.12 |
| 4 | GUIDE | 1184902704 | 8.38 | 11819 | -0.073 | 0.053 | 0.065 | 0.106 | 243.966380 | -62.438289 | -2138.20 | -1190.34 |
| 5 | GUIDE | 1184897704 | 9.08 | 11823 | 0.042 | -0.018 | 0.075 | 0.124 | 242.251037 | -62.918879 | 1100.86 | -1920.99 |
| 6 | GUIDE | 1184905208 | 8.97 | 11817 | 0.010 | 0.081 | 0.093 | 0.149 | 244.129367 | -63.599668 | 627.29 | 1956.92 |
| 7 | GUIDE | 1185050656 | 9.49 | 11806 | -0.040 | 0.006 | 0.097 | 0.159 | 244.506293 | -63.404075 | -299.15 | 1890.39 |

2.4 Star Slots

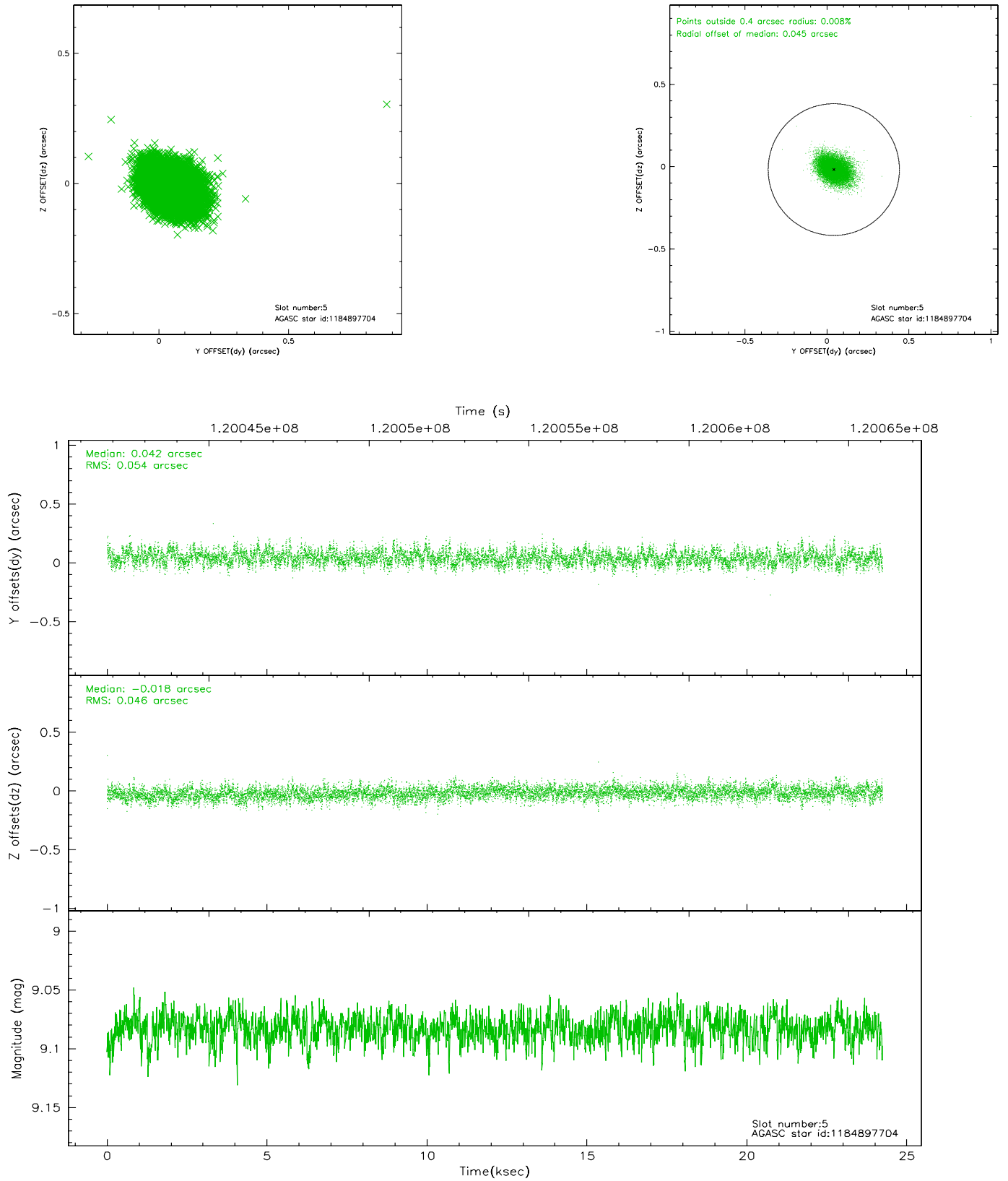
2.4.1 Slot 3



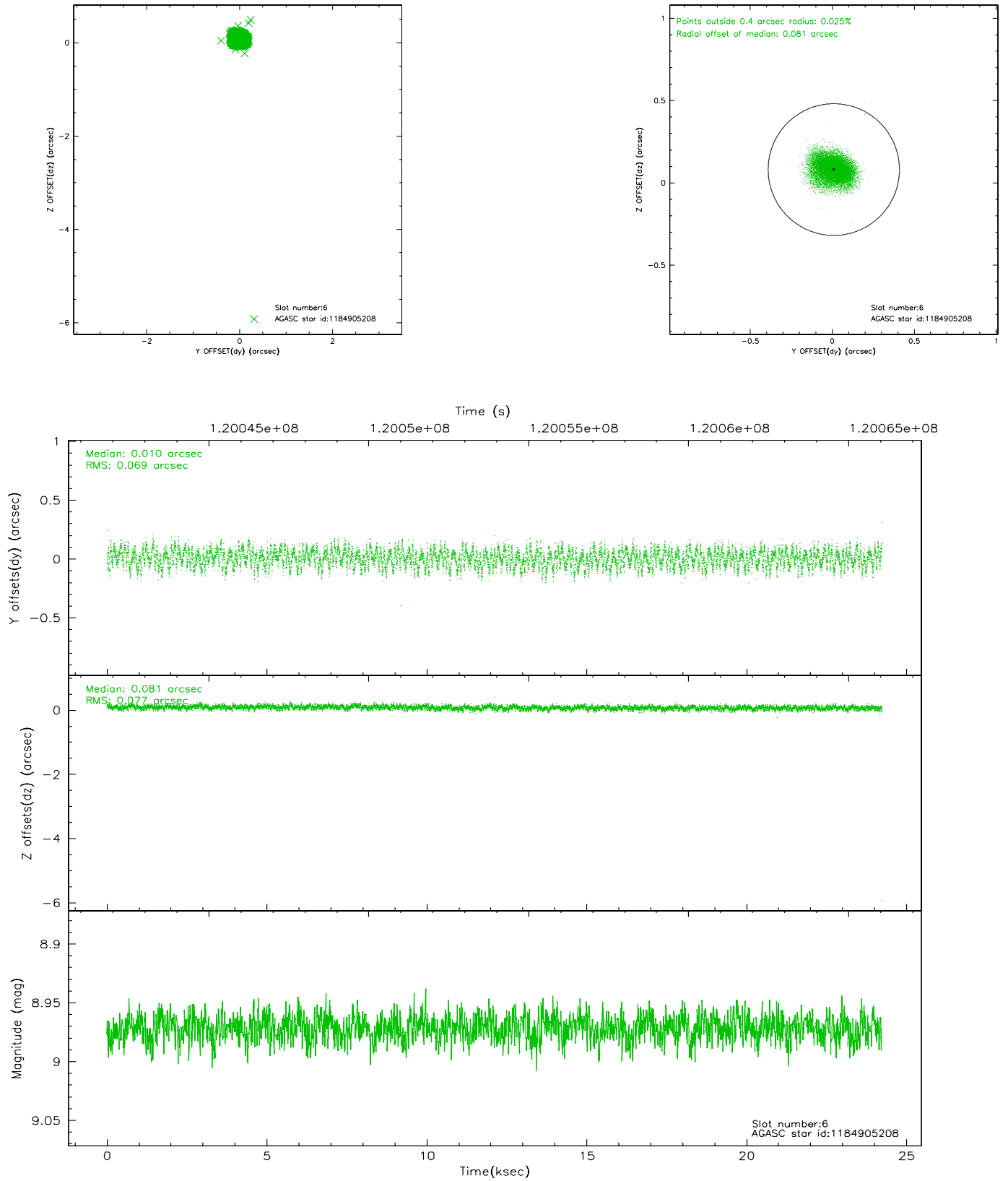
2.4.2 Slot 4



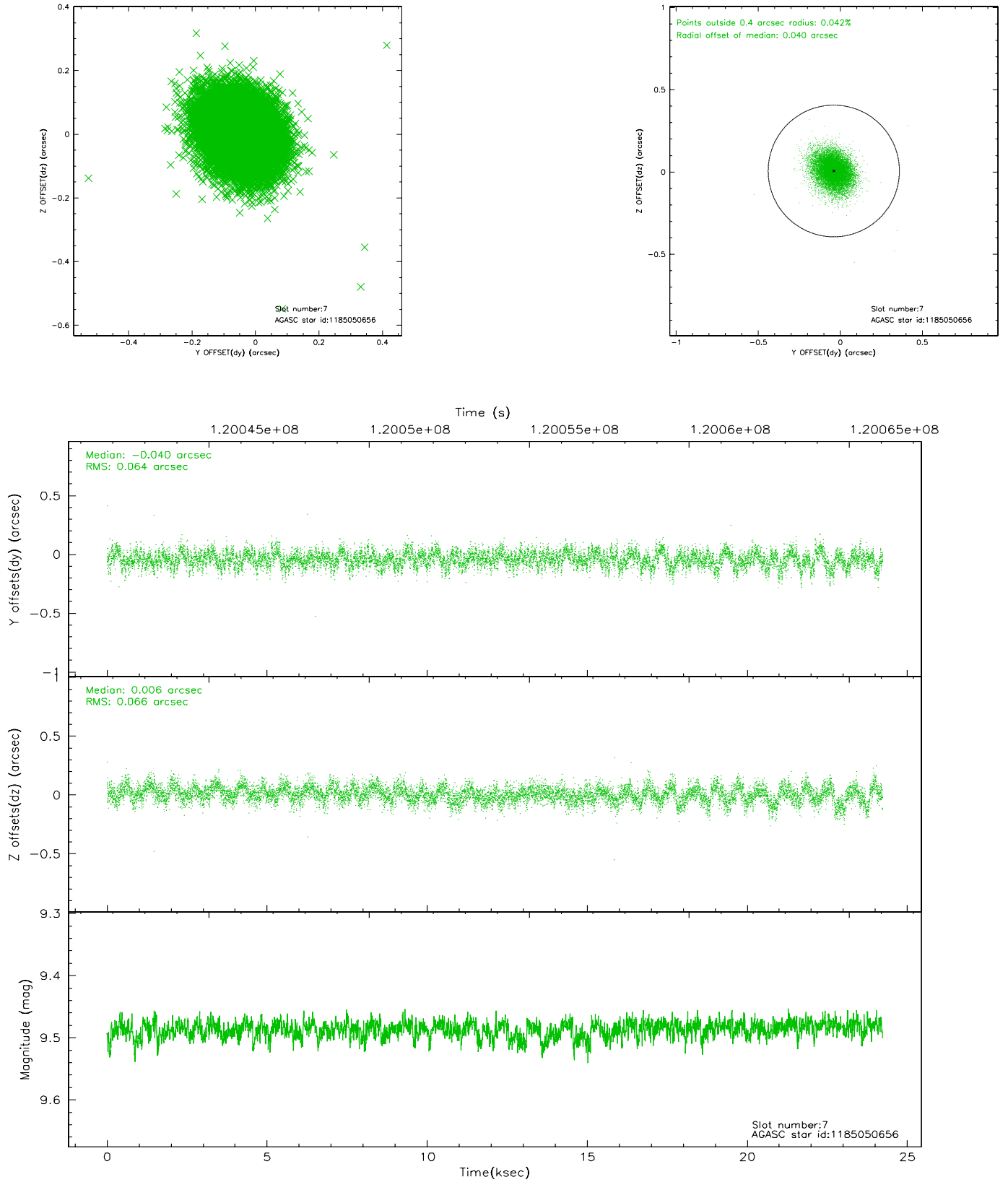
2.4.3 Slot 5



2.4.4 Slot 6

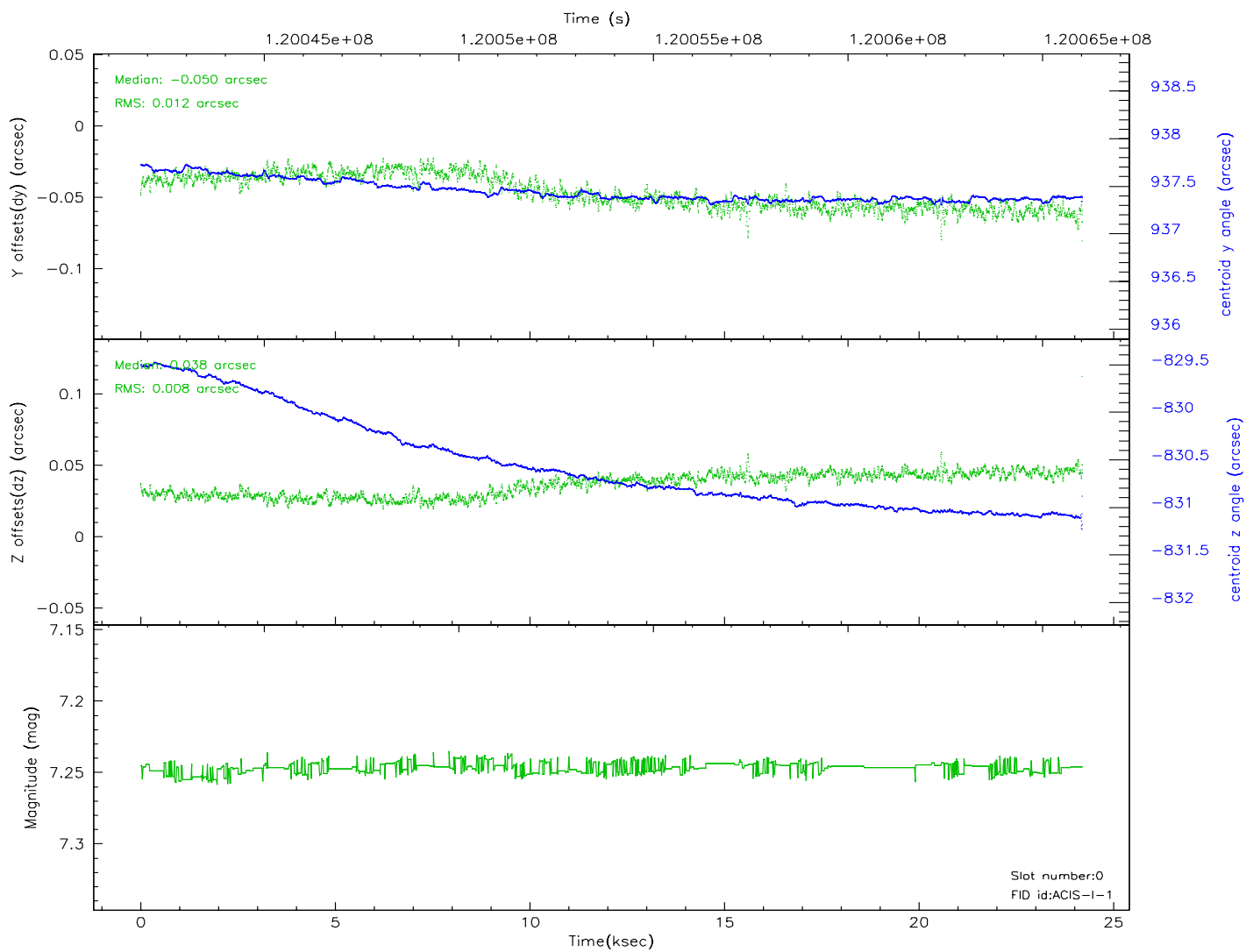
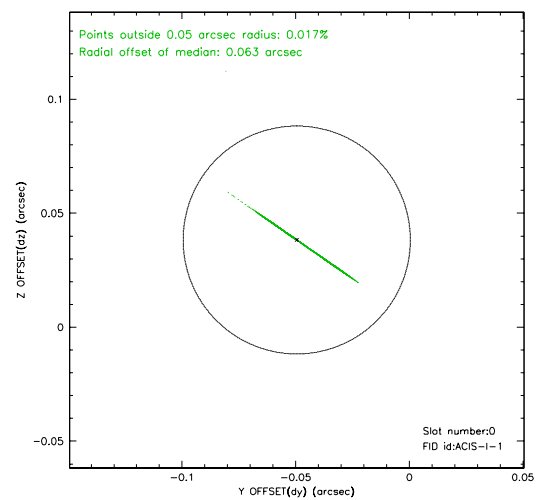
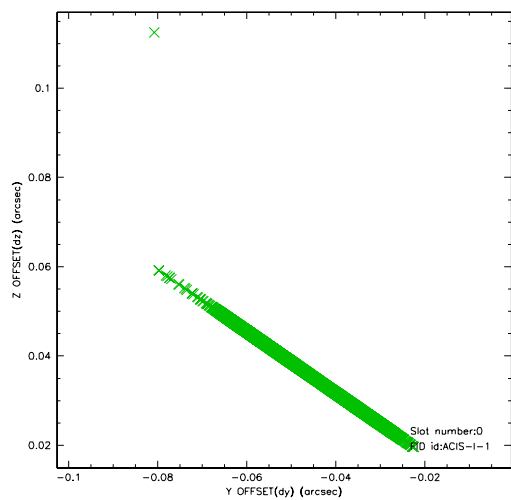


2.4.5 Slot 7

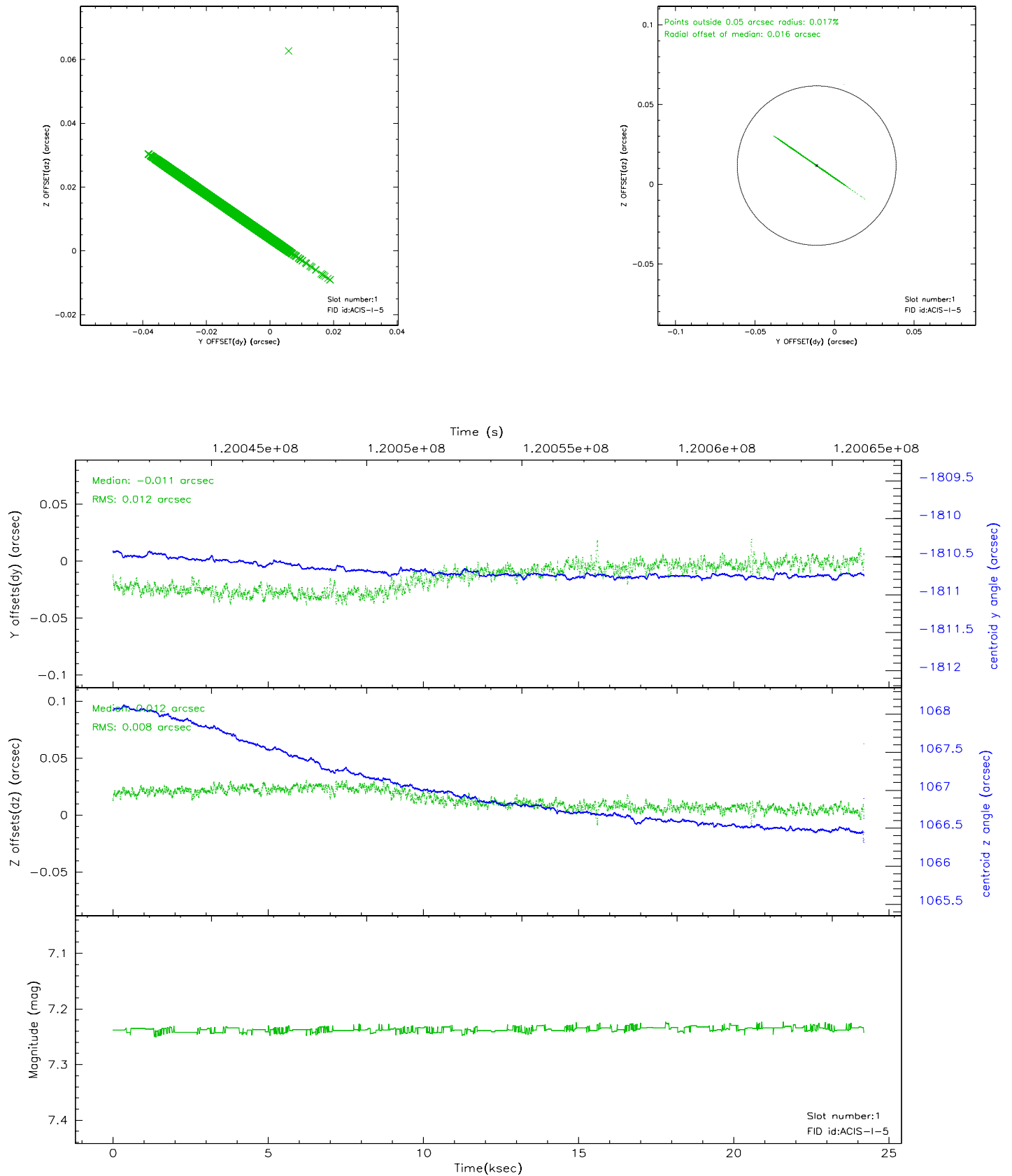


2.5 FID Slots

2.5.1 Slot 0



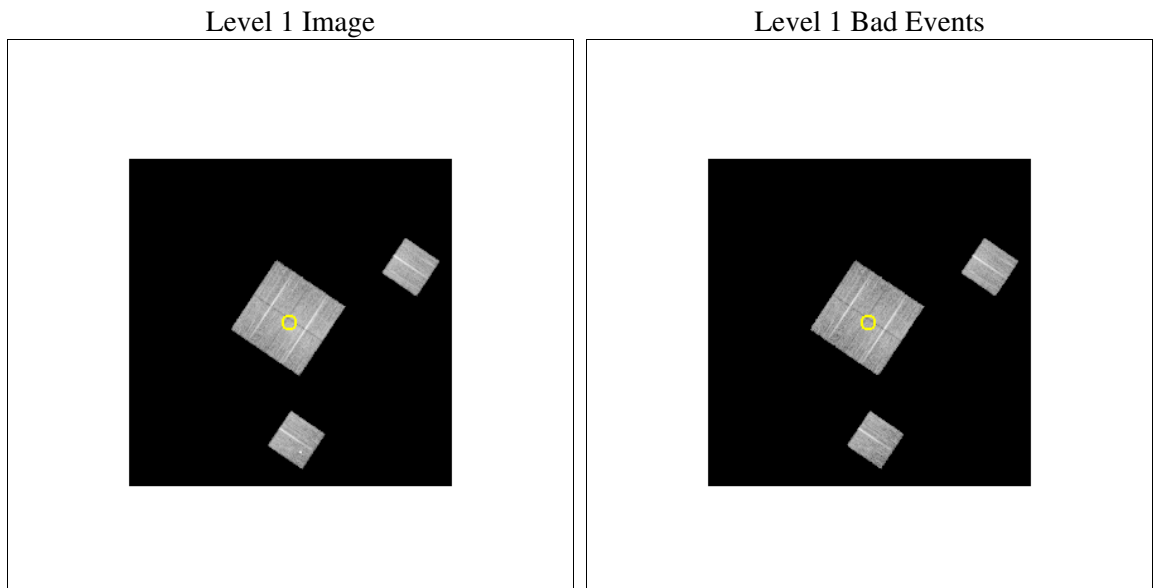
2.5.2 Slot 1



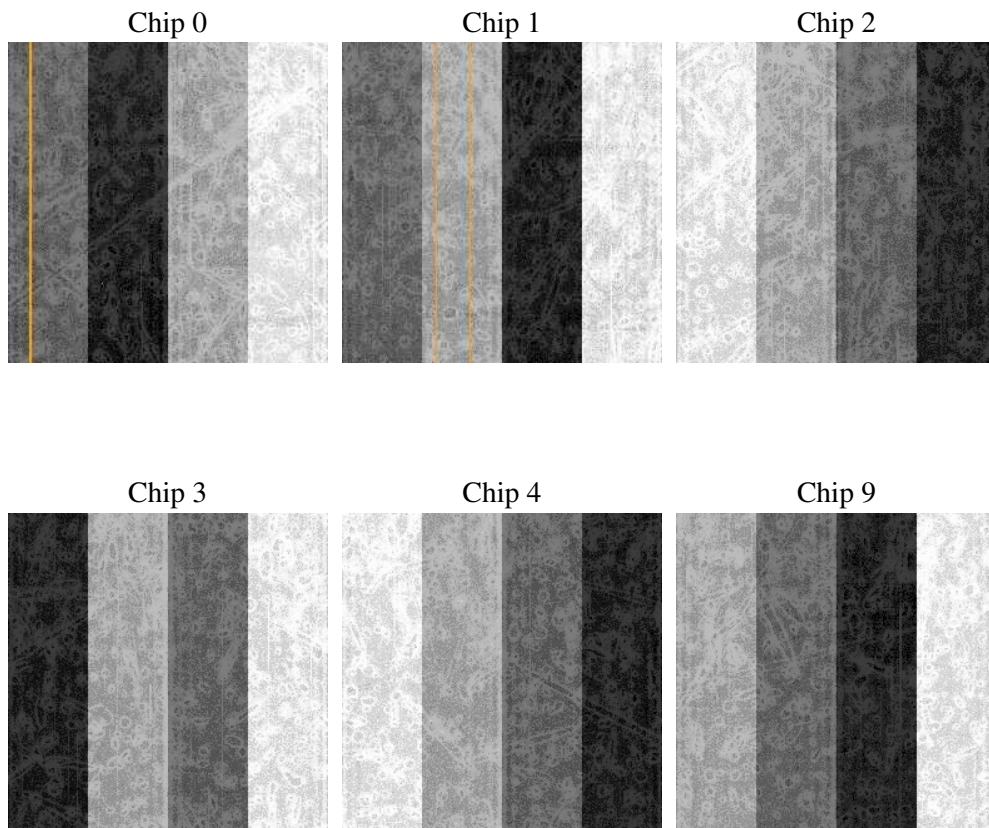
3 OBI

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 2 |
| ascdsver | 7.6.10 |
| caldsver | 3.3.0 |
| date | 2007-02-06T18:11:45 |
| revision | 4 |

| | |
|----------------|-----------------|
| sched_exp_time | 9183.000000 |
| ontime | 9155.1590482593 |
| ontime0 | 9158.4000085294 |
| ontime1 | 9158.4000085294 |
| ontime2 | 9155.1590283513 |
| ontime3 | 9155.1590482593 |
| ontime4 | 9158.4000085294 |
| ontime9 | 9155.1590482742 |
| l1events | 307273 |

3.1.4 Events

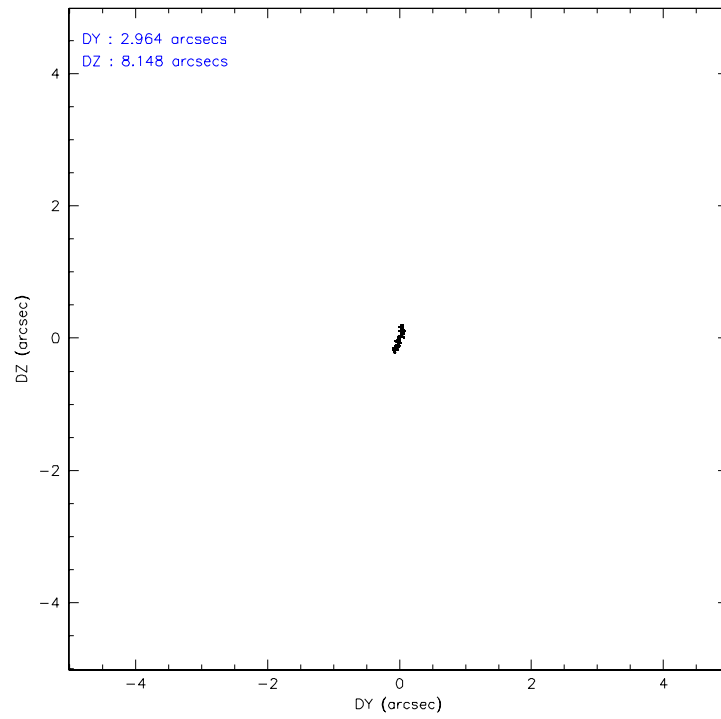
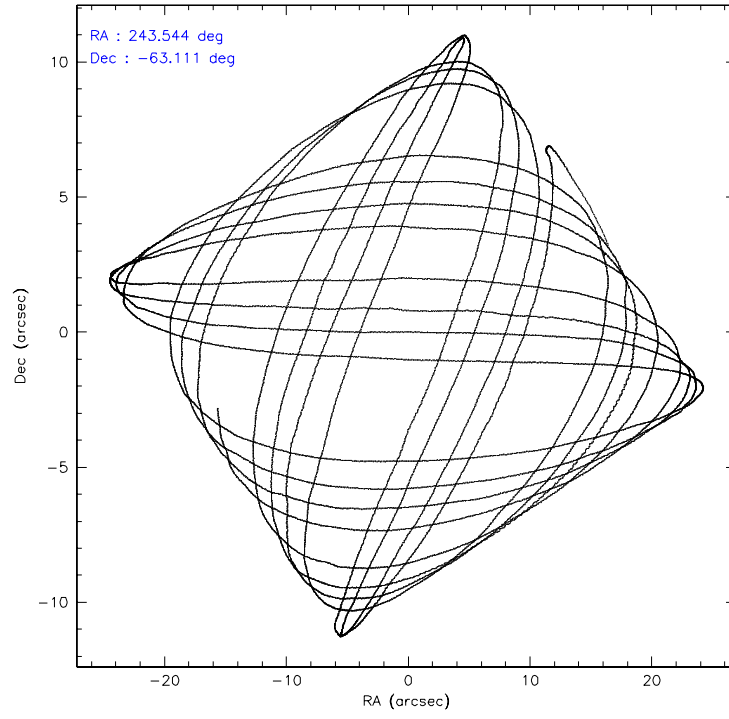
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 4 | ccd 9 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 46346 | 46461 | 54303 | 53849 | 56647 | 49667 |
| rejected events | 40851 | 40127 | 47200 | 46001 | 51033 | 43230 |
| rejected % | 88% | 86% | 86% | 85% | 90% | 87% |

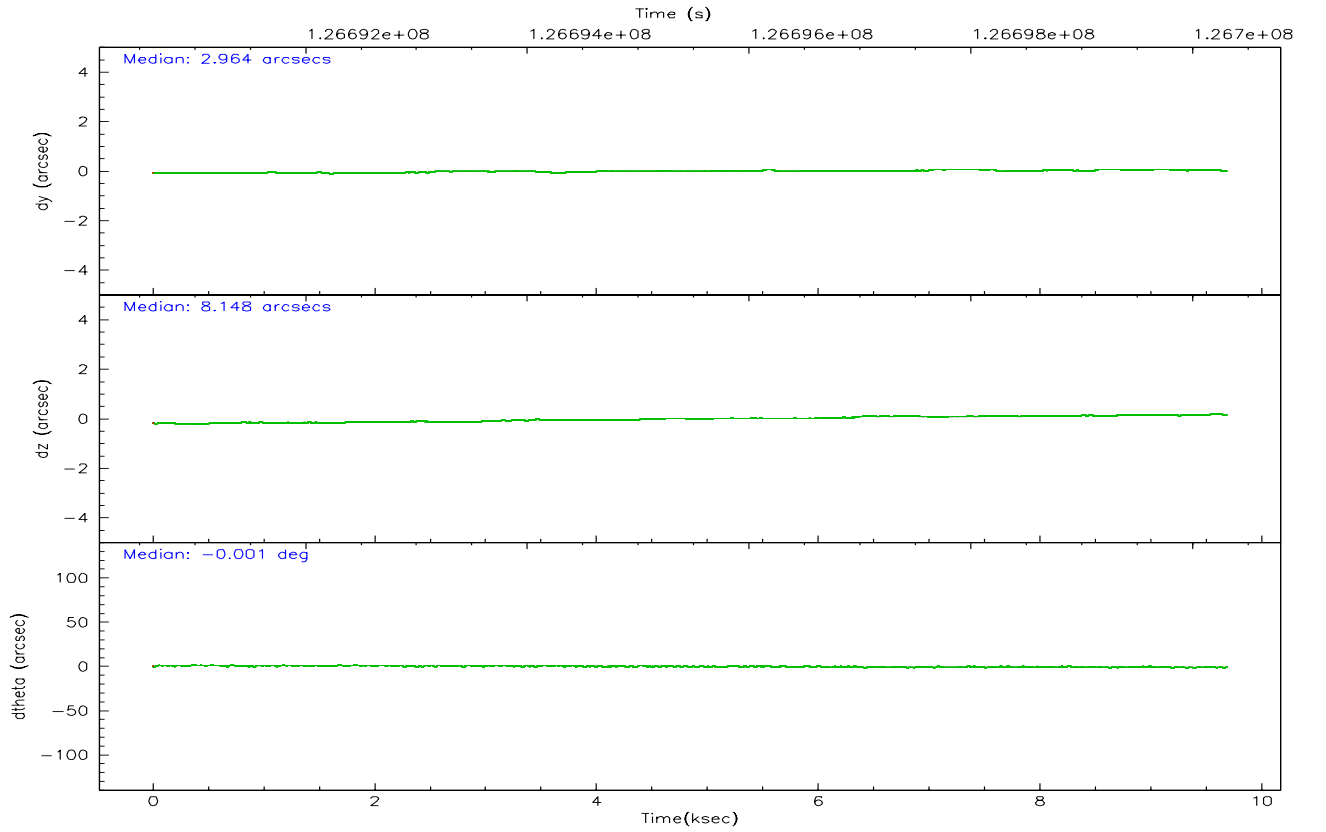
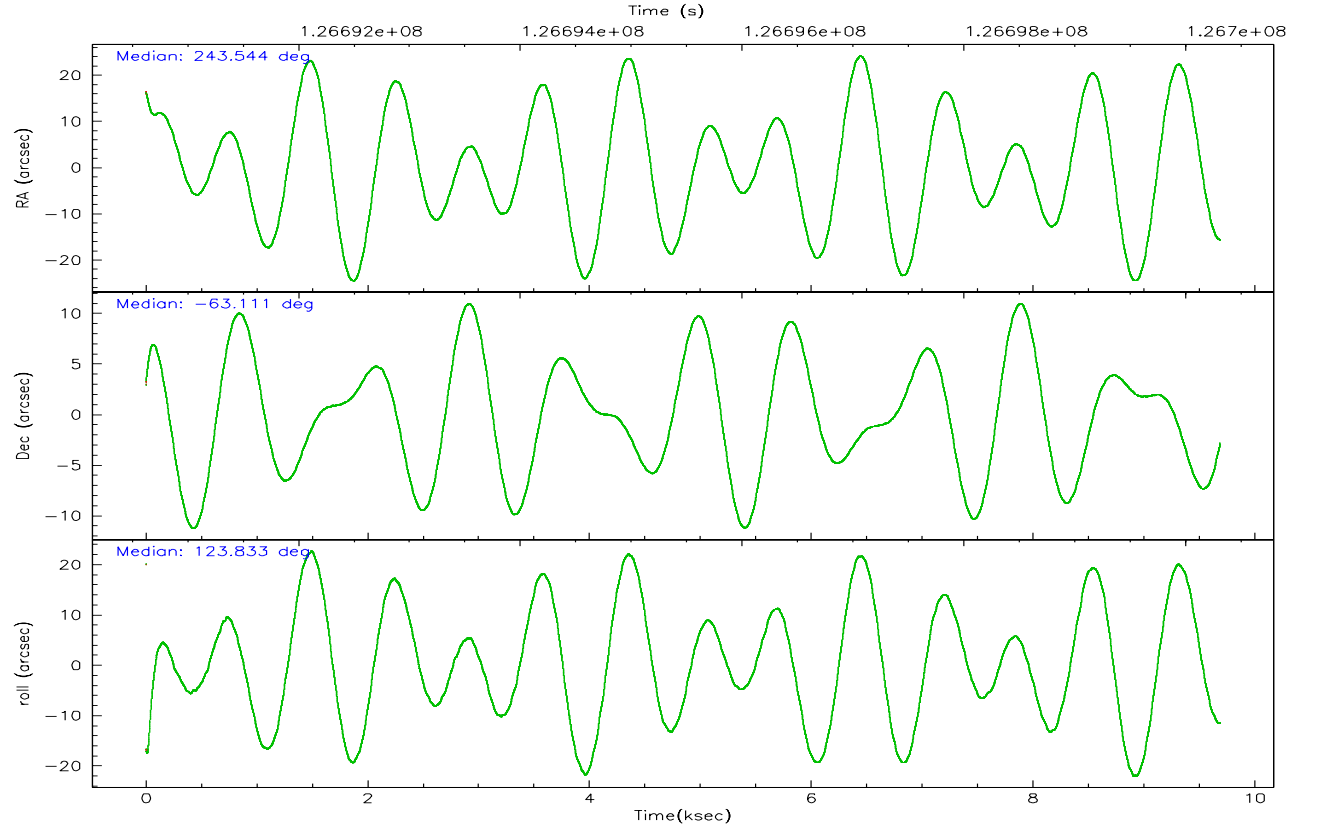
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 4 | ccd 9 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 2305 | 2897 | 3604 | 4369 | 2301 | 3022 |
| | 4% | 6% | 6% | 8% | 4% | 6% |
| grade 1 events | 30 | 22 | 30 | 32 | 22 | 30 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 1282 | 1216 | 1458 | 1314 | 1424 | 1246 |
| | 2% | 2% | 2% | 2% | 2% | 2% |
| grade 3 events | 522 | 602 | 521 | 623 | 504 | 545 |
| | 1% | 1% | 0% | 1% | 0% | 1% |
| grade 4 events | 471 | 610 | 574 | 575 | 515 | 529 |
| | 1% | 1% | 1% | 1% | 0% | 1% |
| grade 5 events | 1518 | 1552 | 1400 | 1708 | 1621 | 1955 |
| | 3% | 3% | 2% | 3% | 2% | 3% |
| grade 6 events | 917 | 1010 | 947 | 973 | 873 | 1097 |
| | 1% | 2% | 1% | 1% | 1% | 2% |
| grade 7 events | 39301 | 38552 | 45769 | 44255 | 49387 | 41243 |
| | 84% | 82% | 84% | 82% | 87% | 83% |

3.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 6 | 6 |
| Detector | ACIS-012349 | ACIS-012349 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| Pointing RA | 243.598372 | 243.5439806596165 | Subarray requested | NONE | NONE |
| Pointing Dec | -63.123238 | -63.1112730726725 | Alternating exposures requested | N | N |
| Pointing Roll | 123.674231 | 123.8343662554226 | Primary exposure time | 0.000000 | 3.2 |
| SIM focus pos (mm) | -0.782348 | -0.7809083437167272 | | | |
| SIM defocus (mm) | 0 | 0.001439871863259334 | | | |
| SIM translation stage pos (mm) | -233.592463 | -233.5874344608287 | | | |
| SIM translation stage offset (mm) | 0 | -0.005018542100998502 | | | |
| Observation start time | 126691131.184000 | 126690011.70531 | | | |
| Observation start date | 2002-01-06T07:57:47 | 2002-01-06T07:40:11 | | | |
| Observation end time | 126700314.184000 | 126700854.15575 | | | |
| Observation end date | 2002-01-06T10:30:50 | 2002-01-06T10:40:54 | | | |
| Read mode | TIMED | TIMED | | | |

3.3 Aspect



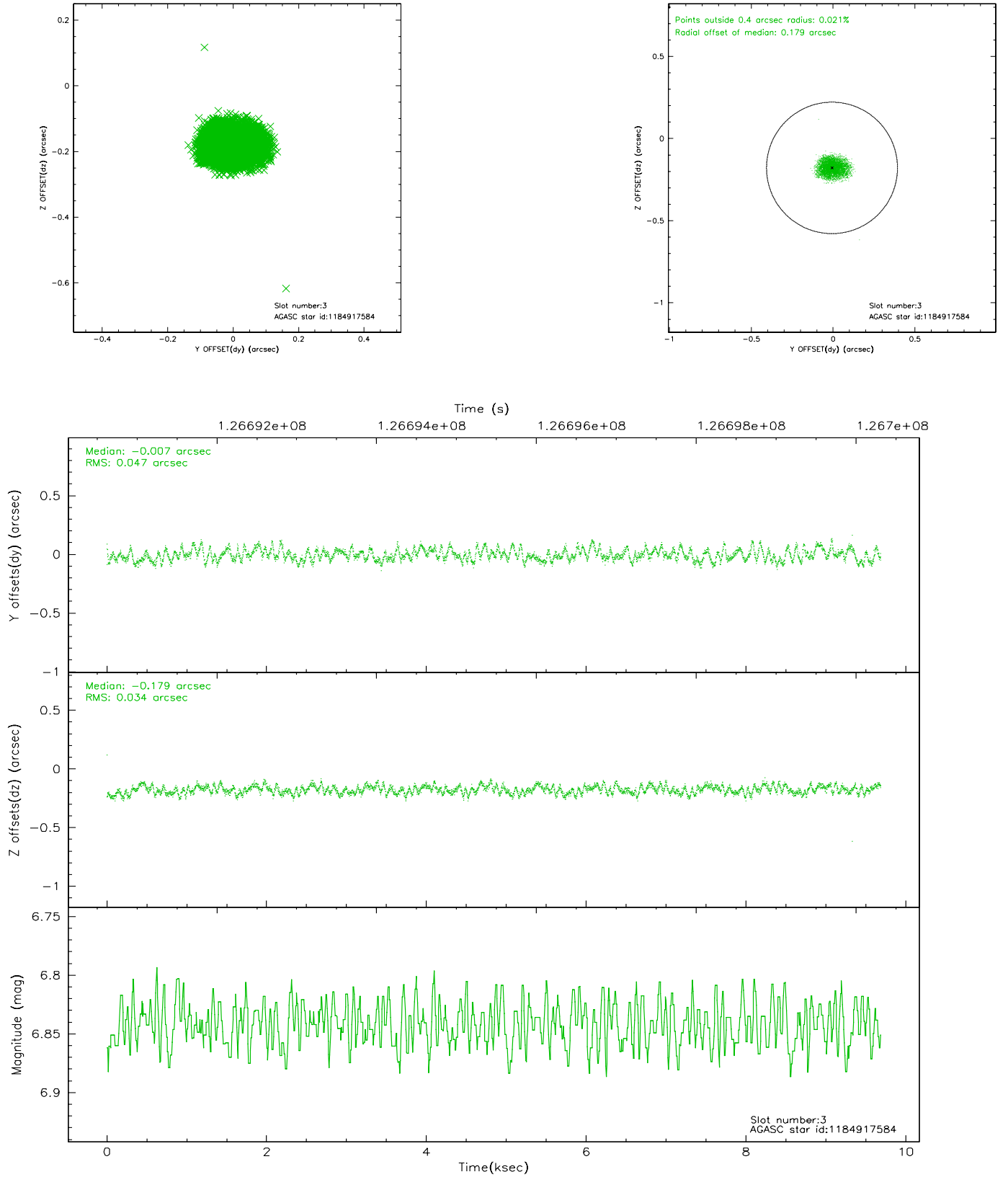


Slot Statistics

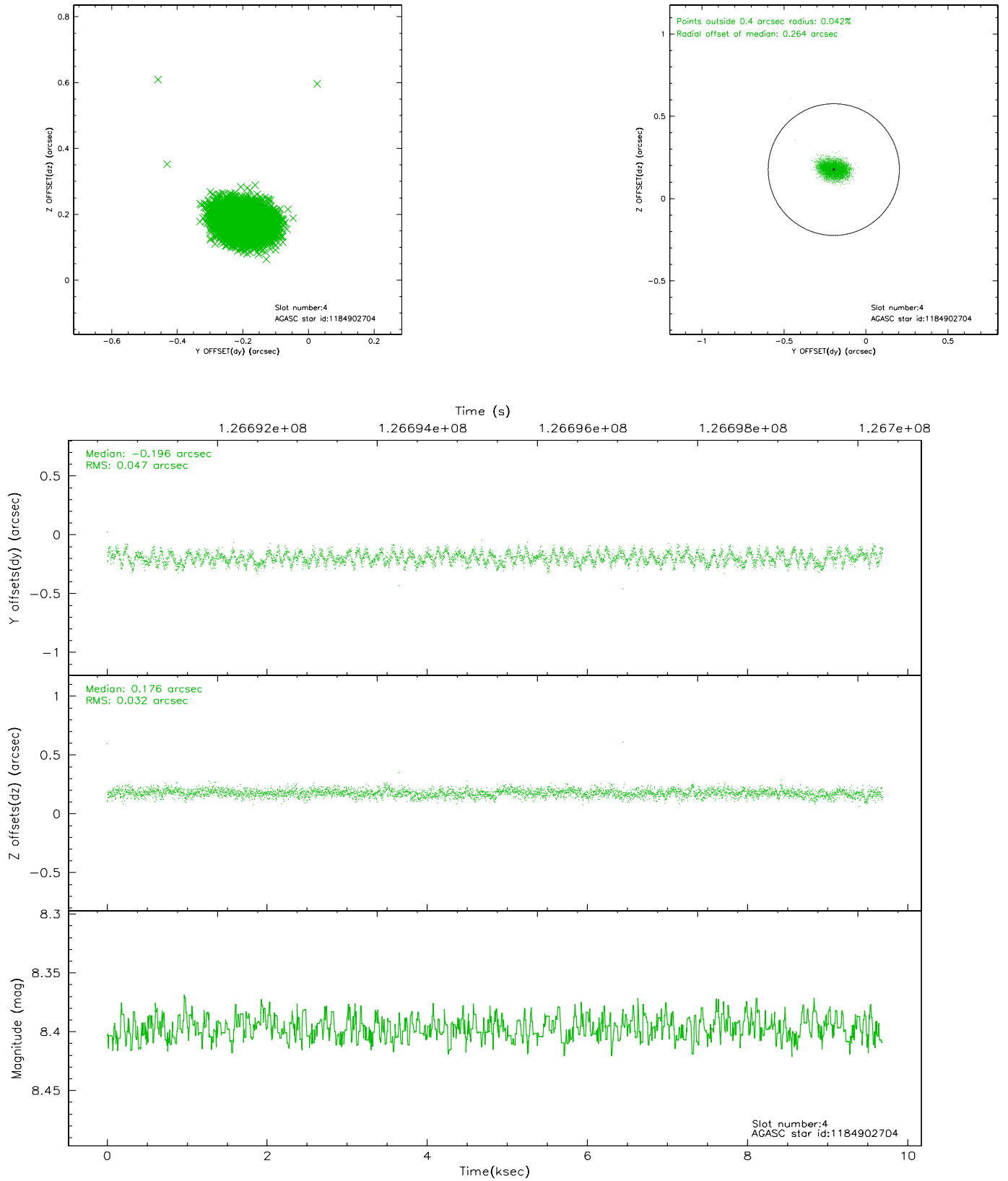
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|---------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.25 | 5903 | -0.050 | 0.038 | 0.016 | 0.025 | 0.000000 | 0.000000 | 937.45 | -830.55 |
| 1 | FID | ACIS-I-5 | 7.24 | 5903 | -0.011 | 0.012 | 0.016 | 0.025 | 0.000000 | 0.000000 | -1810.53 | 1066.89 |
| 2 | OMITTED | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |
| 3 | GUIDE | 1184926344 | 7.90 | 11821 | 0.065 | -0.121 | 0.066 | 0.103 | 242.612098 | -62.922909 | 681.89 | -1503.12 |
| 4 | GUIDE | 1184902704 | 8.38 | 11819 | -0.073 | 0.053 | 0.065 | 0.106 | 243.966380 | -62.438289 | -2138.20 | -1190.34 |
| 5 | GUIDE | 1184897704 | 9.08 | 11823 | 0.042 | -0.018 | 0.075 | 0.124 | 242.251037 | -62.918879 | 1100.86 | -1920.99 |
| 6 | GUIDE | 1184905208 | 8.97 | 11817 | 0.010 | 0.081 | 0.093 | 0.149 | 244.129367 | -63.599668 | 627.29 | 1956.92 |
| 7 | GUIDE | 1185050656 | 9.49 | 11806 | -0.040 | 0.006 | 0.097 | 0.159 | 244.506293 | -63.404075 | -299.15 | 1890.39 |

3.4 Star Slots

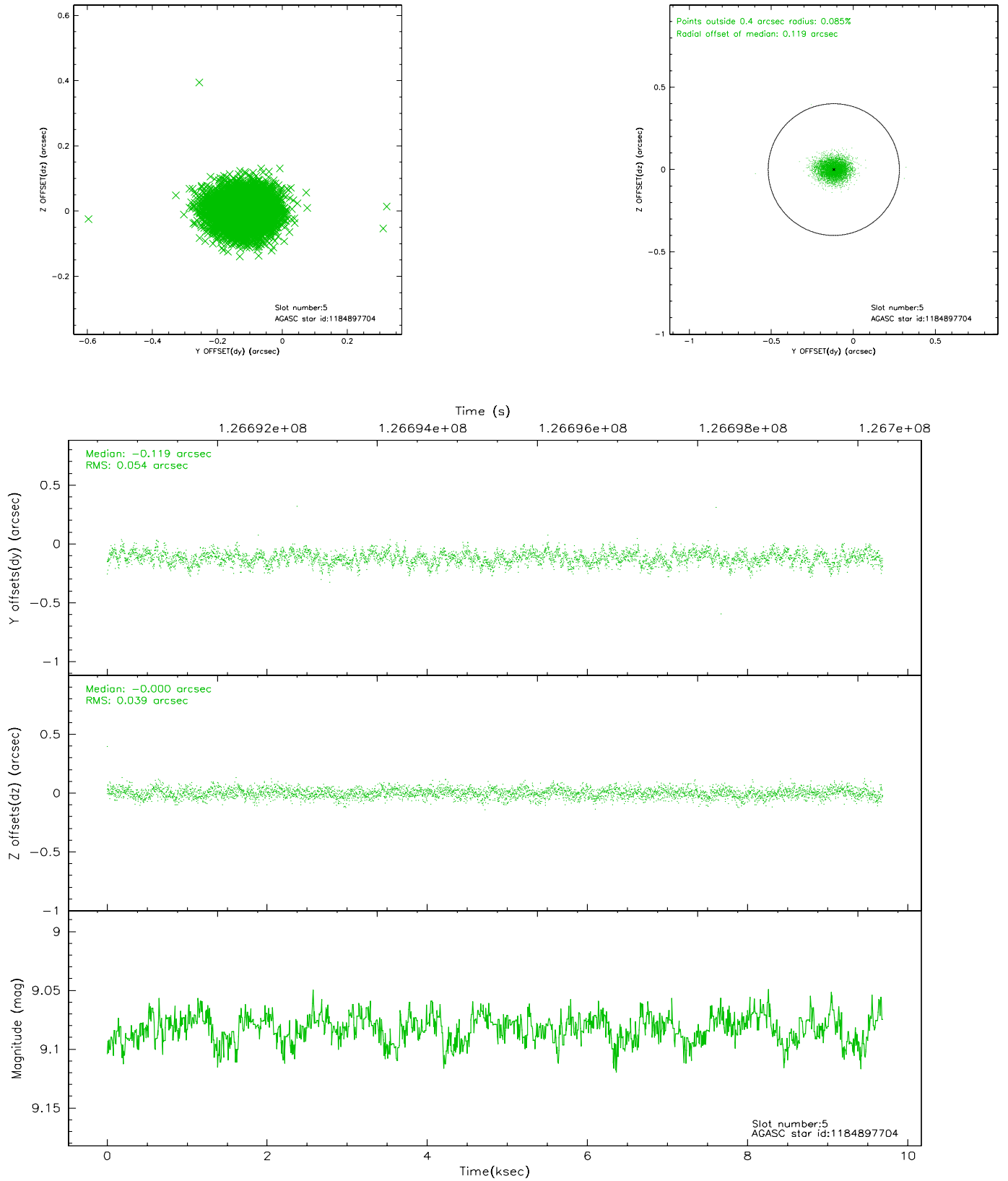
3.4.1 Slot 3



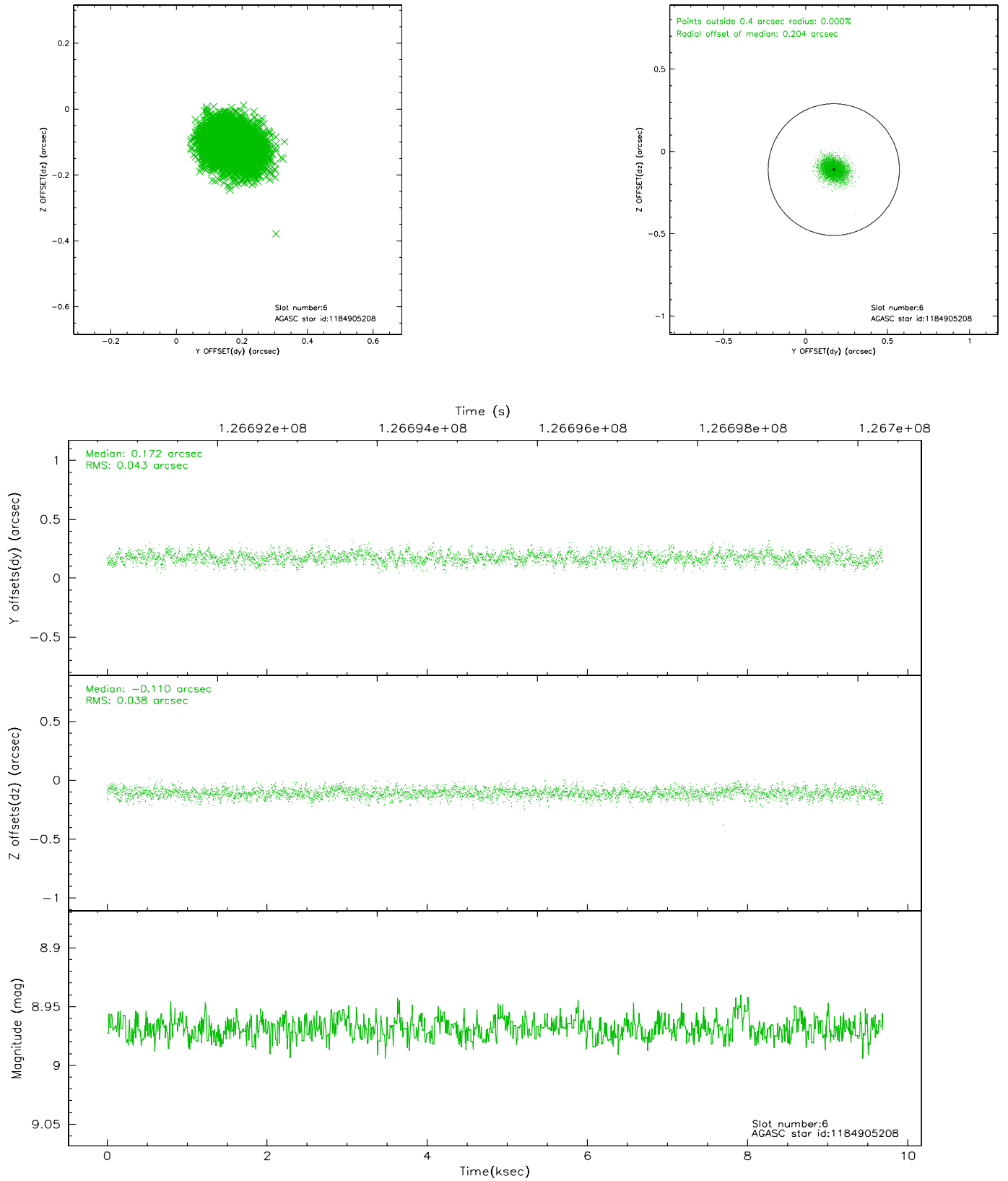
3.4.2 Slot 4



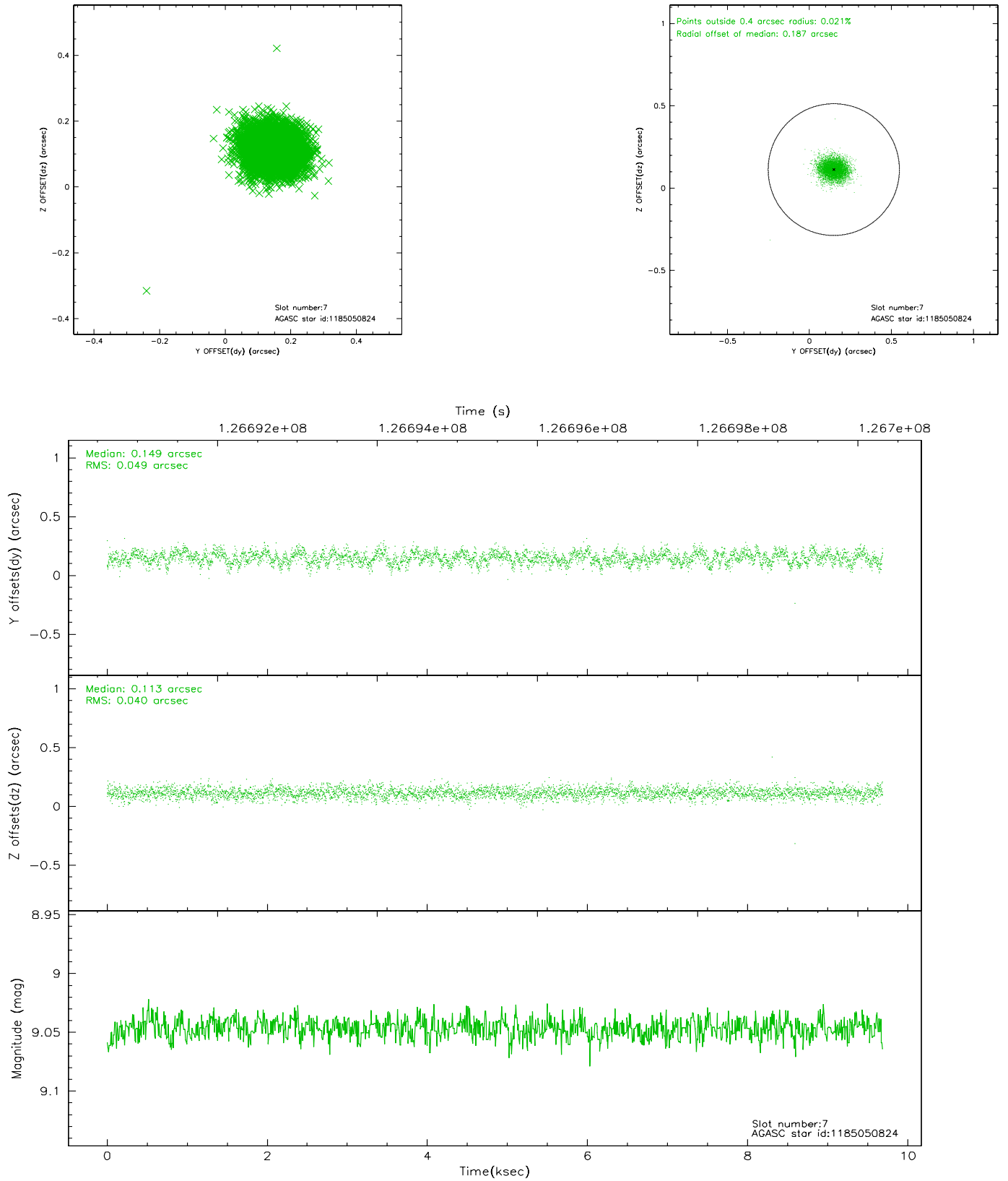
3.4.3 Slot 5



3.4.4 Slot 6

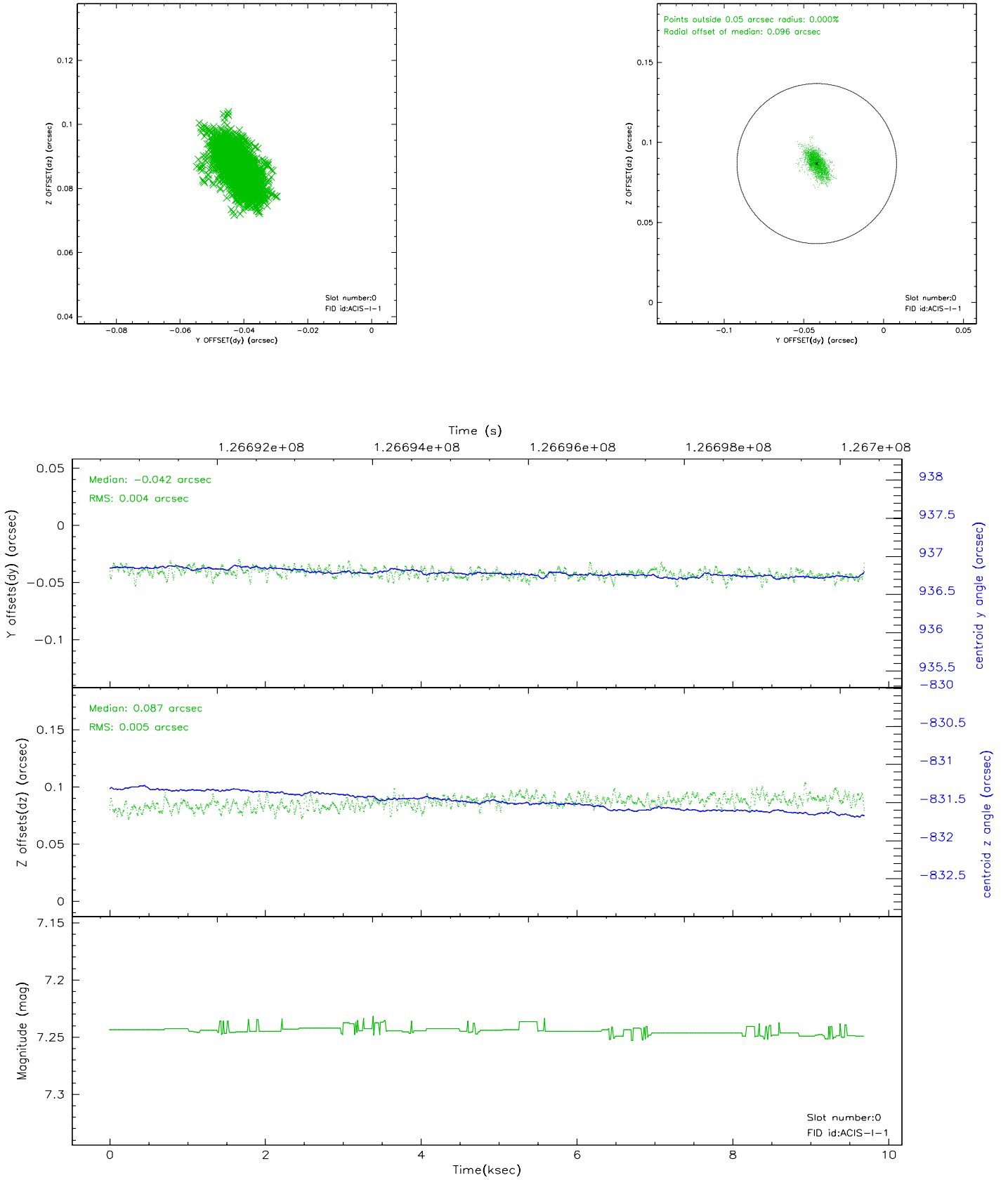


3.4.5 Slot 7

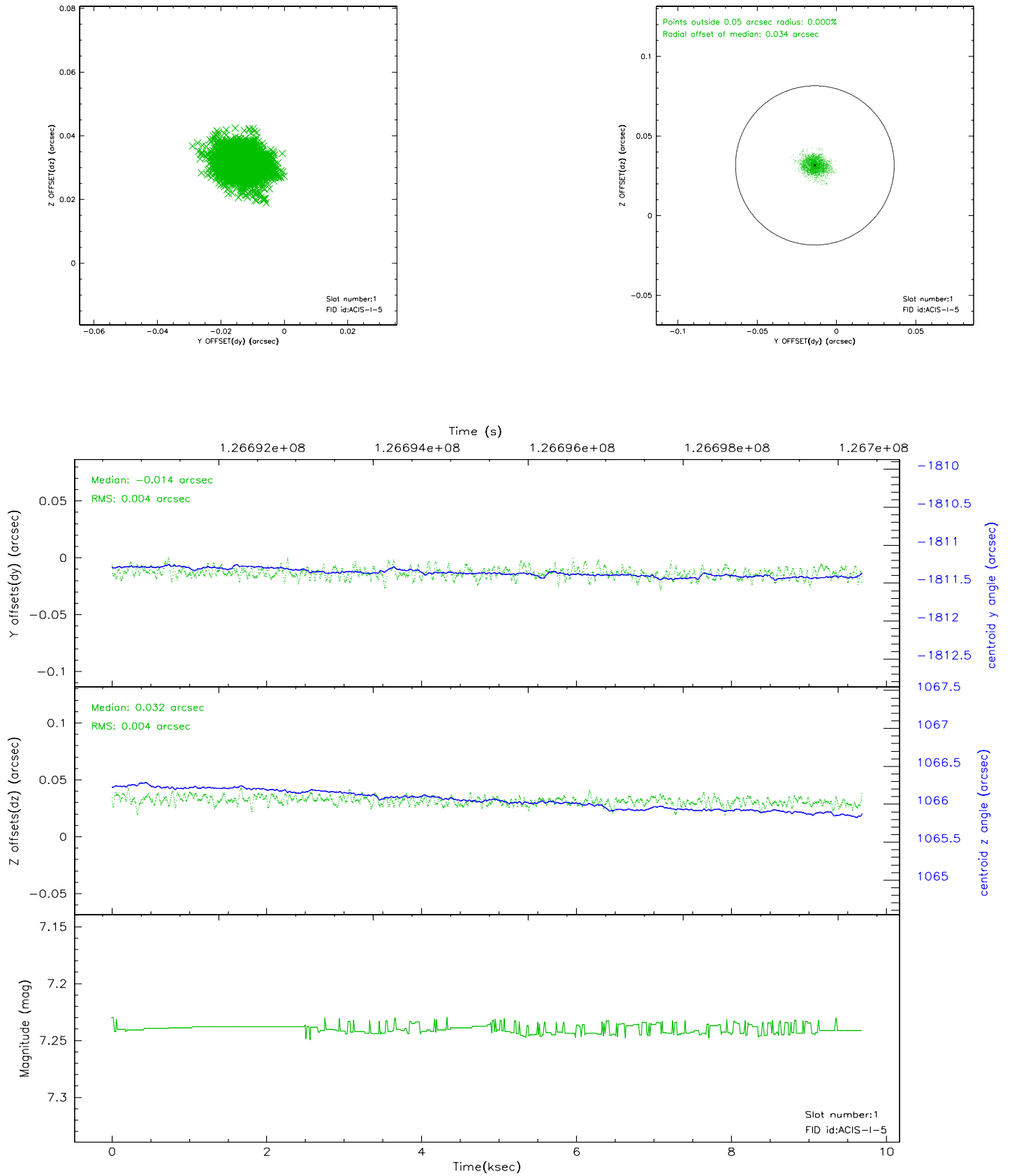


3.5 FID Slots

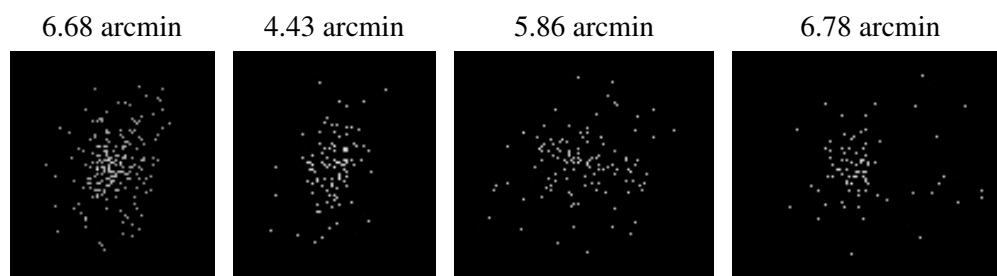
3.5.1 Slot 0



3.5.2 Slot 1



4 Point Sources



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2007.02.07 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 33.375 |

A.2 Comments

Obi=0 was interrupted by safing of the science instruments due to high solar radiation environment. The observation was interrupted at 2001:294:15:53:04.

The fid light in slot 2 was removed from the aspect solution due to poor data quality. The aspect solution is not expected to be degraded by removing one guide star or fid light from the solution.