

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 16466 - L2 Version 2
Chandra X-Ray Center

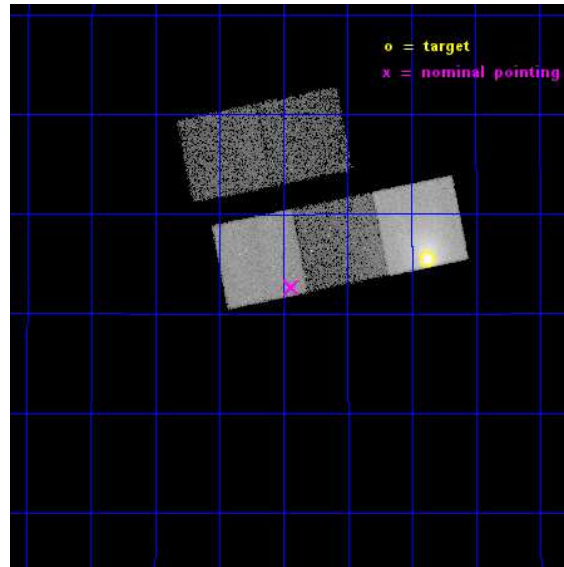
L2 Processing Date : Dec 11 2014

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1 Front

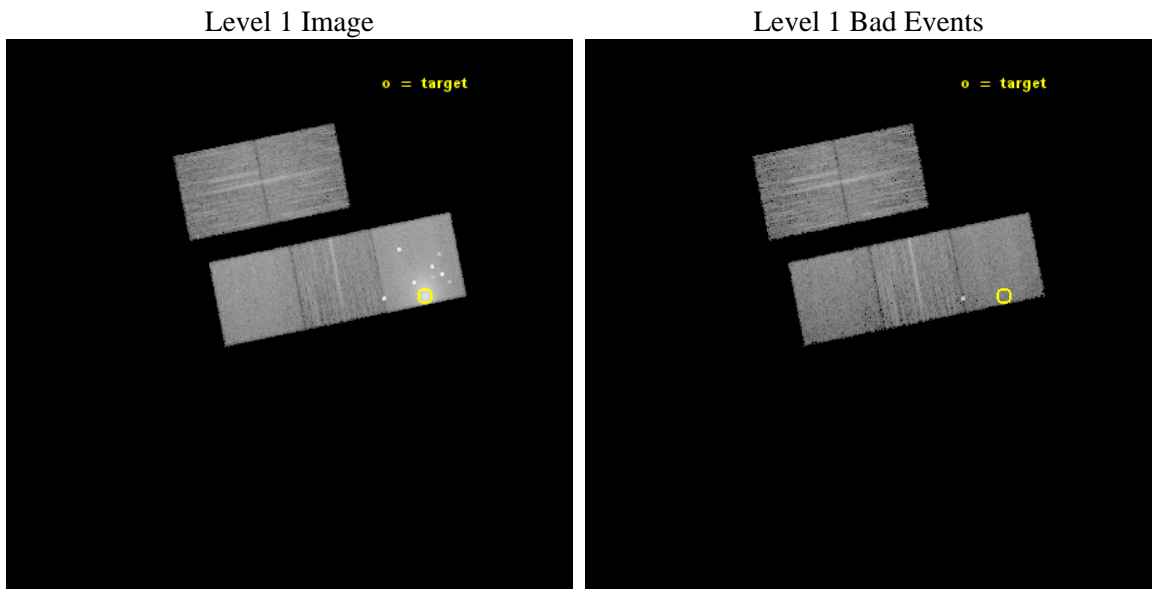
| | | |
|----------|---|---|
| seq_num | 890088 | Sequence number |
| obs_id | 16466 | Observation id |
| title | AO-15 Calibration Observations of A1795 | Proposal title |
| observer | Dr. CXC Calibration | Principal investigator |
| object | A1795 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 207.219583 | Observer's specified target RA [deg] |
| dec_targ | 26.590833 | Observer's specified target Dec [deg] |
| ra_nom | 207.4847517853 | Nominal RA [deg] |
| dec_nom | 26.544244365665 | Nominal Dec [deg] |
| roll_nom | 168.61233078257 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 15065.570001185 | Sum of GTIs [s] |
| livetime | 14868.727238008 | Livetime [s] |
| ontime2 | 15065.446881175 | Sum of GTIs [s] |
| ontime3 | 15065.487921178 | Sum of GTIs [s] |
| ontime5 | 15065.570001185 | Sum of GTIs [s] |
| ontime6 | 15065.528961182 | Sum of GTIs [s] |
| ontime7 | 15065.611041188 | Sum of GTIs [s] |
| l2events | 188537 | Number of level 2 events |



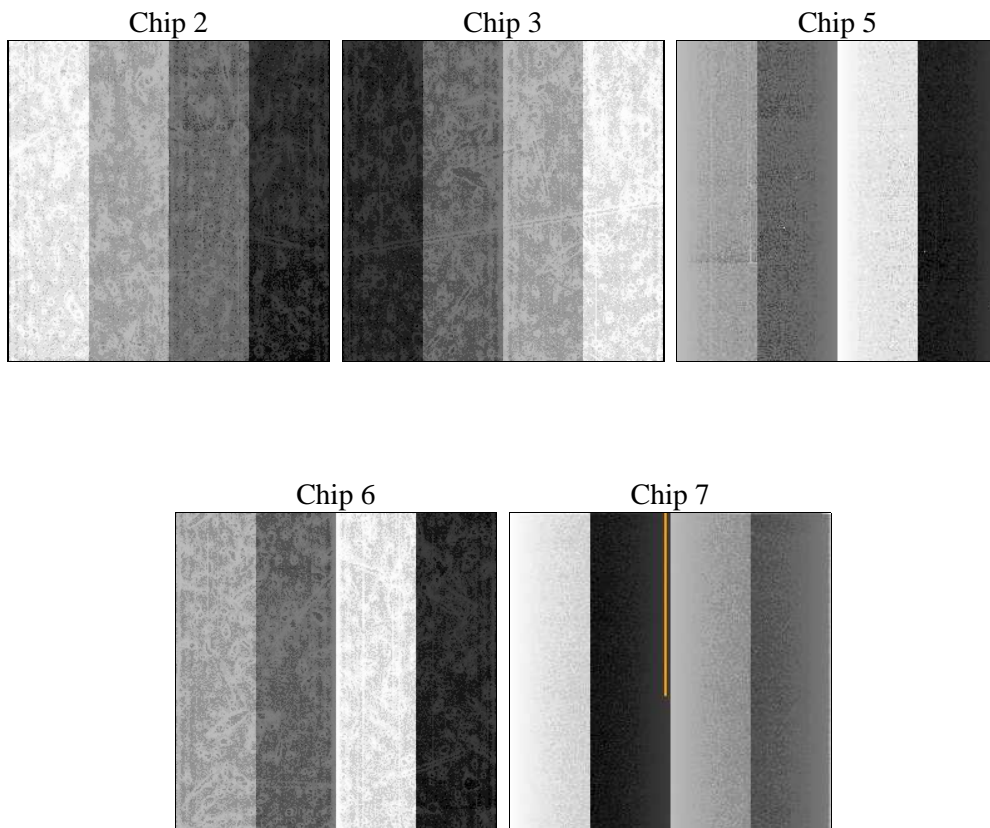
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 15000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.3.1 | Processing system revision | ontime | 15065.570001185 | Sum of GTIs [s] |
| caldbver | 4.6.4 | | ontime2 | 15065.446881175 | Sum of GTIs [s] |
| date | 2014-12-11T06:24:27 | Date and time of file creation | ontime3 | 15065.487921178 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime5 | 15065.570001185 | Sum of GTIs [s] |
| | | | ontime6 | 15065.528961182 | Sum of GTIs [s] |
| | | | ontime7 | 15065.611041188 | Sum of GTIs [s] |
| | | | l1events | 532295 | Number of level 1 events |

2.1.4 Events

| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 |
|-----------------|-------|-------|--------|-------|-------|
| level 1 events | 71366 | 69988 | 214933 | 78686 | 97322 |
| rejected events | 63523 | 62229 | 64724 | 67353 | 56311 |
| rejected % | 89% | 88% | 30% | 85% | 57% |

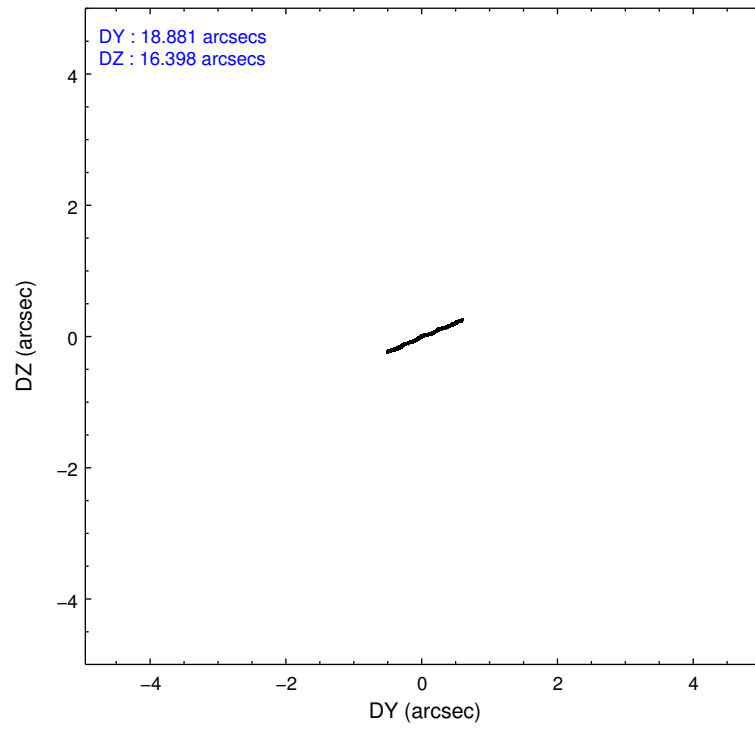
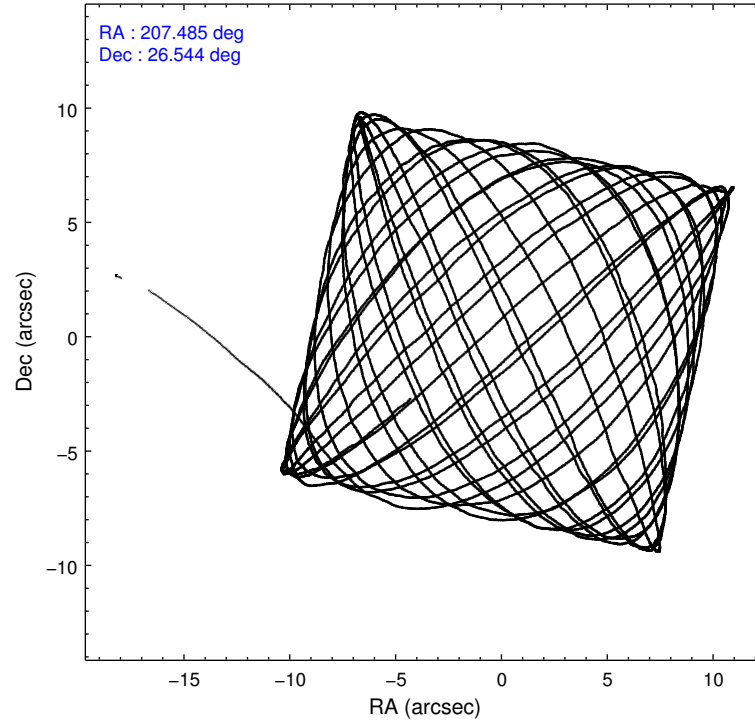
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 2874 | 2759 | 45990 | 5025 | 3492 |
| | 4% | 3% | 21% | 6% | 3% |
| grade 1 events | 38 | 51 | 933 | 31 | 123 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 1812 | 1730 | 43263 | 2260 | 8293 |
| | 2% | 2% | 20% | 2% | 8% |
| grade 3 events | 826 | 828 | 9156 | 931 | 3333 |
| | 1% | 1% | 4% | 1% | 3% |
| grade 4 events | 783 | 837 | 8453 | 959 | 3280 |
| | 1% | 1% | 3% | 1% | 3% |
| grade 5 events | 3043 | 3703 | 9590 | 3715 | 9508 |
| | 4% | 5% | 4% | 4% | 9% |
| grade 6 events | 1552 | 1612 | 43418 | 2158 | 22627 |
| | 2% | 2% | 20% | 2% | 23% |
| grade 7 events | 60438 | 58468 | 54130 | 63607 | 46666 |
| | 84% | 83% | 25% | 80% | 47% |

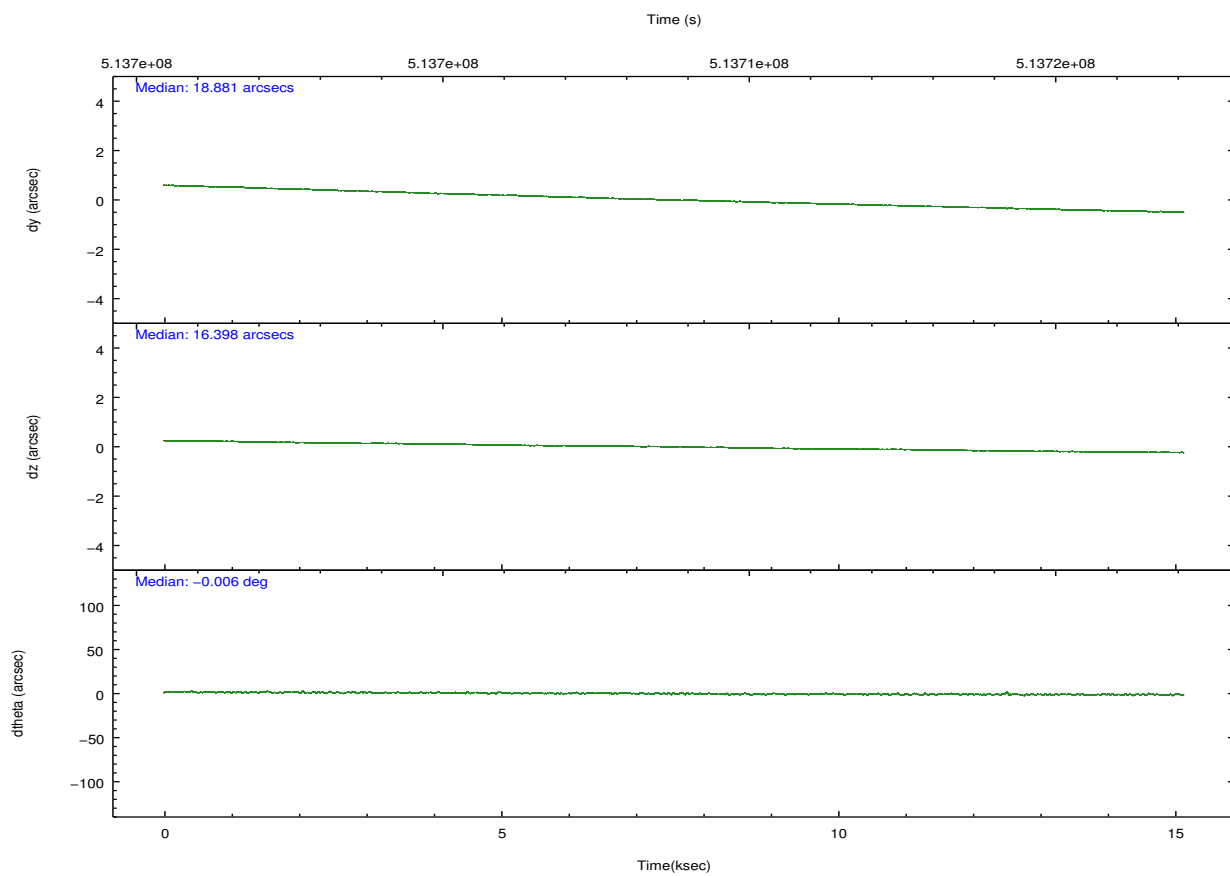
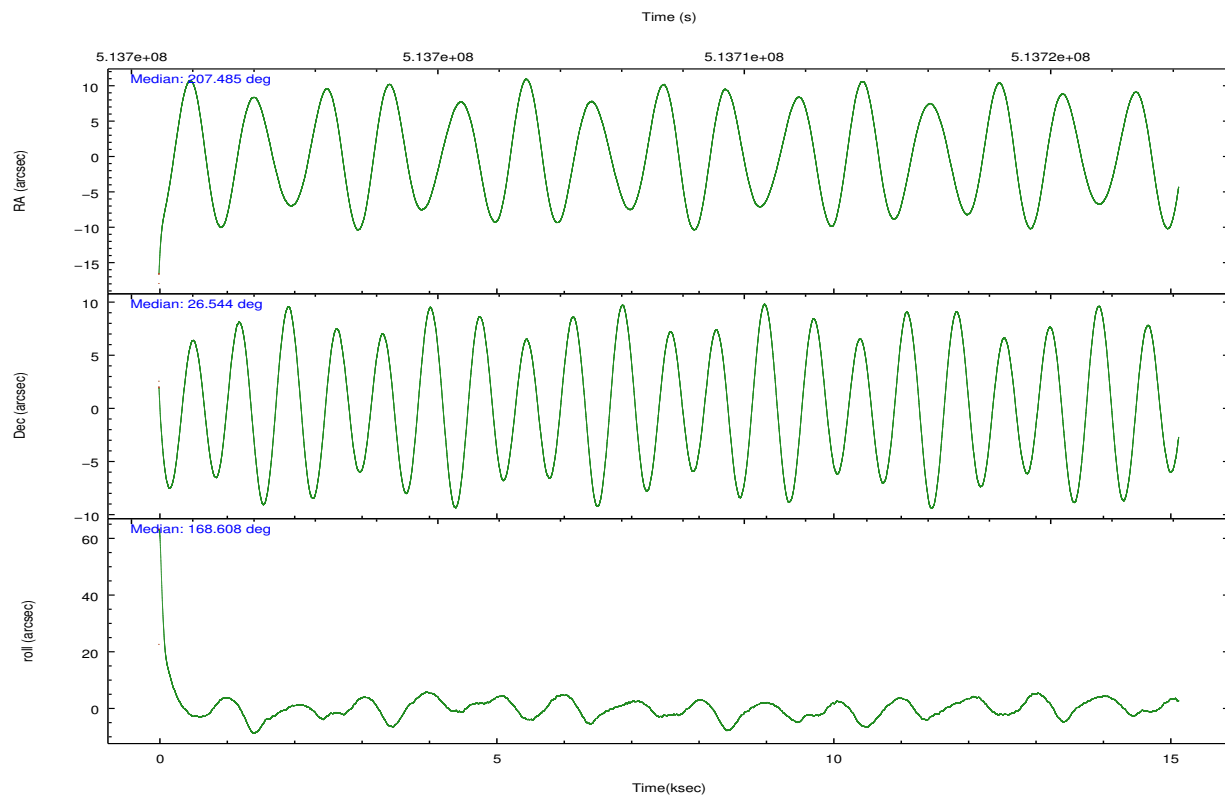
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|
| Instrument | ACIS | ACIS |
| Detector | ACIS-23567 | ACIS-23567 |
| Grating | NONE | NONE |
| Data mode | VFAINT | VFAINT |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 207.513611 | 207.4847517853001 |
| [deg] Pointing Dec | 26.553361 | 26.54424436566522 |
| [deg] Pointing Roll | 168.442760 | 168.612330782569 |
| [s] Window start time (MET) | 512697667.184000 | 512697667.184000 |
| [s] Window stop time (MET) | 515203267.184000 | 515203267.184000 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 |
| [mm] SIM defocus | 0 | 0.001444936568705701 |
| [mm] SIM translation stage pos | -180.332523 | -180.3266934278832 |
| [mm] SIM translation stage offset | -9.800000000000001 | -9.805829155124599 |
| [s] Observation start time (MET) | 513701333.184000 | 513699569.67724 |
| Observation start date | 2014-04-12T14:47:46 | 2014-04-12T14:19:29 |
| [s] Observation end time (MET) | 513716333.184000 | 513716467.31568 |
| Observation end date | 2014-04-12T18:57:46 | 2014-04-12T19:01:07 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---------------------------------------|-----------|---------|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |
| Number of optional ACIS chips dropped | 0 | 0 |
| On-chip summing requested | N | N |
| Subarray requested | NONE | NONE |
| Alternating exposures requested | N | N |
| [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect



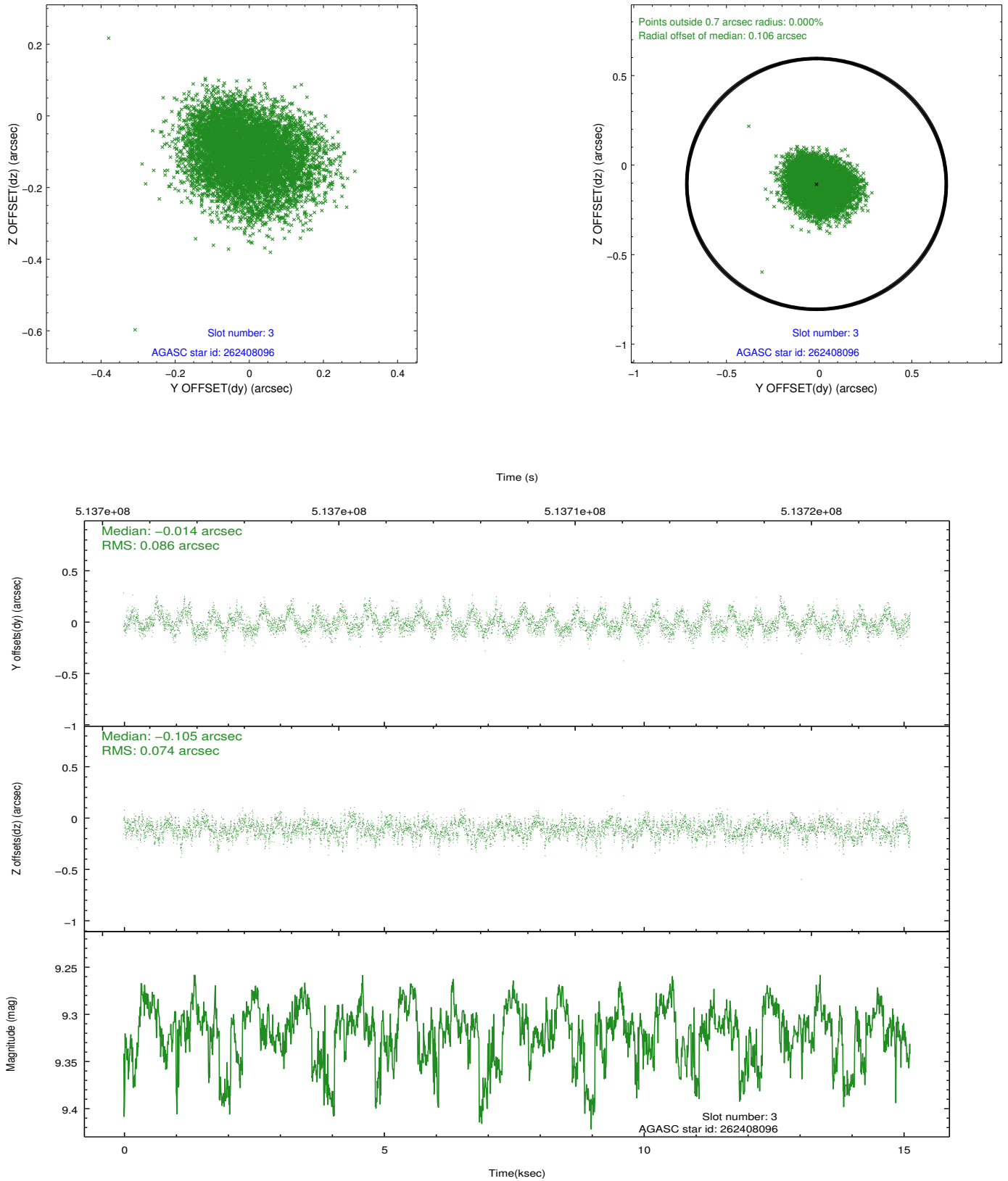


Slot Statistics

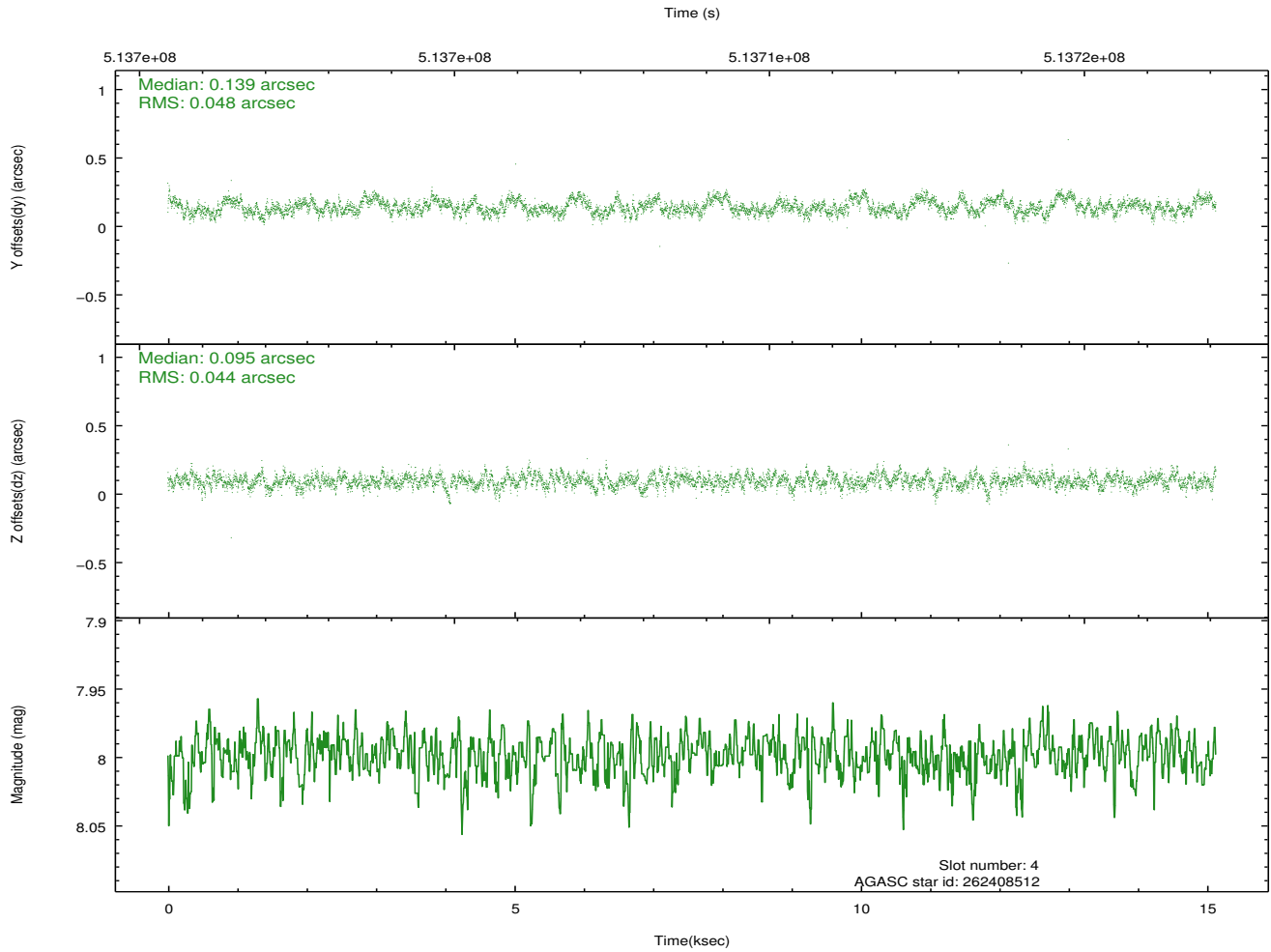
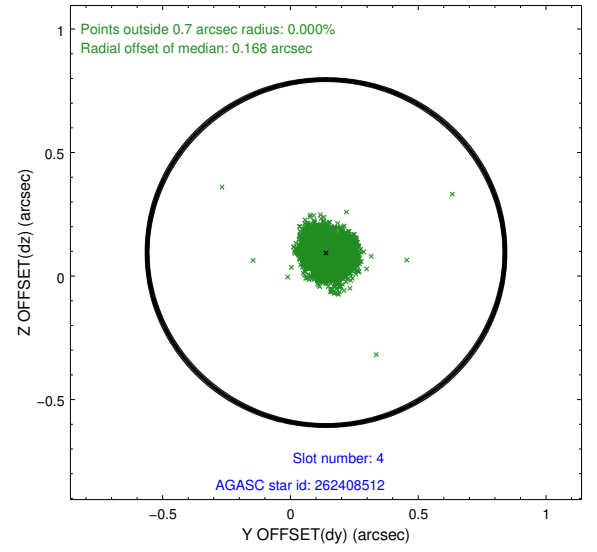
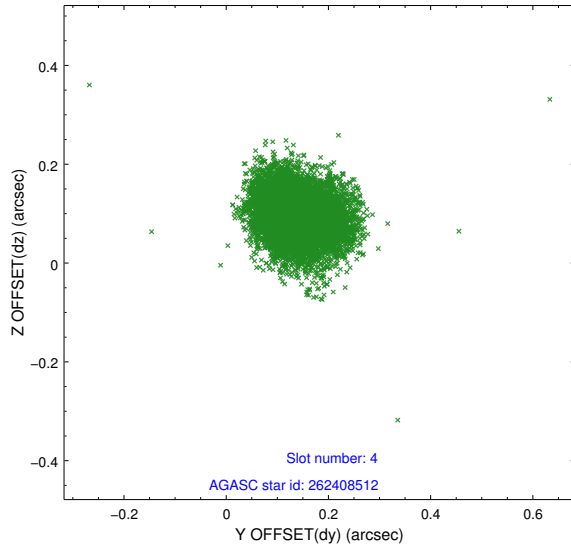
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | | ACIS-S-1 | 7.15 | 3690 | 0.145 | 0.155 | 0.018 | 0.026 | 0.000000 | 0.000000 | 924.94 | -1935.20 |
| 1 | FID | | ACIS-S-2 | 7.05 | 3691 | -0.237 | -0.106 | 0.019 | 0.028 | 0.000000 | 0.000000 | -771.18 | -1940.39 |
| 2 | FID | | ACIS-S-6 | 7.37 | 3690 | 0.072 | -0.046 | 0.006 | 0.011 | 0.000000 | 0.000000 | 390.37 | 605.55 |
| 3 | GUIDE | used | 262408096 | 9.32 | 7375 | -0.014 | -0.105 | 0.122 | 0.194 | 207.011678 | 26.515421 | 1558.10 | 454.72 |
| 4 | GUIDE | used | 262408512 | 8.00 | 7381 | 0.139 | 0.095 | 0.069 | 0.110 | 207.800210 | 27.128796 | -483.66 | -2214.29 |
| 5 | GUIDE | used | 262414456 | 9.26 | 7376 | -0.005 | -0.066 | 0.108 | 0.171 | 208.043290 | 26.129682 | -1982.23 | 1147.78 |
| 6 | GUIDE | used | 262407608 | 9.34 | 7376 | -0.190 | -0.131 | 0.125 | 0.202 | 207.378401 | 26.435507 | 341.61 | 503.01 |
| 7 | GUIDE | used | 262409648 | 8.38 | 7380 | 0.068 | 0.215 | 0.111 | 0.179 | 208.329010 | 27.087208 | -2174.04 | -2415.25 |

2.4 Star Slots

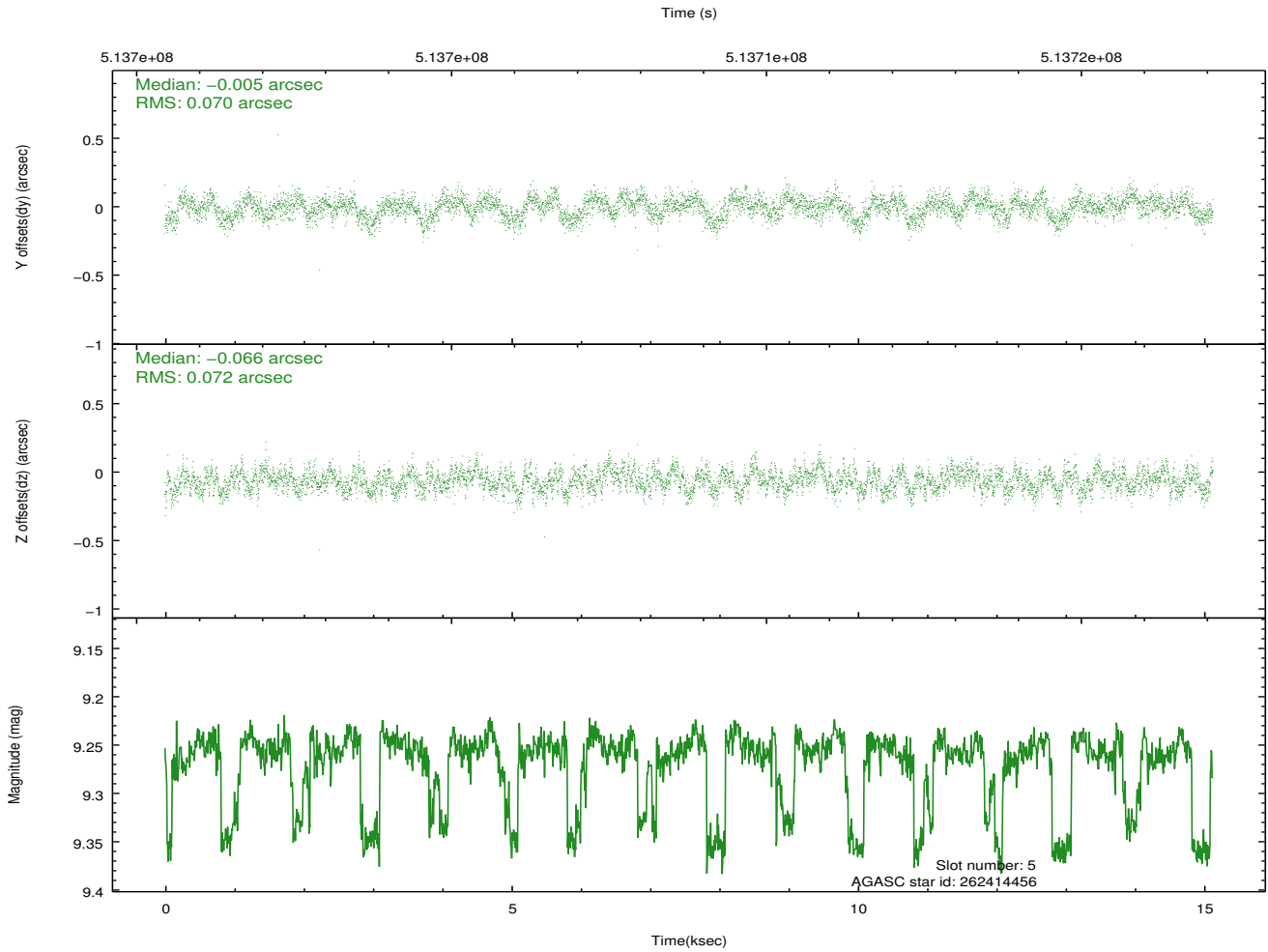
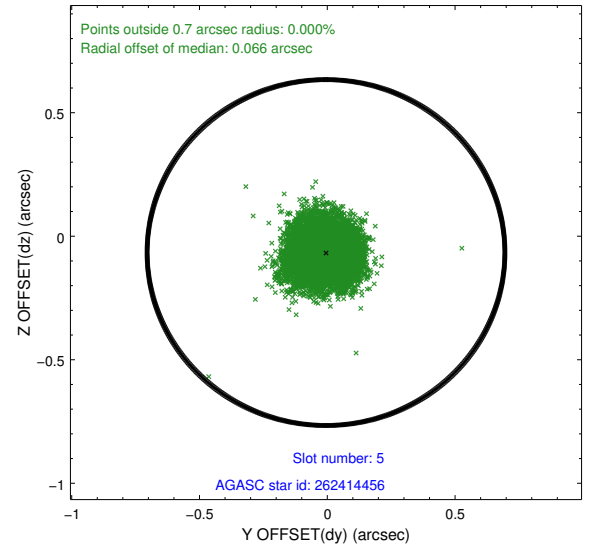
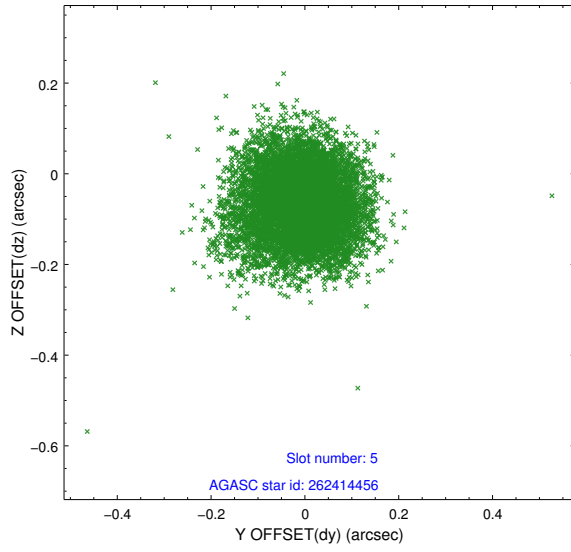
2.4.1 Slot 3



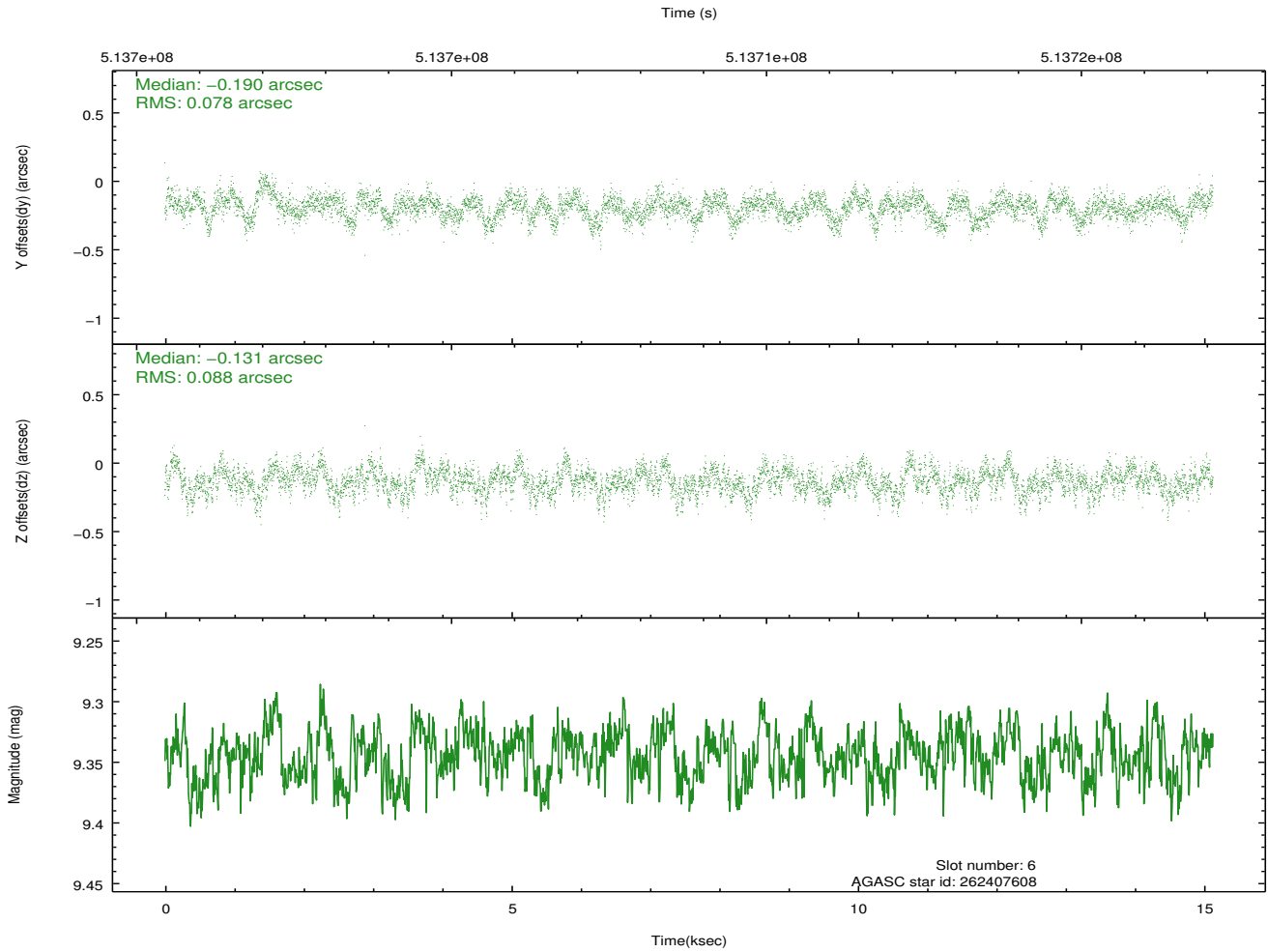
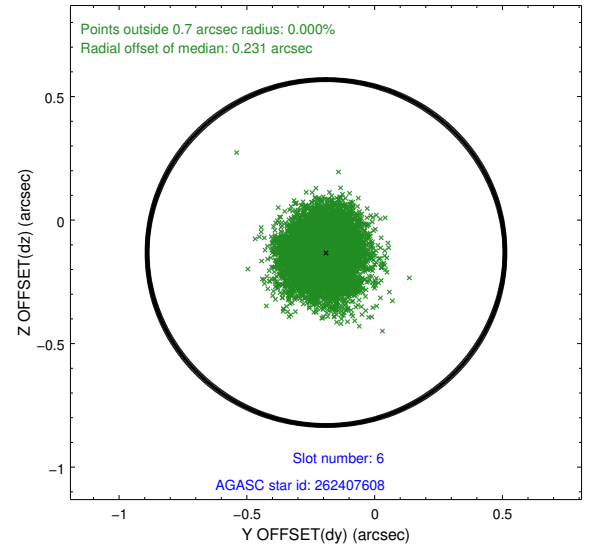
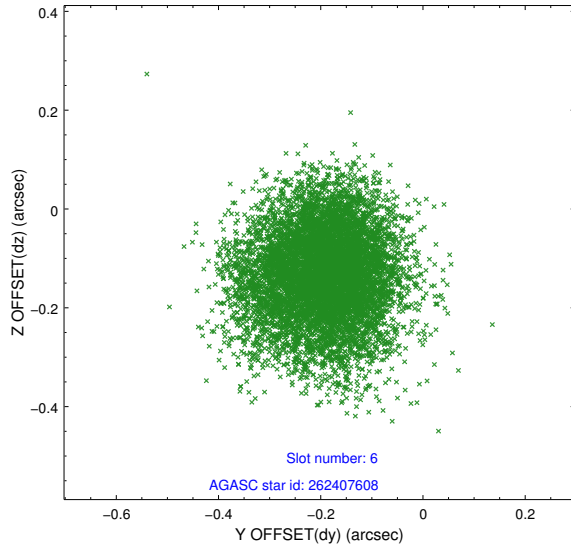
2.4.2 Slot 4



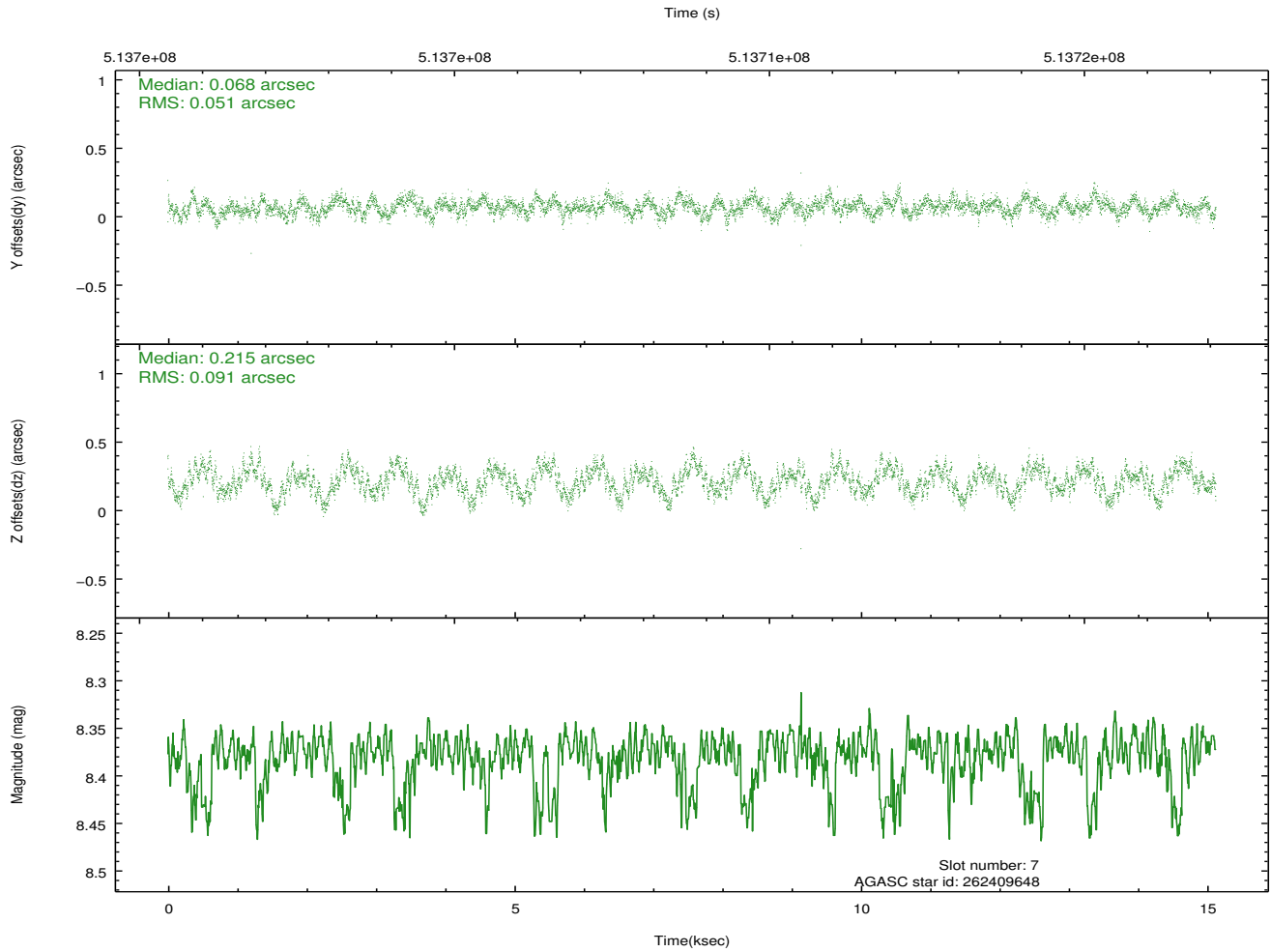
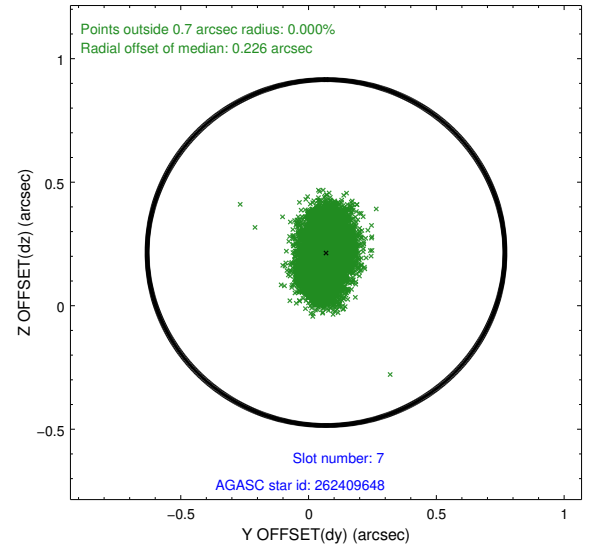
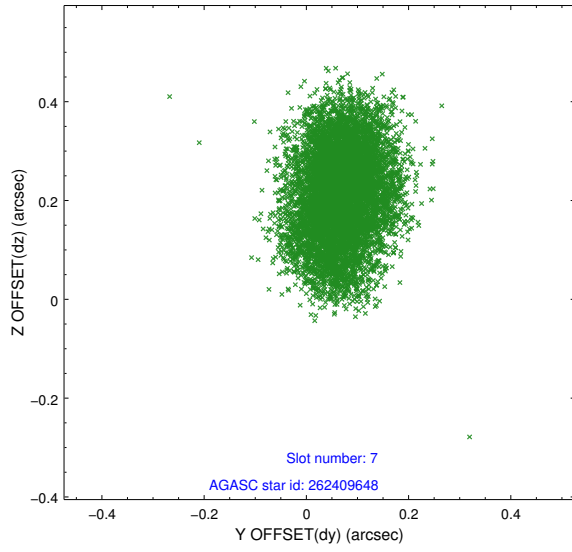
2.4.3 Slot 5



2.4.4 Slot 6

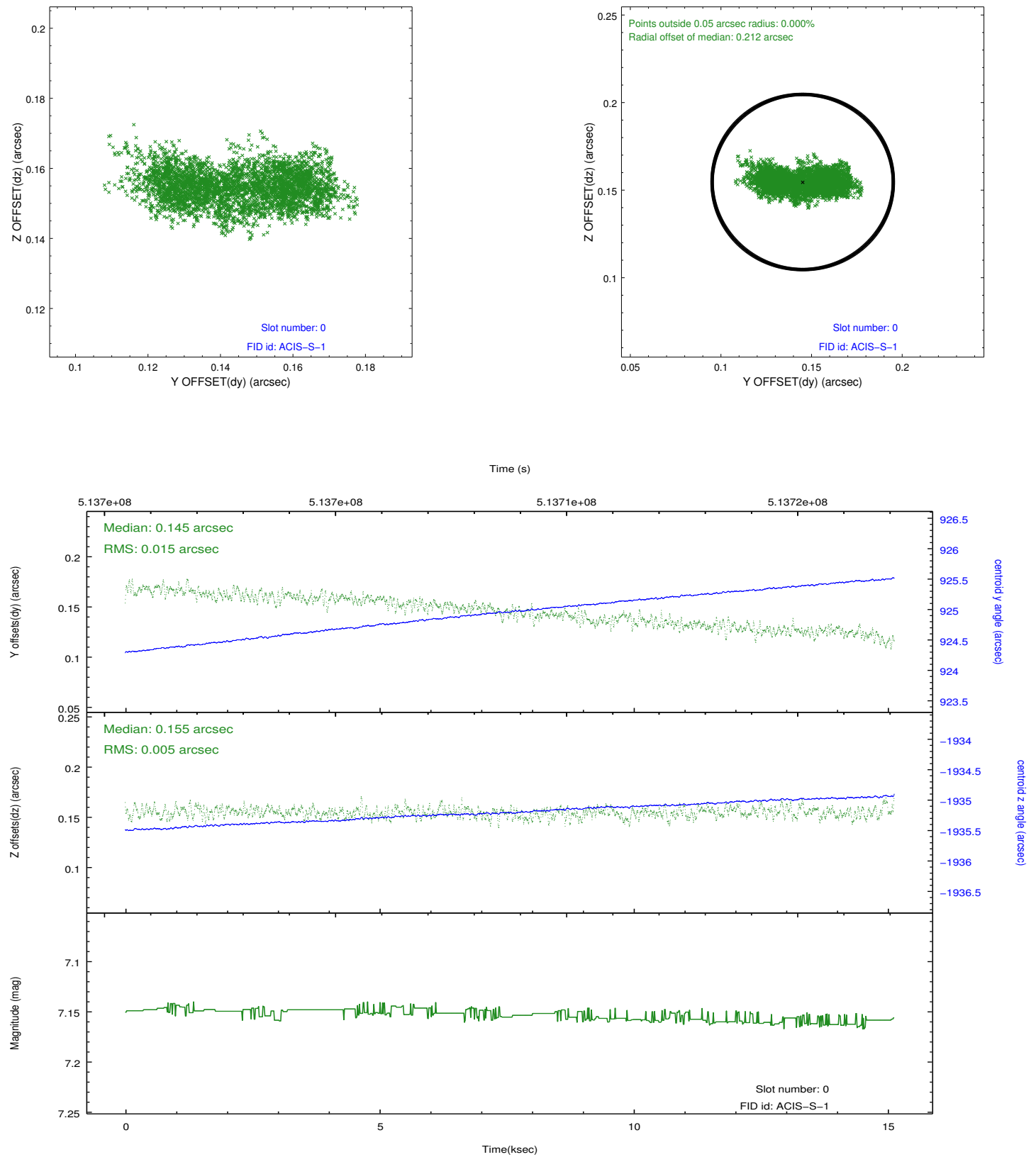


2.4.5 Slot 7

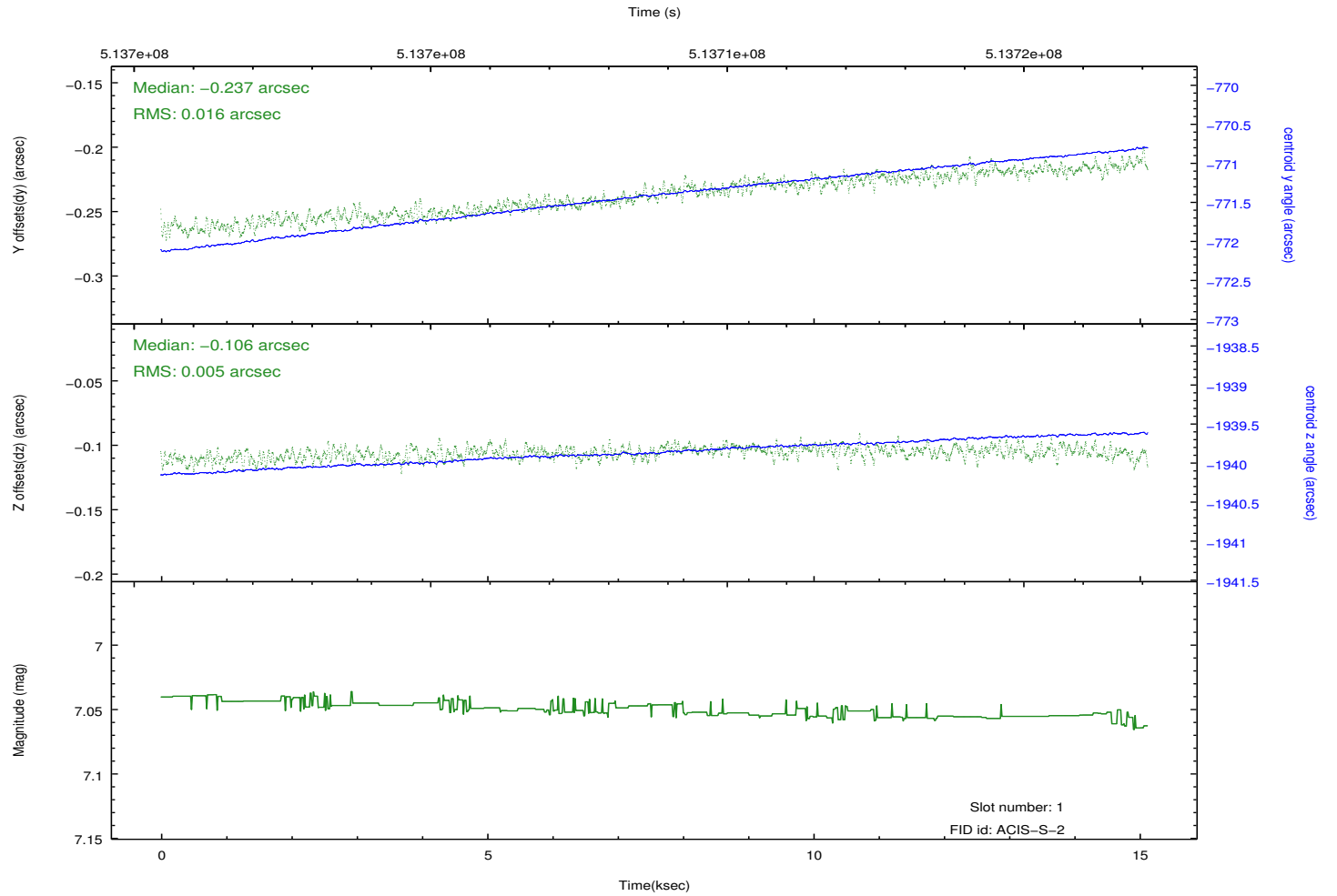
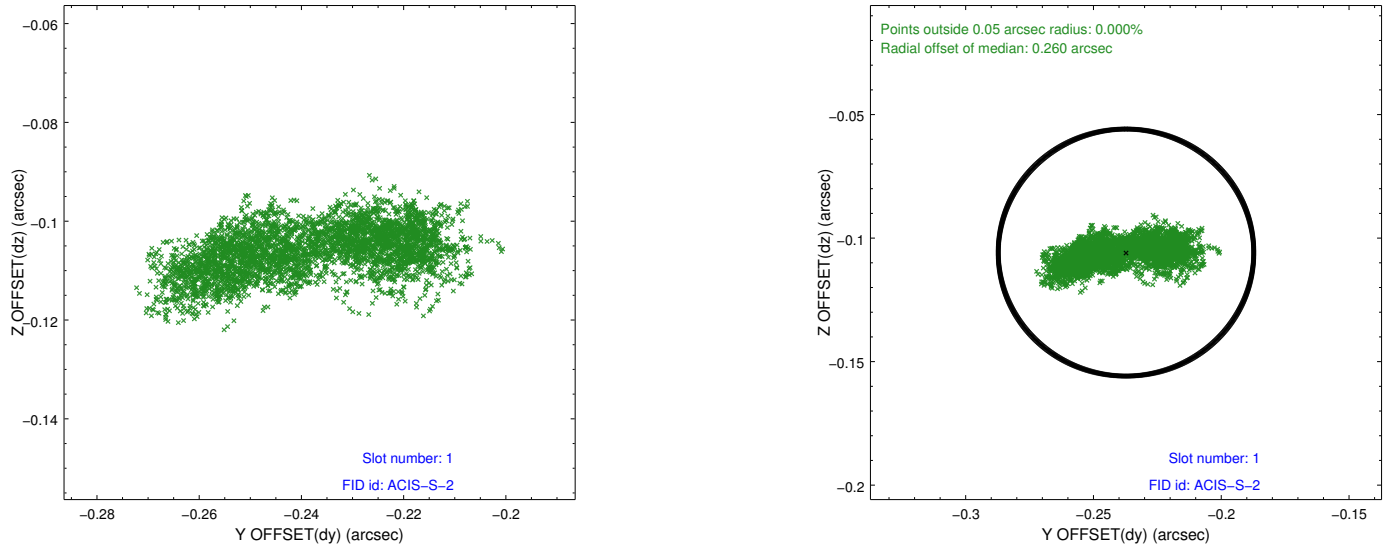


2.5 FID Slots

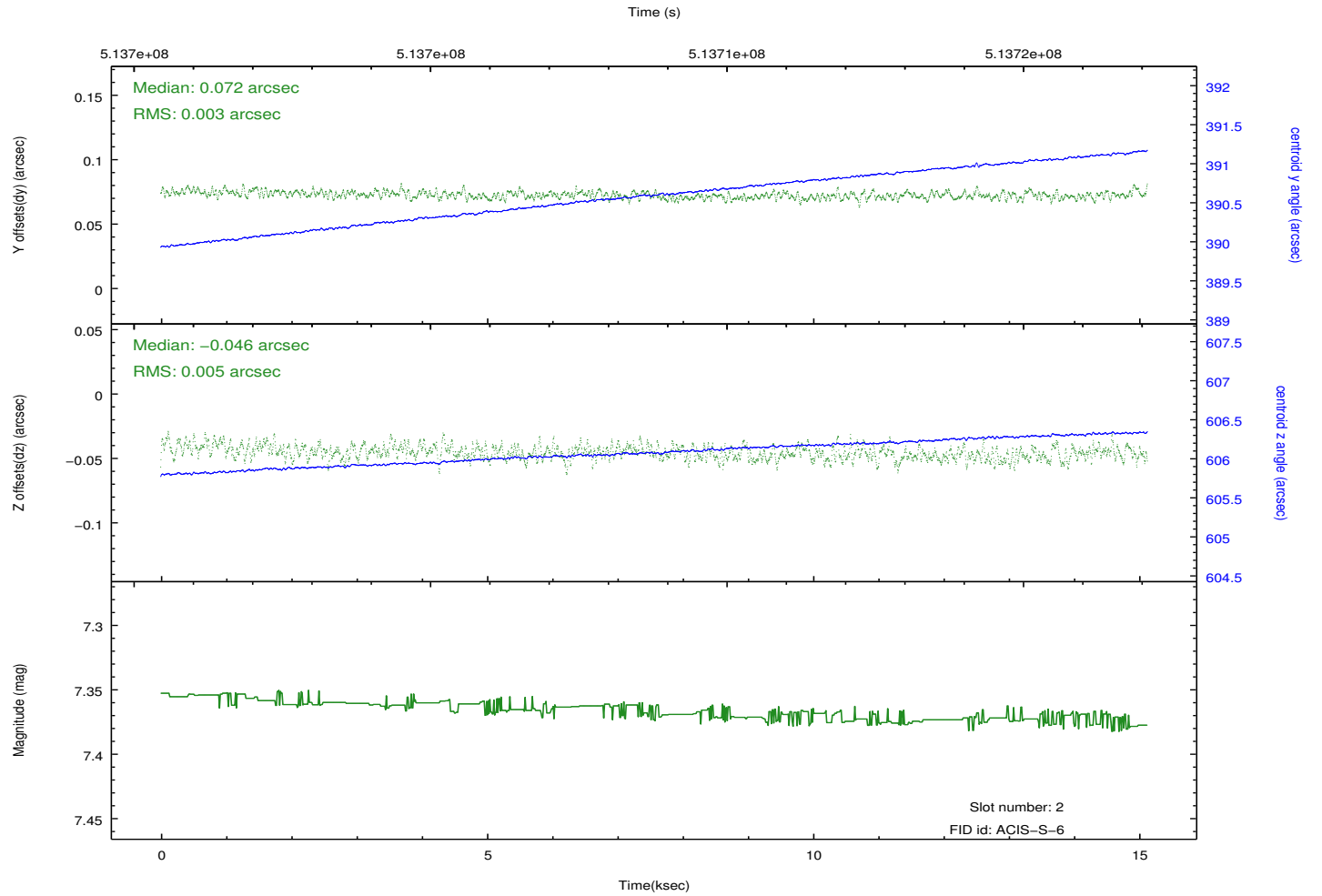
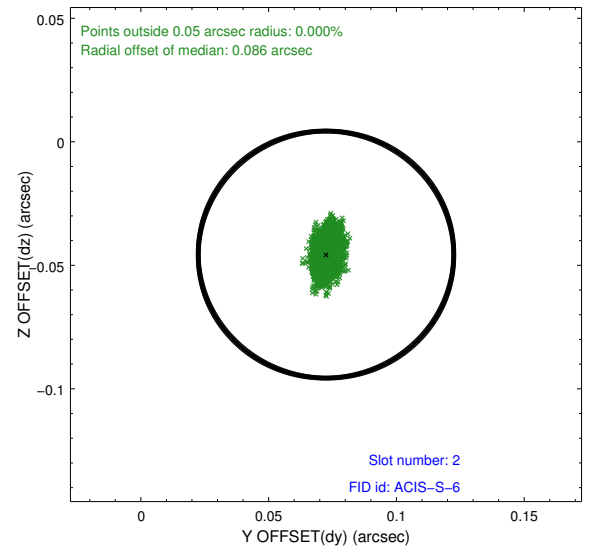
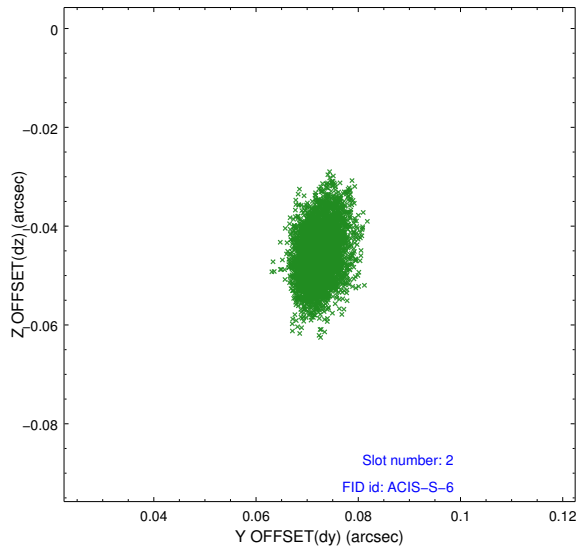
2.5.1 Slot 0



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) | 2014.12.18 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 15.065570001185 |

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.