

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 12124 - L2 Version 2
Chandra X-Ray Center

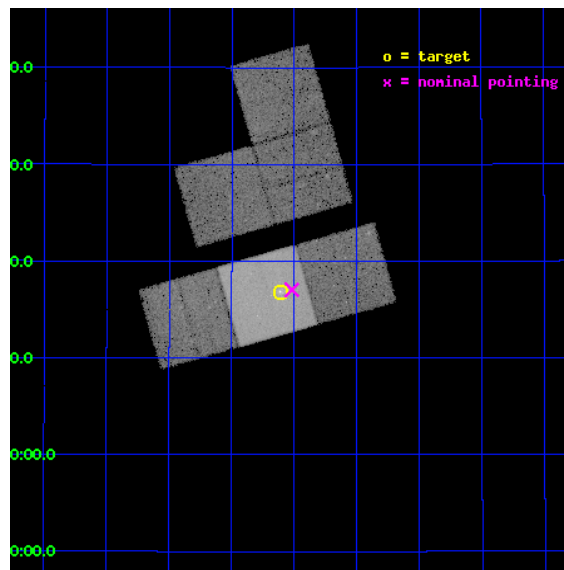
L2 Processing Date : Jun 23 2012

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1 Front

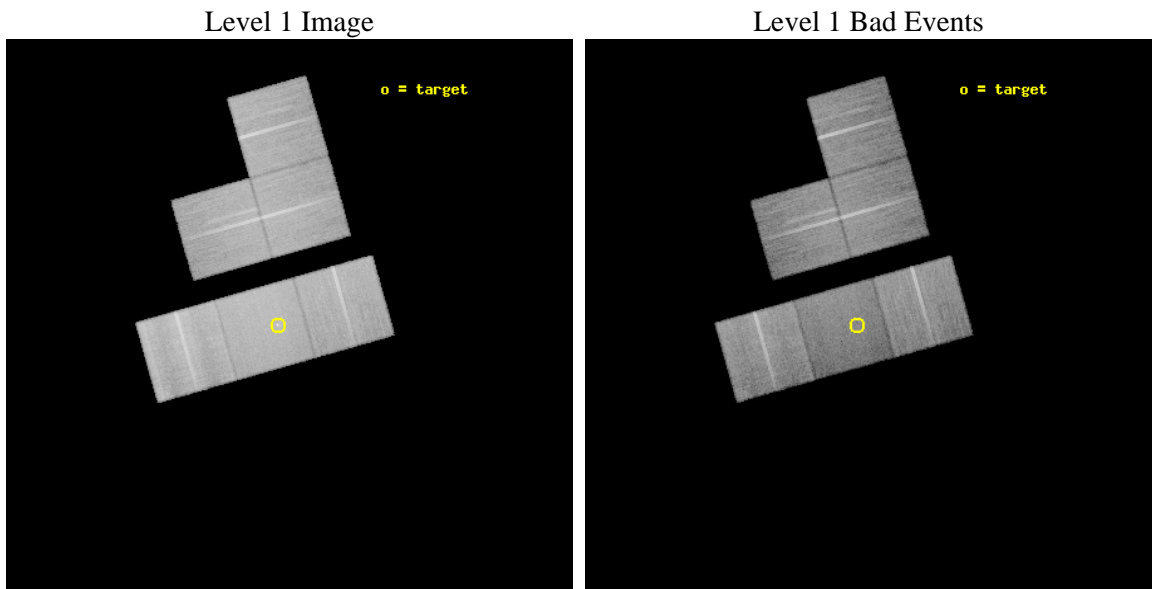
| | | |
|----------|--|---|
| seq_num | 600788 | Sequence number |
| obs_id | 12124 | Observation id |
| title | Constraining the transient LMXB population | Proposal title |
| observer | Dr. Giuseppina Fabbiano | Principal investigator |
| object | NGC 4278 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 185.028333 | Observer's specified target RA [deg] |
| dec_targ | 29.28075 | Observer's specified target Dec [deg] |
| ra_nom | 185.00462574158 | Nominal RA [deg] |
| dec_nom | 29.284013667588 | Nominal Dec [deg] |
| roll_nom | 164.16824620282 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 26175.999902546 | Sum of GTIs [s] |
| livetime | 25844.543630485 | Livetime [s] |
| ontime0 | 26175.999902546 | Sum of GTIs [s] |
| ontime2 | 26175.999902546 | Sum of GTIs [s] |
| ontime3 | 26175.999902546 | Sum of GTIs [s] |
| ontime6 | 26175.999902546 | Sum of GTIs [s] |
| ontime7 | 26175.999902546 | Sum of GTIs [s] |
| ontime8 | 26166.276781142 | Sum of GTIs [s] |
| l2events | 205394 | Number of level 2 events |



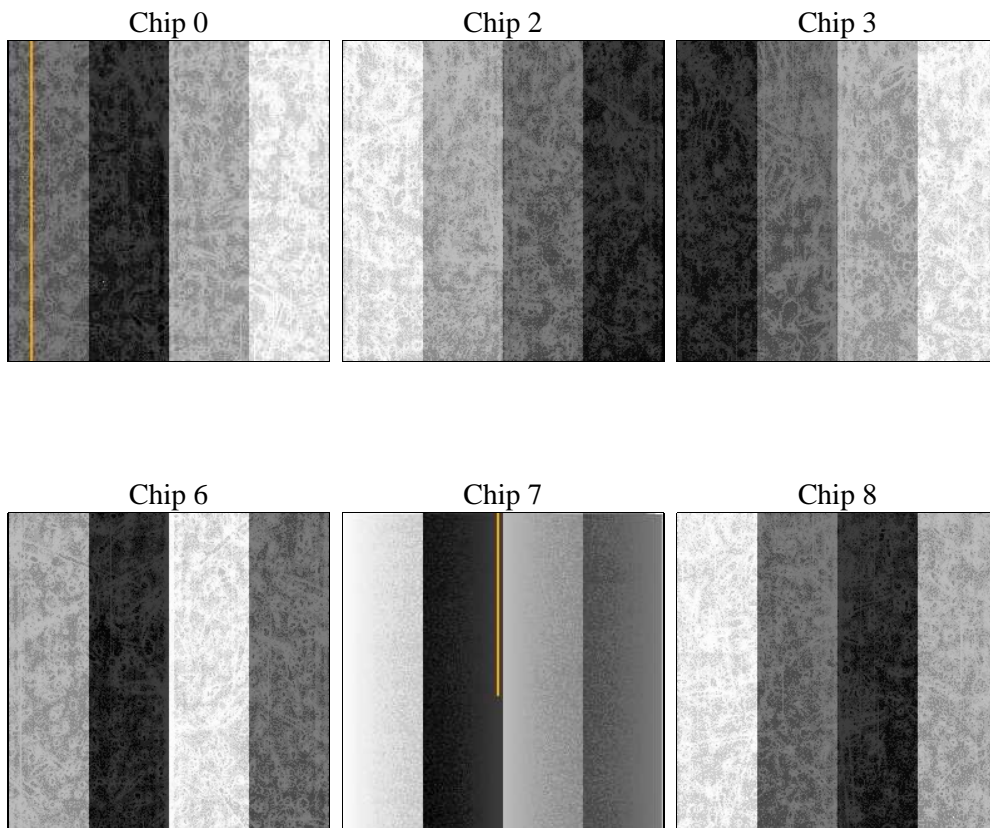
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 26000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 26175.999902546 | Sum of GTIs [s] |
| caldsver | 4.4.10 | | ontime0 | 26175.999902546 | Sum of GTIs [s] |
| date | 2012-06-23T05:22:39 | Date and time of file creation | ontime2 | 26175.999902546 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime3 | 26175.999902546 | Sum of GTIs [s] |
| | | | ontime6 | 26175.999902546 | Sum of GTIs [s] |
| | | | ontime7 | 26175.999902546 | Sum of GTIs [s] |
| | | | ontime8 | 26166.276781142 | Sum of GTIs [s] |
| | | | l1events | 1346577 | Number of level 1 events |

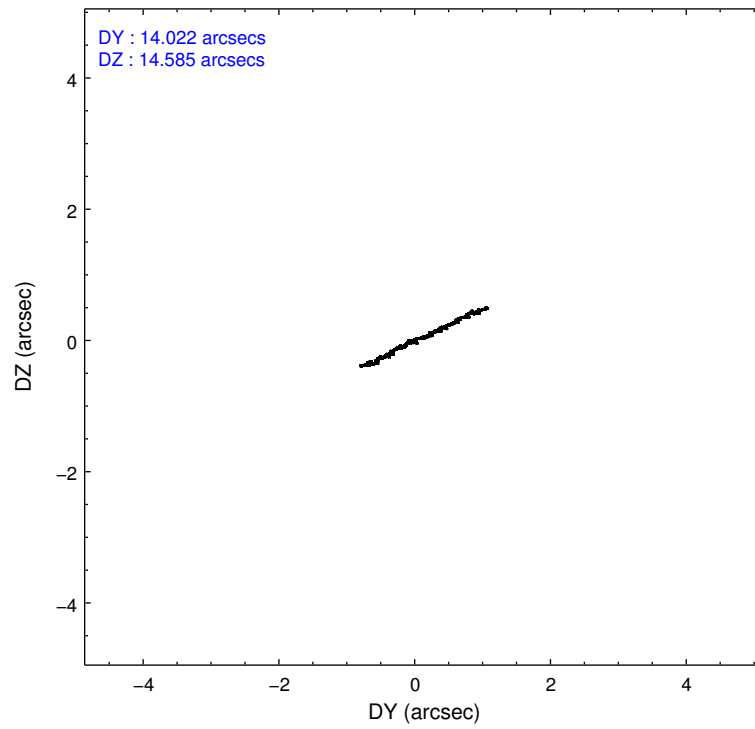
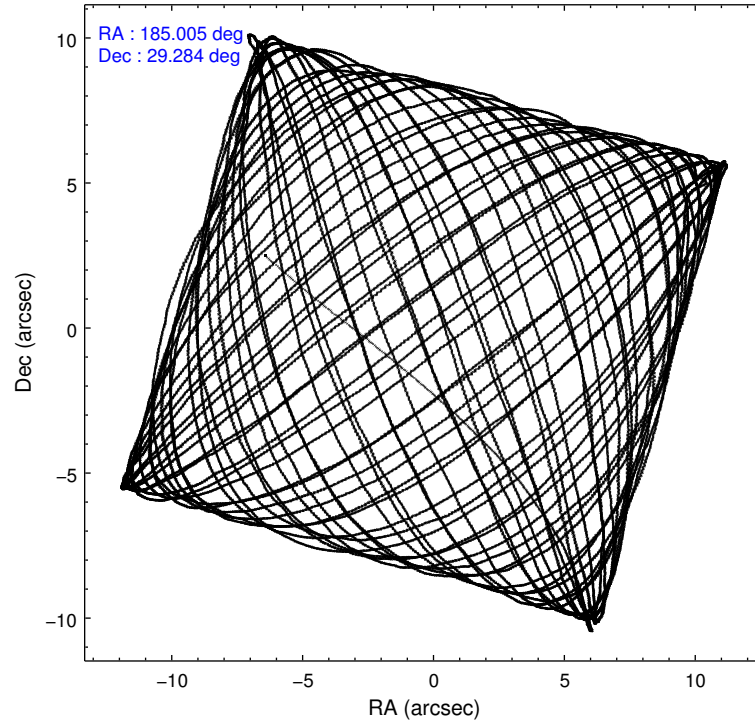
2.1.4 Events

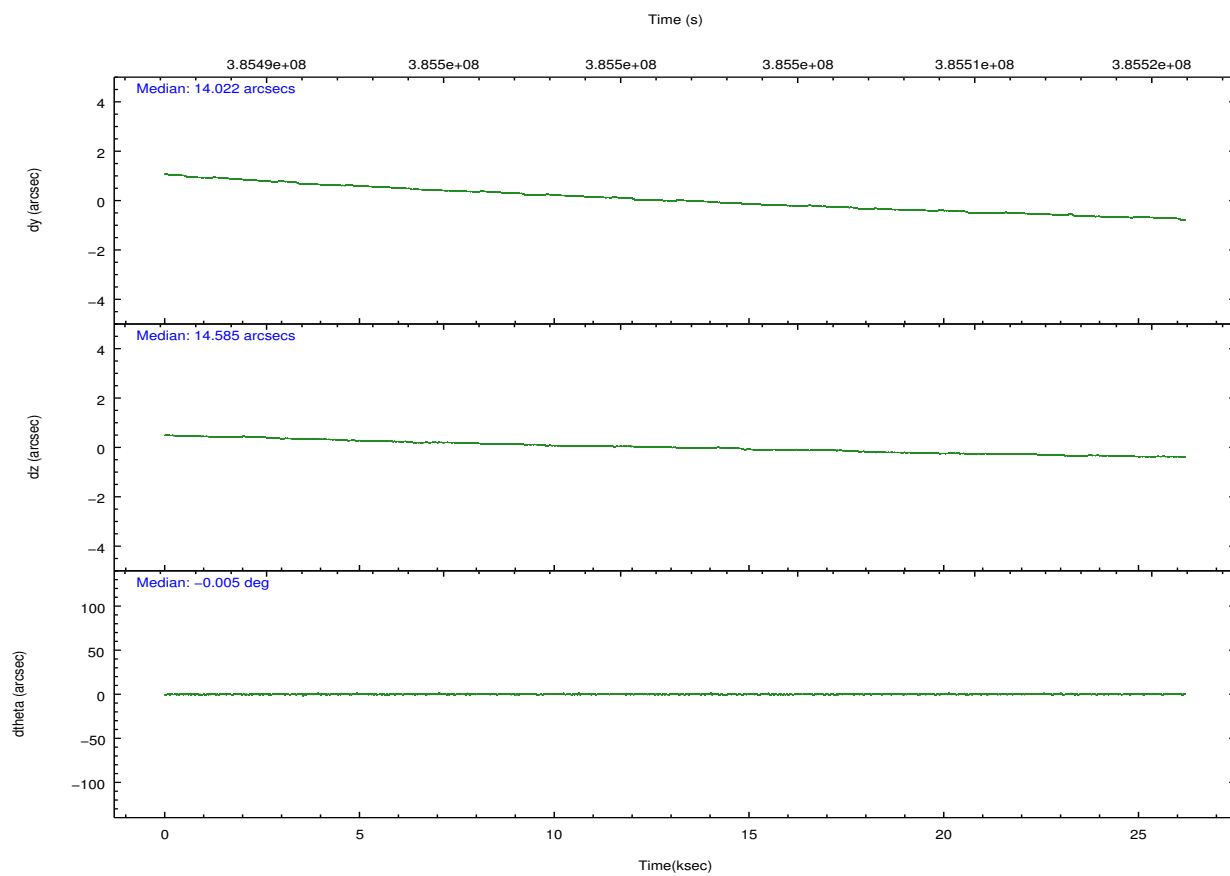
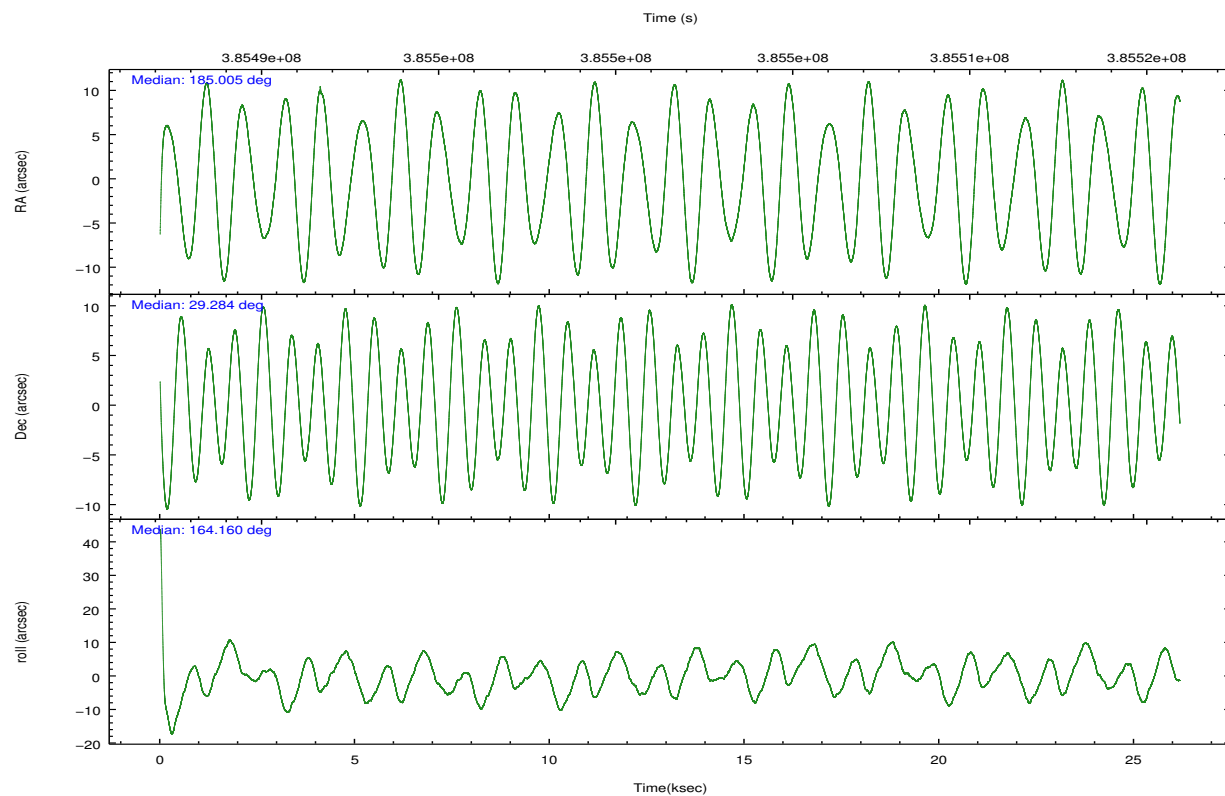
| | ccd 0 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | ccd 8 | | ccd 0 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 199444 | 204577 | 203029 | 216760 | 253423 | 269344 | grade 0 events | 7877 | 7883 | 7263 | 8238 | 11530 | 19560 |
| rejected events | 177083 | 183538 | 183134 | 193954 | 139906 | 202047 | | 3% | 3% | 3% | 3% | 4% | 7% |
| rejected % | 88% | 89% | 90% | 89% | 55% | 75% | grade 1 events | 106 | 119 | 116 | 133 | 326 | 231 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 5575 | 5121 | 4368 | 5243 | 23919 | 16332 |
| | | | | | | | | 2% | 2% | 2% | 2% | 9% | 6% |
| | | | | | | | grade 3 events | 2477 | 2270 | 2218 | 2411 | 10330 | 7503 |
| | | | | | | | | 1% | 1% | 1% | 1% | 4% | 2% |
| | | | | | | | grade 4 events | 2329 | 2212 | 2303 | 2465 | 10308 | 6871 |
| | | | | | | | | 1% | 1% | 1% | 1% | 4% | 2% |
| | | | | | | | grade 5 events | 8474 | 7741 | 9209 | 9336 | 26214 | 13538 |
| | | | | | | | | 4% | 3% | 4% | 4% | 10% | 5% |
| | | | | | | | grade 6 events | 4616 | 4024 | 4204 | 4986 | 59951 | 18400 |
| | | | | | | | | 2% | 1% | 2% | 2% | 23% | 6% |
| | | | | | | | grade 7 events | 167990 | 175207 | 173348 | 183948 | 110845 | 186909 |
| | | | | | | | | 84% | 85% | 85% | 84% | 43% | 69% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-023678 | ACIS-023678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | CCD I0 on | O5 | Y |
| Observation mode | POINTING | POINTING | CCD I1 on | N | N |
| [deg] Pointing RA | 185.034911 | 185.004625741578 | CCD I2 on | O3 | Y |
| [deg] Pointing Dec | 29.291073 | 29.28401366758758 | CCD I3 on | O4 | Y |
| [deg] Pointing Roll | 163.996783 | 164.1682462028173 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | N | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | O1 | Y |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | CCD S3 on | Y | Y |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | CCD S4 on | O2 | Y |
| [s] Observation start time (MET) | 385488641.184000 | 385487268.31853 | CCD S5 on | N | N |
| Observation start date | 2010-03-20T16:09:35 | 2010-03-20T15:47:48 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 385514641.184000 | 385515119.61995 | On-chip summing requested | N | N |
| Observation end date | 2010-03-20T23:22:55 | 2010-03-20T23:31:59 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



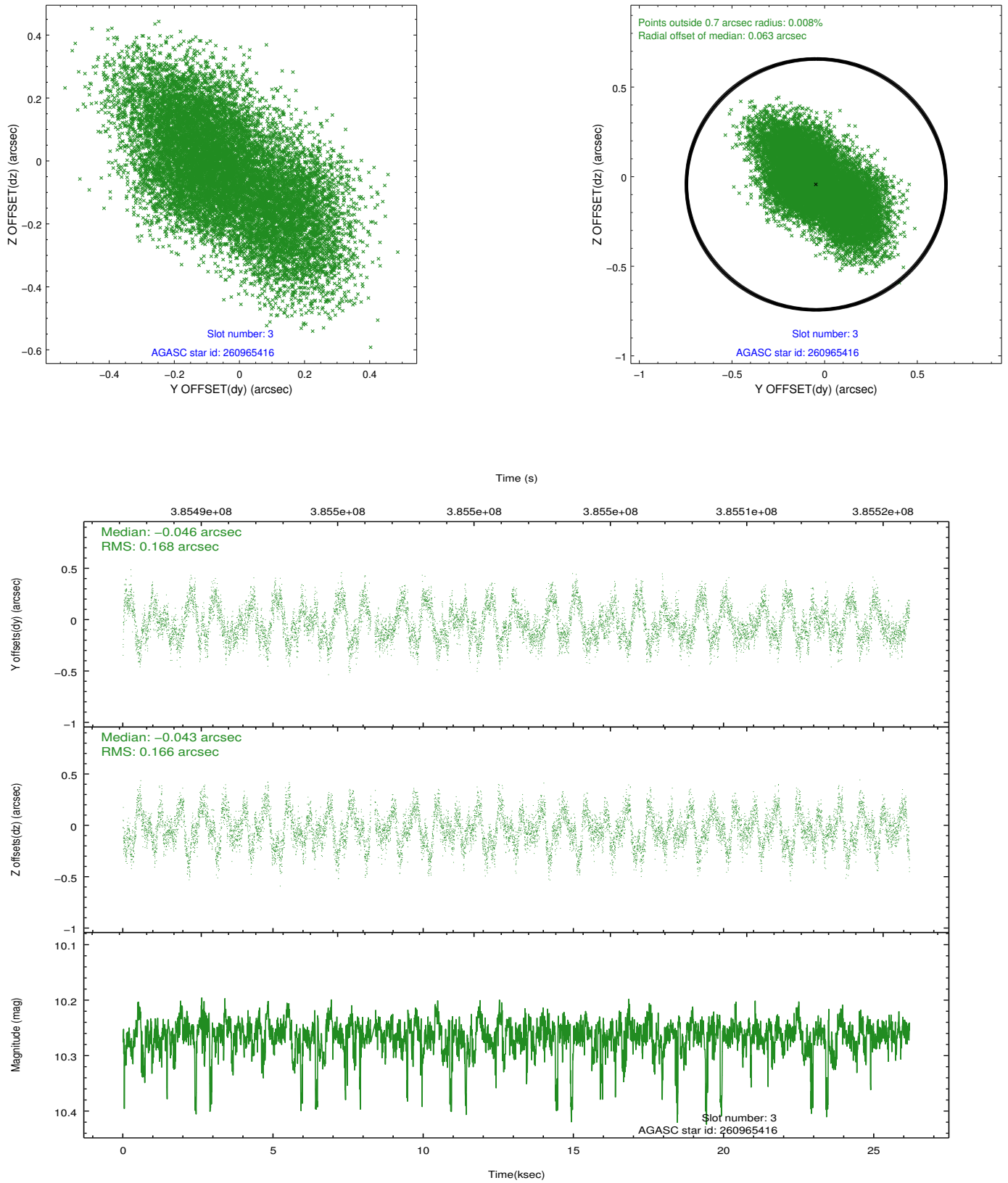


Slot Statistics

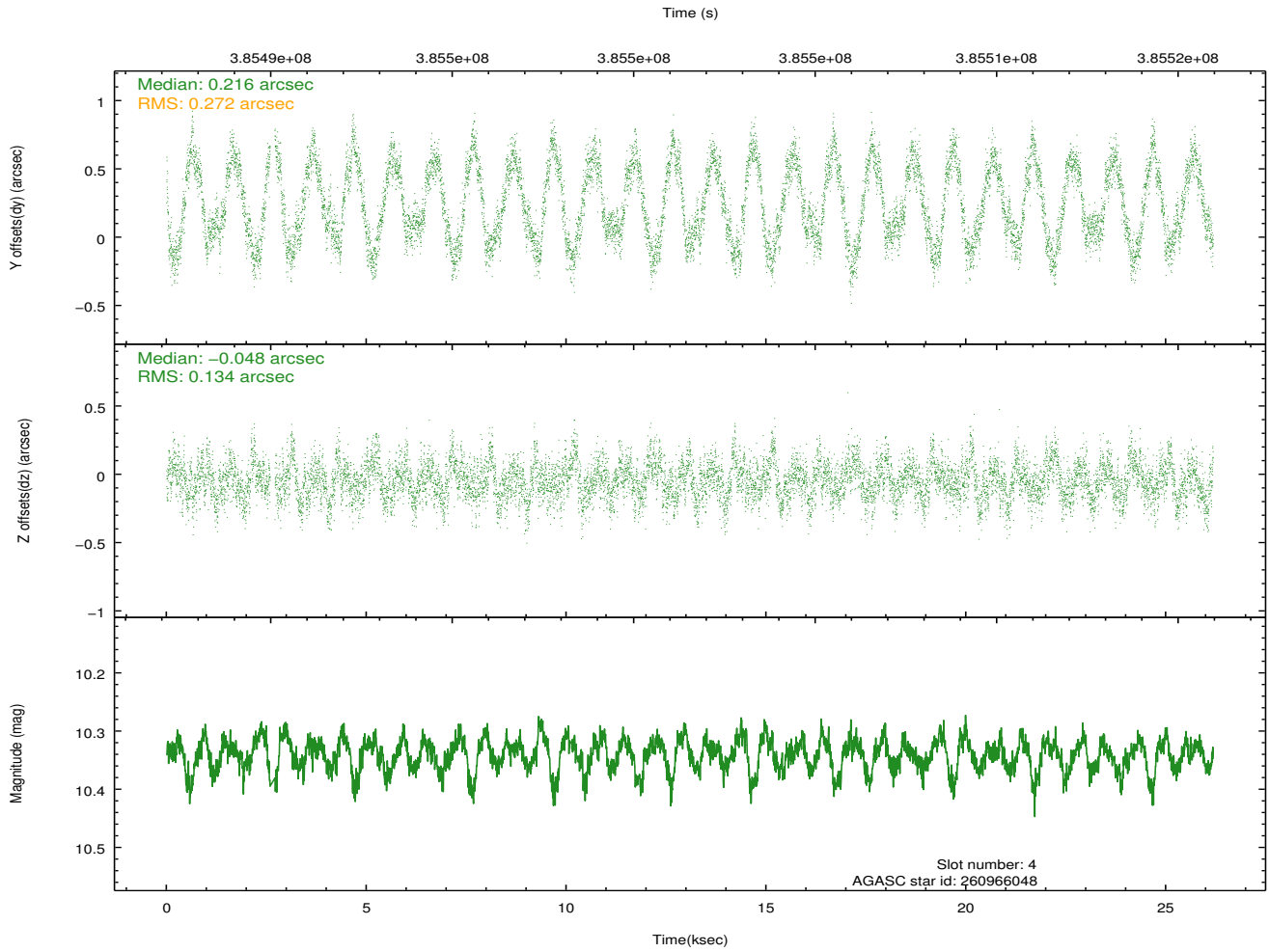
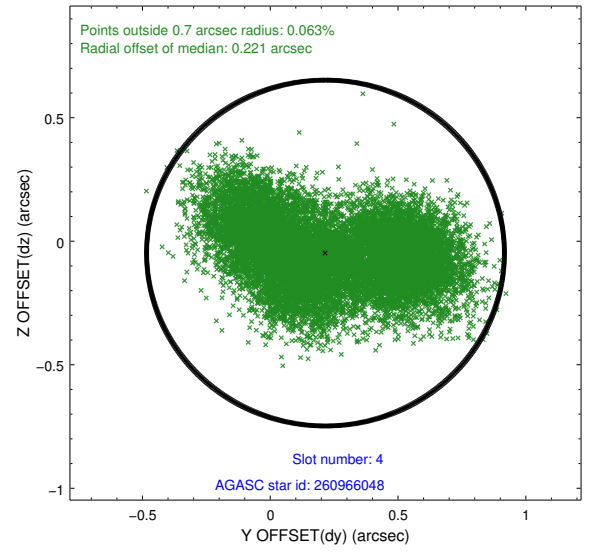
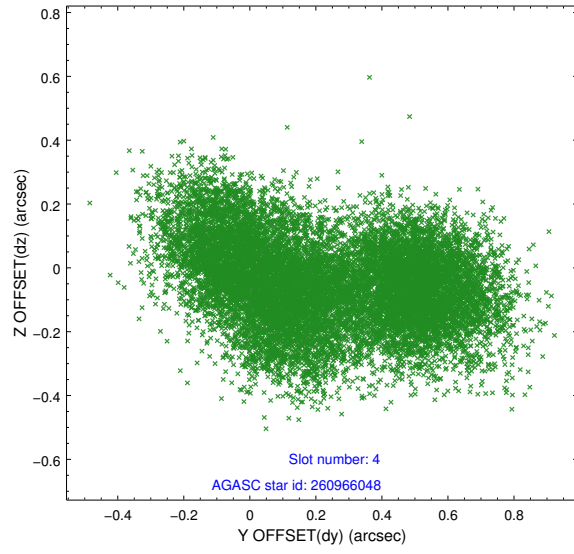
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|-------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 6.96 | 6386 | -0.077 | -0.048 | 0.024 | 0.034 | 0.000000 | 0.000000 | -767.07 | -1736.02 |
| 1 | FID | ACIS-S-4 | 7.04 | 6386 | 0.211 | 0.049 | 0.023 | 0.031 | 0.000000 | 0.000000 | 2146.43 | 172.48 |
| 2 | FID | ACIS-S-5 | 7.06 | 6386 | -0.165 | 0.005 | 0.016 | 0.024 | 0.000000 | 0.000000 | -1819.88 | 166.19 |
| 3 | GUIDE | 260965416 | 10.26 | 12672 | -0.046 | -0.043 | 0.253 | 0.411 | 184.798422 | 29.200373 | 625.21 | 518.35 |
| 4 | GUIDE | 260966048 | 10.34 | 12682 | 0.216 | -0.048 | 0.333 | 0.495 | 185.169624 | 29.533581 | -163.73 | -955.60 |
| 5 | GUIDE | 260967848 | 10.33 | 12752 | -0.127 | 0.220 | 0.227 | 0.359 | 184.894103 | 29.822741 | 950.90 | -1718.26 |
| 6 | GUIDE | 260970456 | 9.82 | 12749 | -0.015 | 0.008 | 0.156 | 0.254 | 185.484091 | 28.541794 | -2108.75 | 2200.34 |
| 7 | GUIDE | 260979504 | 6.11 | 12770 | -0.041 | -0.152 | 0.096 | 0.145 | 184.377399 | 28.937186 | 1641.90 | 1790.52 |

2.4 Star Slots

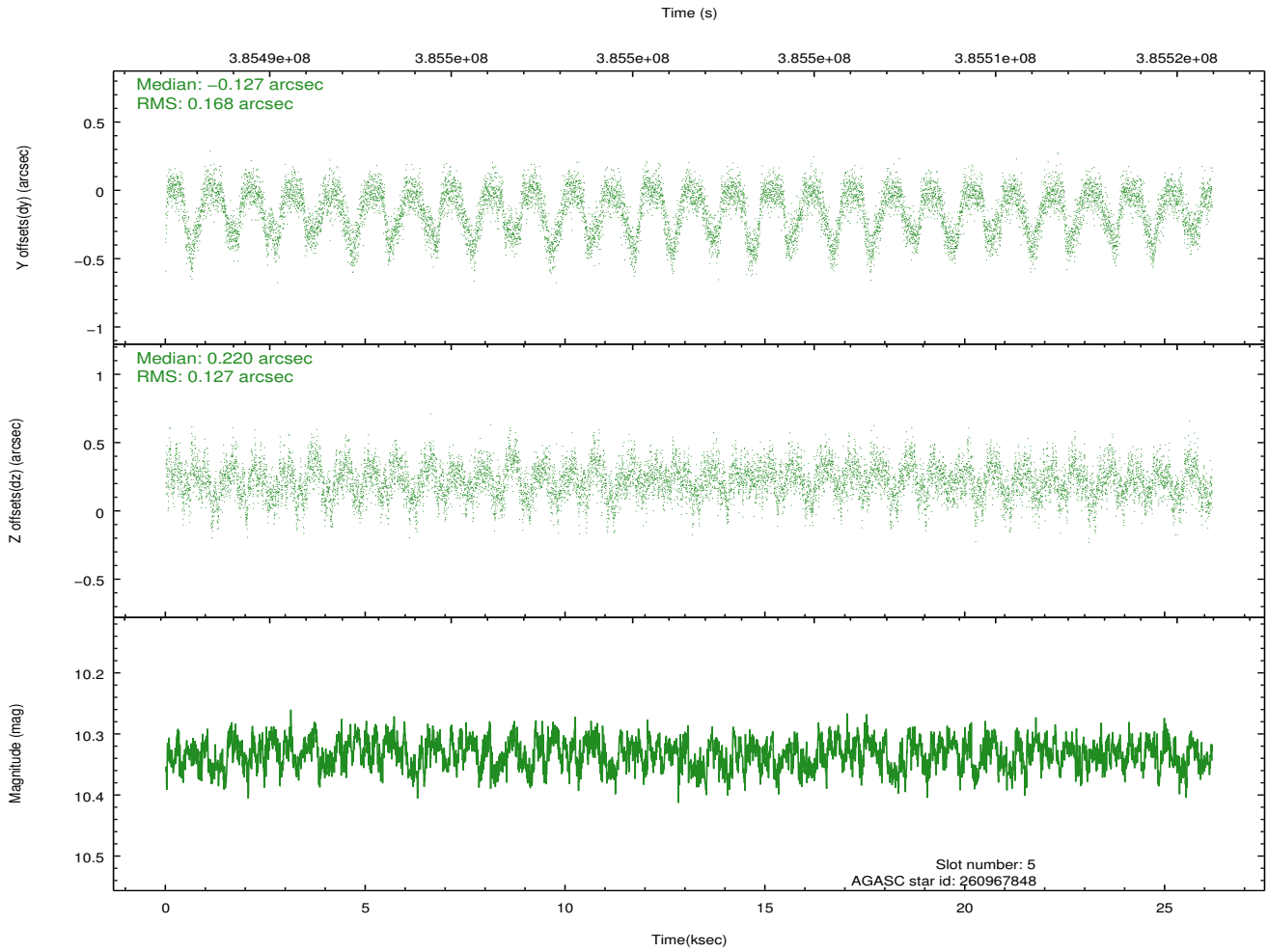
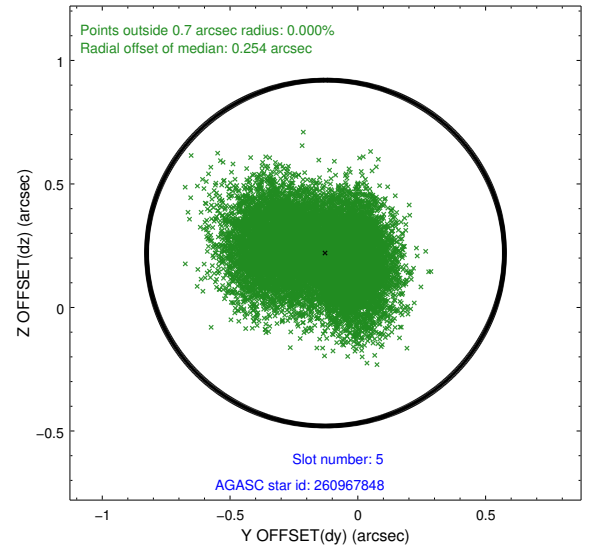
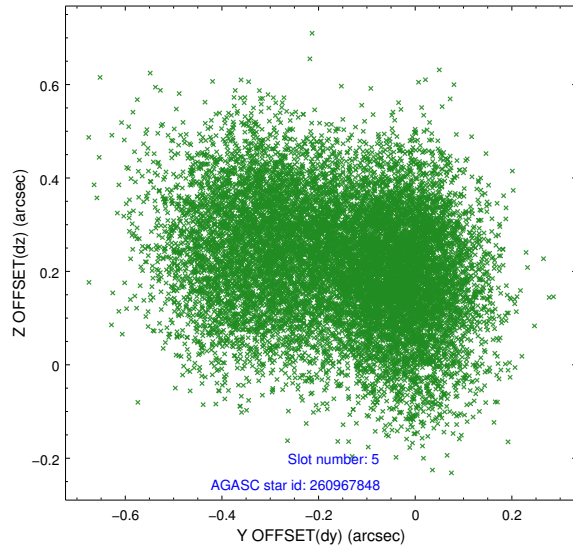
2.4.1 Slot 3



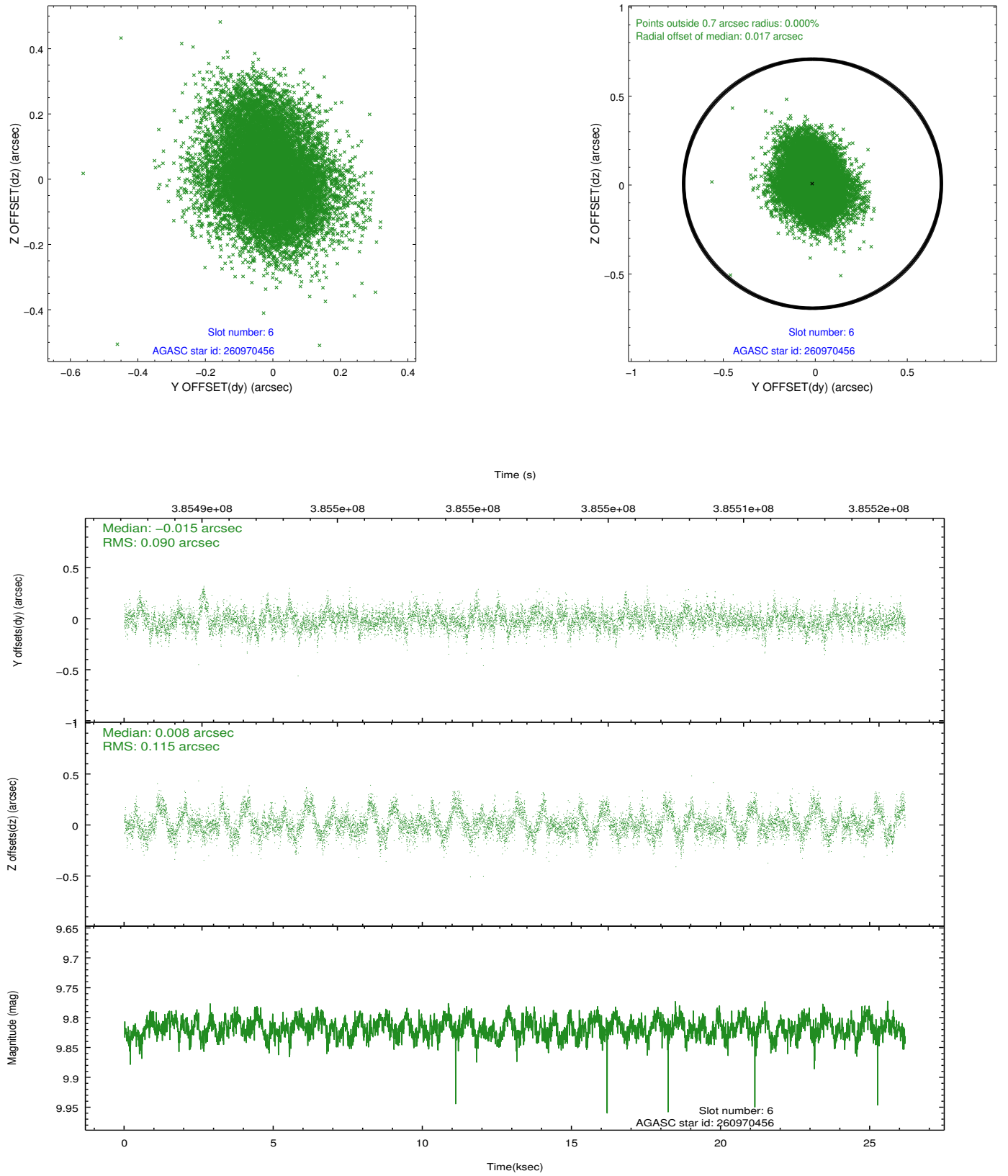
2.4.2 Slot 4



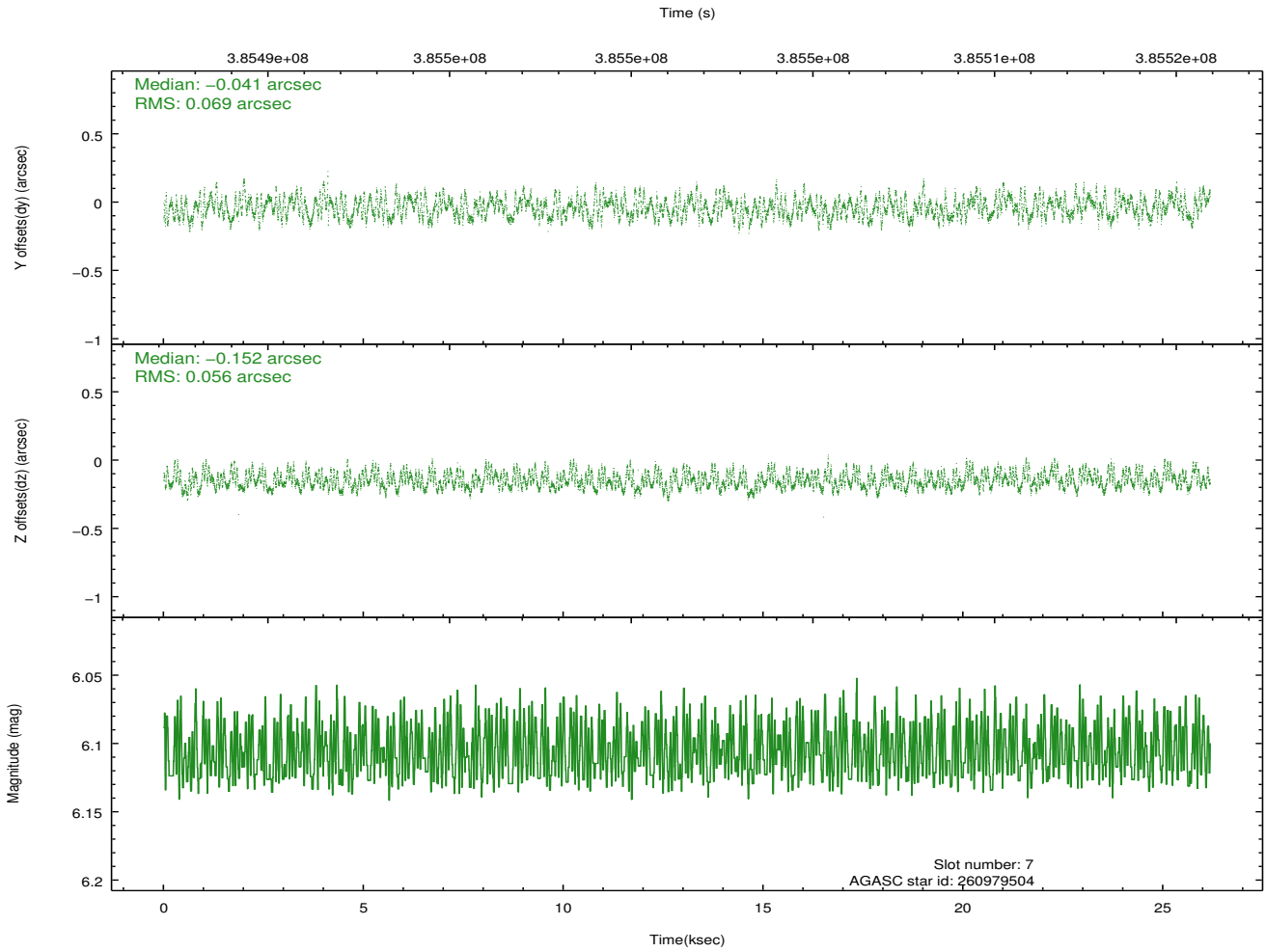
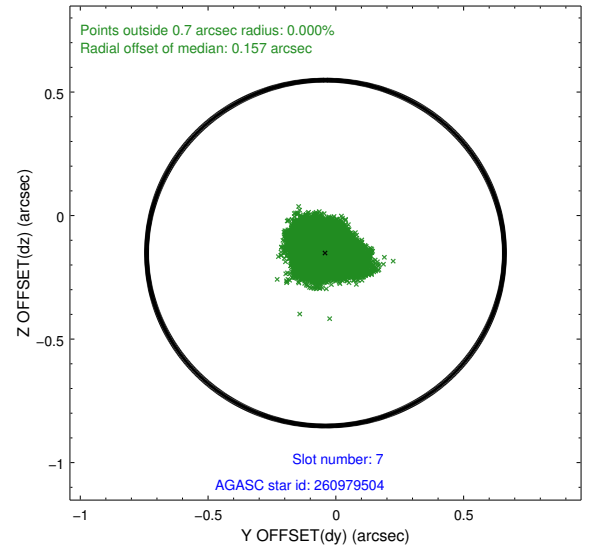
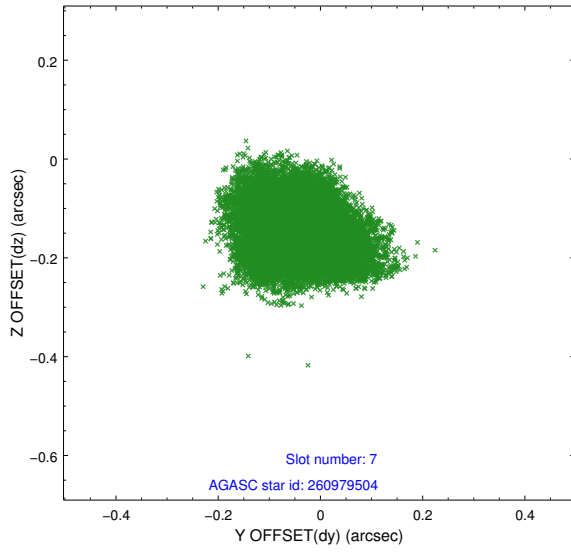
2.4.3 Slot 5



2.4.4 Slot 6

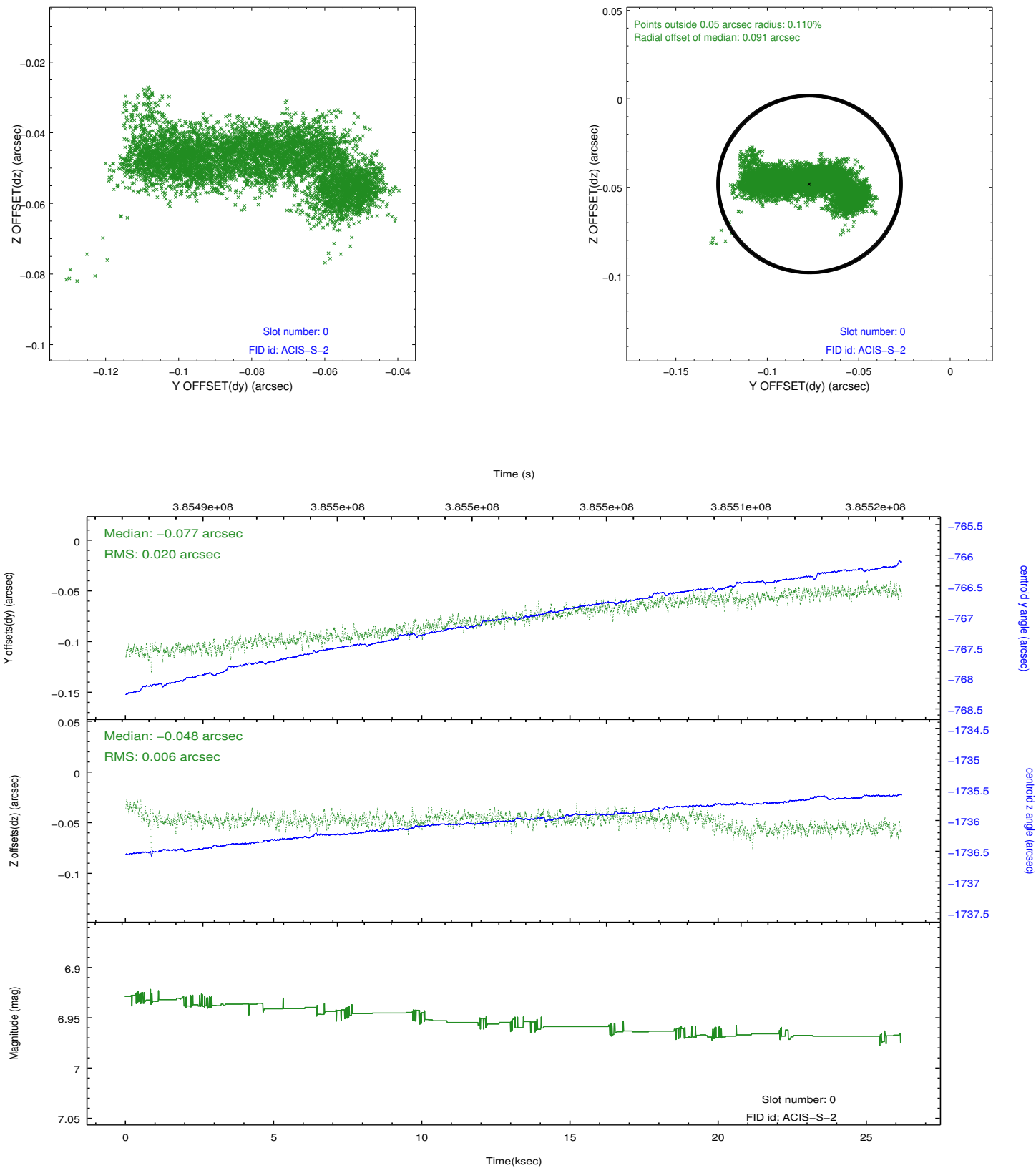


2.4.5 Slot 7

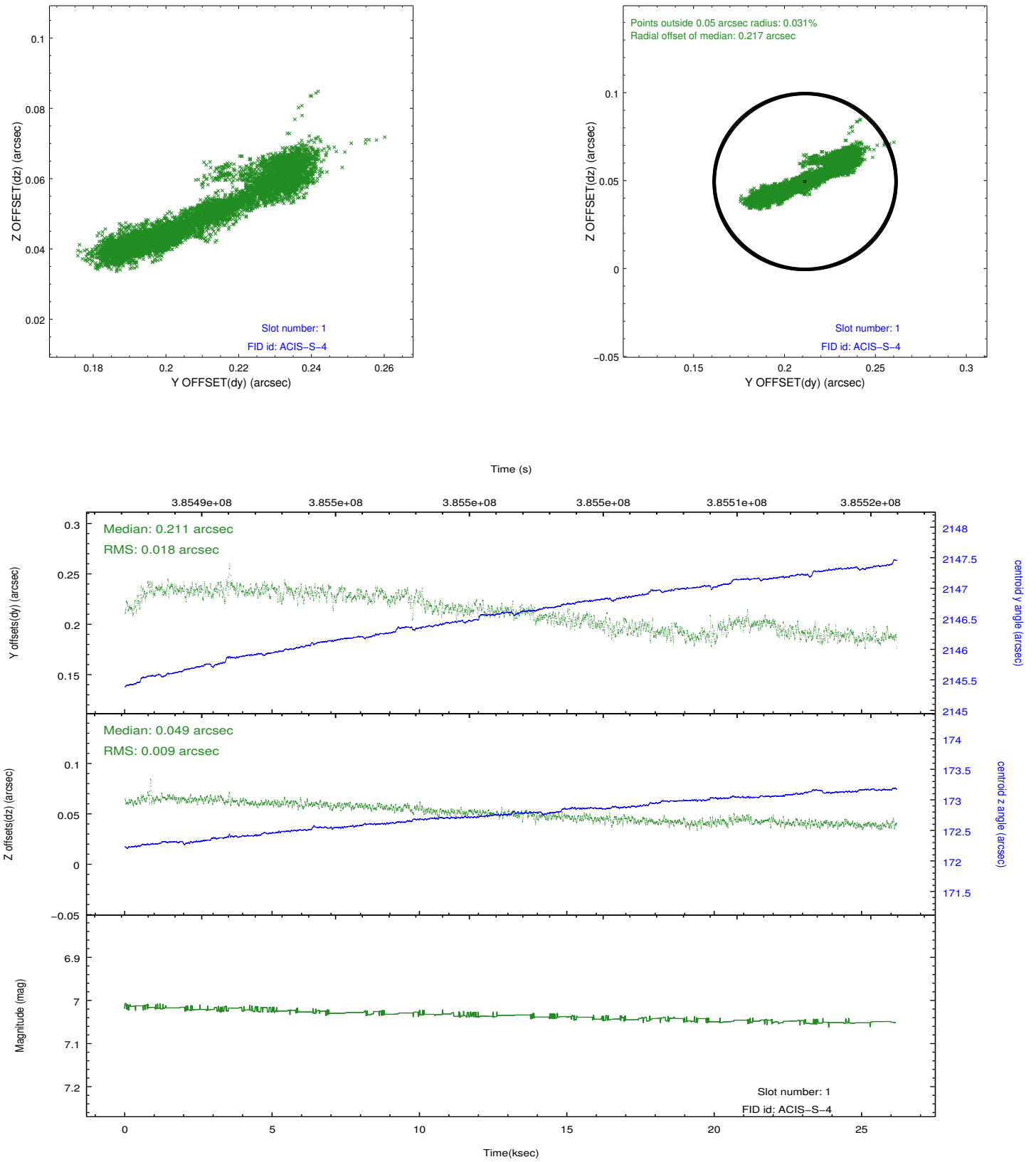


2.5 FID Slots

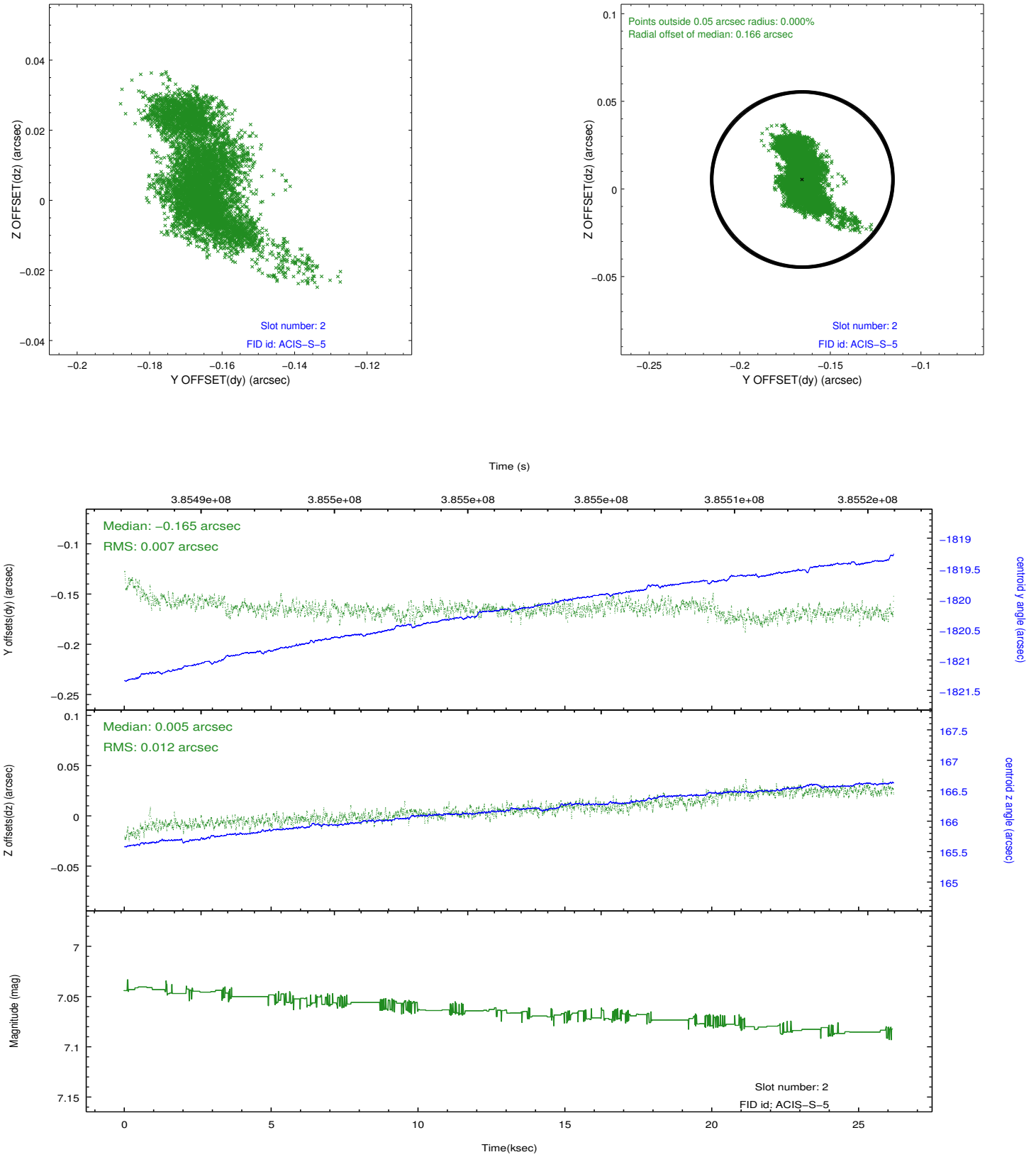
2.5.1 Slot 0



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) | 2012.06.29 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 26.175999902546 |

A.2 Comments