

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 3029 - L2 Version 3
Chandra X-Ray Center

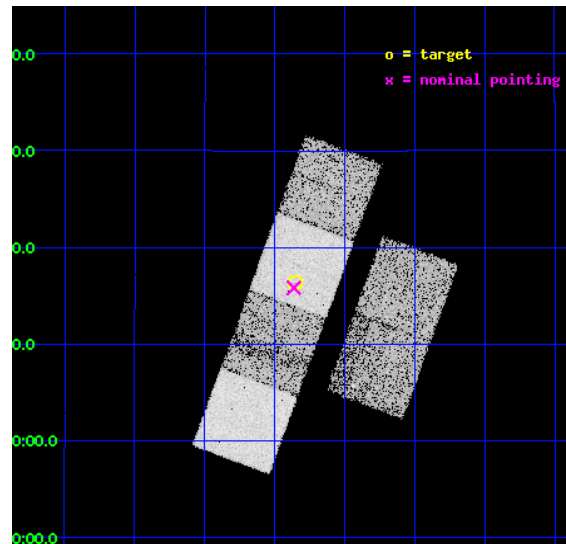
L2 Processing Date : Sep 29 2012

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1 Front

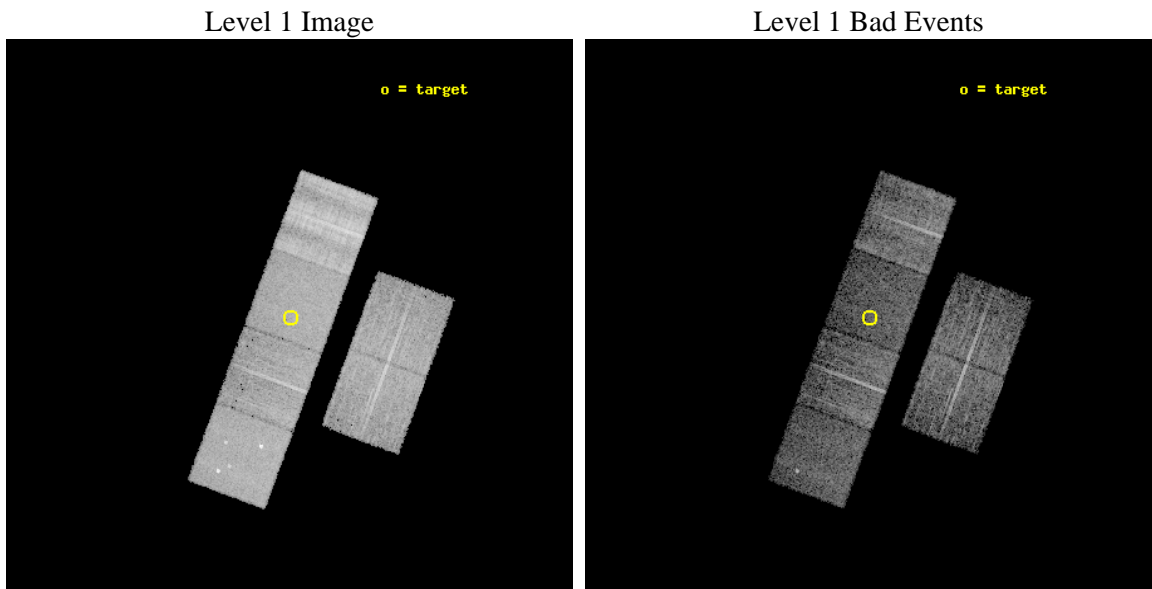
| | | |
|----------|--|---|
| seq_num | 700468 | Sequence number |
| obs_id | 3029 | Observation id |
| title | A CHANDRA AND XMM-NEWTON STUDY OF THE MOST DISTANT QUASARS: X-RAYING THE FIRST MASSIVE BLACK HOLES | Proposal title |
| observer | Prof. William Brandt | Principal investigator |
| object | SDSS020651+121624 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 31.714167 | Observer's specified target RA [deg] |
| dec_targ | 12.273444 | Observer's specified target Dec [deg] |
| ra_nom | 31.715972480423 | Nominal RA [deg] |
| dec_nom | 12.263847427679 | Nominal Dec [deg] |
| roll_nom | 290.23823266144 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 5957.5543177426 | Sum of GTIs [s] |
| livetime | 5882.1161777628 | Livetime [s] |
| ontime2 | 5954.3543874919 | Sum of GTIs [s] |
| ontime3 | 5957.4311977476 | Sum of GTIs [s] |
| ontime5 | 5957.5132777393 | Sum of GTIs [s] |
| ontime6 | 5957.4722377509 | Sum of GTIs [s] |
| ontime7 | 5957.5543177426 | Sum of GTIs [s] |
| ontime8 | 5957.3901577443 | Sum of GTIs [s] |
| l2events | 88759 | Number of level 2 events |



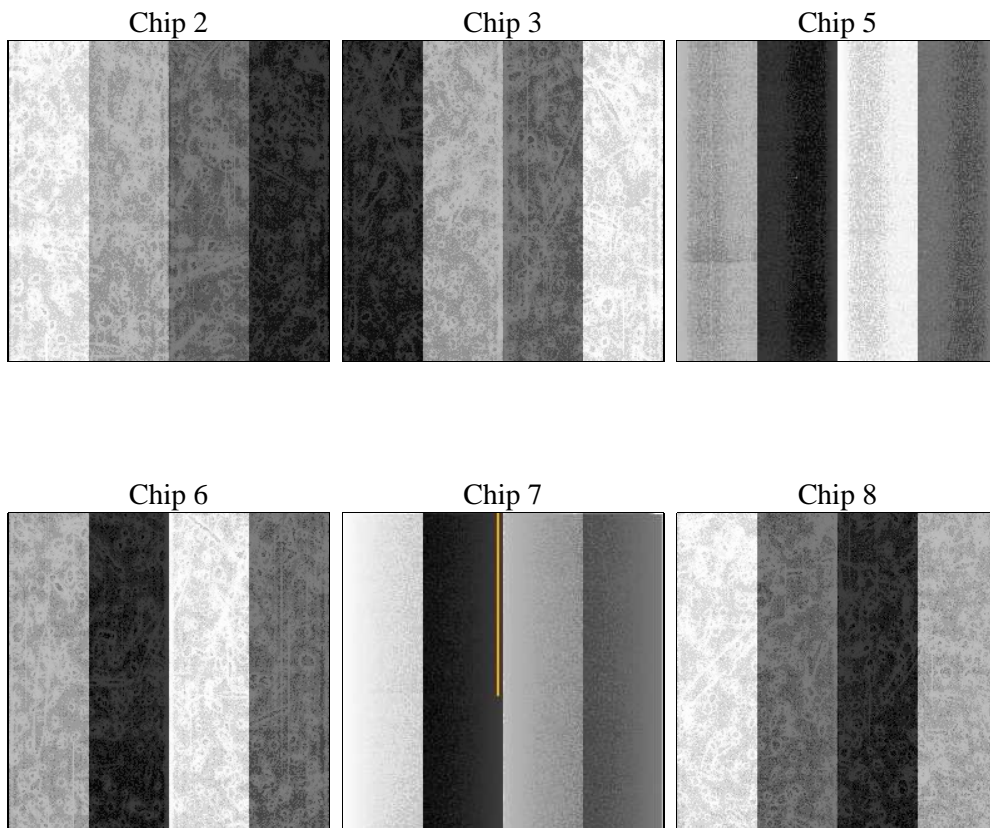
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 6000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 5957.5543177426 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime2 | 5954.3543874919 | Sum of GTIs [s] |
| date | 2012-09-29T14:44:02 | Date and time of file creation | ontime3 | 5957.4311977476 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 5957.5132777393 | Sum of GTIs [s] |
| | | | ontime6 | 5957.4722377509 | Sum of GTIs [s] |
| | | | ontime7 | 5957.5543177426 | Sum of GTIs [s] |
| | | | ontime8 | 5957.3901577443 | Sum of GTIs [s] |
| | | | l1events | 376102 | Number of level 1 events |

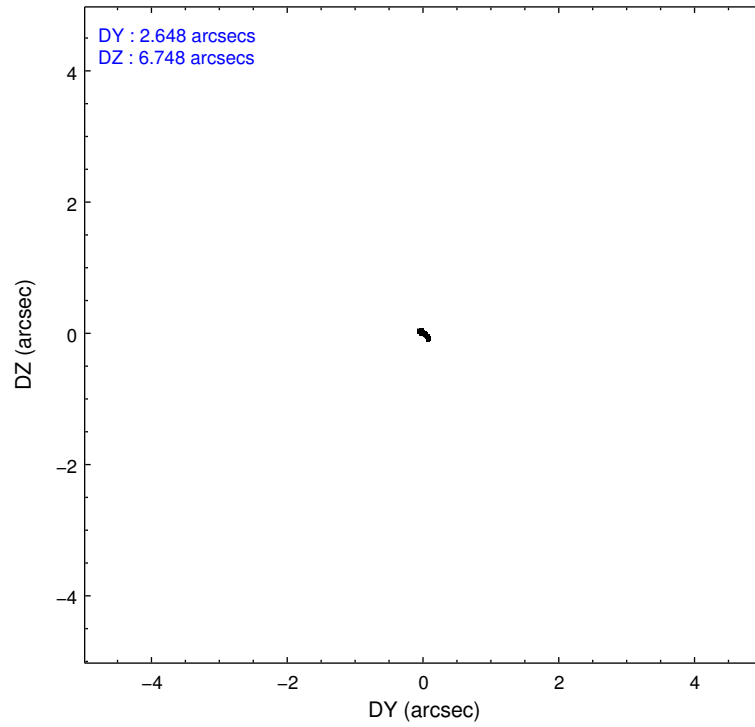
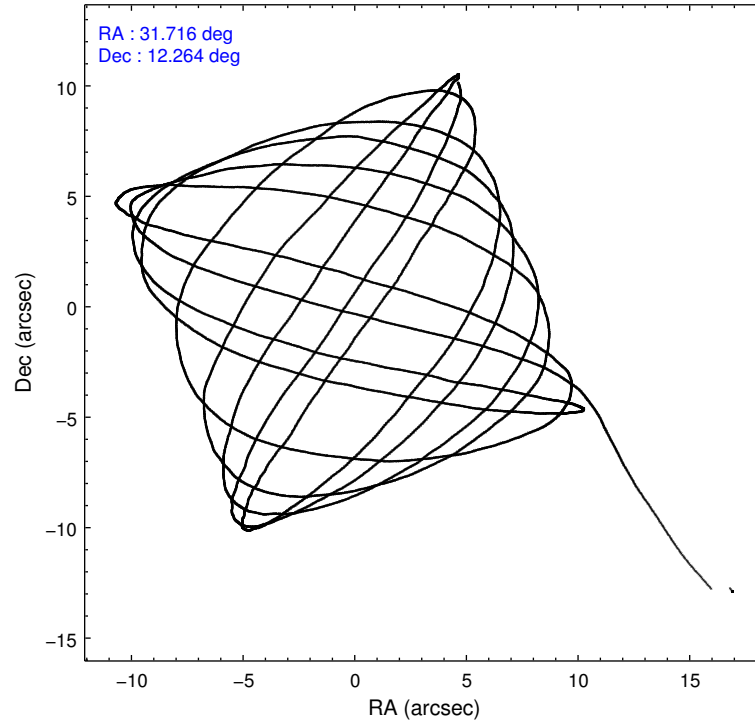
2.1.4 Events

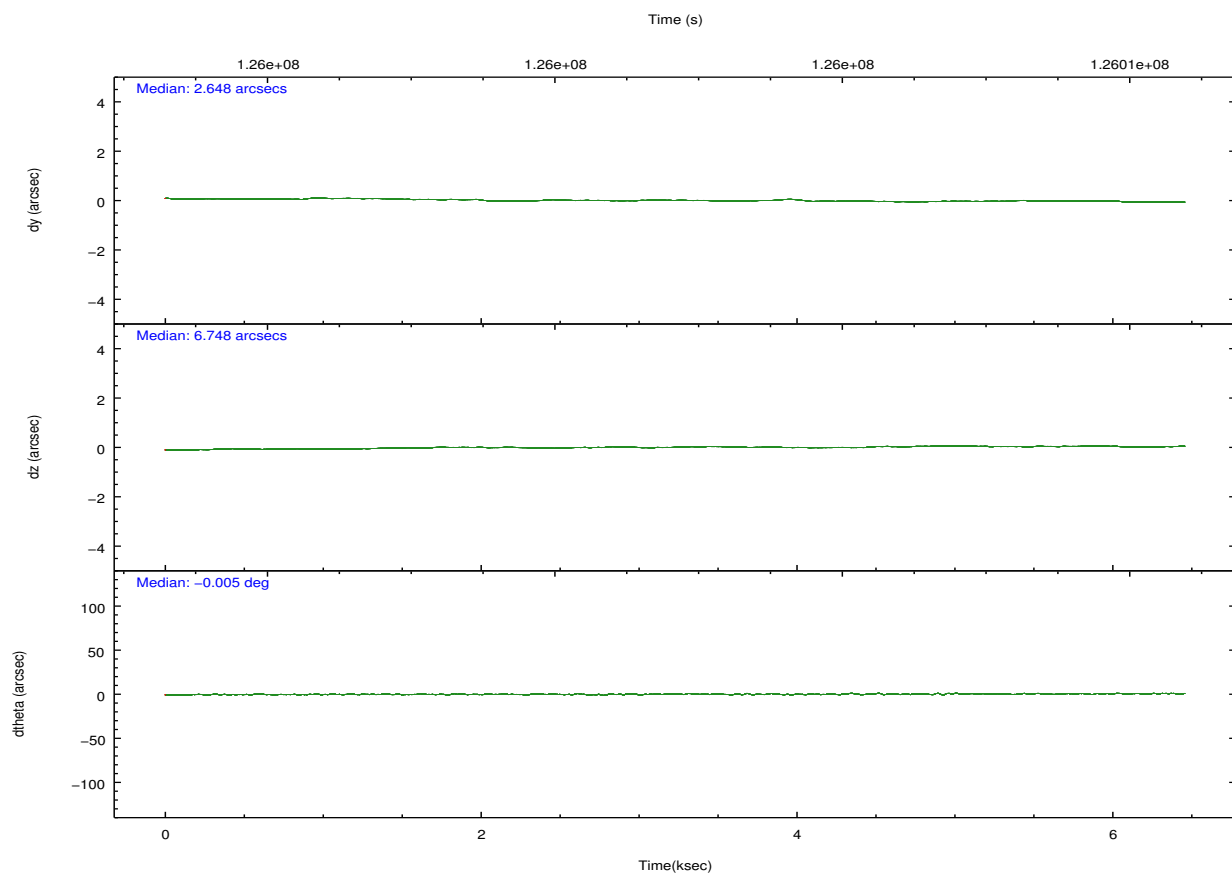
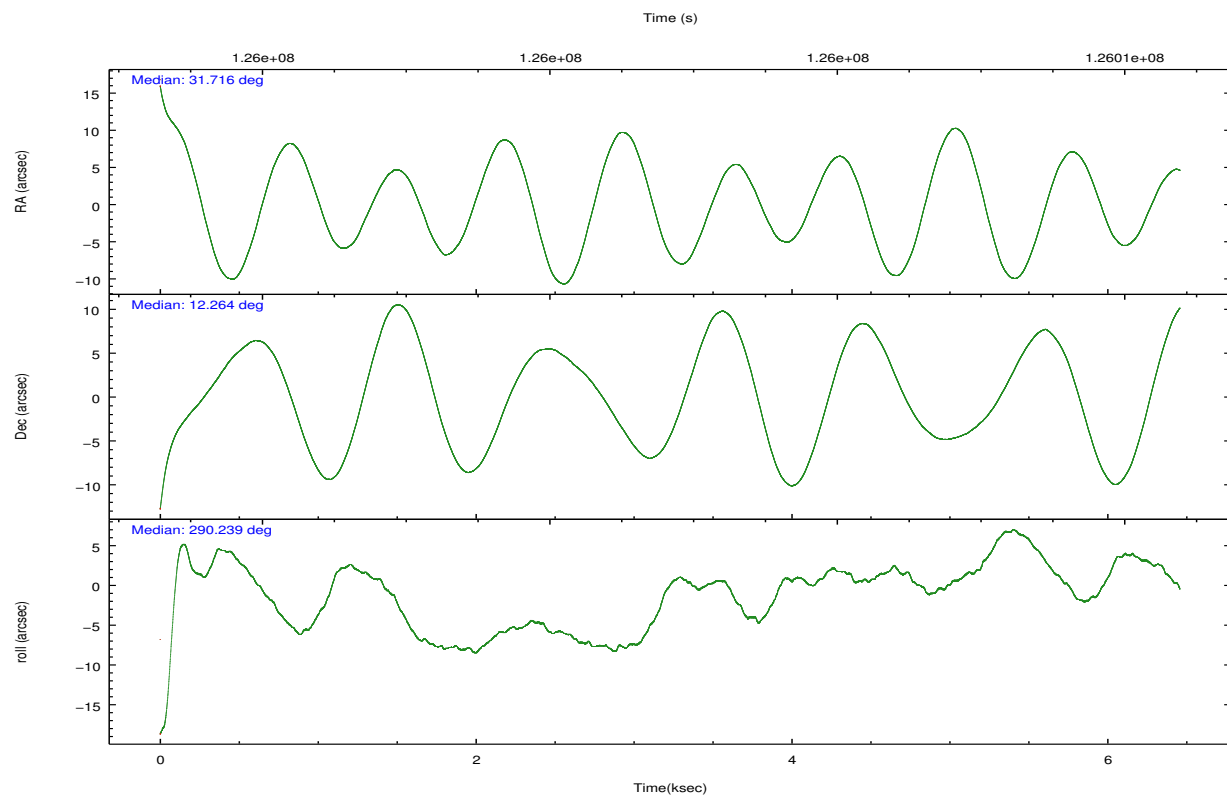
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 52615 | 50521 | 66615 | 52223 | 58489 | 95639 | grade 0 events | 3937 | 3708 | 4501 | 4063 | 2845 | 13544 |
| rejected events | 43796 | 41984 | 33206 | 43075 | 30707 | 51531 | | 7% | 7% | 6% | 7% | 4% | 14% |
| rejected % | 83% | 83% | 49% | 82% | 52% | 53% | grade 1 events | 31 | 25 | 105 | 27 | 72 | 112 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 2315 | 2283 | 10177 | 2467 | 5601 | 7664 |
| | | | | | | | | 4% | 4% | 15% | 4% | 9% | 8% |
| | | | | | | | grade 3 events | 490 | 507 | 1614 | 535 | 2508 | 6395 |
| | | | | | | | | 0% | 1% | 2% | 1% | 4% | 6% |
| | | | | | | | grade 4 events | 583 | 557 | 1423 | 547 | 2413 | 5719 |
| | | | | | | | | 1% | 1% | 2% | 1% | 4% | 5% |
| | | | | | | | grade 5 events | 1430 | 1560 | 4680 | 1727 | 5031 | 2670 |
| | | | | | | | | 2% | 3% | 7% | 3% | 8% | 2% |
| | | | | | | | grade 6 events | 1509 | 1493 | 15733 | 1546 | 14449 | 10817 |
| | | | | | | | | 2% | 2% | 23% | 2% | 24% | 11% |
| | | | | | | | grade 7 events | 42320 | 40388 | 28382 | 41311 | 25570 | 48718 |
| | | | | | | | | 80% | 79% | 42% | 79% | 43% | 50% |

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 | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 31.694251 | 31.71597248042342 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 12.281059 | 12.26384742767912 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 290.086251 | 290.2382326614356 | [s] Primary exposure time | 0.000000 | 3.2 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | | | |
| [mm] SIM defocus | 0 | 0.001444936568705701 | | | |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 126000065.184000 | 125998974.61504 | | | |
| Observation start date | 2001-12-29T08:00:01 | 2001-12-29T07:42:54 | | | |
| [s] Observation end time (MET) | 126006065.184000 | 126007174.10287 | | | |
| Observation end date | 2001-12-29T09:40:01 | 2001-12-29T09:59:34 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



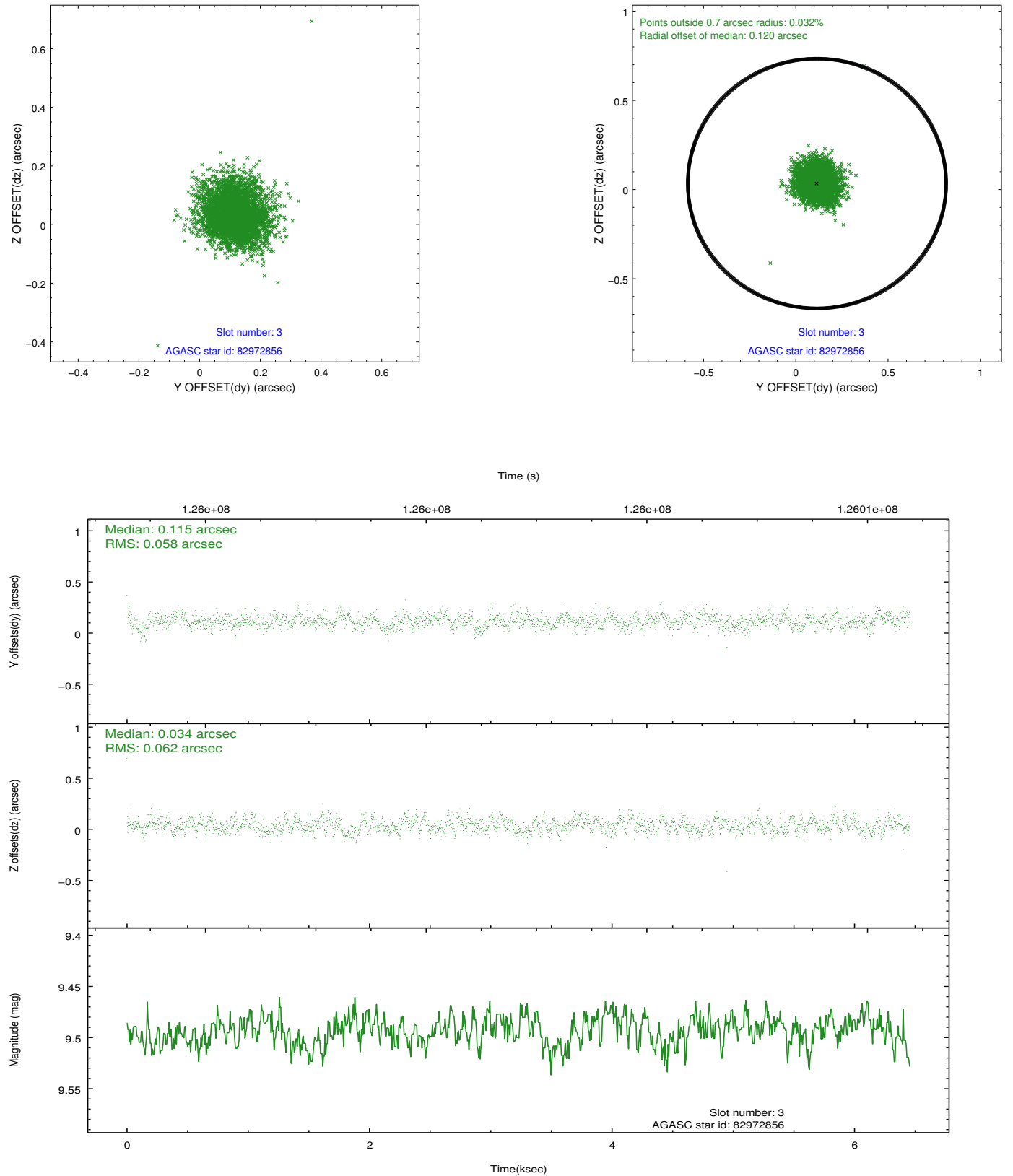


Slot Statistics

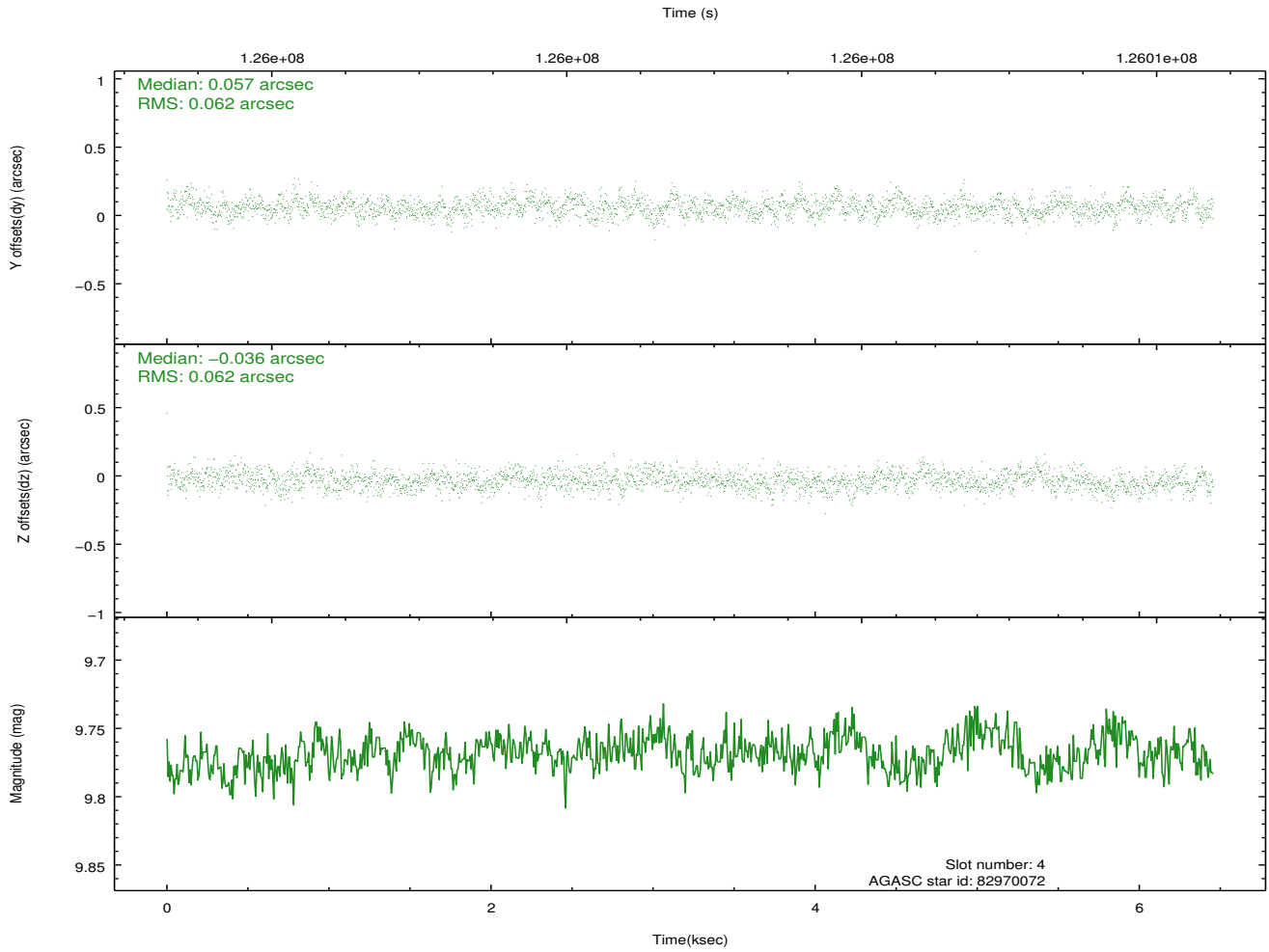
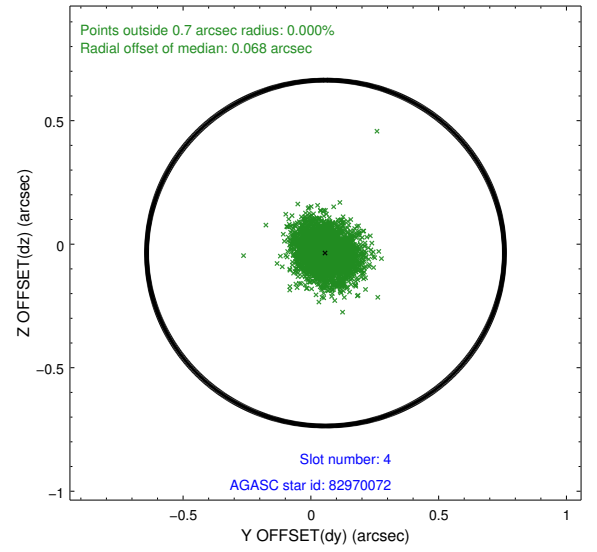
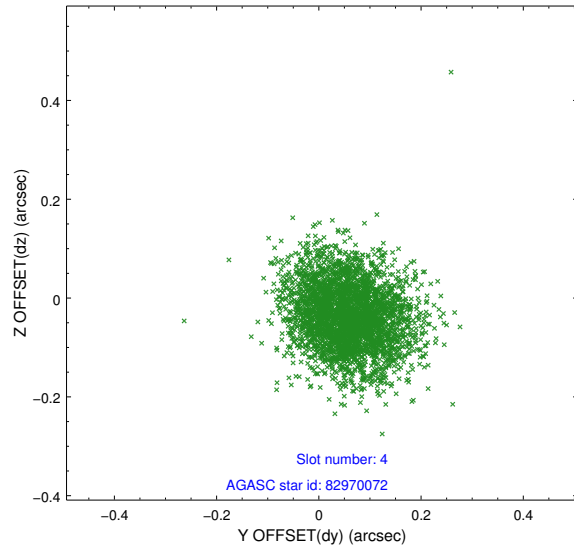
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|----------|-------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 1576 | -0.023 | 0.013 | 0.007 | 0.010 | 0.000000 | 0.000000 | -755.30 | -1727.90 |
| 1 | FID | ACIS-S-4 | 7.20 | 1576 | -0.037 | 0.008 | 0.005 | 0.010 | 0.000000 | 0.000000 | 2157.54 | 179.67 |
| 2 | FID | ACIS-S-5 | 7.24 | 1576 | 0.029 | -0.012 | 0.007 | 0.011 | 0.000000 | 0.000000 | -1806.94 | 174.32 |
| 3 | GUIDE | 82972856 | 9.49 | 3149 | 0.115 | 0.034 | 0.089 | 0.144 | 31.504761 | 11.652951 | 1894.05 | -1404.40 |
| 4 | GUIDE | 82970072 | 9.77 | 3144 | 0.057 | -0.036 | 0.092 | 0.150 | 31.682129 | 12.466808 | -642.07 | 188.75 |
| 5 | GUIDE | 83363784 | 9.92 | 3150 | -0.002 | 0.067 | 0.104 | 0.169 | 31.739359 | 12.862470 | -1911.69 | 867.23 |
| 6 | GUIDE | 83369984 | 10.13 | 3147 | -0.072 | -0.043 | 0.126 | 0.215 | 31.132580 | 12.740352 | -2232.92 | -1283.91 |
| 7 | GUIDE | 83366960 | 10.36 | 3121 | -0.103 | -0.027 | 0.127 | 0.206 | 31.065052 | 12.596345 | -1828.58 | -1686.34 |

2.4 Star Slots

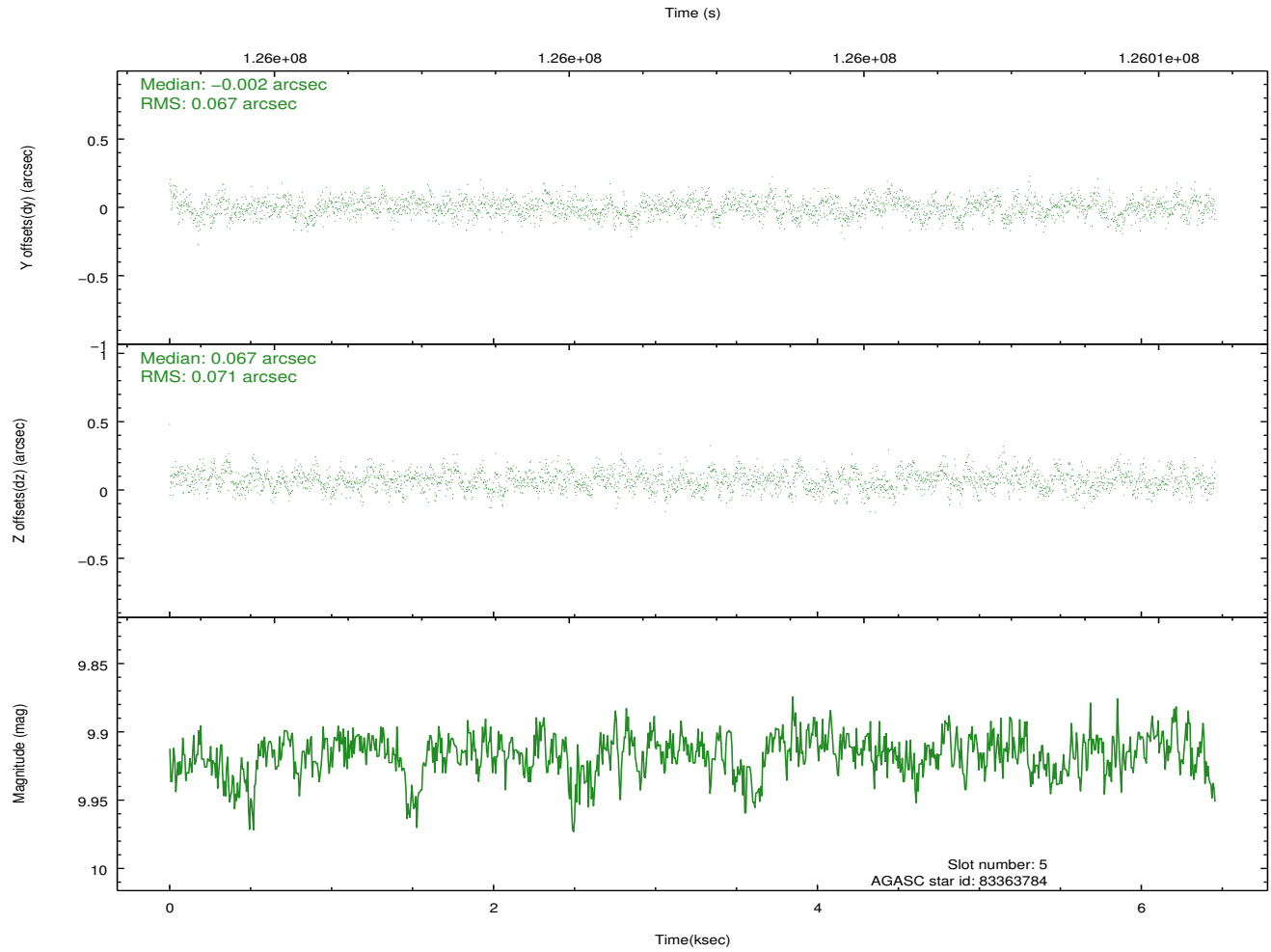
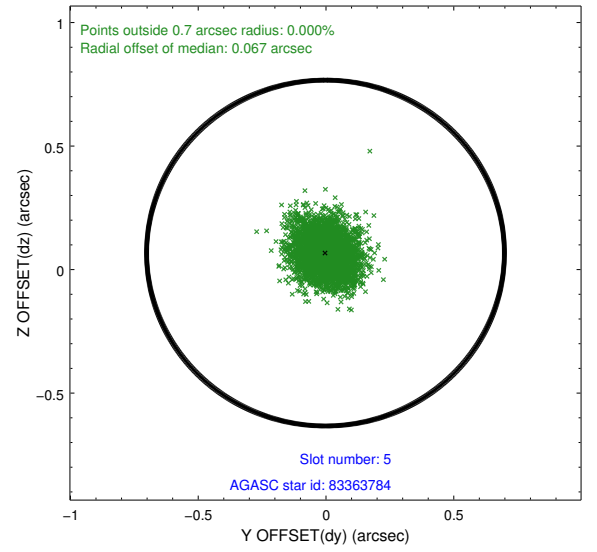
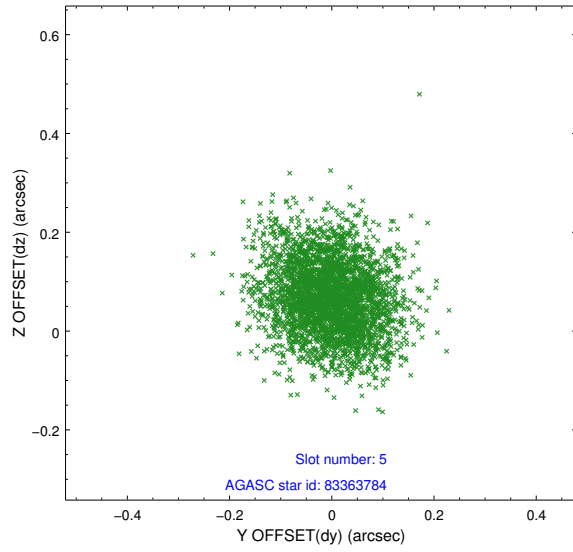
2.4.1 Slot 3



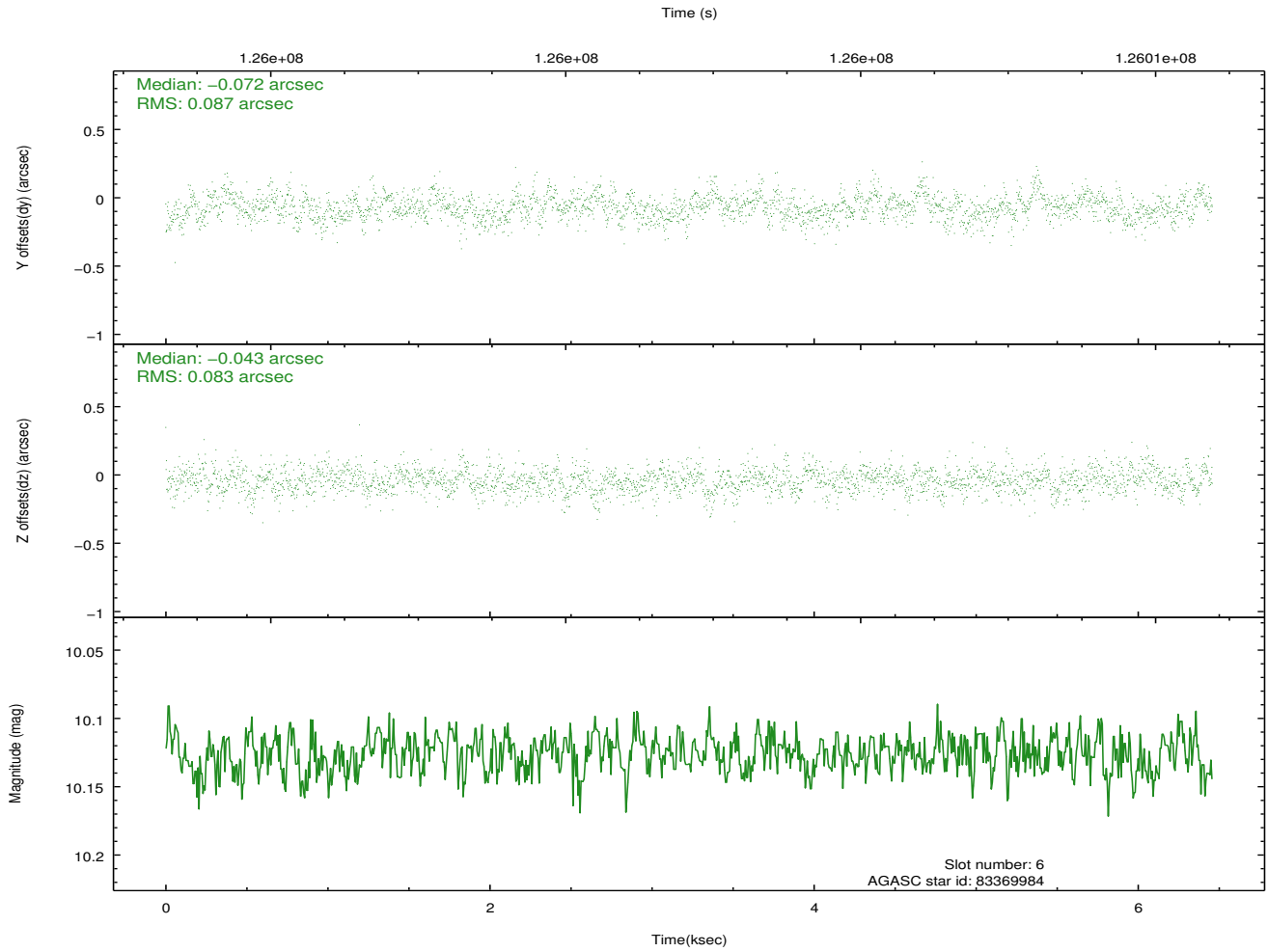
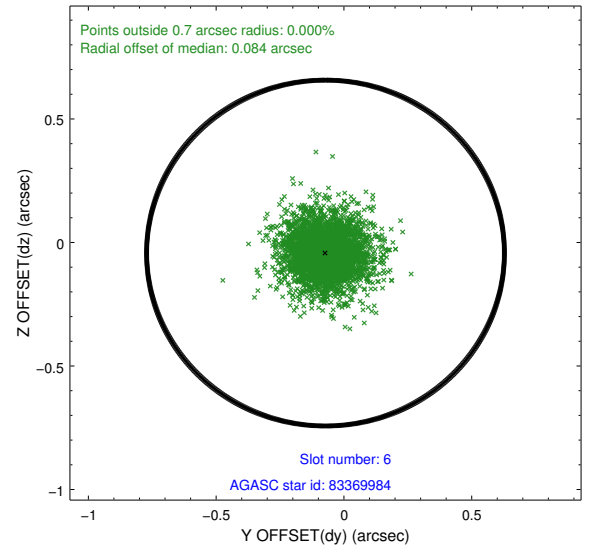
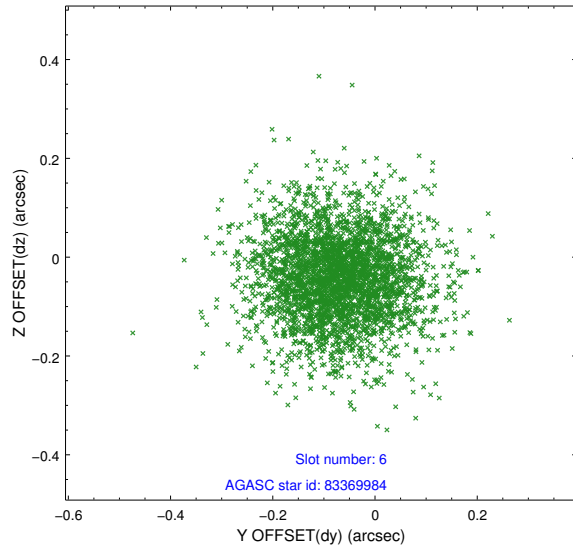
2.4.2 Slot 4



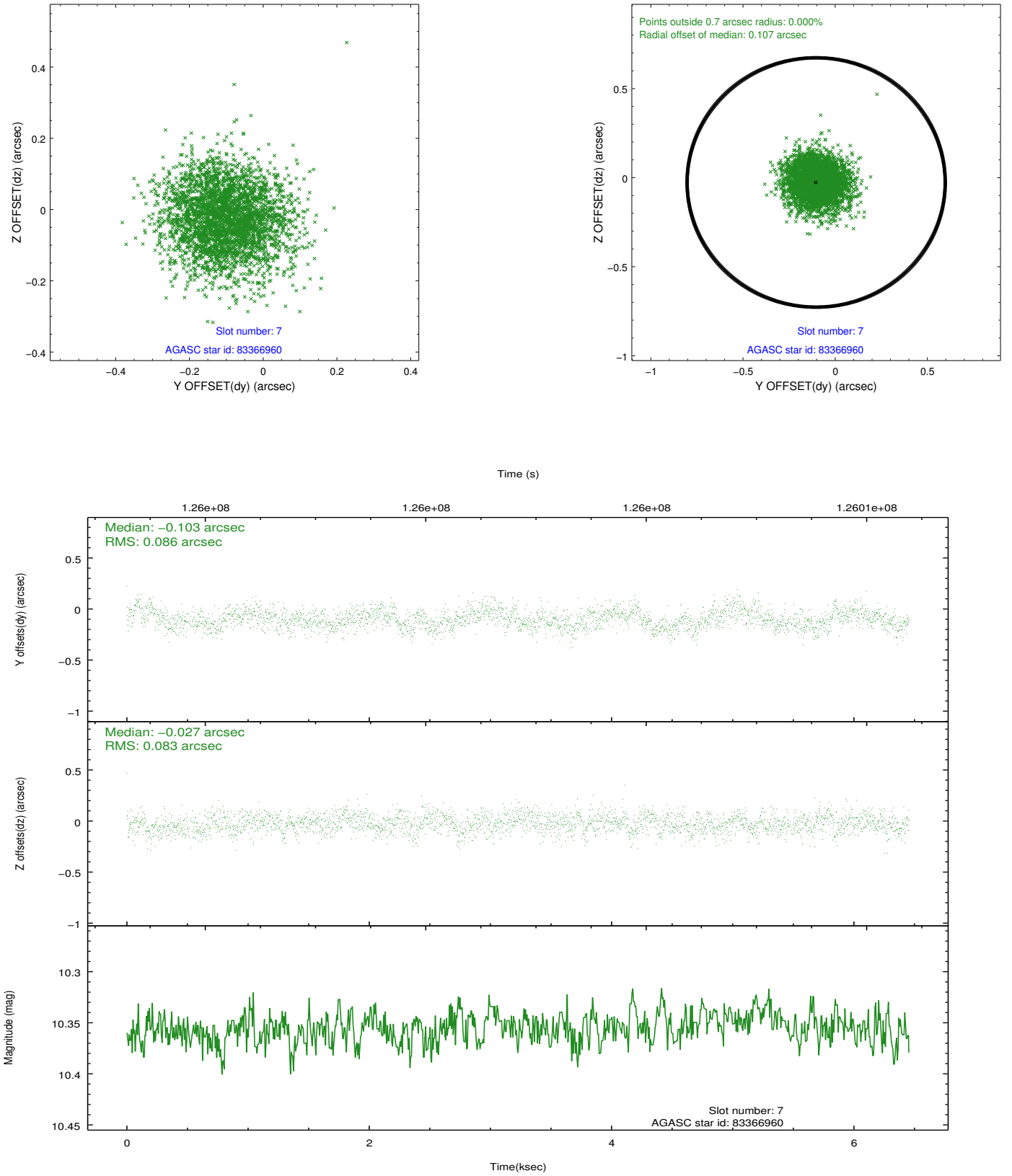
2.4.3 Slot 5



2.4.4 Slot 6

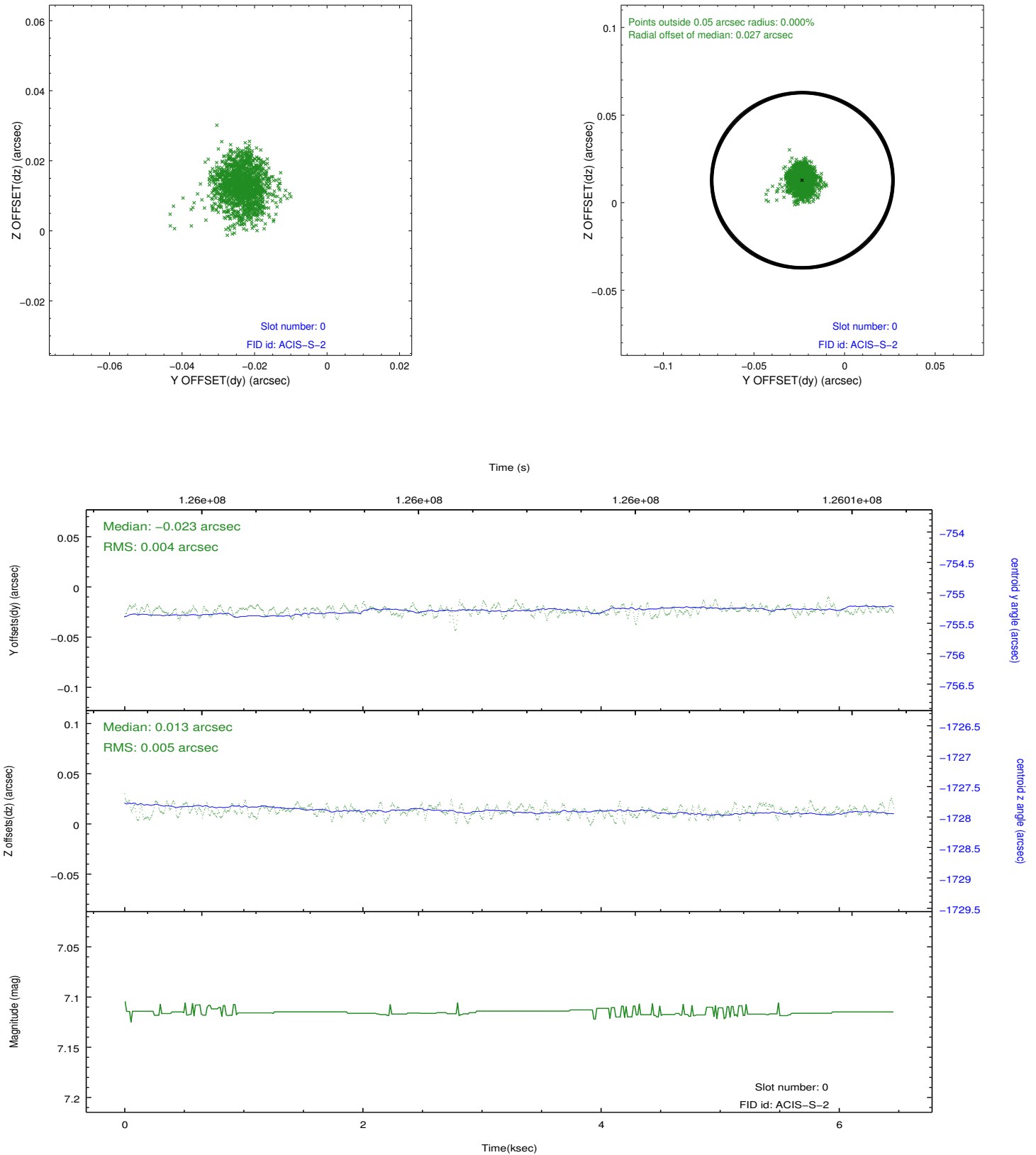


2.4.5 Slot 7

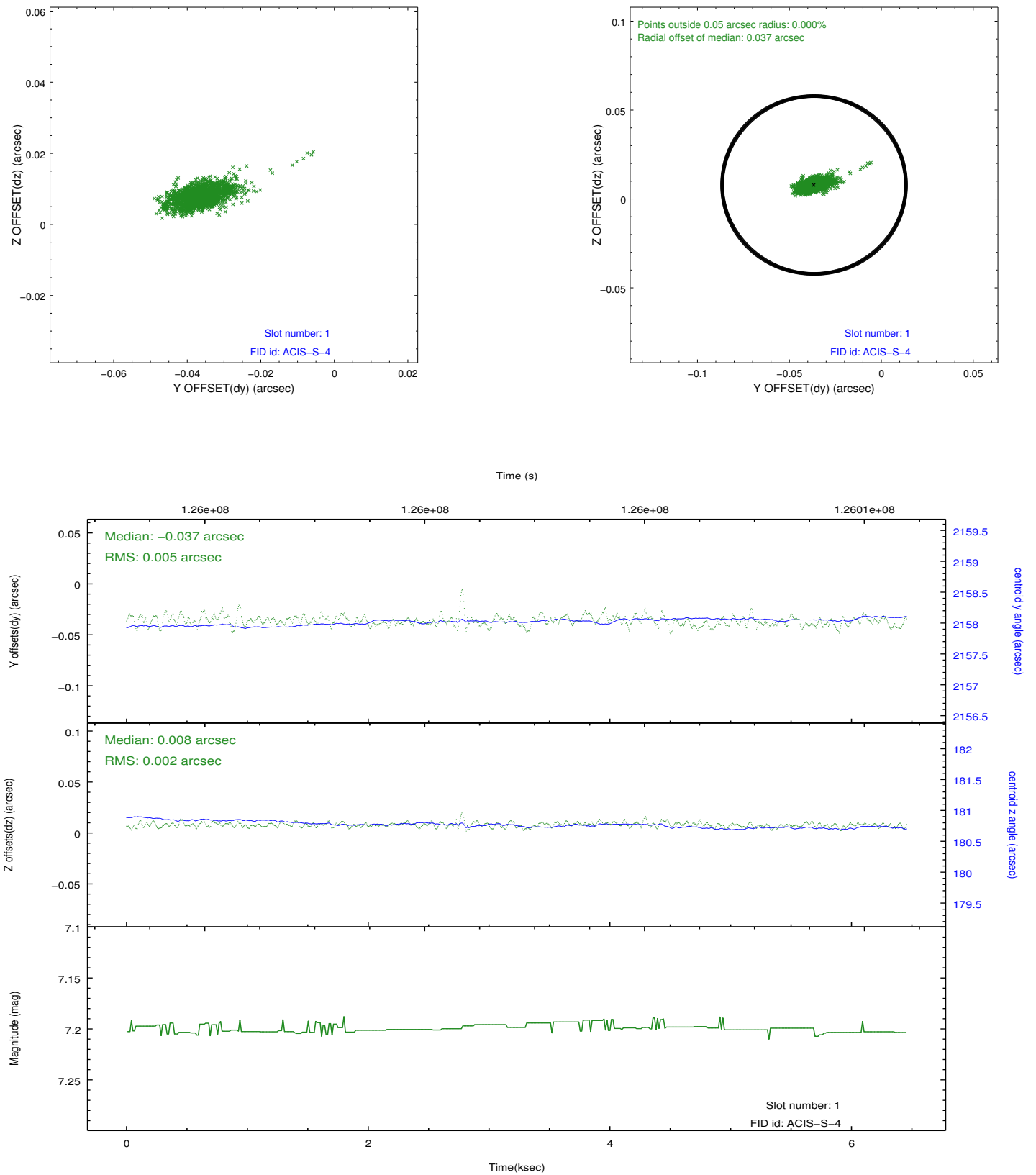


2.5 FID Slots

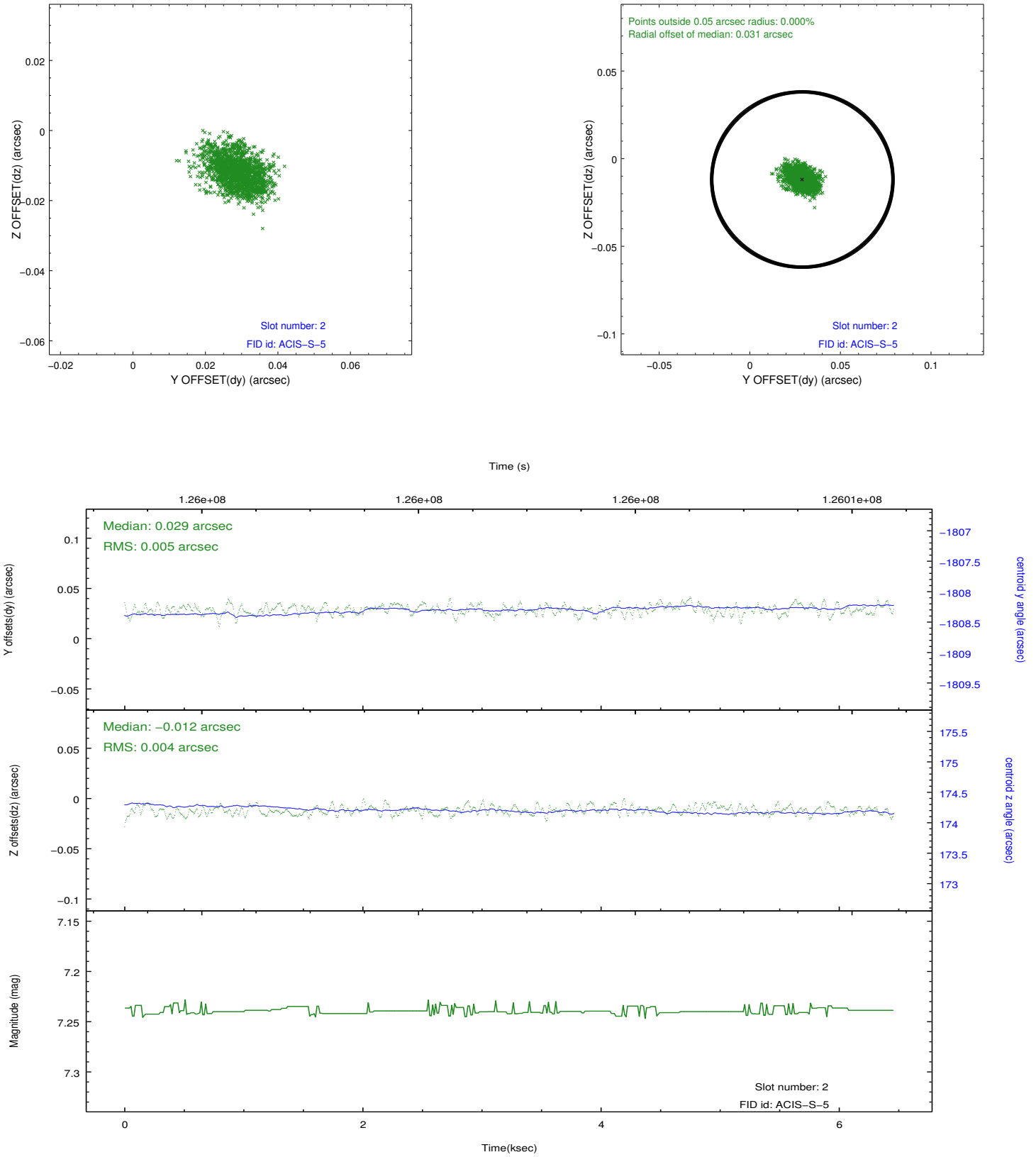
2.5.1 Slot 0



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) | 2012.10.01 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 5.958 |

A.2 Comments