

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 13006 - L2 Version 2
Chandra X-Ray Center

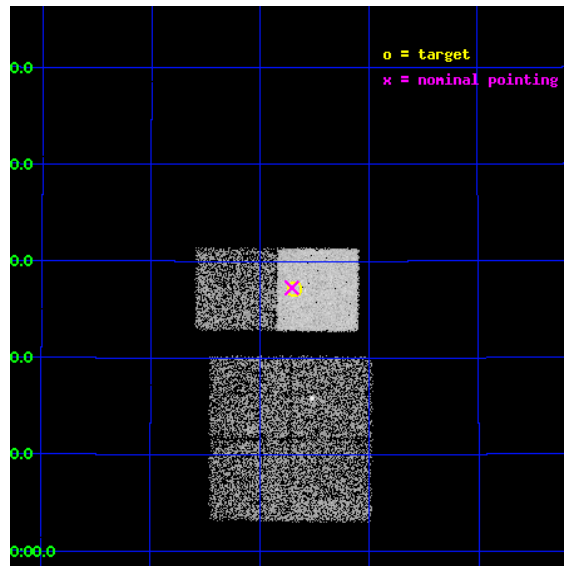
L2 Processing Date : Jul 5 2012

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1 Front

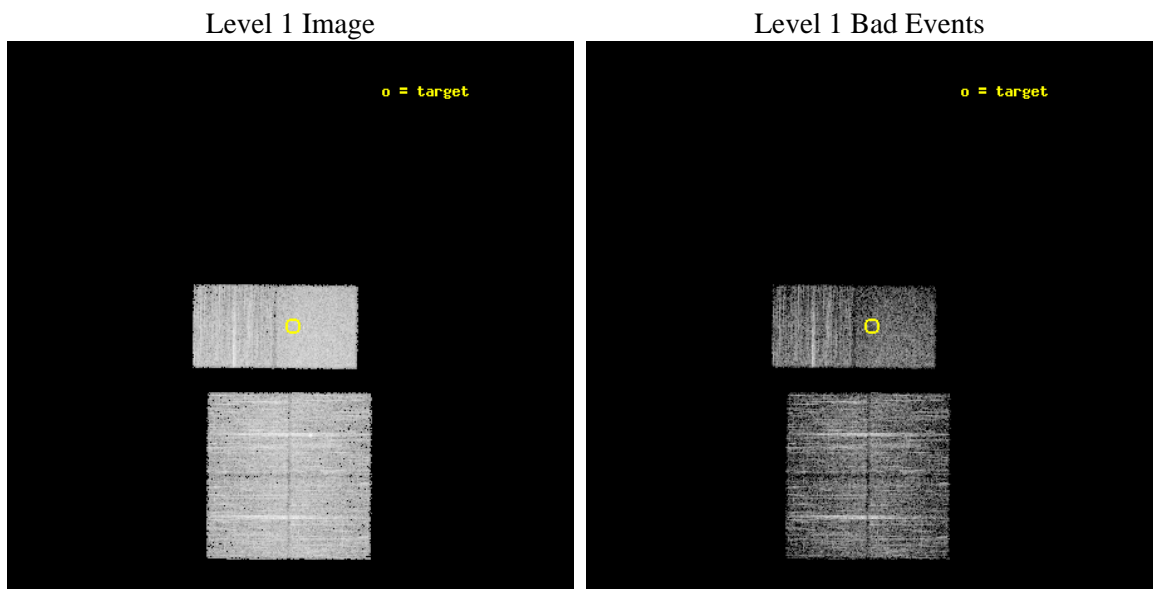
| | | |
|----------|--|---|
| seq_num | 600970 | Sequence number |
| obs_id | 13006 | Observation id |
| title | The brightest ultraluminous X-ray sources across the sky | Proposal |
| observer | Dr Jifeng Liu | Principal investigator |
| object | J135541.1+402706 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 208.92125 | Observer's specified target RA [deg] |
| dec_targ | 40.451667 | Observer's specified target Dec [deg] |
| ra_nom | 208.92674781834 | Nominal RA [deg] |
| dec_nom | 40.454251223999 | Nominal Dec [deg] |
| roll_nom | 0.43148968588145 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 5459.1999797225 | Sum of GTIs [s] |
| livetime | 5390.0723024437 | Livetime [s] |
| ontime0 | 5459.1999797225 | Sum of GTIs [s] |
| ontime1 | 5459.1999797225 | Sum of GTIs [s] |
| ontime2 | 5459.1999797225 | Sum of GTIs [s] |
| ontime3 | 5459.1999797225 | Sum of GTIs [s] |
| ontime6 | 5459.1999797225 | Sum of GTIs [s] |
| ontime7 | 5459.1999797225 | Sum of GTIs [s] |
| l2events | 39083 | Number of level 2 events |



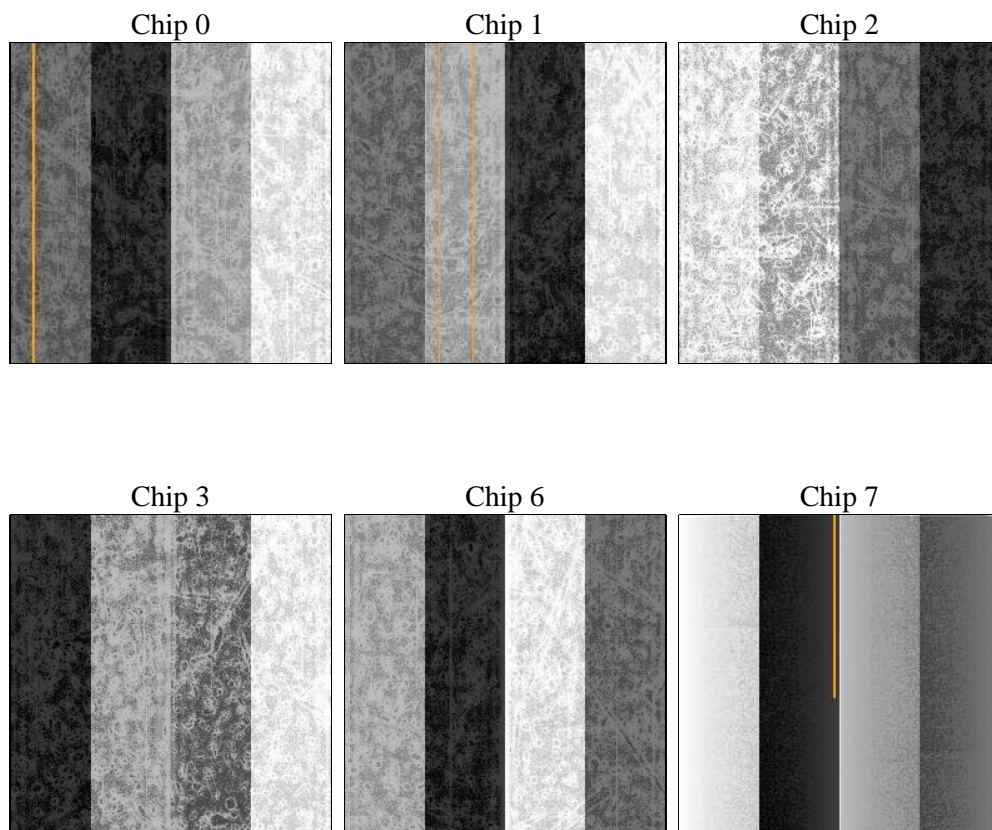
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 5500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 5459.1999797225 | Sum of GTIs [s] |
| caldbver | 4.5.0 | | ontime0 | 5459.1999797225 | Sum of GTIs [s] |
| date | 2012-07-05T20:14:32 | Date and time of file creation | ontime1 | 5459.1999797225 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 5459.1999797225 | Sum of GTIs [s] |
| | | | ontime3 | 5459.1999797225 | Sum of GTIs [s] |
| | | | ontime6 | 5459.1999797225 | Sum of GTIs [s] |
| | | | ontime7 | 5459.1999797225 | Sum of GTIs [s] |
| | | | l1events | 233370 | Number of level 1 events |

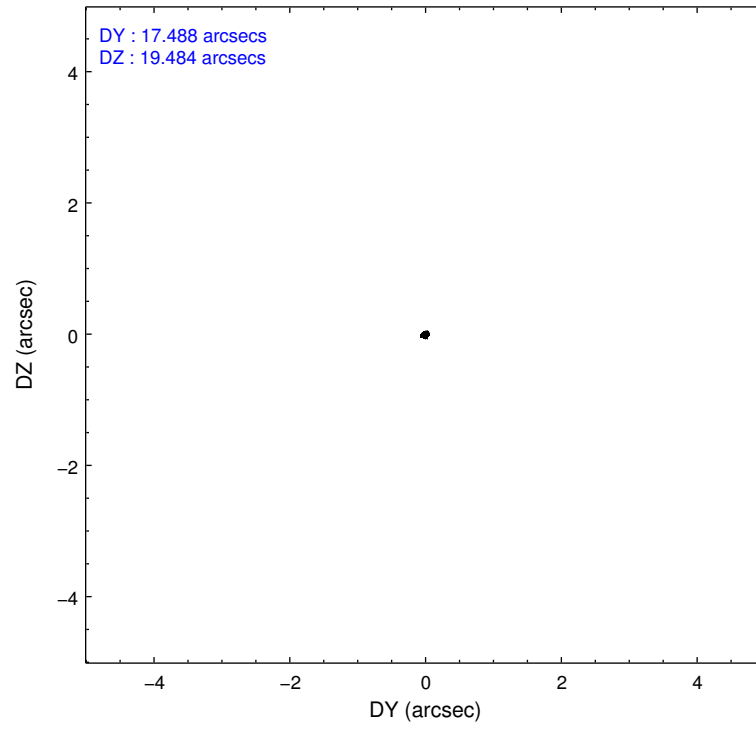
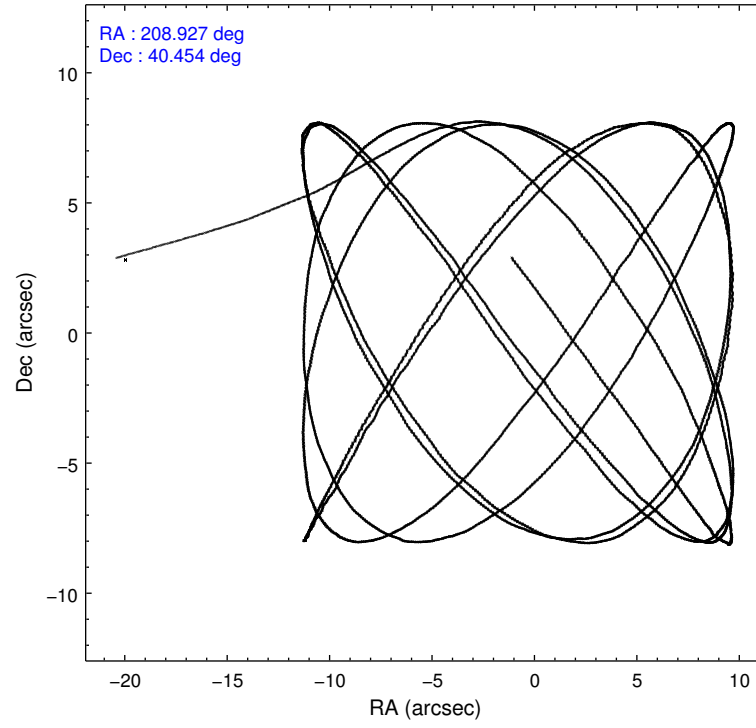
2.1.4 Events

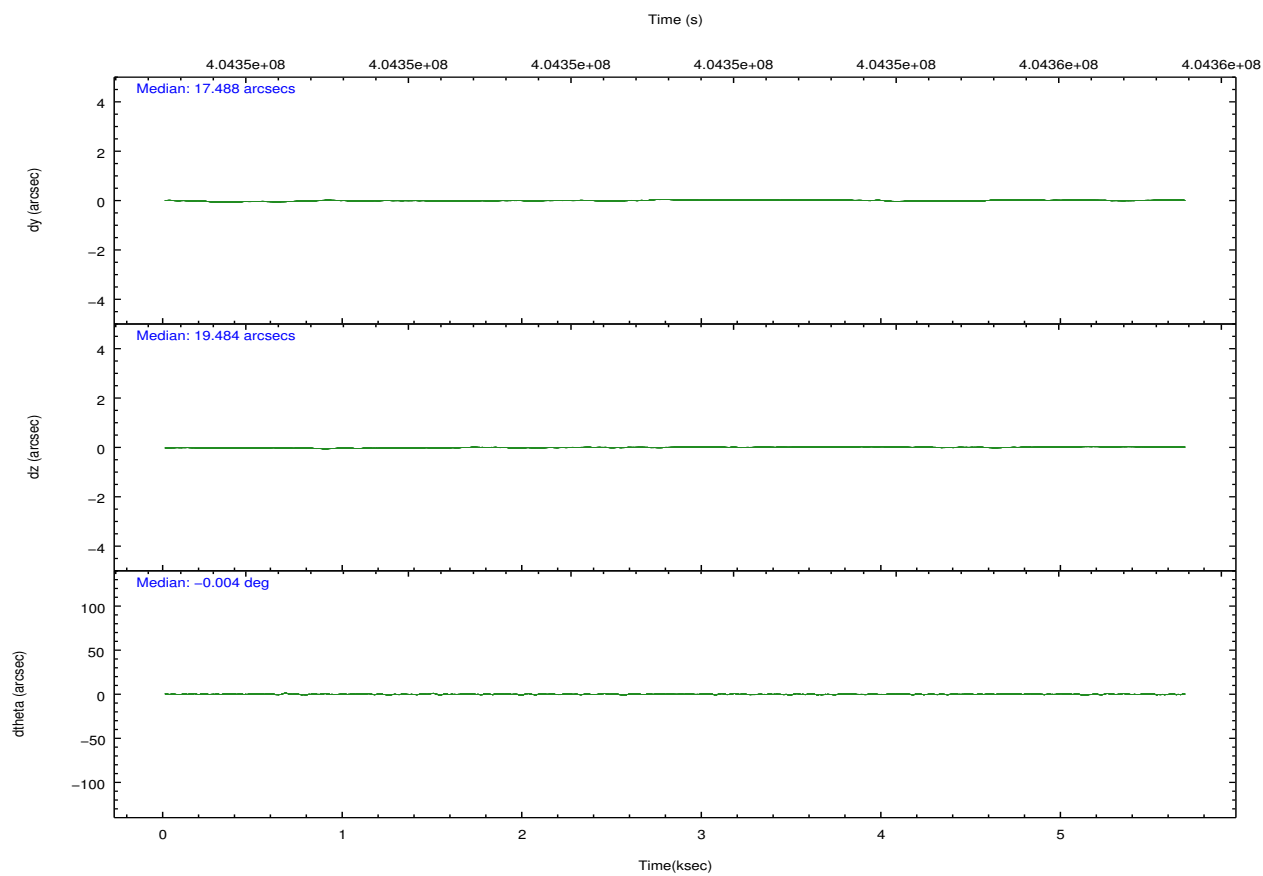
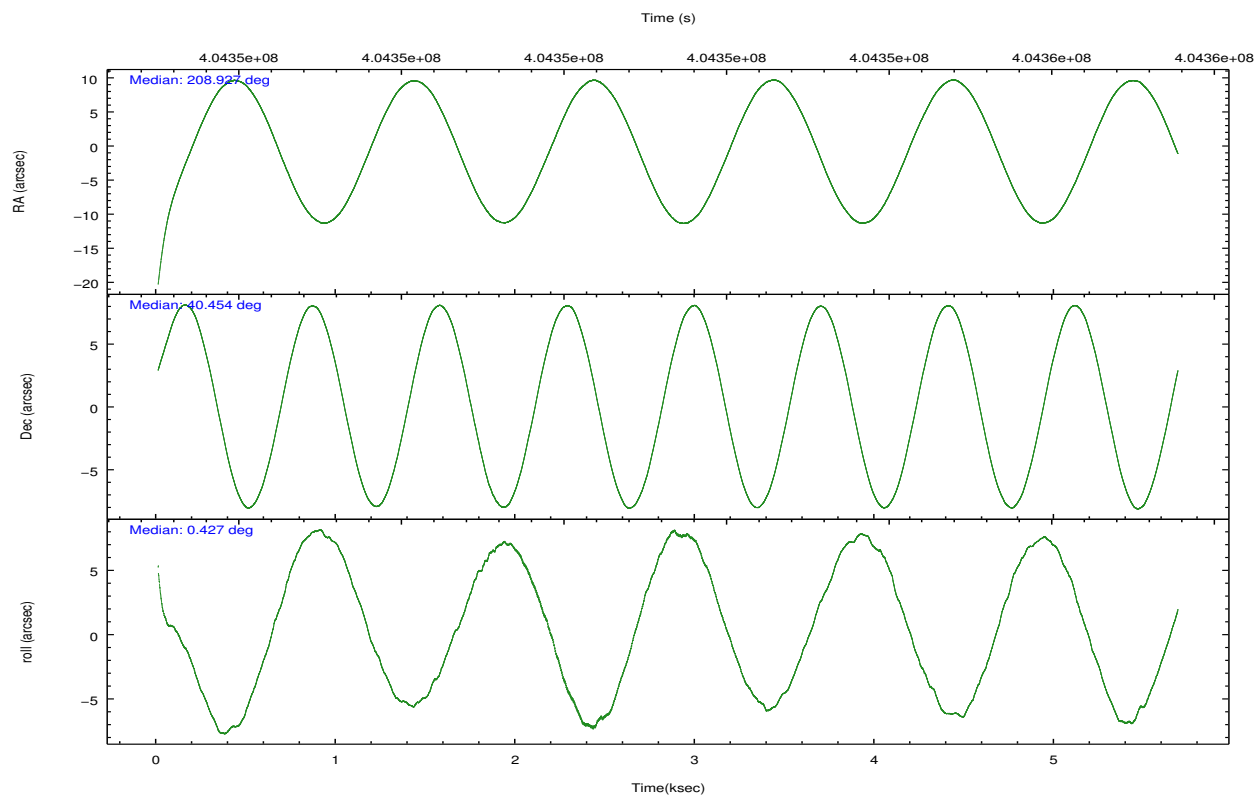
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 36228 | 35479 | 38741 | 35986 | 39010 | 47926 | grade 0 events | 1509 | 1569 | 1518 | 1580 | 1518 | 2150 |
| rejected events | 32082 | 30964 | 34597 | 31922 | 34643 | 26084 | | 4% | 4% | 3% | 4% | 3% | 4% |
| rejected % | 88% | 87% | 89% | 88% | 88% | 54% | grade 1 events | 25 | 25 | 18 | 19 | 14 | 60 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 1011 | 1092 | 992 | 806 | 988 | 4579 |
| | | | | | | | | 2% | 3% | 2% | 2% | 2% | 9% |
| | | | | | | | grade 3 events | 450 | 466 | 400 | 463 | 502 | 1916 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 4 events | 442 | 472 | 451 | 448 | 399 | 1933 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 5 events | 1631 | 1683 | 1447 | 1700 | 1792 | 4986 |
| | | | | | | | | 4% | 4% | 3% | 4% | 4% | 10% |
| | | | | | | | grade 6 events | 735 | 918 | 786 | 770 | 960 | 11278 |
| | | | | | | | | 2% | 2% | 2% | 2% | 2% | 23% |
| | | | | | | | grade 7 events | 30425 | 29254 | 33129 | 30200 | 32837 | 21024 |
| | | | | | | | | 83% | 82% | 85% | 83% | 84% | 43% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-012367 | ACIS-012367 | 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 | 208.895916 | 208.9267478183396 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 40.440073 | 40.45425122399891 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 0.294889 | 0.4314896858814466 | [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) | 404349985.184000 | 404348651.49454 | | | |
| Observation start date | 2010-10-24T23:25:19 | 2010-10-24T23:04:11 | | | |
| [s] Observation end time (MET) | 404355485.184000 | 404355944.36992 | | | |
| Observation end date | 2010-10-25T00:56:59 | 2010-10-25T01:05:44 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



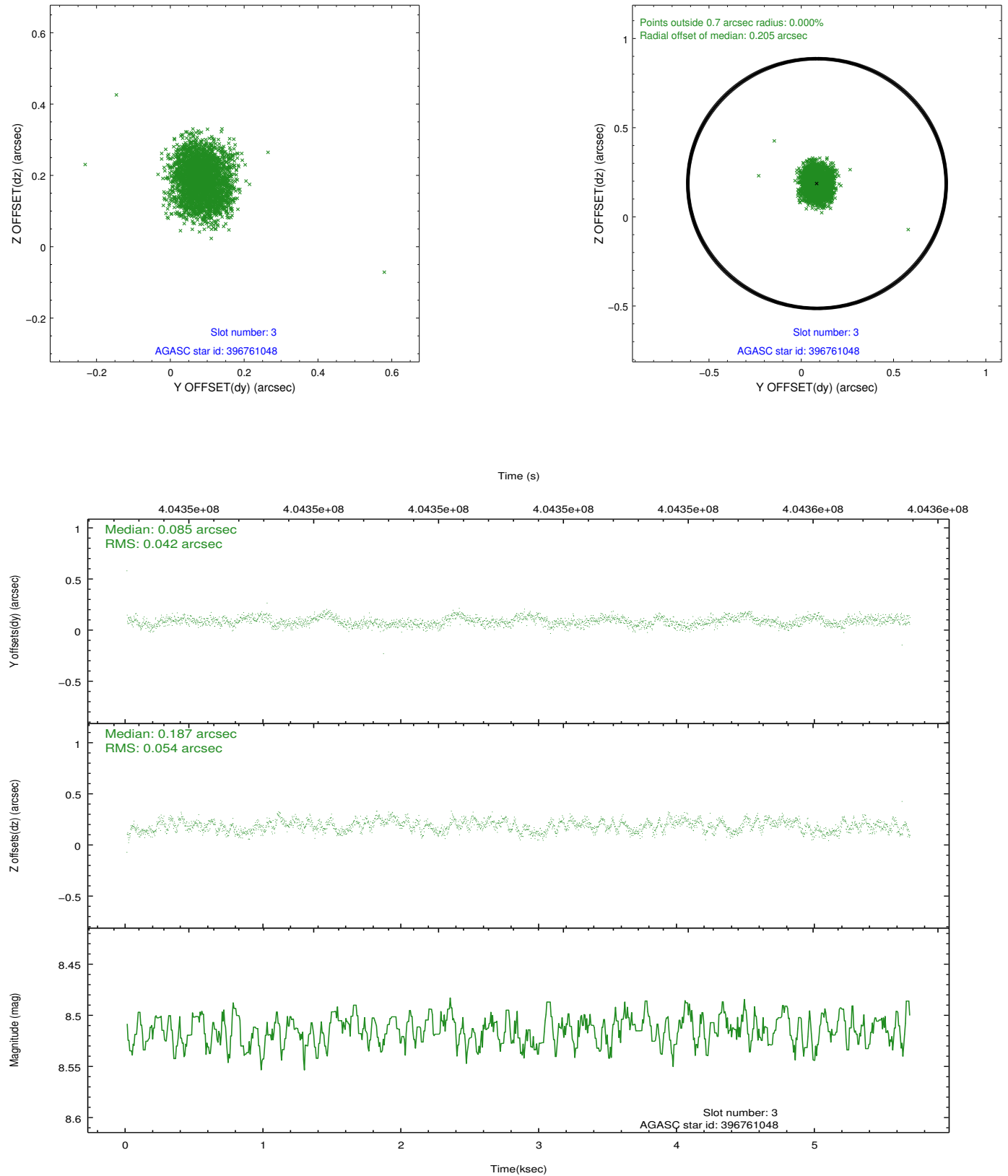


Slot Statistics

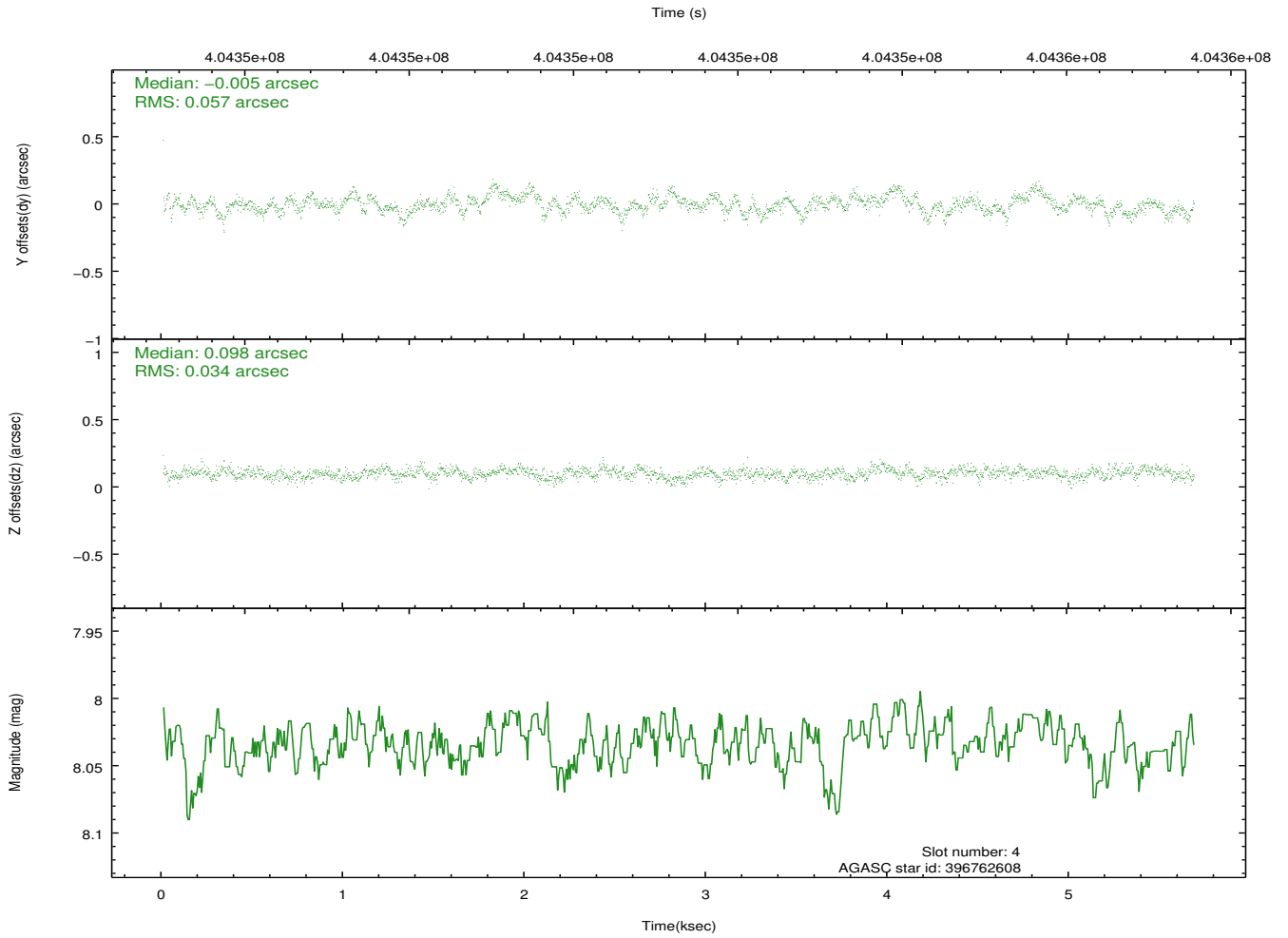
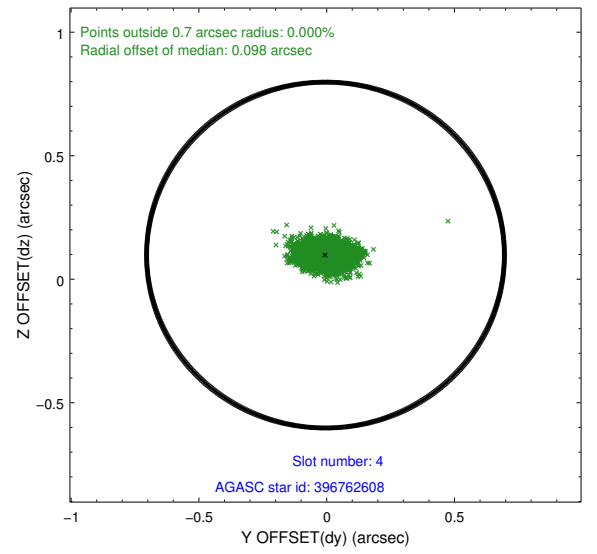
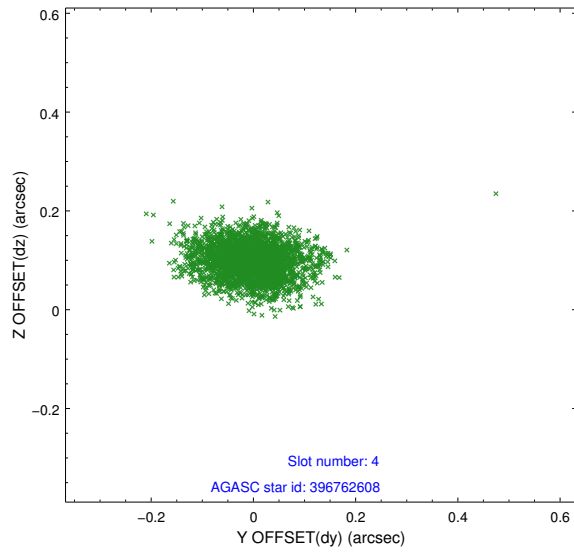
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 6.89 | 1386 | -0.084 | -0.034 | 0.007 | 0.011 | 0.000000 | 0.000000 | -770.60 | -1741.02 |
| 1 | FID | ACIS-S-4 | 6.97 | 1386 | 0.198 | 0.050 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2142.47 | 166.46 |
| 2 | FID | ACIS-S-5 | 7.01 | 1386 | -0.145 | -0.007 | 0.006 | 0.012 | 0.000000 | 0.000000 | -1822.16 | 161.27 |
| 3 | GUIDE | 396761048 | 8.51 | 2772 | 0.085 | 0.187 | 0.074 | 0.111 | 208.356917 | 39.848251 | -1500.35 | -2118.15 |
| 4 | GUIDE | 396762608 | 8.03 | 2772 | -0.005 | 0.098 | 0.068 | 0.120 | 209.608198 | 39.877729 | 1957.29 | -2027.01 |
| 5 | GUIDE | 397155000 | 9.43 | 2766 | 0.104 | -0.028 | 0.137 | 0.235 | 208.578535 | 40.761769 | -859.94 | 1163.16 |
| 6 | GUIDE | 397156112 | 8.16 | 2771 | -0.016 | -0.064 | 0.074 | 0.117 | 208.309778 | 40.715583 | -1594.66 | 1006.02 |
| 7 | GUIDE | 397157192 | 8.29 | 2769 | -0.165 | -0.187 | 0.061 | 0.103 | 209.593412 | 40.845696 | 1905.75 | 1458.87 |

2.4 Star Slots

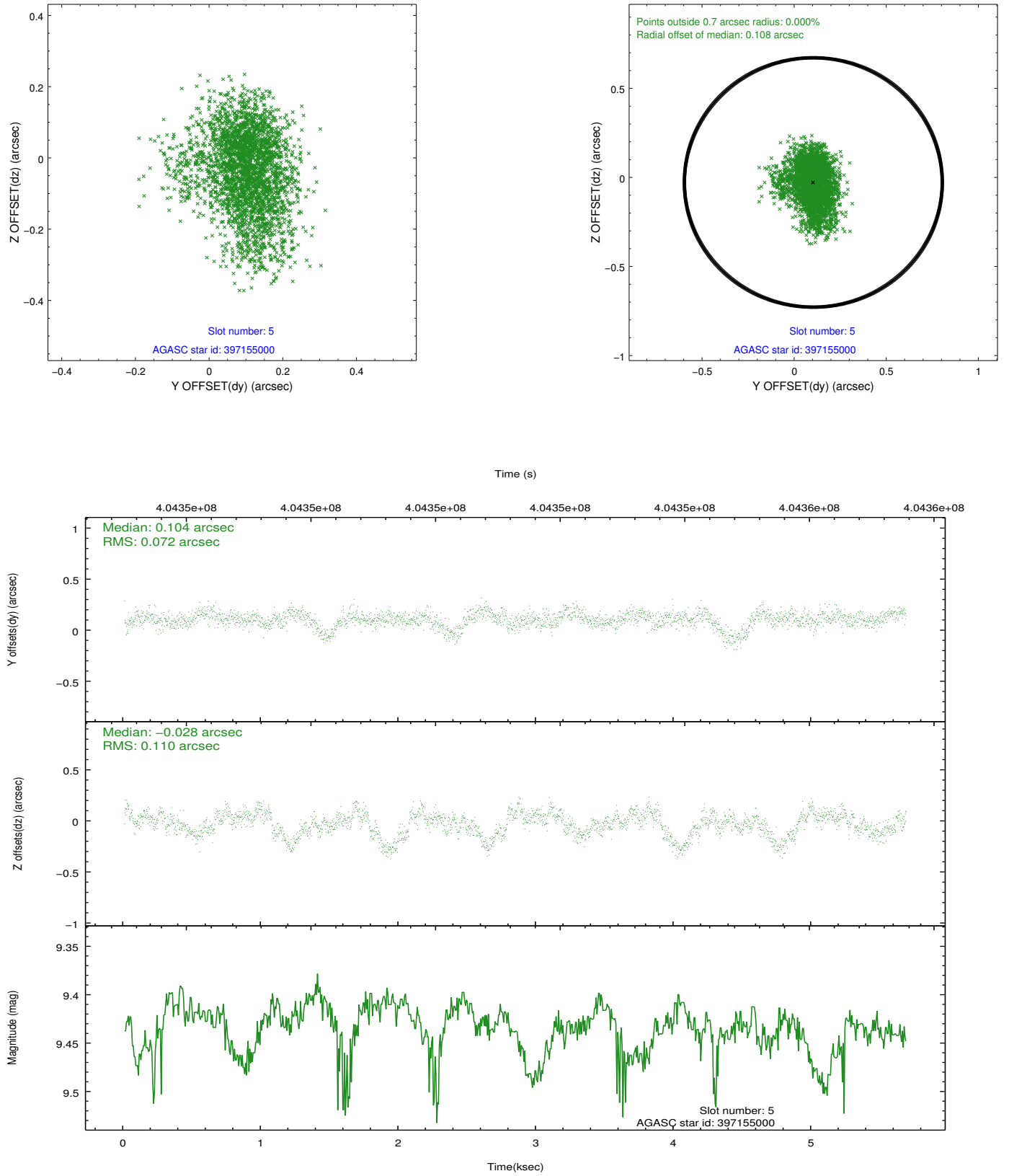
2.4.1 Slot 3



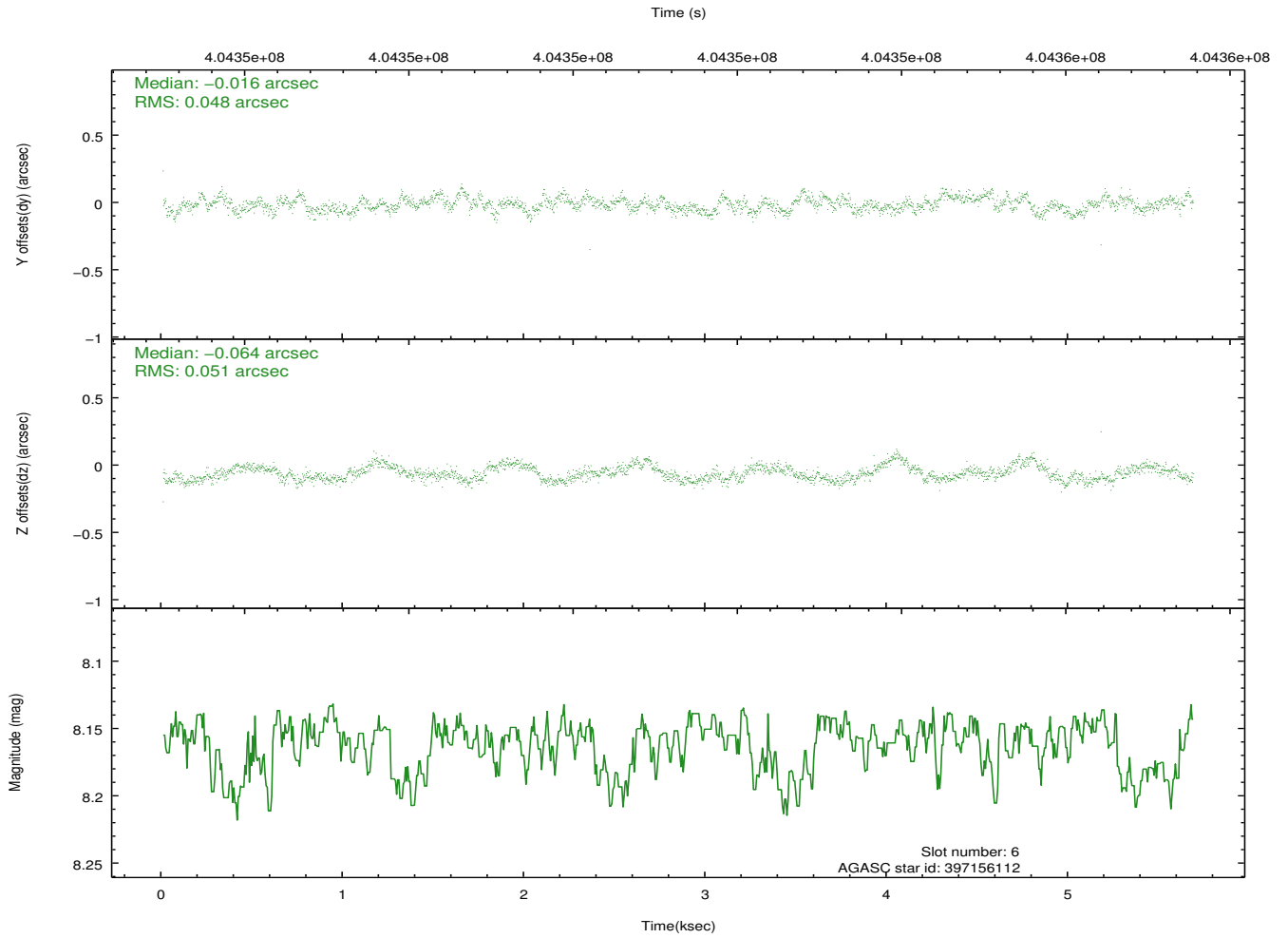
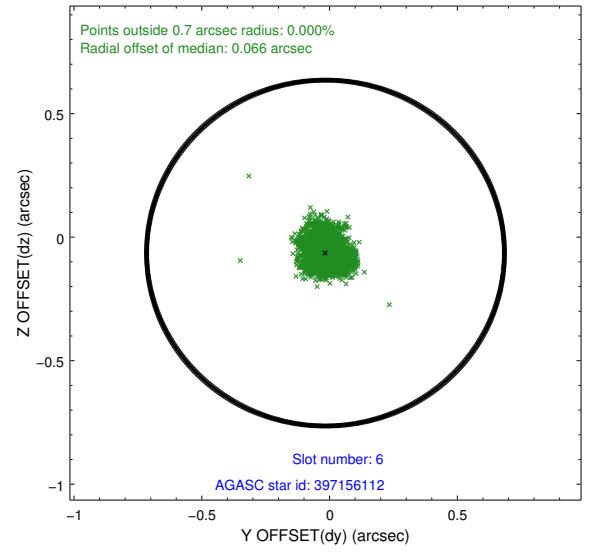
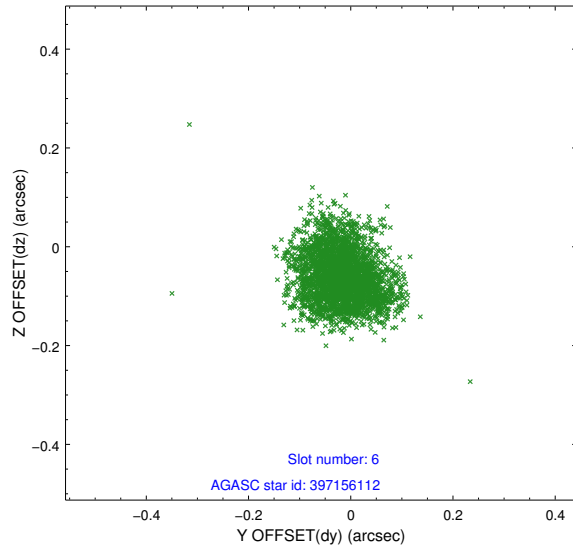
2.4.2 Slot 4



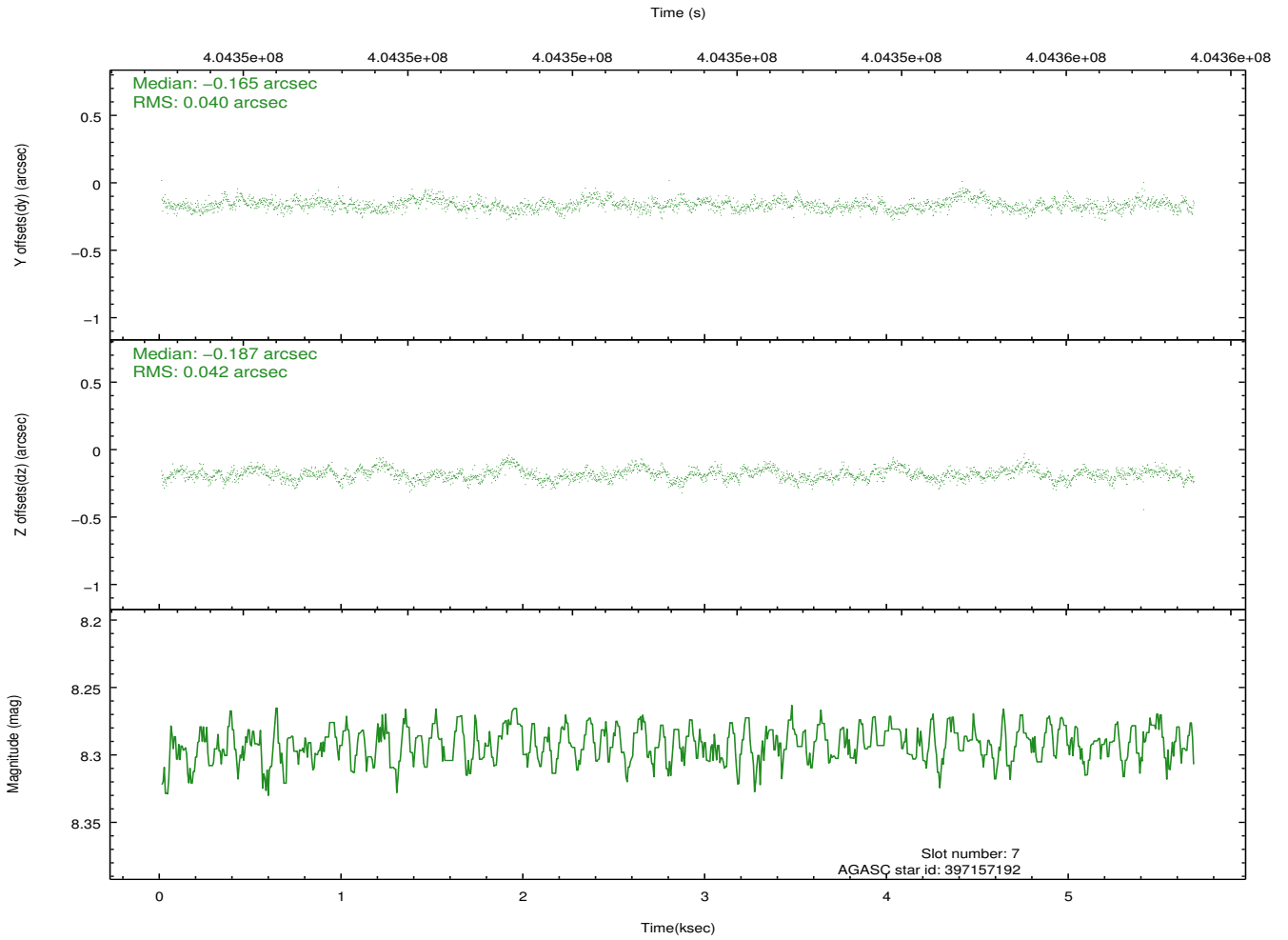
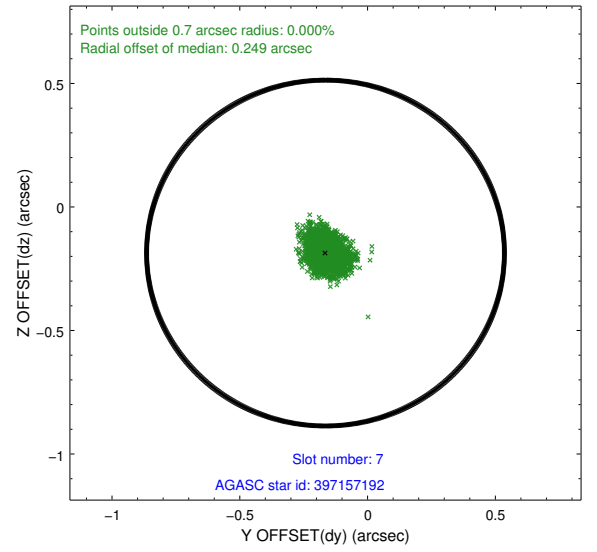
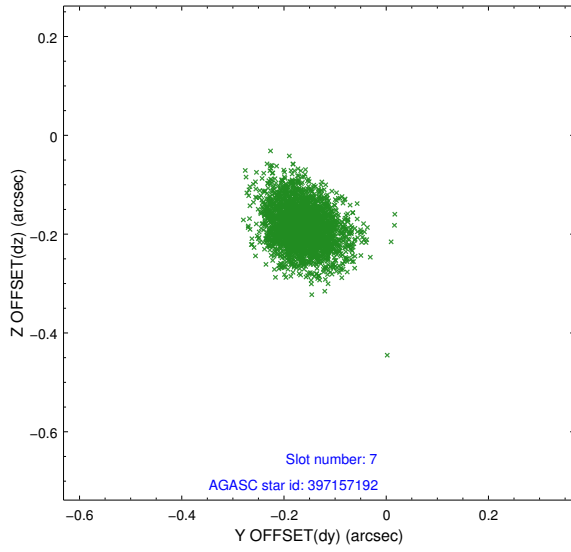
2.4.3 Slot 5



2.4.4 Slot 6

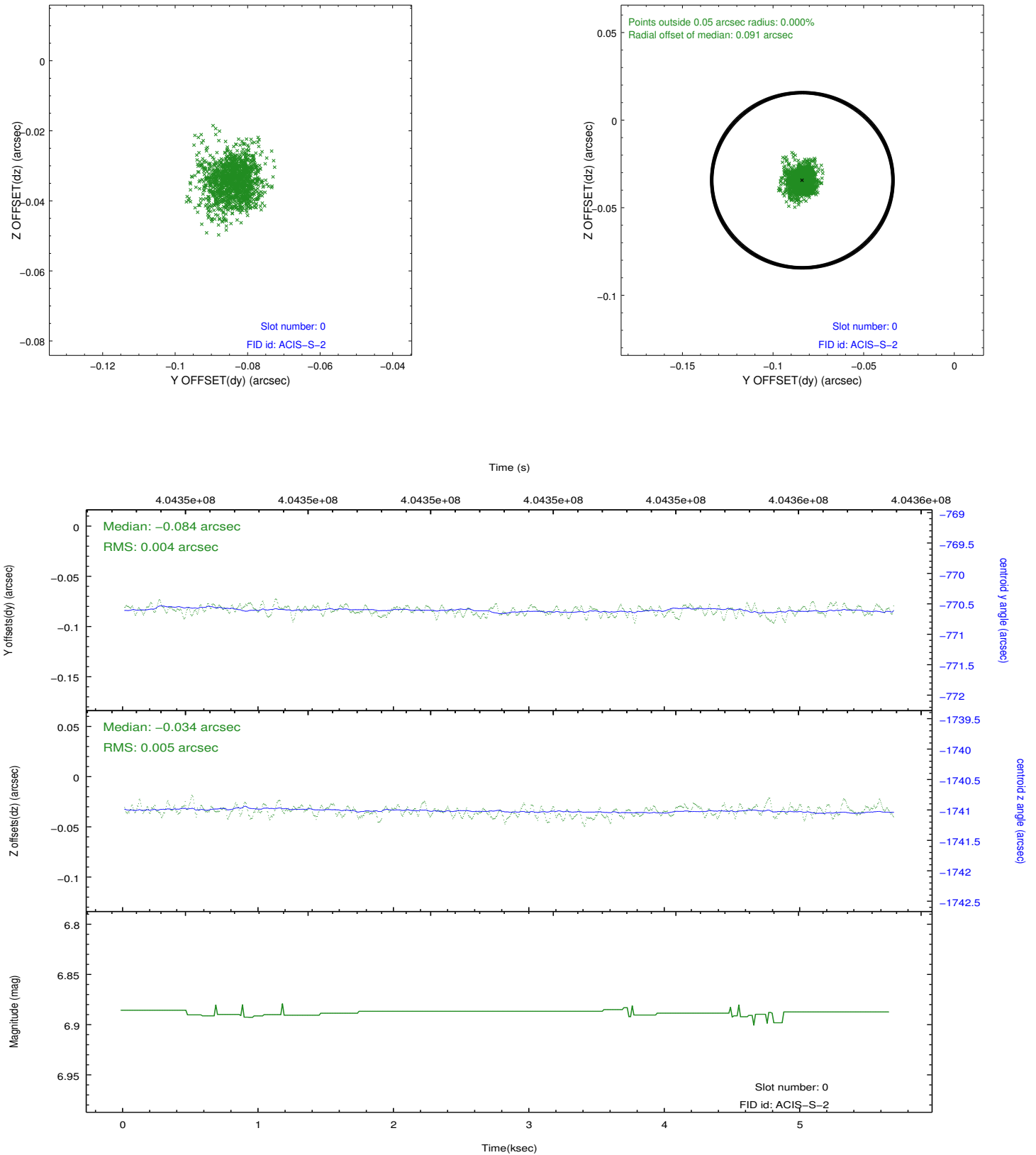


2.4.5 Slot 7

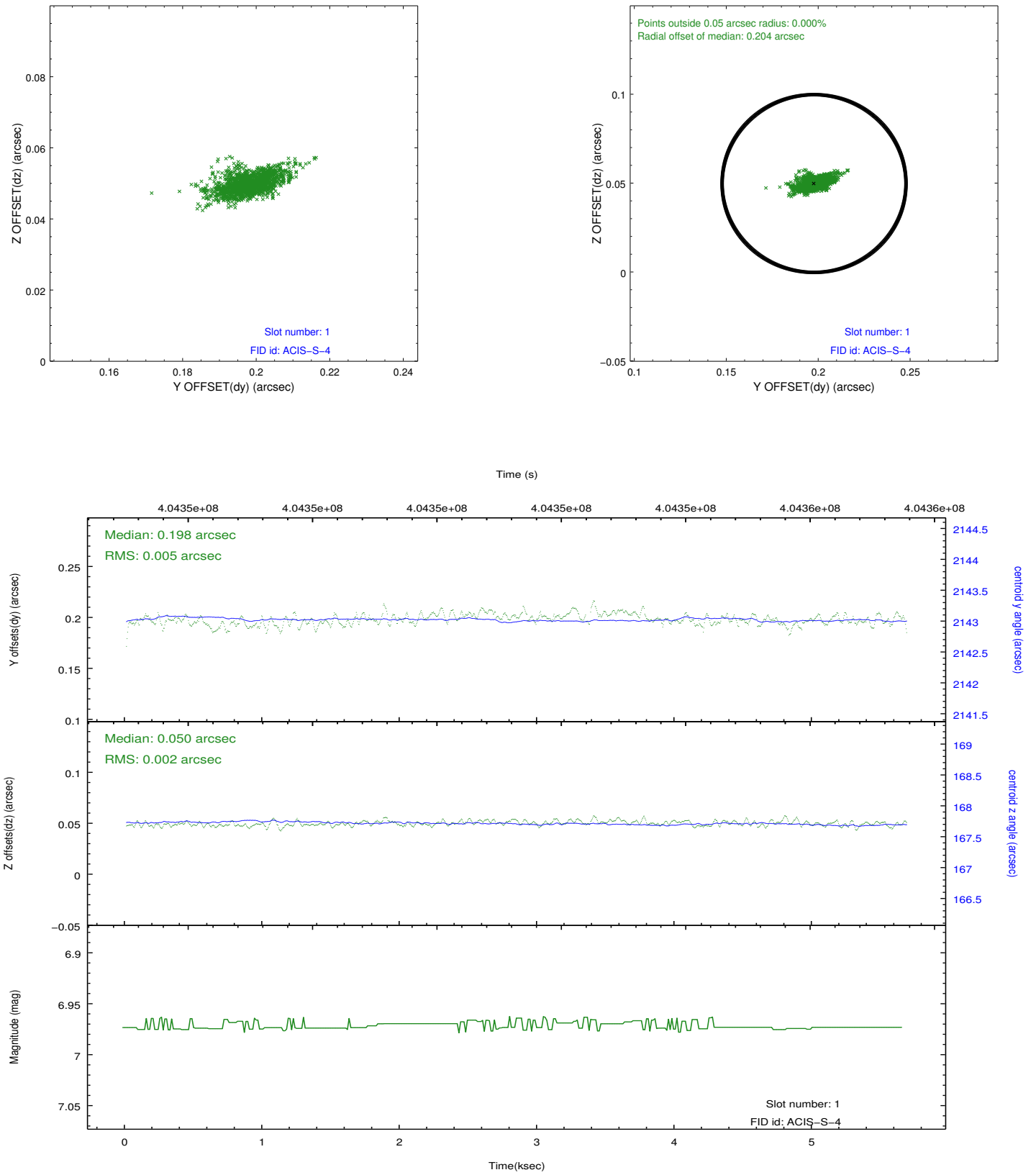


2.5 FID Slots

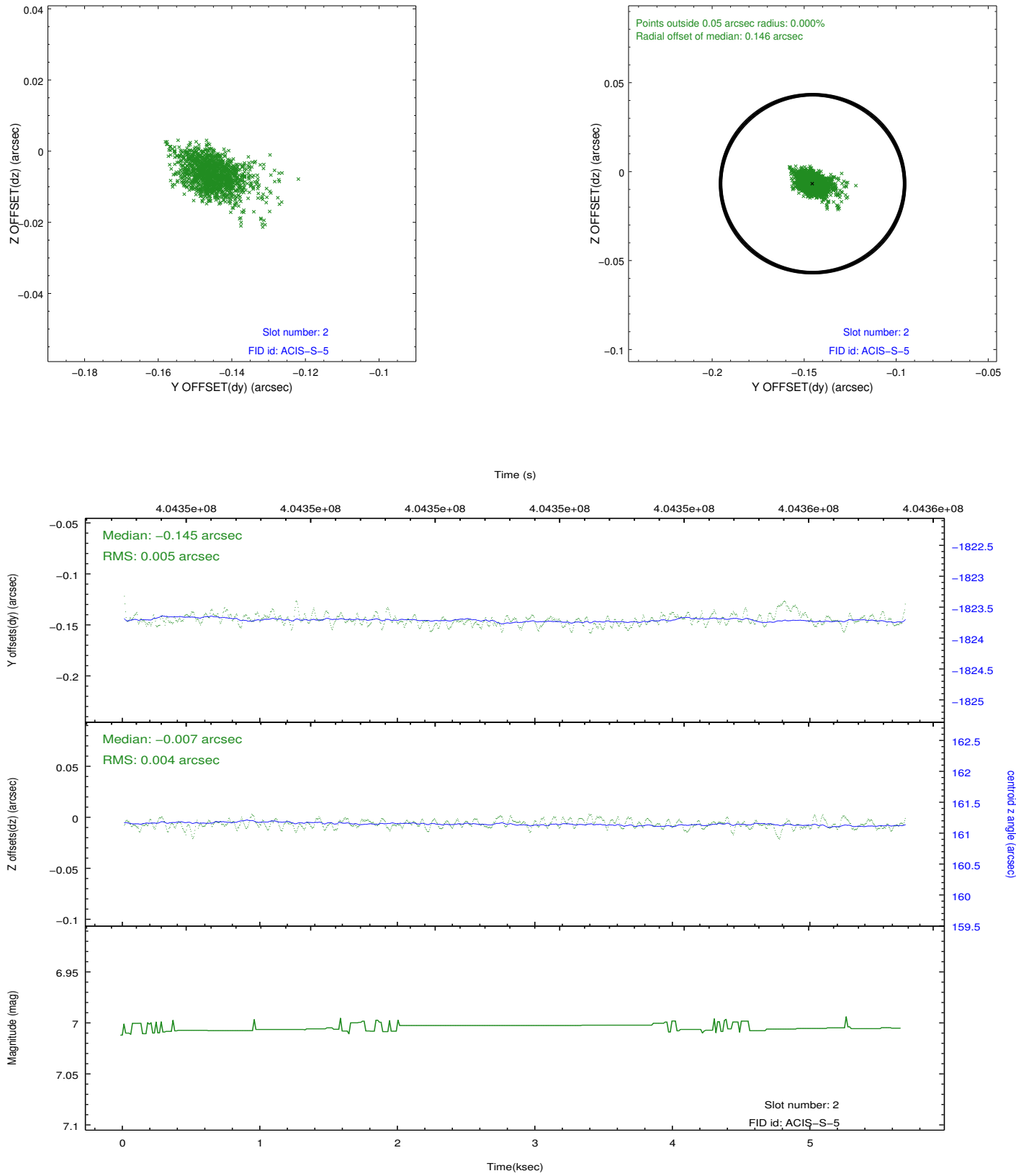
2.5.1 Slot 0



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) | 2012.07.13 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 5.4591999797225 |

A.2 Comments