

V&V Reference Report

L2 ASCDS Version : 10.2.4

Observation 16082 - L2 Version 1
Chandra X-Ray Center

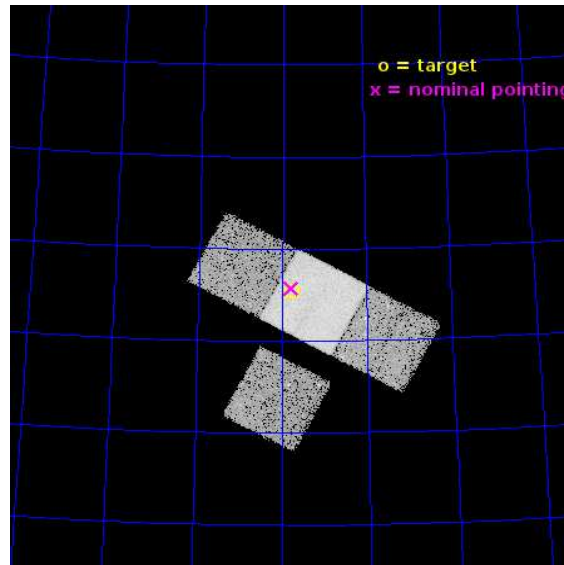
L2 Processing Date : Sep 15 2014

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1 Front

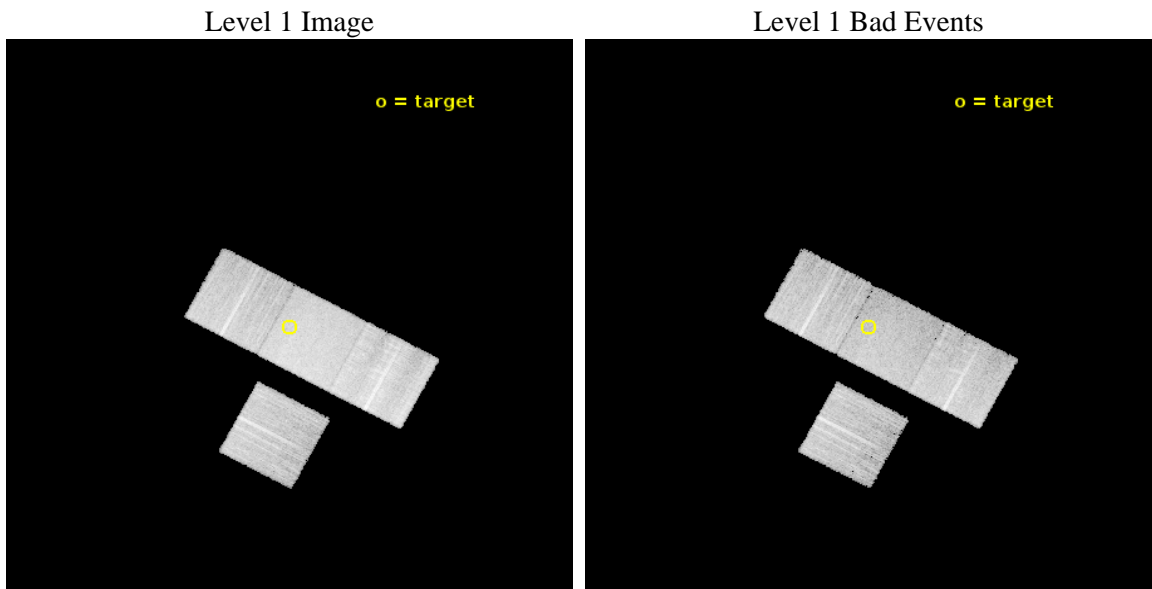
| | | |
|----------|---|---|
| seq_num | 702973 | Sequence number |
| obs_id | 16082 | Observation id |
| title | Probing dark matter in the luminous radio galaxy 3C220.3 and the structure of the z=2.22 SMG/AGN it is lensing. | Proposal title |
| observer | Dr Belinda Wilkes | Principal investigator |
| object | 3C 220.3 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 144.849292 | Observer's specified target RA [deg] |
| dec_targ | 83.25725 | Observer's specified target Dec [deg] |
| ra_nom | 144.86711192985 | Nominal RA [deg] |
| dec_nom | 83.262231774813 | Nominal Dec [deg] |
| roll_nom | 28.245555469769 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 20077.32162261 | Sum of GTIs [s] |
| livetime | 19814.996634902 | Livetime [s] |
| ontime3 | 20074.098572195 | Sum of GTIs [s] |
| ontime6 | 20074.139612257 | Sum of GTIs [s] |
| ontime7 | 20077.32162261 | Sum of GTIs [s] |
| ontime8 | 20074.057452261 | Sum of GTIs [s] |
| l2events | 84799 | Number of level 2 events |



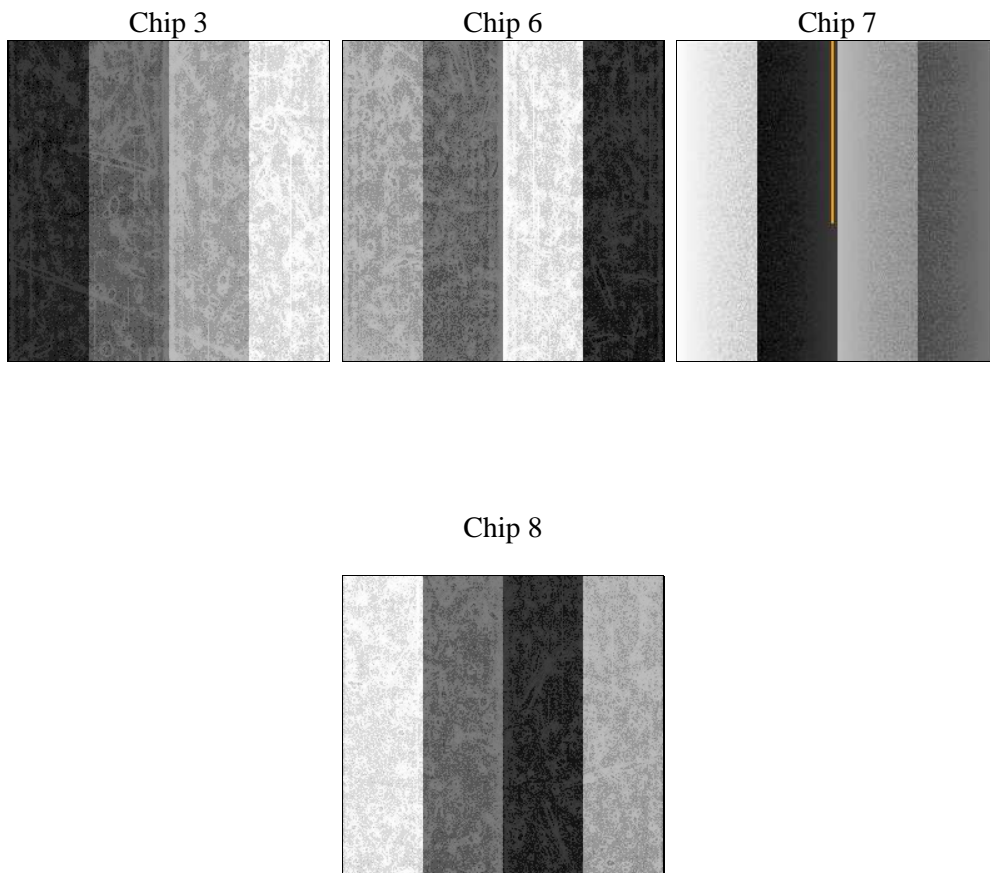
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 20000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.2.4 | Processing system revision | ontime | 20077.32162261 | Sum of GTIs [s] |
| caldsver | 4.6.3 | | ontime3 | 20074.098572195 | Sum of GTIs [s] |
| date | 2014-09-15T15:18:42 | Date and time of file creation | ontime6 | 20074.139612257 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime7 | 20077.32162261 | Sum of GTIs [s] |
| | | | ontime8 | 20074.057452261 | Sum of GTIs [s] |
| | | | l1events | 439727 | Number of level 1 events |

2.1.4 Events

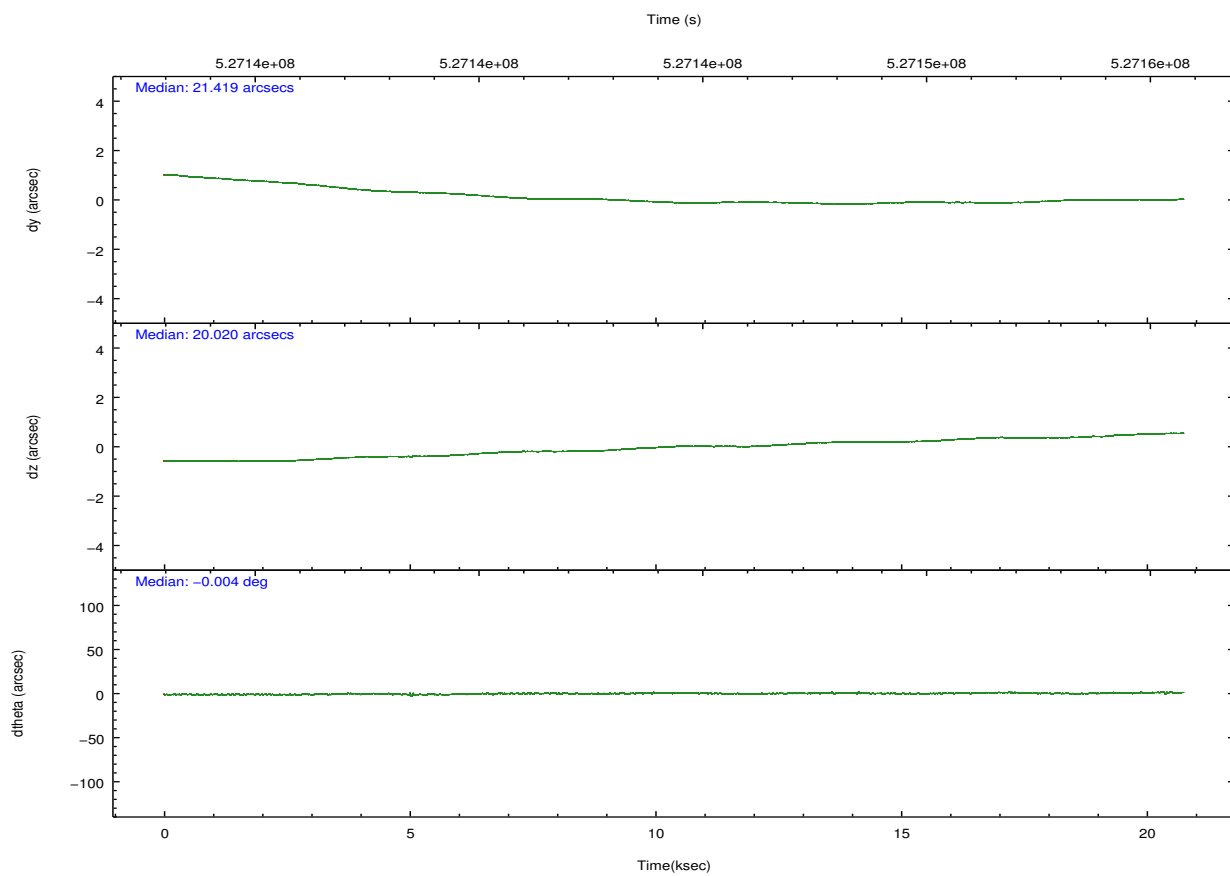
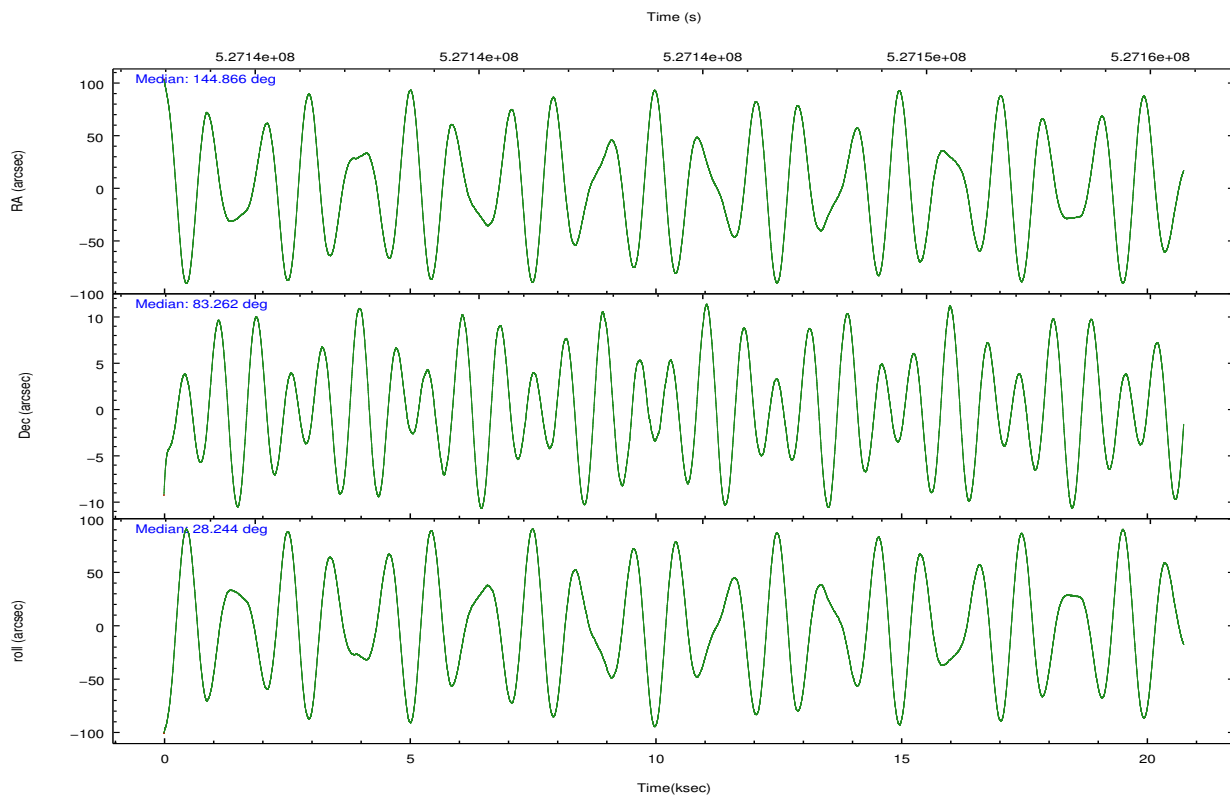
| | ccd 3 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|--------|--------|
| level 1 events | 88625 | 95069 | 125534 | 130499 |
| rejected events | 78195 | 83536 | 71087 | 90585 |
| rejected % | 88% | 87% | 56% | 69% |

| | ccd 3 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|
| grade 0 events | 3656 | 3907 | 4596 | 12025 |
| | 4% | 4% | 3% | 9% |
| grade 1 events | 56 | 42 | 149 | 101 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 2305 | 2640 | 11481 | 8529 |
| | 2% | 2% | 9% | 6% |
| grade 3 events | 1072 | 1139 | 4472 | 4799 |
| | 1% | 1% | 3% | 3% |
| grade 4 events | 1218 | 1132 | 4519 | 4534 |
| | 1% | 1% | 3% | 3% |
| grade 5 events | 4796 | 4770 | 12520 | 7241 |
| | 5% | 5% | 9% | 5% |
| grade 6 events | 2179 | 2717 | 29389 | 10030 |
| | 2% | 2% | 23% | 7% |
| grade 7 events | 73343 | 78722 | 58408 | 83240 |
| | 82% | 82% | 46% | 63% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-3678 | ACIS-3678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | CCD I0 on | N | N |
| Observation mode | POINTING | POINTING | CCD I1 on | N | N |
| [deg] Pointing RA | 144.747146 | 144.8671119298527 | CCD I2 on | N | N |
| [deg] Pointing Dec | 83.238683 | 83.26223177481342 | CCD I3 on | O2 | Y |
| [deg] Pointing Roll | 28.208056 | 28.24555546976948 | 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 | O3 | 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 | O1 | Y |
| [s] Observation start time (MET) | 527134723.184000 | 527133065.13316 | CCD S5 on | N | N |
| Observation start date | 2014-09-15T02:17:36 | 2014-09-15T01:51:05 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 527154723.184000 | 527155312.75939 | On-chip summing requested | N | N |
| Observation end date | 2014-09-15T07:50:56 | 2014-09-15T08:01:52 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.1 |

2.3 Aspect

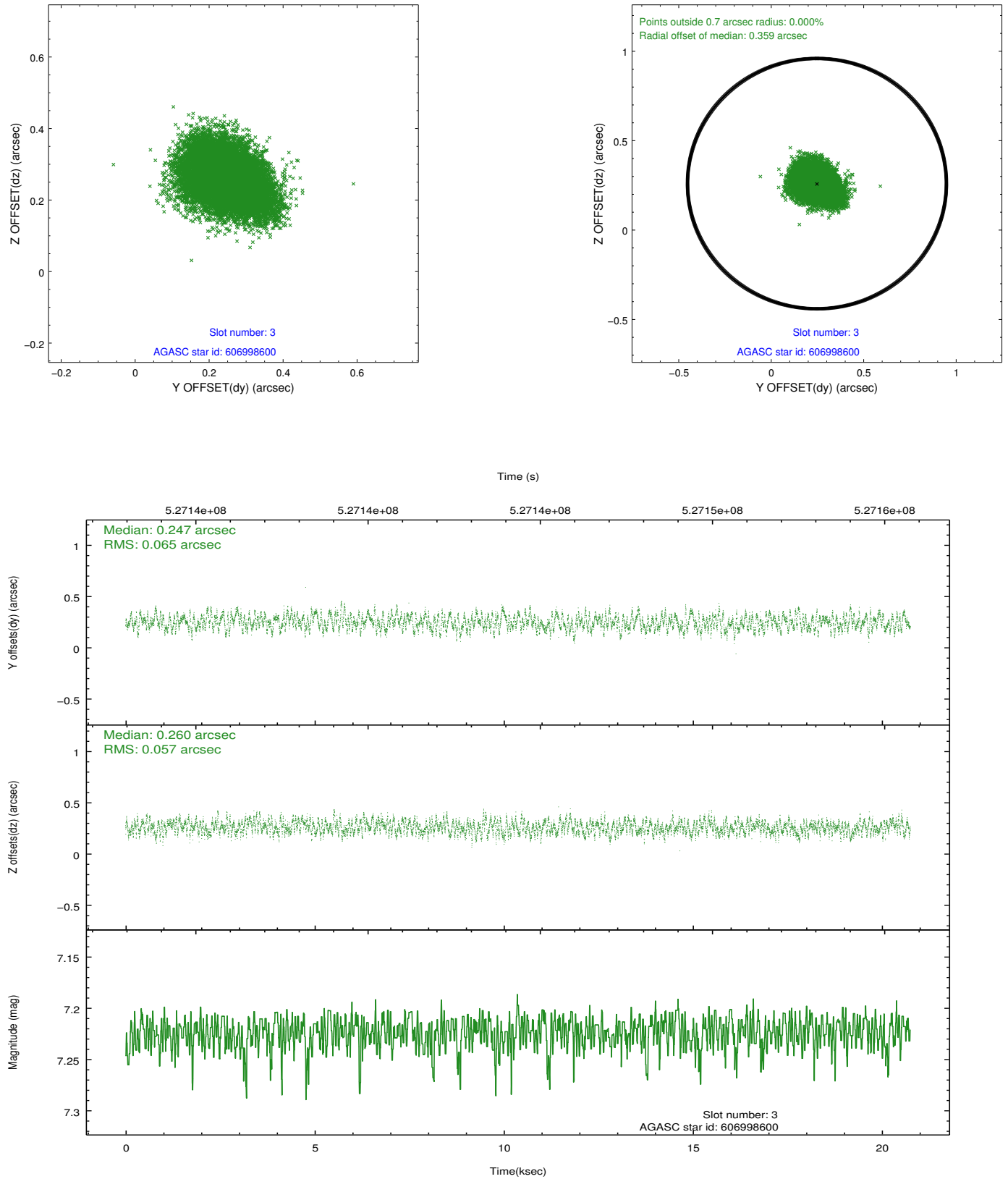


Slot Statistics

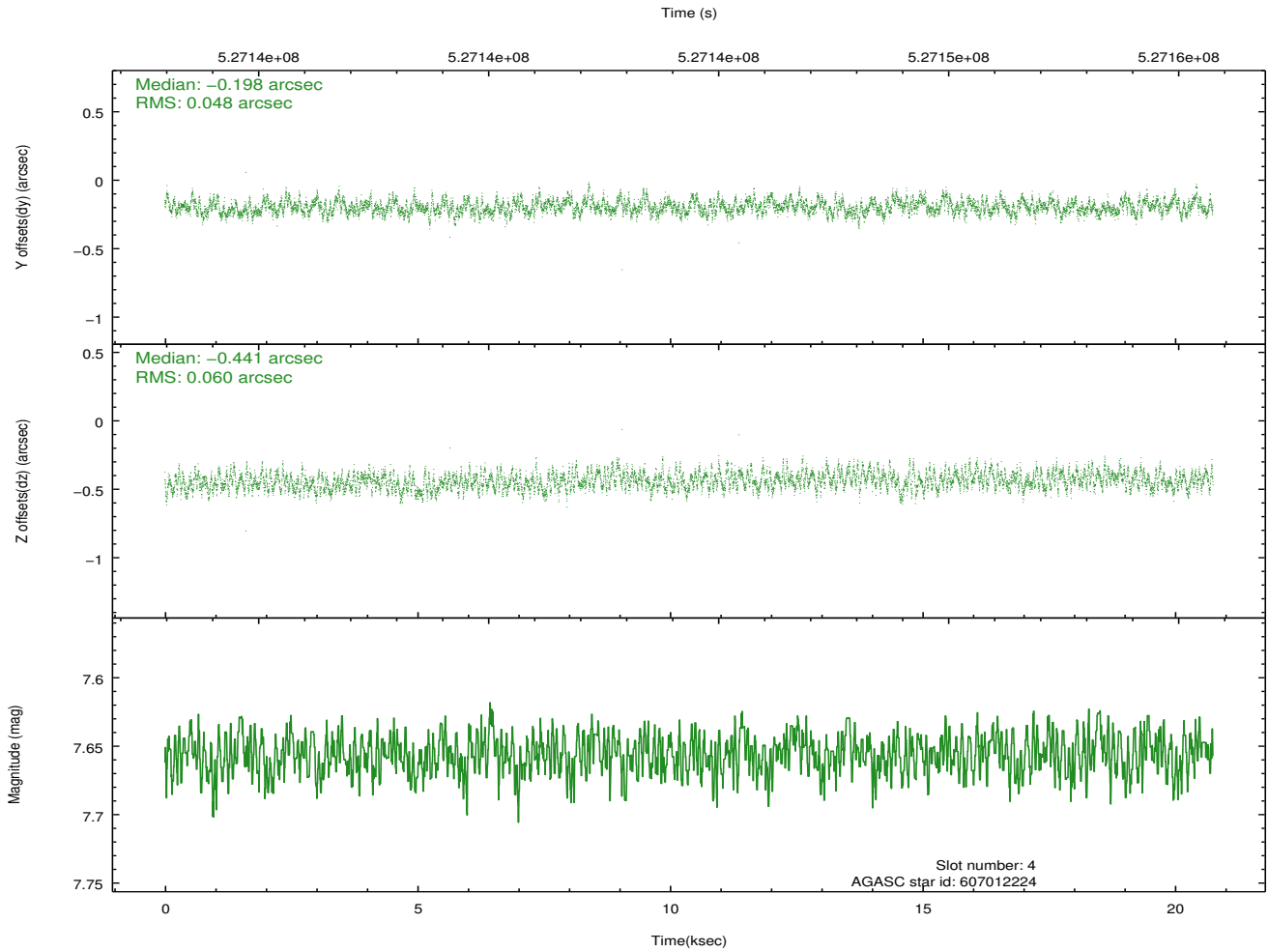
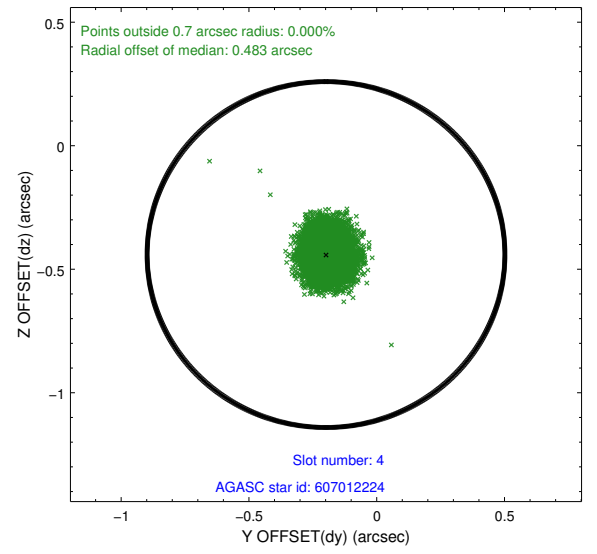
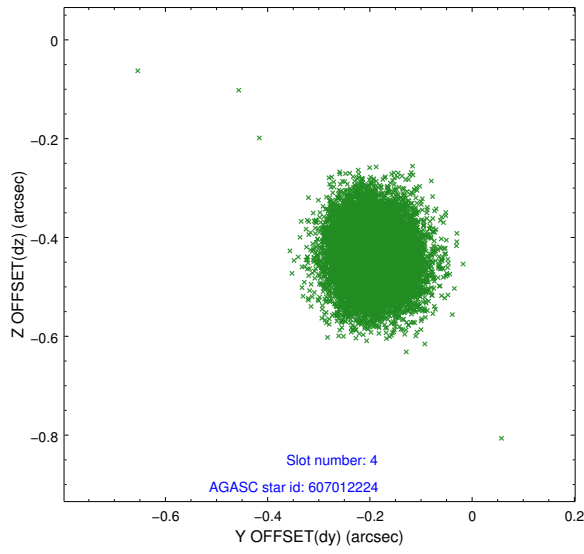
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.03 | 5062 | -0.143 | -0.030 | 0.010 | 0.019 | 0.000000 | 0.000000 | -774.84 | -1741.52 |
| 1 | FID | ACIS-S-4 | 7.12 | 5062 | 0.282 | 0.077 | 0.011 | 0.032 | 0.000000 | 0.000000 | 2138.77 | 166.91 |
| 2 | FID | ACIS-S-5 | 7.14 | 5062 | -0.168 | -0.039 | 0.013 | 0.042 | 0.000000 | 0.000000 | -1827.50 | 160.64 |
| 3 | GUIDE | 606998600 | 7.22 | 10124 | 0.247 | 0.260 | 0.094 | 0.146 | 144.240165 | 82.925382 | -730.12 | -886.72 |
| 4 | GUIDE | 607012224 | 7.66 | 10124 | -0.198 | -0.441 | 0.082 | 0.129 | 143.315443 | 83.741617 | 364.18 | 1866.62 |
| 5 | GUIDE | 606998240 | 8.38 | 10120 | 0.191 | 0.264 | 0.082 | 0.131 | 142.037328 | 82.688368 | -2015.56 | -1133.34 |
| 6 | GUIDE | 607010560 | 8.59 | 10120 | -0.140 | -0.245 | 0.077 | 0.122 | 147.344229 | 83.714556 | 1722.77 | 1045.57 |
| 7 | GUIDE | 607003496 | 8.24 | 10121 | -0.106 | 0.157 | 0.082 | 0.132 | 149.989507 | 83.475683 | 2334.89 | -174.74 |

2.4 Star Slots

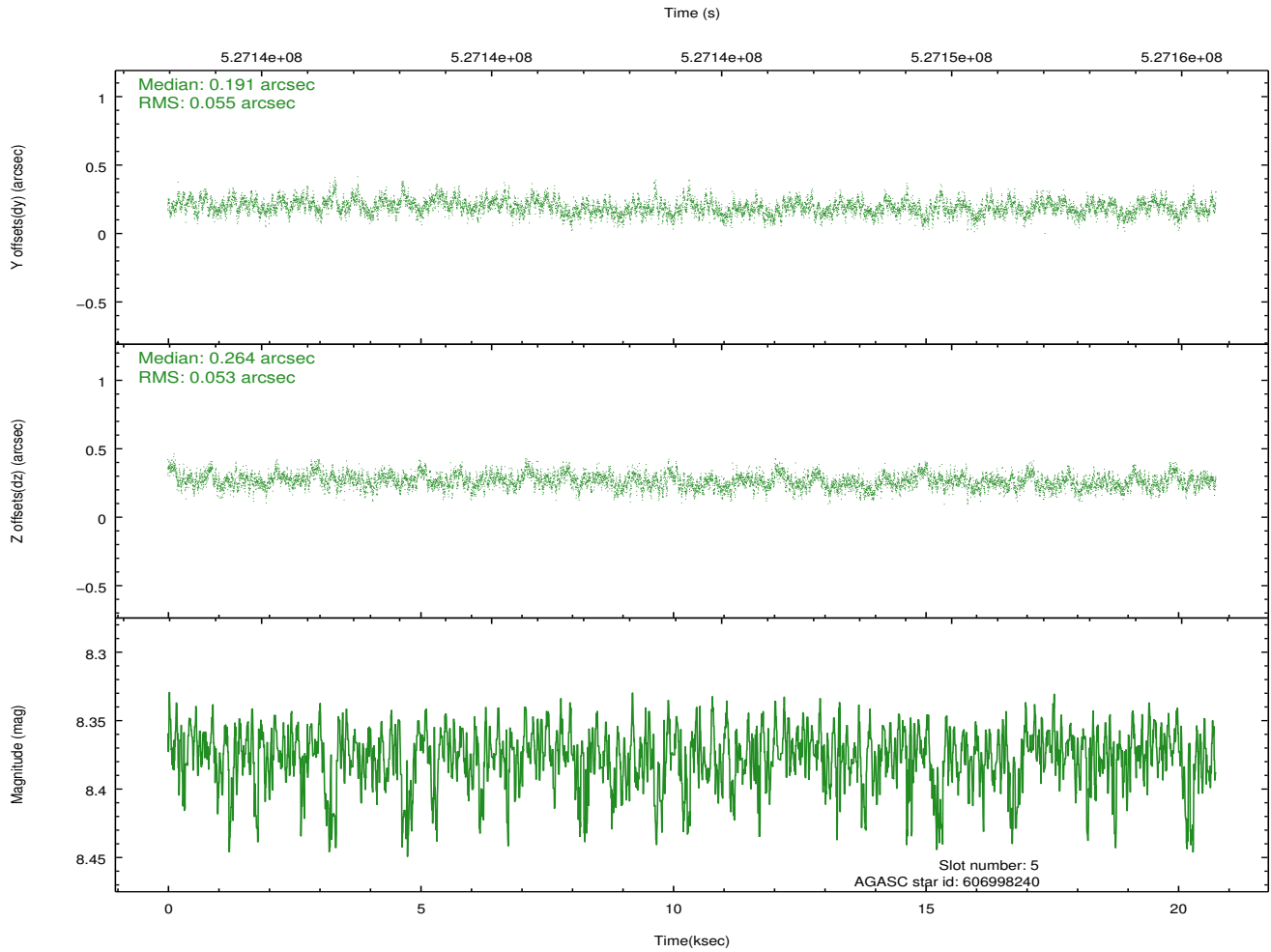
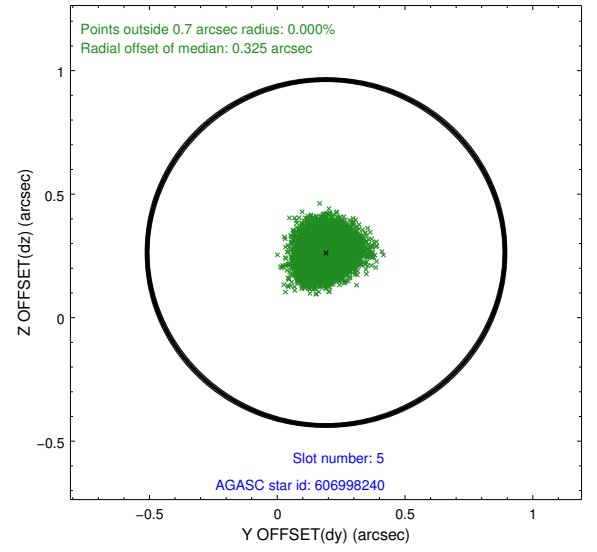
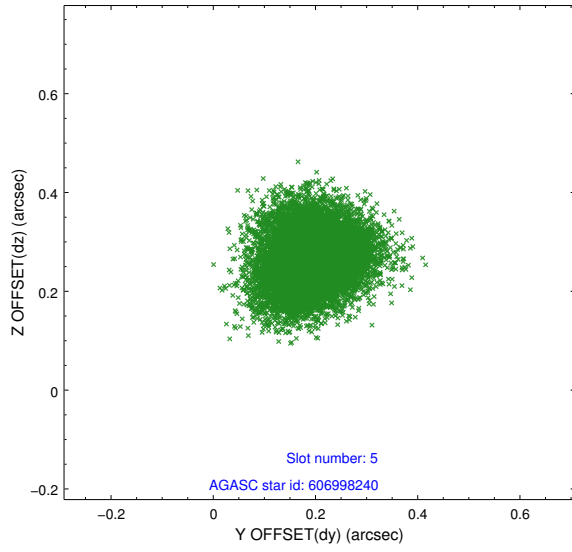
2.4.1 Slot 3



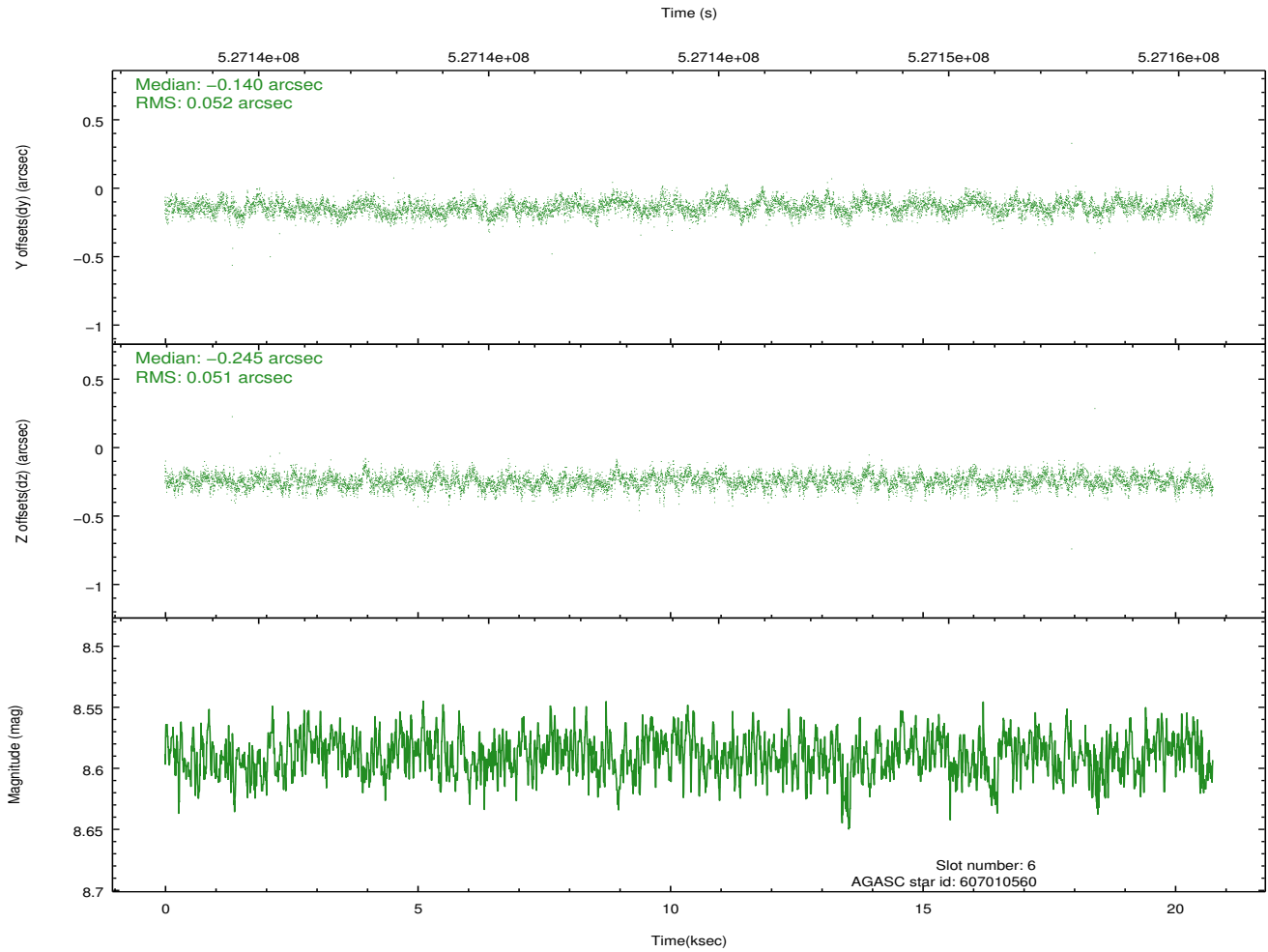
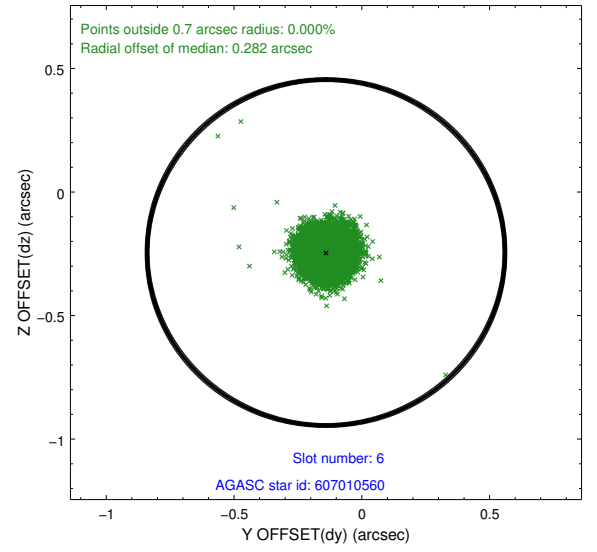
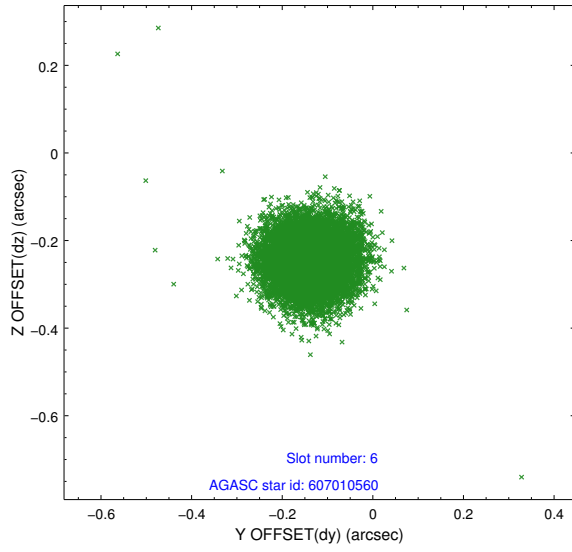
2.4.2 Slot 4



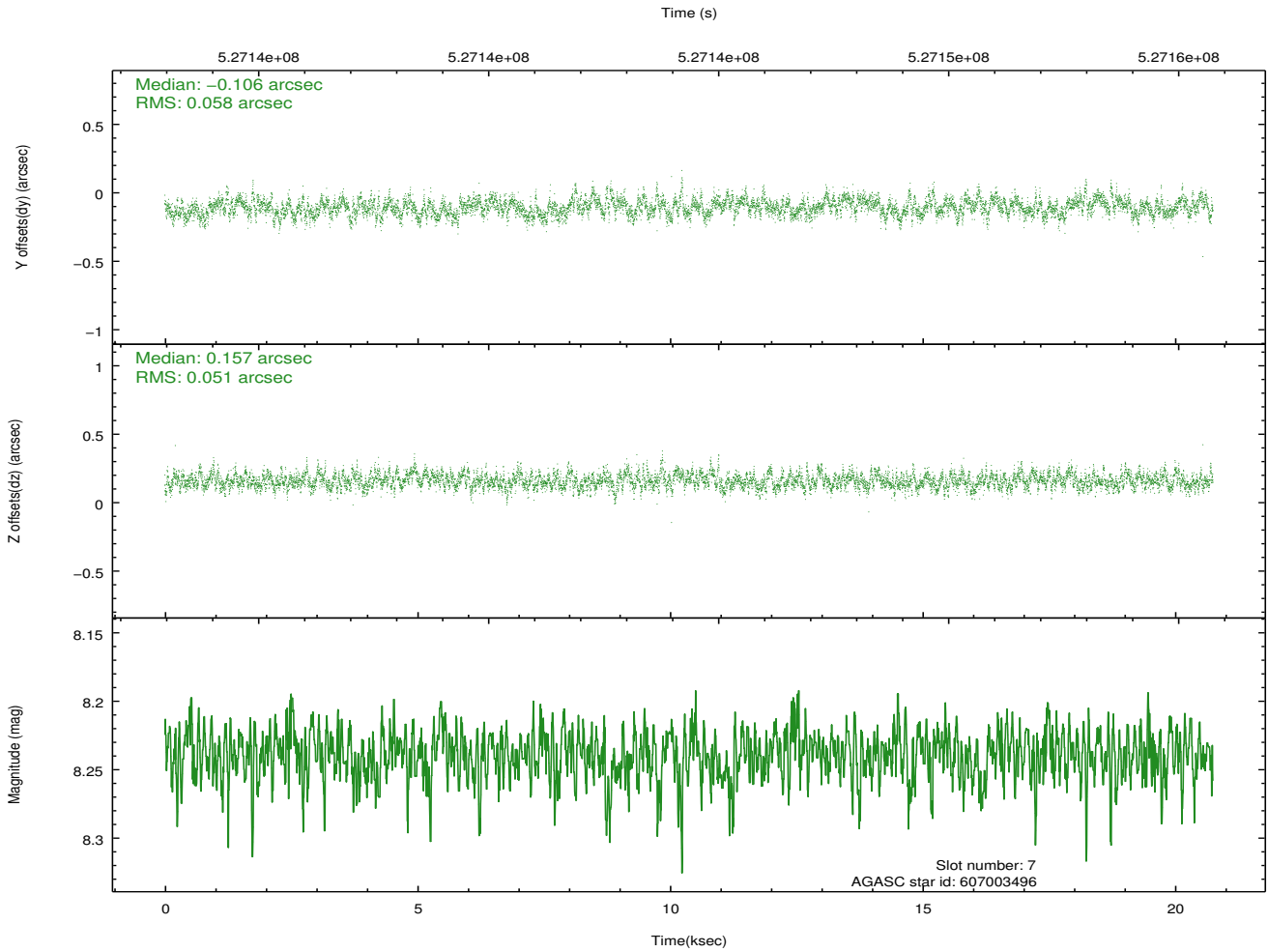
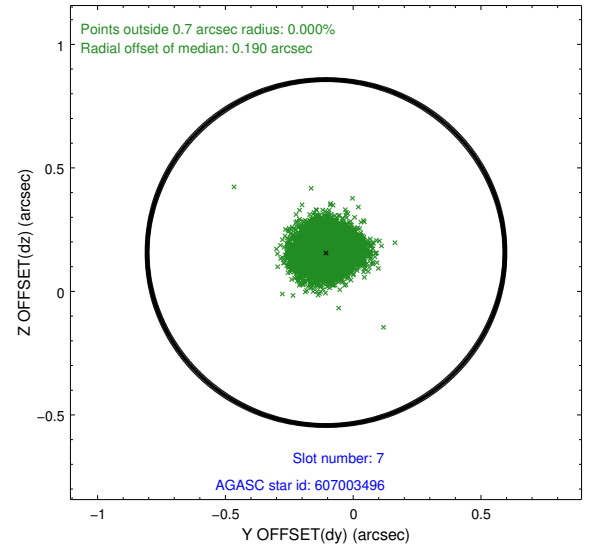
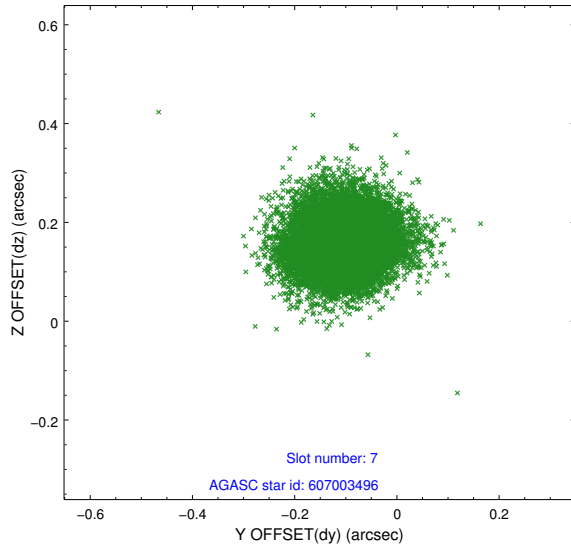
2.4.3 Slot 5



2.4.4 Slot 6

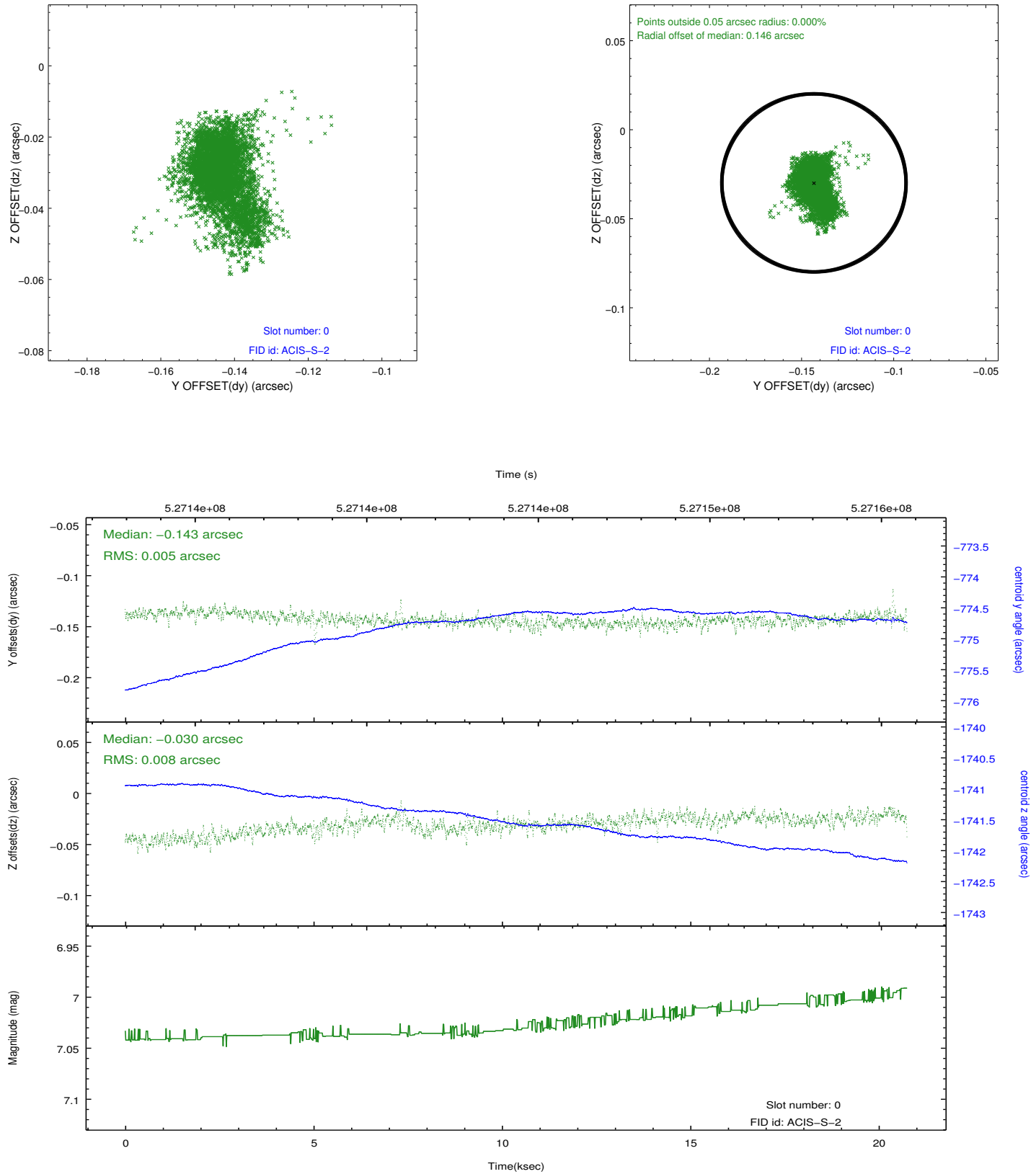


2.4.5 Slot 7

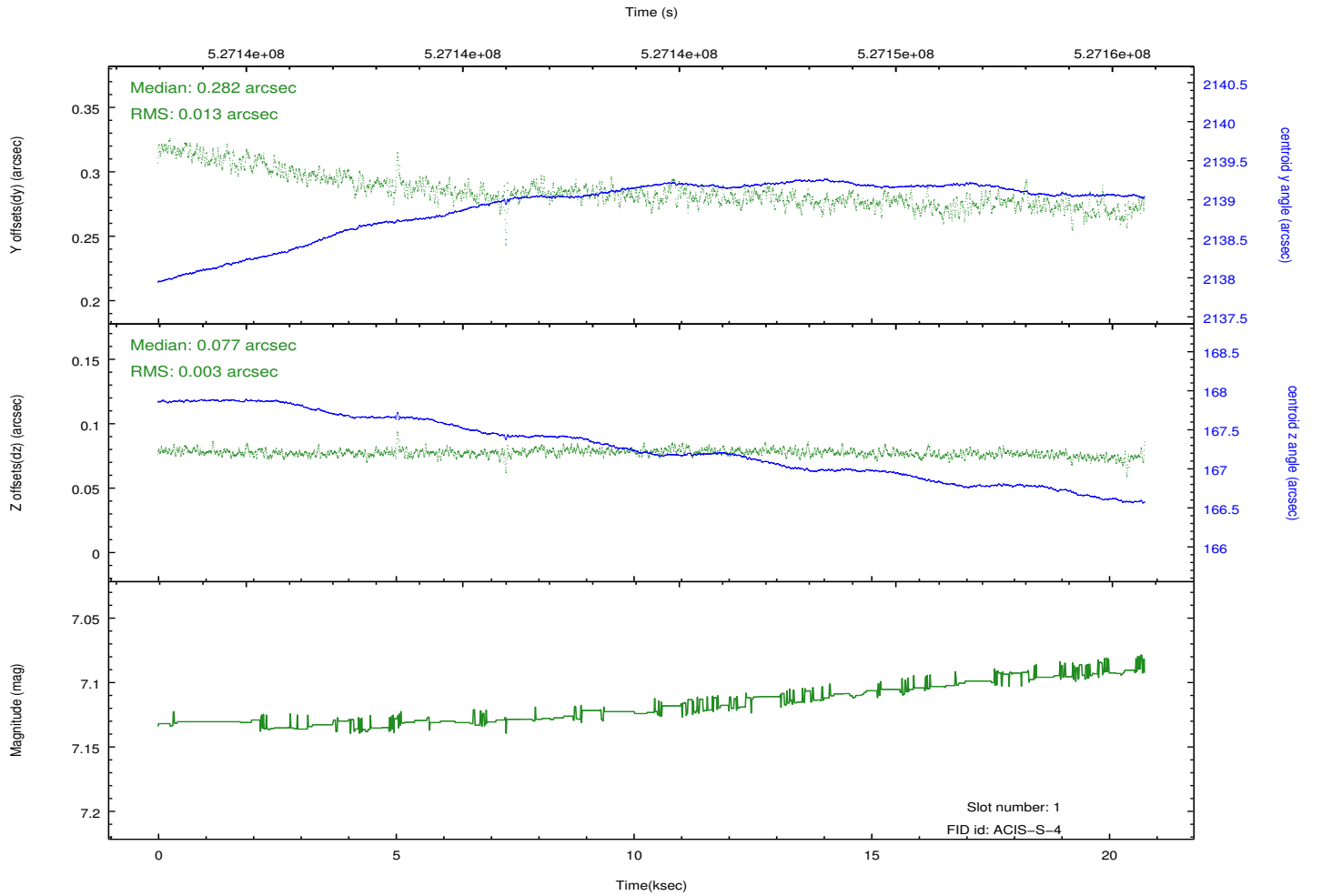
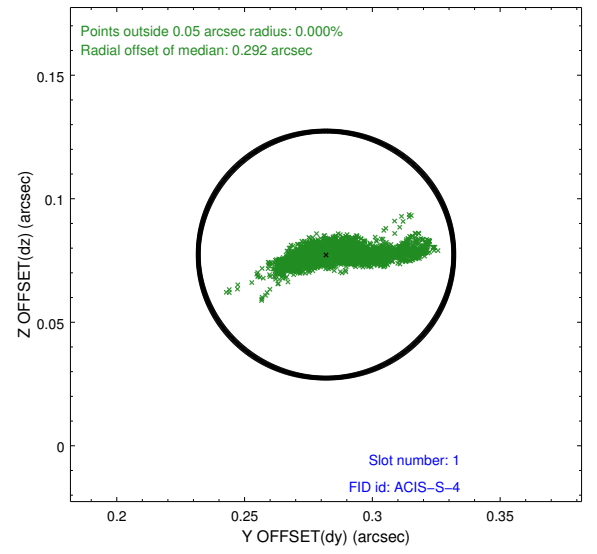
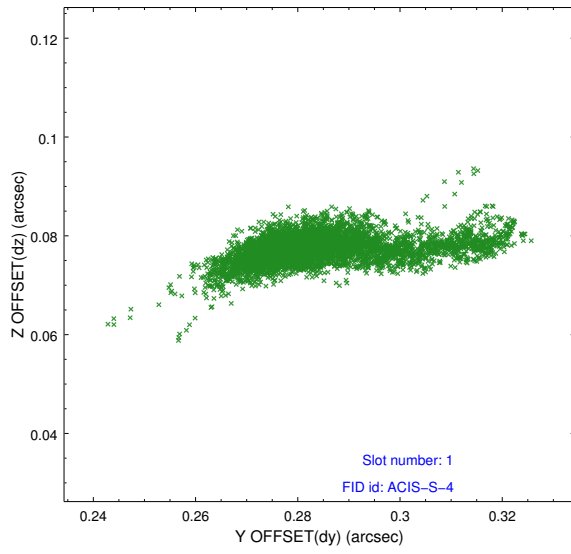


2.5 FID Slots

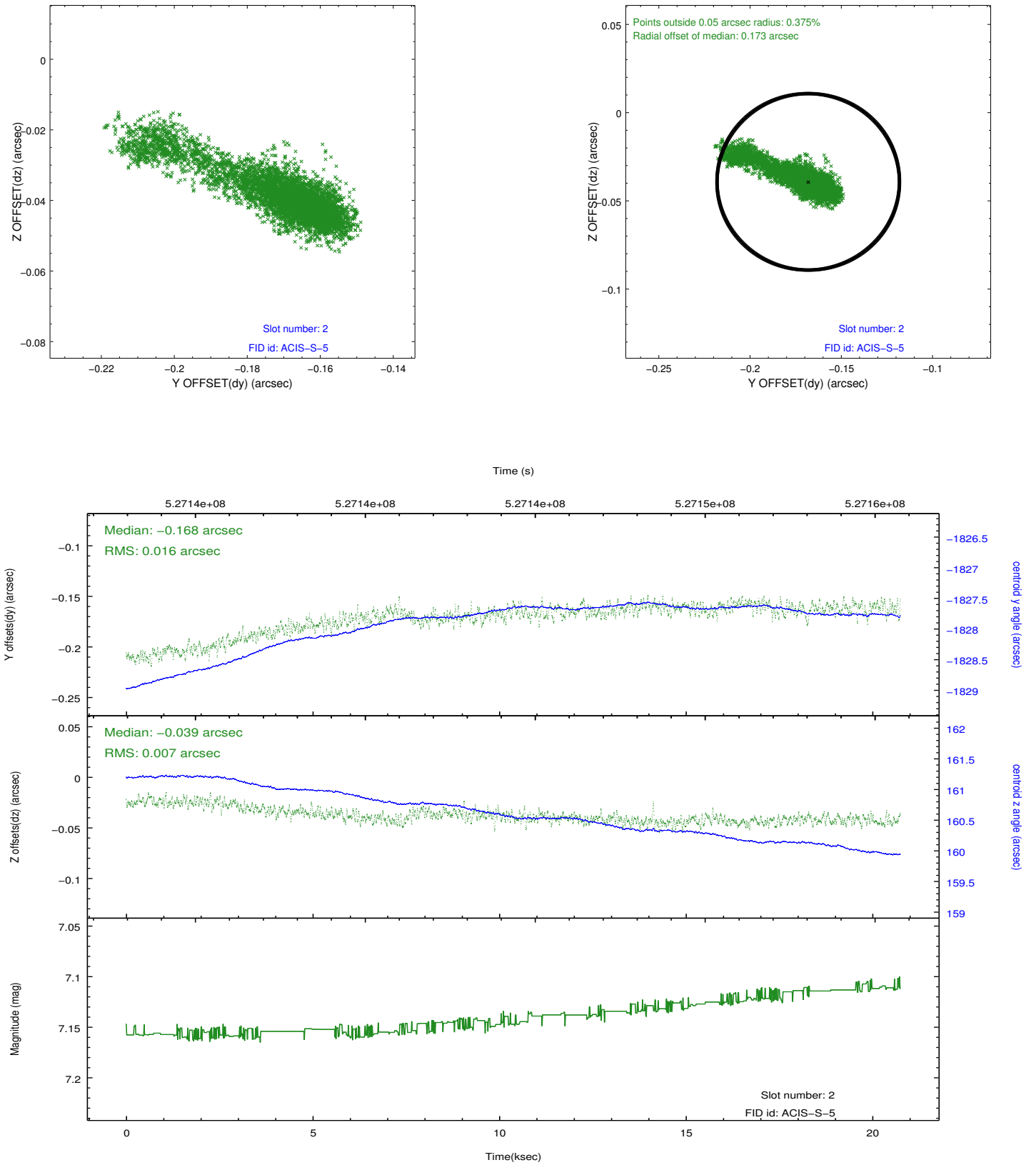
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|----------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2014.09.15 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 20.07732162261 |

A.2 Comments

Joint proposal with HST.