

V&V Reference Report

L2 ASCDS Version : 7.6.7.2

Observation 4731 - L2 Version 001
Chandra X-Ray Center

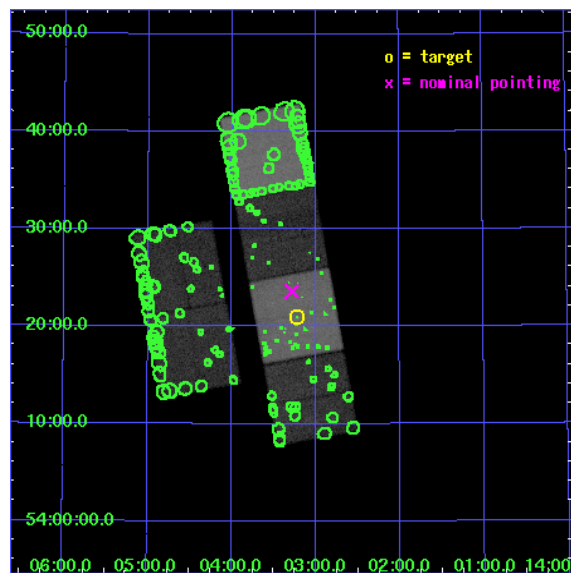
L2 Processing Date : Jun 6 2006

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

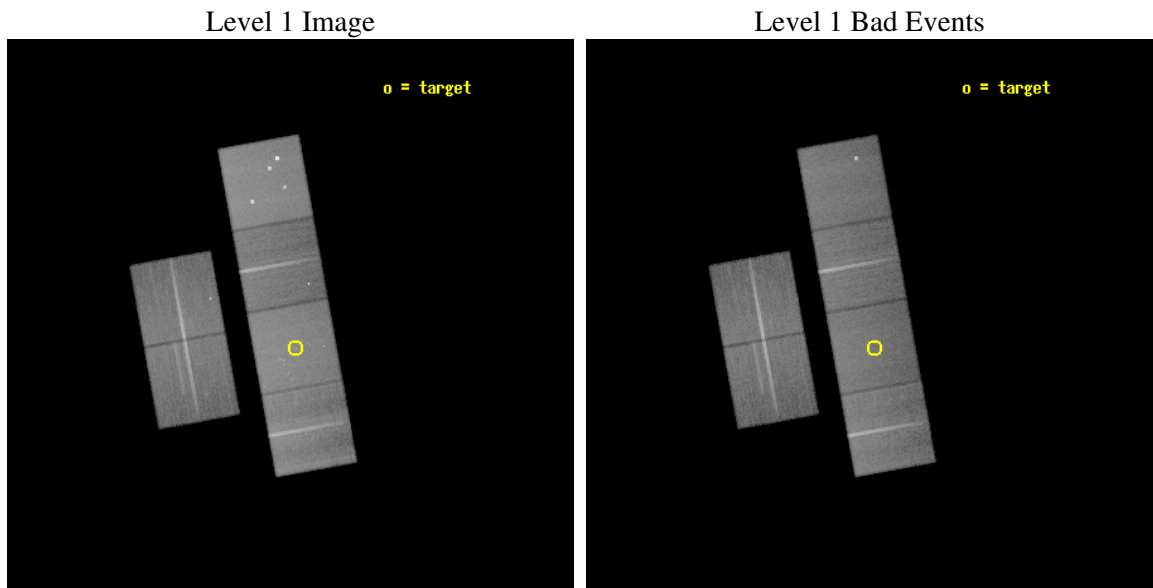
| | |
|----------|-----------------------------|
| seq_num | 600386 |
| obs_id | 4731 |
| title | An Ultra-Deep Study of M101 |
| observer | Dr. K. Kuntz |
| object | M101 |
| dtcycle | 0 |
| cycle | P |
| ra_targ | 210.80375 |
| dec_targ | 54.348778 |
| ra_nom | 210.82073424983 |
| dec_nom | 54.393392954872 |
| roll_nom | 79.742820998294 |
| revision | 2 |
| ontime | 56963.199787796 |
| livetime | 56241.897452961 |
| ontime2 | 56963.199787796 |
| ontime3 | 56959.958817512 |
| ontime5 | 56963.199787796 |
| ontime6 | 56963.199787796 |
| ontime7 | 56963.199787796 |
| ontime8 | 56963.199787796 |
| l2events | 574677 |



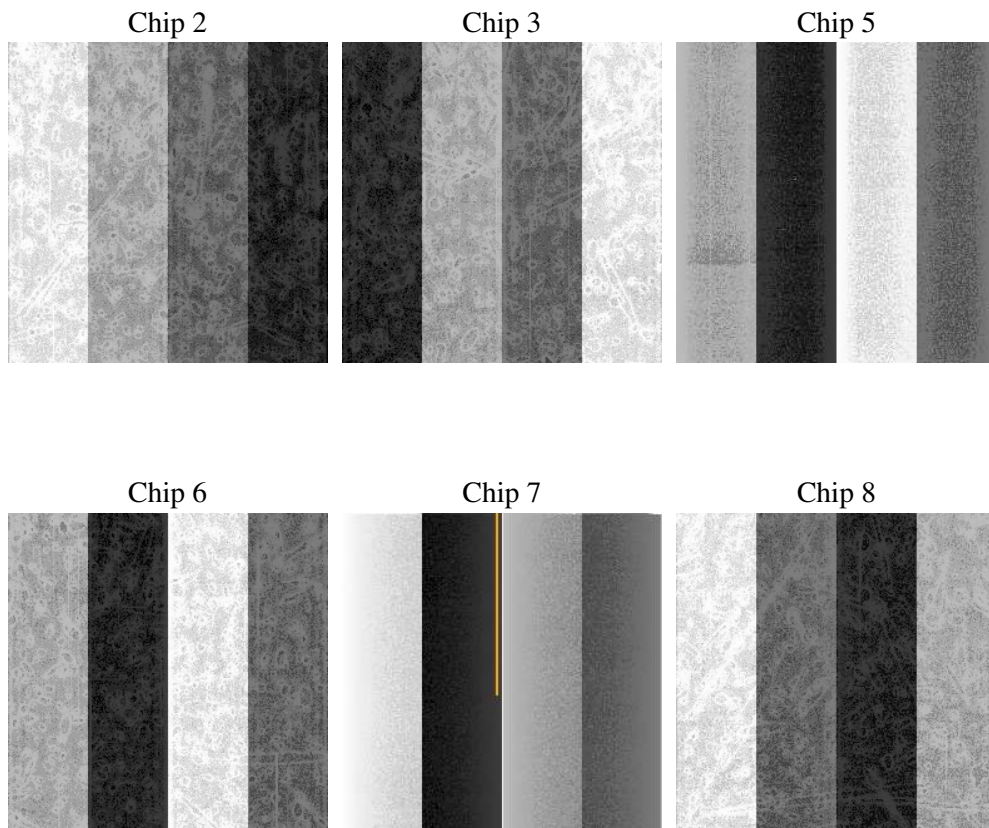
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 0 |
| ascdsver | 7.6.7.2 |
| caldsver | 3.2.2 |
| date | 2006-06-06T23:38:59 |
| revision | 2 |

| | |
|----------------|-----------------|
| sched_exp_time | 57000.000000 |
| ontime | 56967.151144594 |
| ontime2 | 56967.151144594 |
| ontime3 | 56963.910154402 |
| ontime5 | 56967.151144594 |
| ontime6 | 56967.151124686 |
| ontime7 | 56967.151144594 |
| ontime8 | 56967.151124686 |
| l1events | 2614440 |

2.1.4 Events

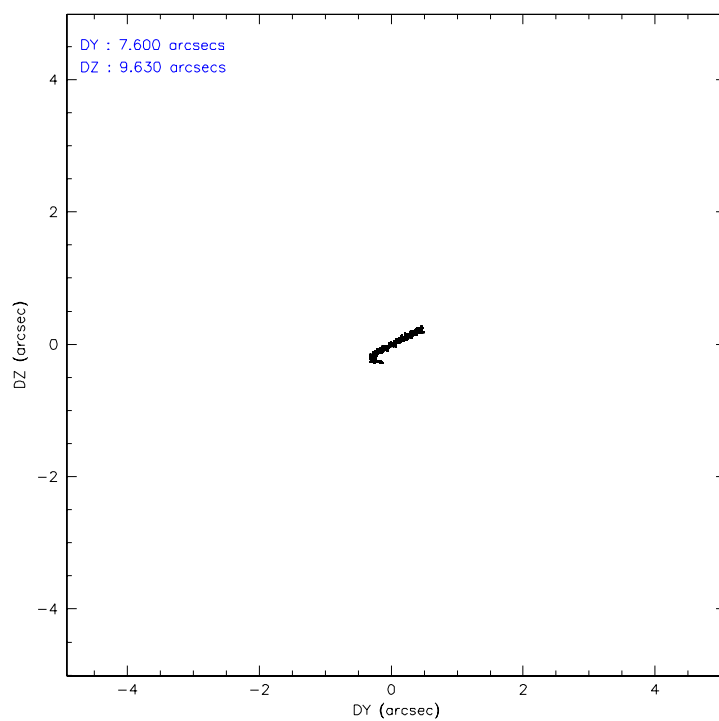
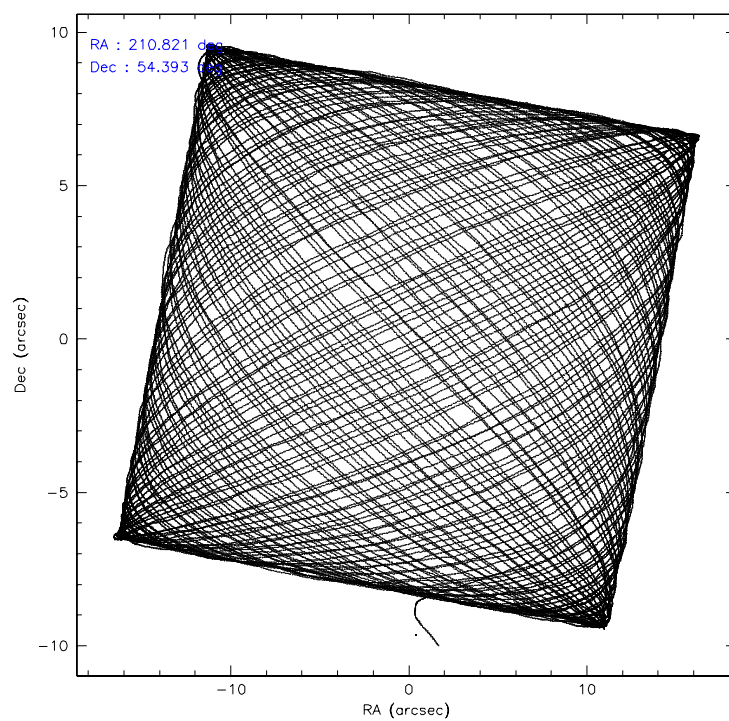
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 369334 | 351832 | 562350 | 368789 | 504840 | 457295 |
| rejected events | 324389 | 309736 | 311034 | 321658 | 307468 | 361902 |
| rejected % | 87% | 88% | 55% | 87% | 60% | 79% |

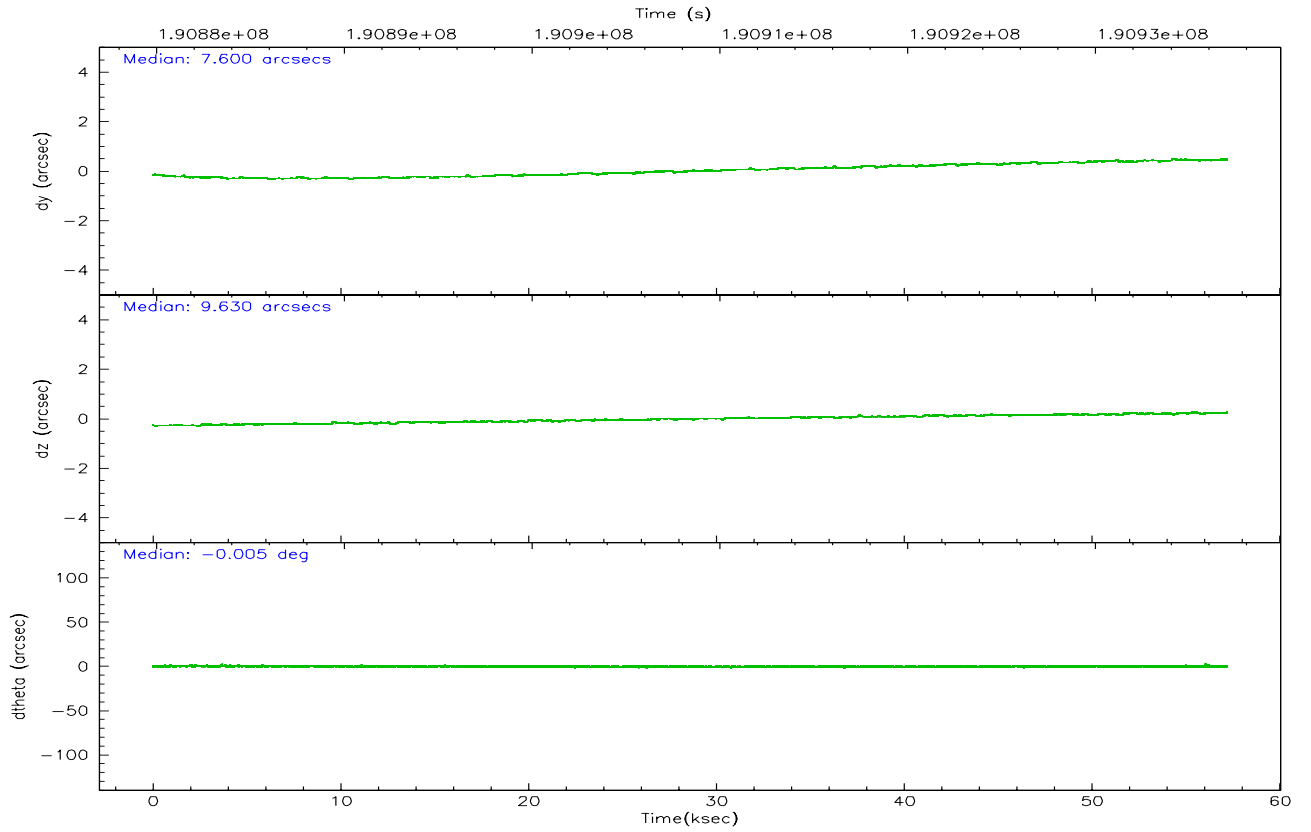
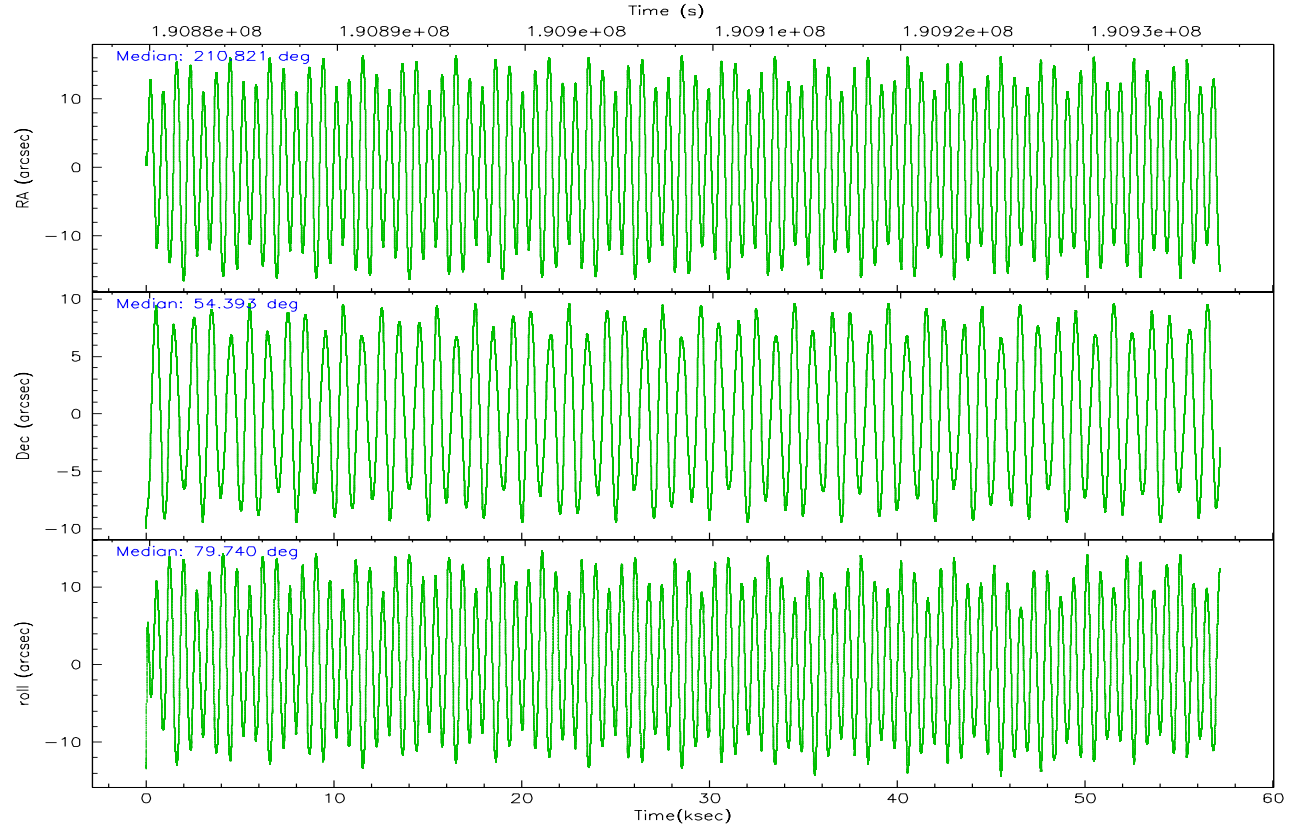
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|--------|--------|--------|--------|--------|--------|
| grade 0 events | 20425 | 18514 | 25757 | 19879 | 14801 | 30538 |
| | 5% | 5% | 4% | 5% | 2% | 6% |
| grade 1 events | 200 | 209 | 459 | 198 | 315 | 296 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 8804 | 7946 | 79916 | 9468 | 48738 | 20867 |
| | 2% | 2% | 14% | 2% | 9% | 4% |
| grade 3 events | 4167 | 4150 | 4954 | 4402 | 10306 | 9756 |
| | 1% | 1% | 0% | 1% | 2% | 2% |
| grade 4 events | 4188 | 4093 | 4673 | 4275 | 9955 | 9388 |
| | 1% | 1% | 0% | 1% | 1% | 2% |
| grade 5 events | 14513 | 16123 | 27819 | 16970 | 32438 | 21805 |
| | 3% | 4% | 4% | 4% | 6% | 4% |
| grade 6 events | 7364 | 7395 | 136029 | 9109 | 113582 | 24844 |
| | 1% | 2% | 24% | 2% | 22% | 5% |
| grade 7 events | 309673 | 293402 | 282743 | 304488 | 274705 | 339801 |
| | 83% | 83% | 50% | 82% | 54% | 74% |

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 | NONE | NONE |
| Pointing RA | 210.837114 | 210.8207342498344 | Alternating exposures requested | N | N |
| Pointing Dec | 54.367910 | 54.3933929548718 | Primary exposure time | 0.000000 | 3.2 |
| Pointing Roll | 79.572882 | 79.74282099829426 | | | |
| 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 | 190879988.184000 | 190879026.55411 | | | |
| Observation start date | 2004-01-19T06:12:04 | 2004-01-19T05:57:06 | | | |
| Observation end time | 190936988.184000 | 190938765.09422 | | | |
| Observation end date | 2004-01-19T22:02:04 | 2004-01-19T22:32:45 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



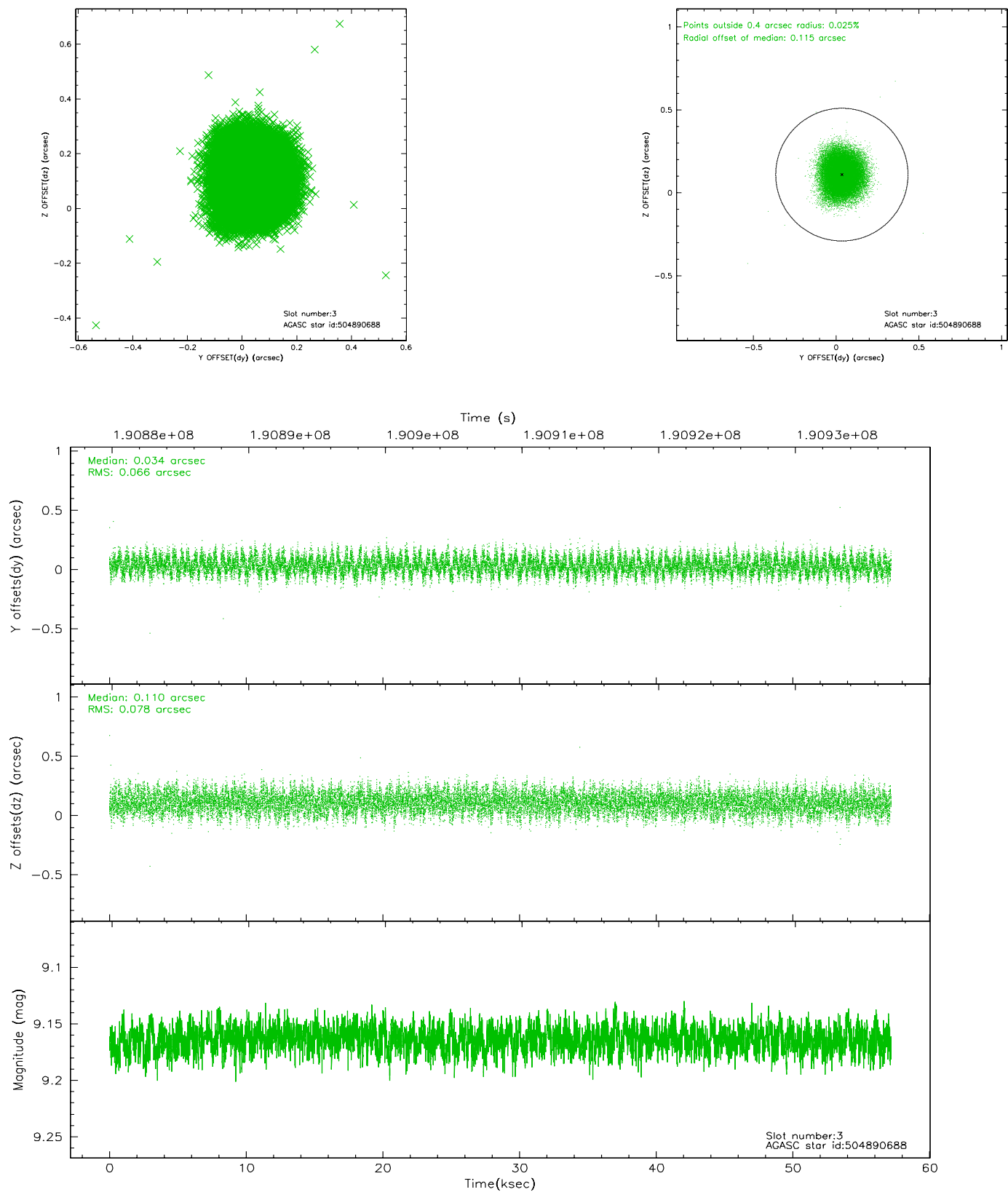


Slot Statistics

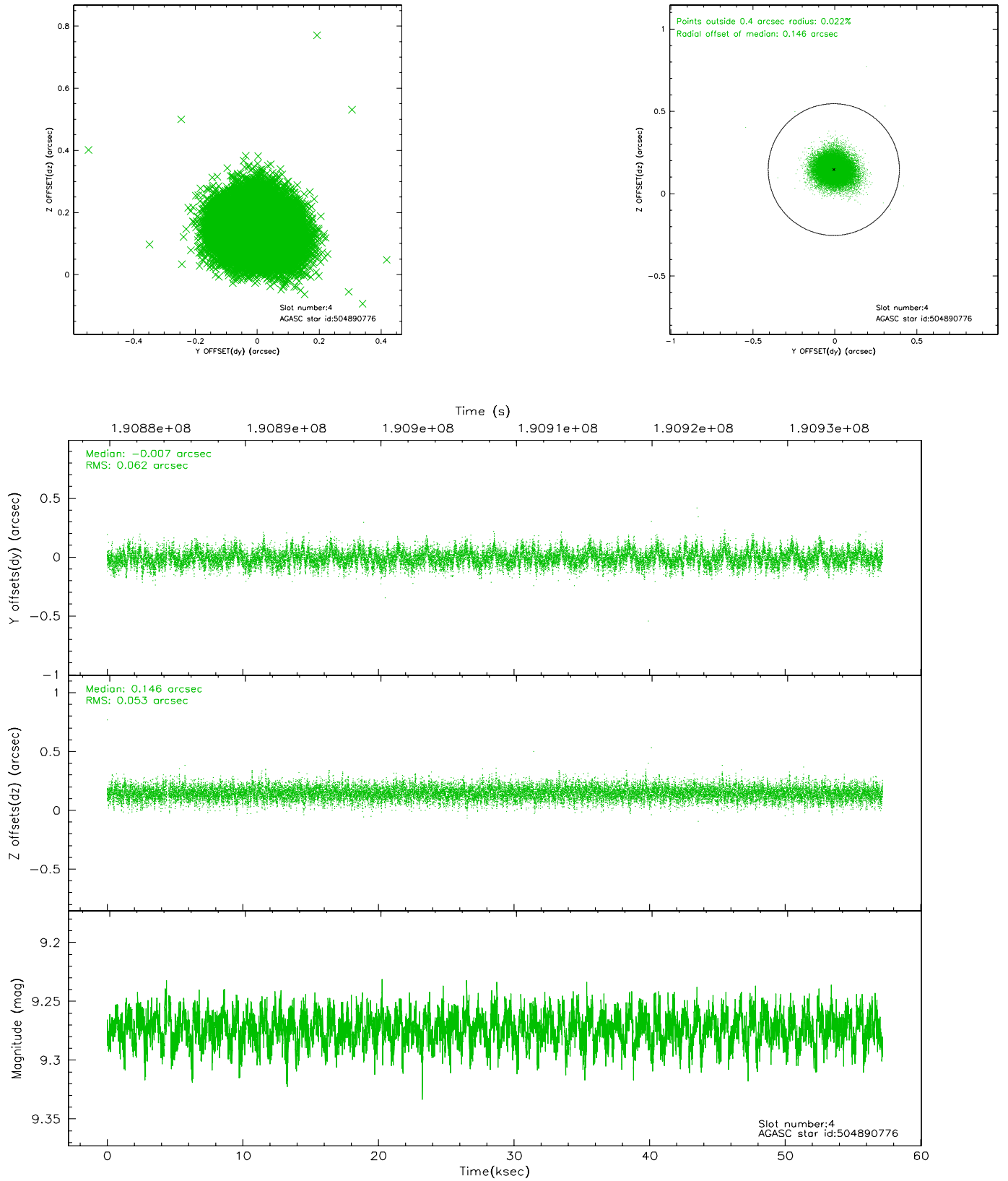
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-1 | 7.18 | 13947 | 0.012 | 0.011 | 0.010 | 0.016 | 0.000000 | 0.000000 | 935.63 | -1726.49 |
| 1 | FID | ACIS-S-2 | 7.10 | 13948 | -0.048 | -0.019 | 0.006 | 0.010 | 0.000000 | 0.000000 | -760.36 | -1731.01 |
| 2 | FID | ACIS-S-4 | 7.20 | 13946 | 0.009 | 0.013 | 0.011 | 0.017 | 0.000000 | 0.000000 | 2152.90 | 177.70 |
| 3 | GUIDE | 504890688 | 9.16 | 27879 | 0.034 | 0.110 | 0.111 | 0.171 | 211.697686 | 53.837149 | -1537.23 | -2141.81 |
| 4 | GUIDE | 504890776 | 9.27 | 27815 | -0.007 | 0.146 | 0.086 | 0.143 | 211.095934 | 54.816966 | 1688.27 | -234.94 |
| 5 | GUIDE | 504891480 | 8.08 | 27889 | 0.025 | -0.088 | 0.119 | 0.164 | 210.708012 | 54.666096 | 1007.66 | 458.81 |
| 6 | GUIDE | 504894856 | 8.99 | 27876 | 0.040 | -0.111 | 0.097 | 0.149 | 209.819510 | 54.132689 | -1205.85 | 1960.47 |
| 7 | GUIDE | 505292416 | 9.32 | 27877 | -0.104 | -0.057 | 0.108 | 0.173 | 210.920759 | 55.040479 | 2412.91 | 269.17 |

2.4 Star Slots

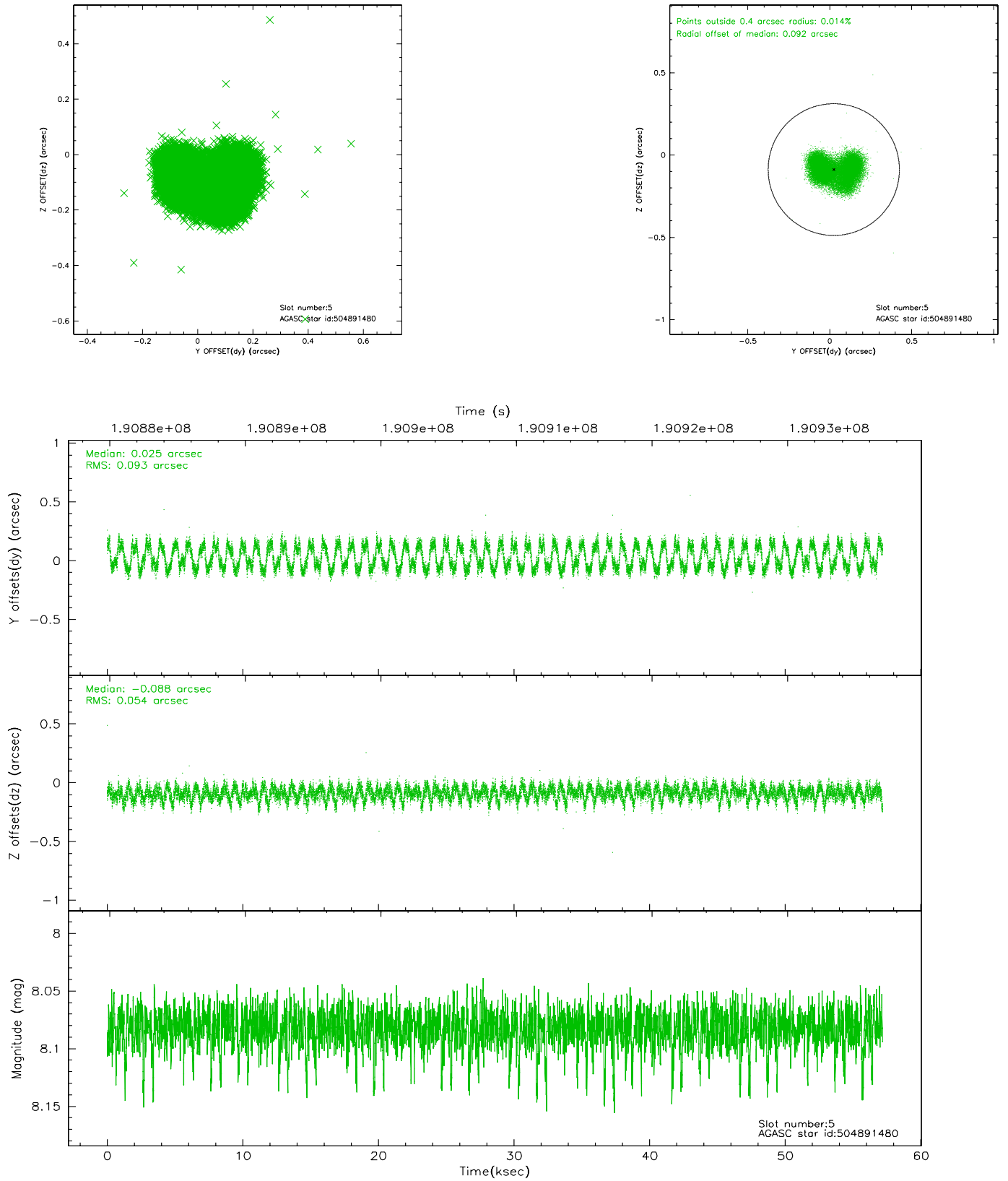
2.4.1 Slot 3



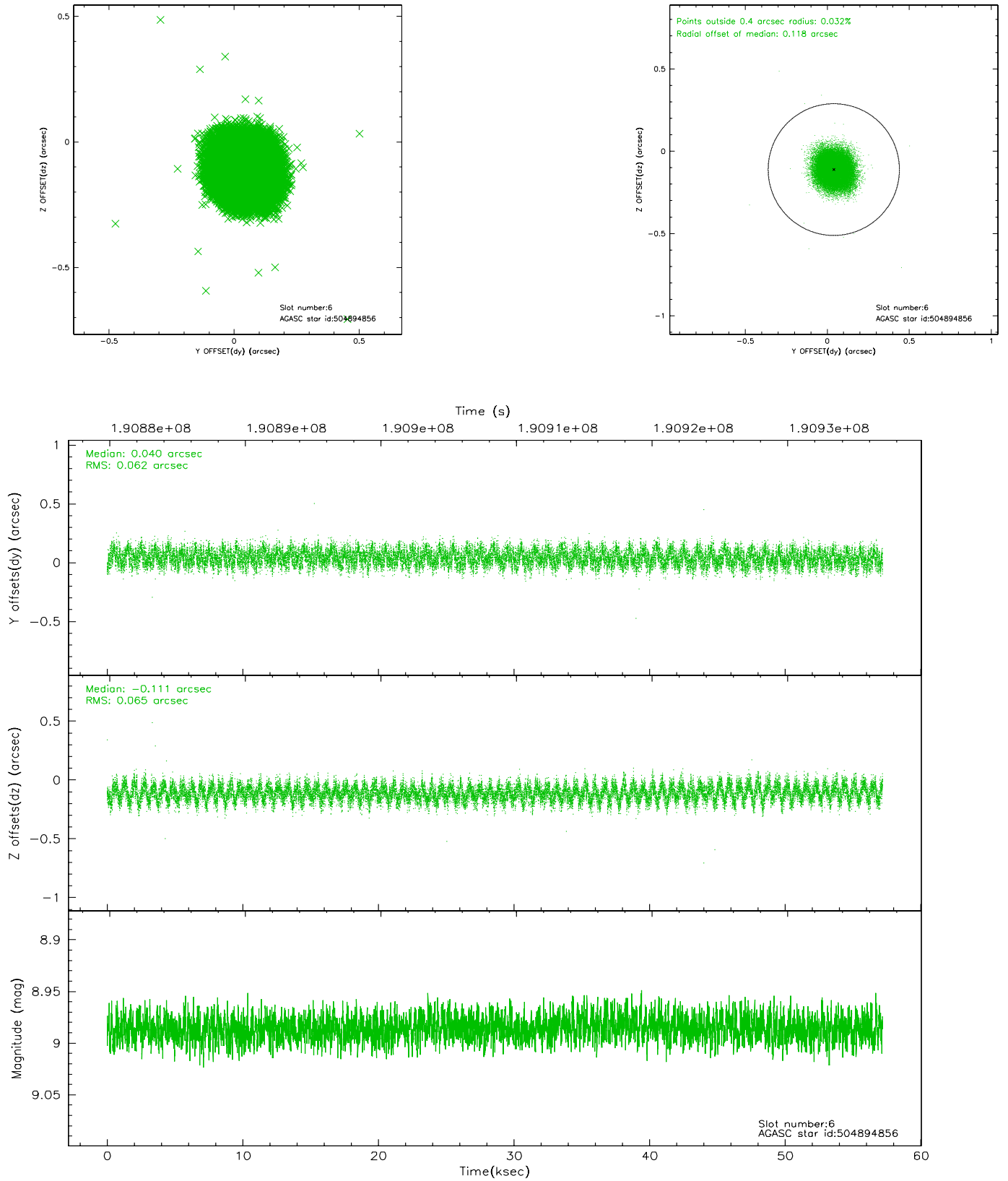
2.4.2 Slot 4



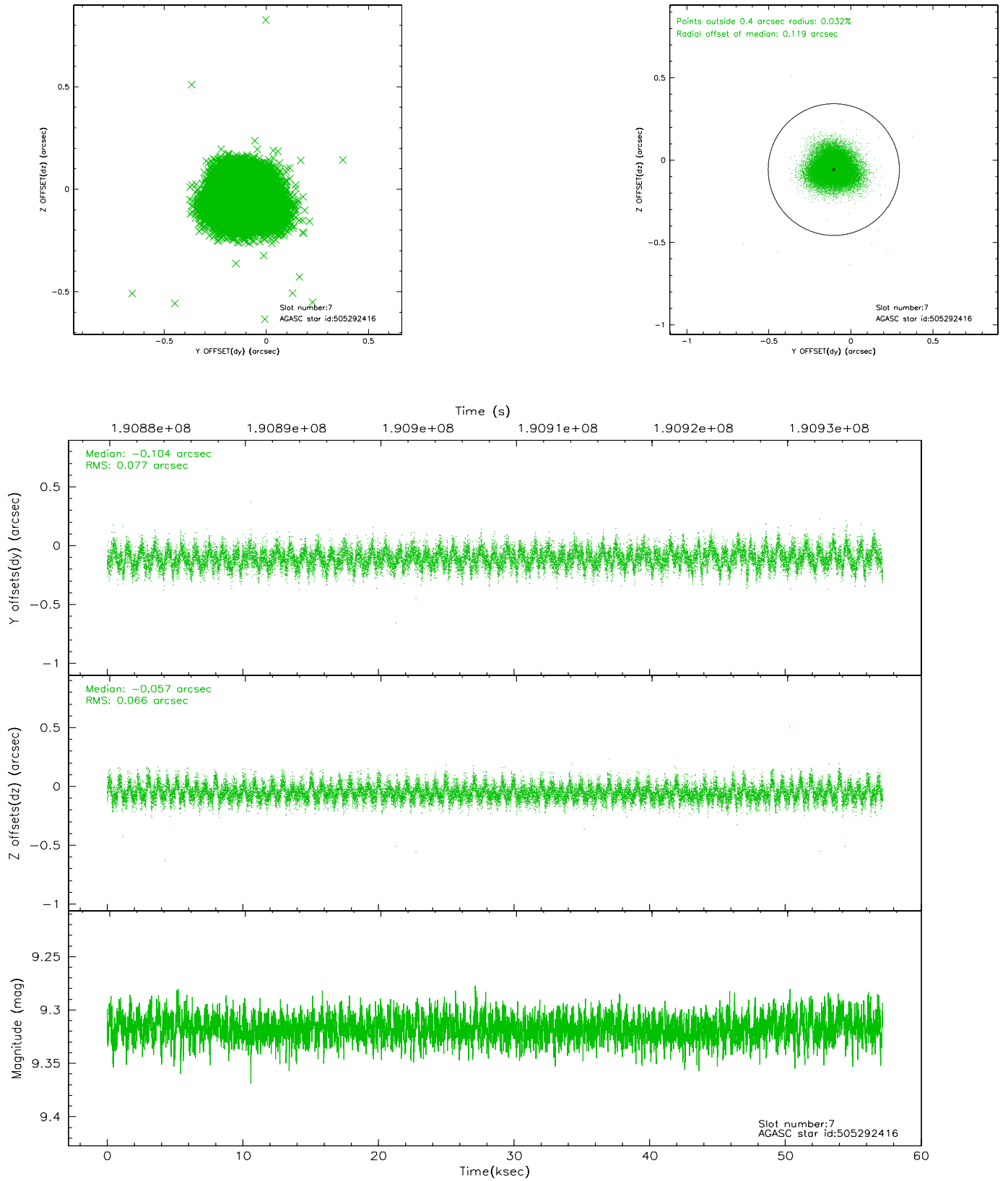
2.4.3 Slot 5



2.4.4 Slot 6

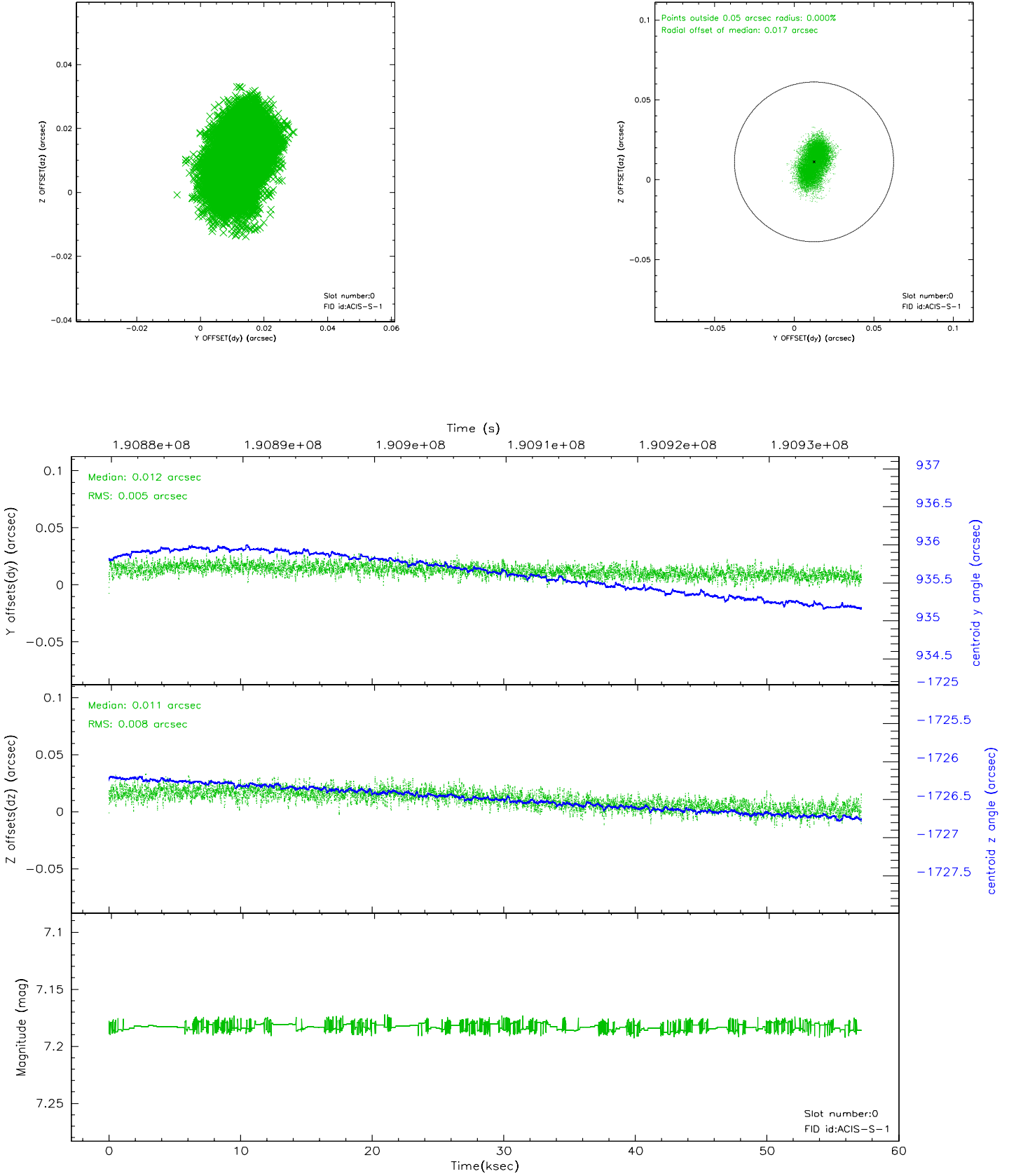


2.4.5 Slot 7

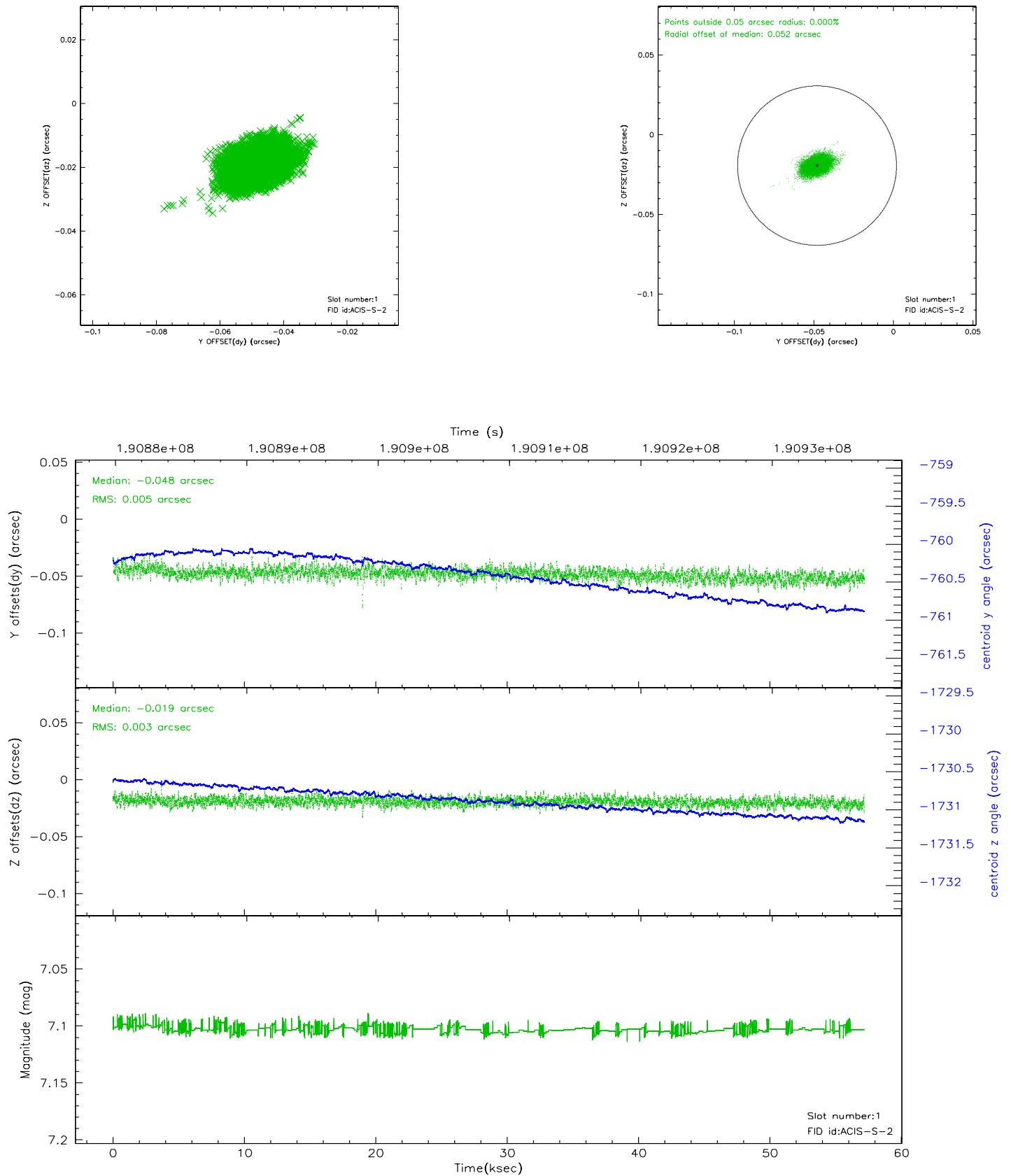


2.5 FID Slots

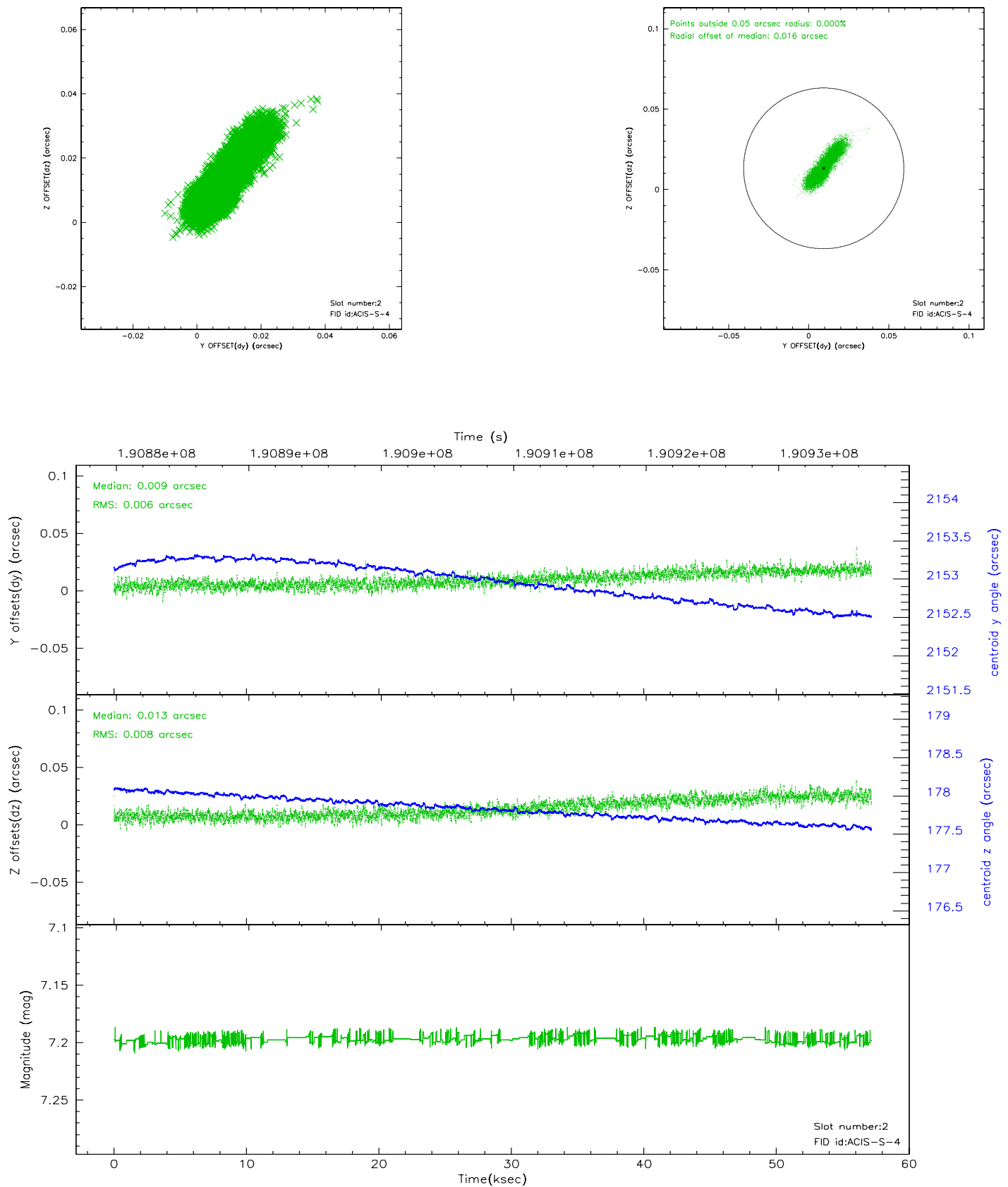
2.5.1 Slot 0



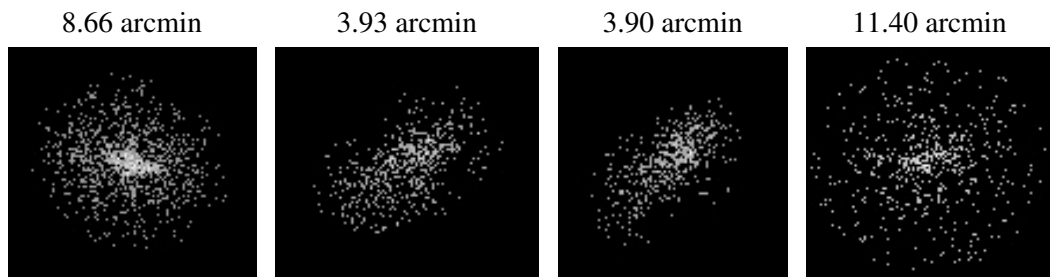
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2006.06.07 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 56.963 |

A.2 Comments