

V&V Reference Report

L2 ASCDS Version : 10.5.1.1

Observation 18262 - L2 Version 2
Chandra X-Ray Center

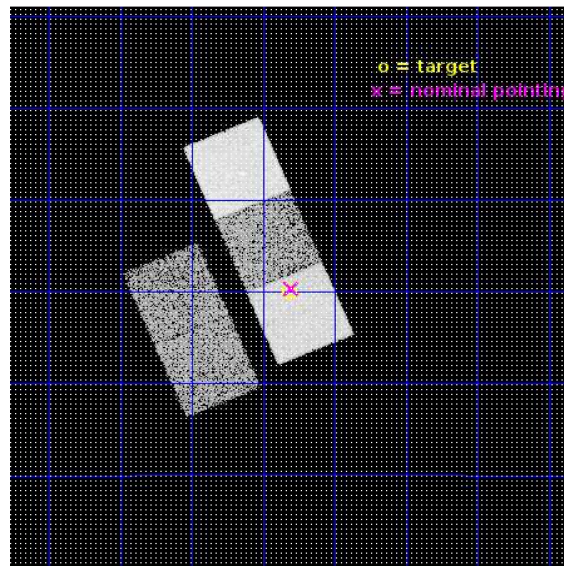
L2 Processing Date : Oct 4 2016

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1 Front

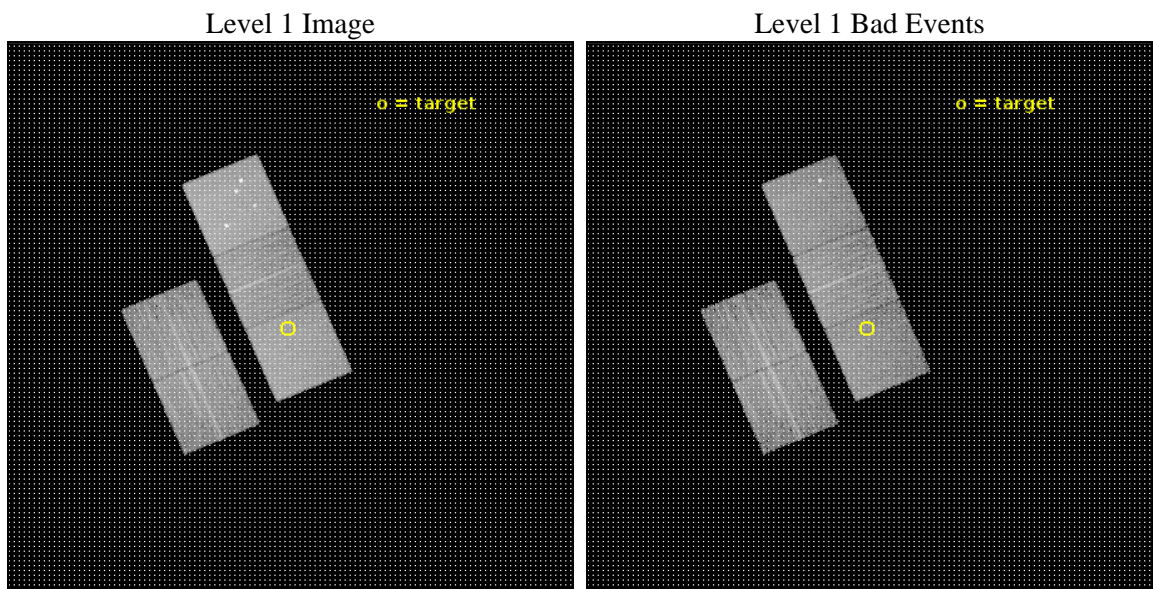
| | | |
|----------|---|---|
| seq_num | 801586 | Sequence number |
| obs_id | 18262 | Observation id |
| title | Building a complete sample of $z>1$ XXL galaxy clusters | Proposal tit |
| observer | Dr Ben Maughan | Principal investigator |
| object | XLSS J022418.7-043959 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 36.077917 | Observer's specified target RA [deg] |
| dec_targ | -4.666 | Observer's specified target Dec [deg] |
| ra_nom | 36.075752465062 | Nominal RA [deg] |
| dec_nom | -4.6611148961399 | Nominal Dec [deg] |
| roll_nom | 67.156801572489 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 12062.100092888 | Sum of GTIs [s] |
| livetime | 11904.499875185 | Livetime [s] |
| ontime2 | 12062.100092888 | Sum of GTIs [s] |
| ontime3 | 12062.100092888 | Sum of GTIs [s] |
| ontime5 | 12062.100092888 | Sum of GTIs [s] |
| ontime6 | 12062.100092888 | Sum of GTIs [s] |
| ontime7 | 12062.100092888 | Sum of GTIs [s] |
| l2events | 121258 | Number of level 2 events |



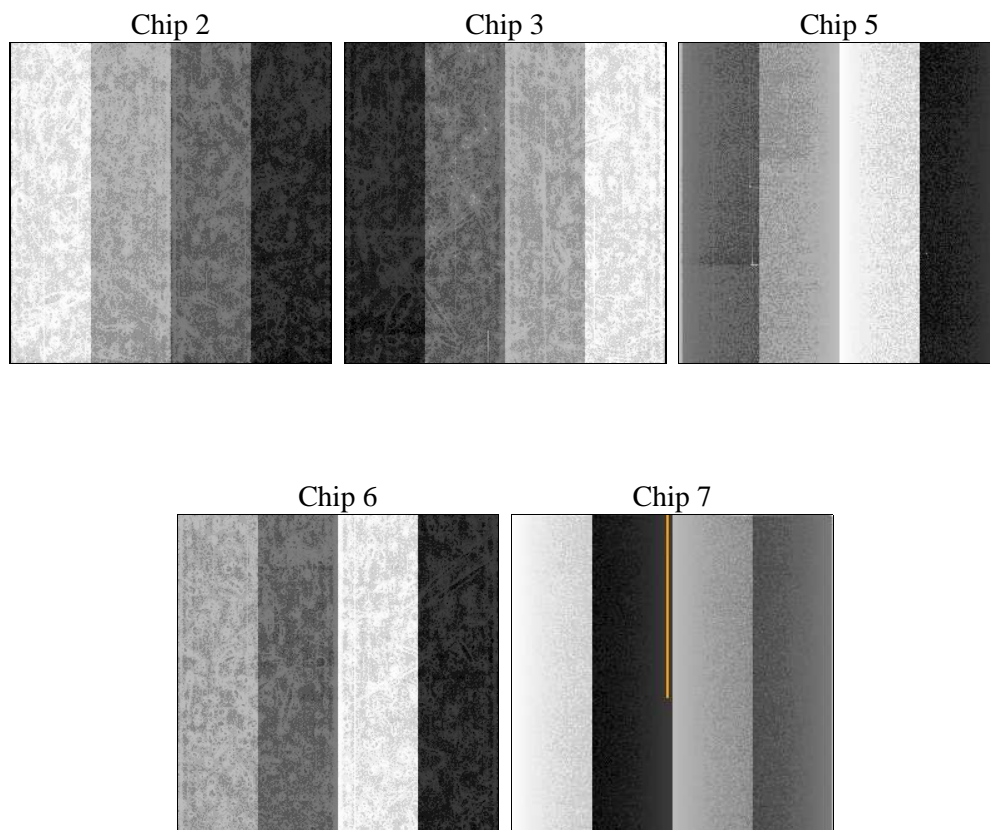
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 12000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.5.1.1 | Processing system revision | ontime | 12062.100092888 | Sum of GTIs [s] |
| caldbver | 4.7.2 | | ontime2 | 12062.100092888 | Sum of GTIs [s] |
| date | 2016-10-04T21:22:42 | Date and time of file creation | ontime3 | 12062.100092888 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime5 | 12062.100092888 | Sum of GTIs [s] |
| | | | ontime6 | 12062.100092888 | Sum of GTIs [s] |
| | | | ontime7 | 12062.100092888 | Sum of GTIs [s] |
| | | | l1events | 462457 | Number of level 1 events |

2.1.4 Events

| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 |
|-----------------|-------|-------|--------|-------|--------|
| level 1 events | 75296 | 74387 | 132987 | 78273 | 101514 |
| rejected events | 66807 | 66343 | 66796 | 69286 | 57385 |
| rejected % | 88% | 89% | 50% | 88% | 56% |

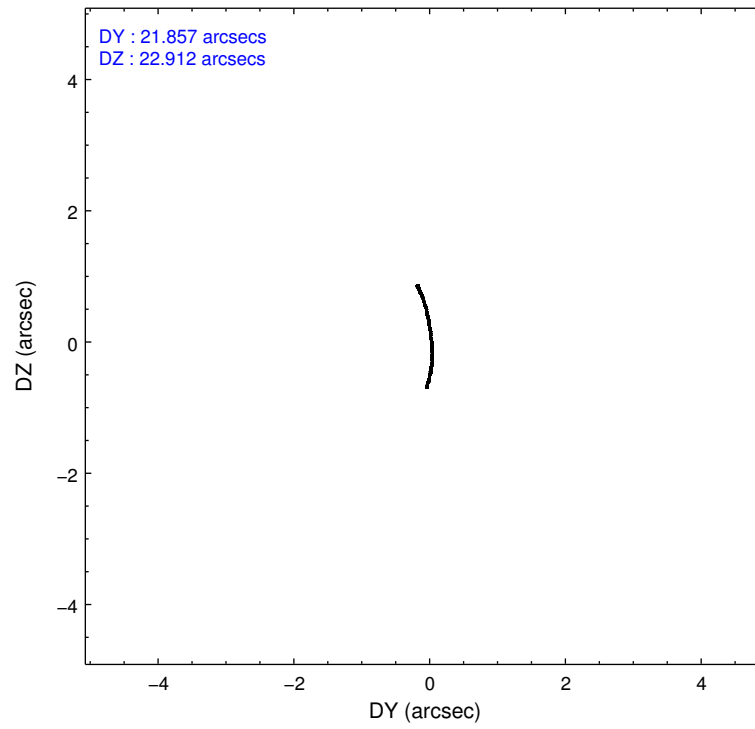
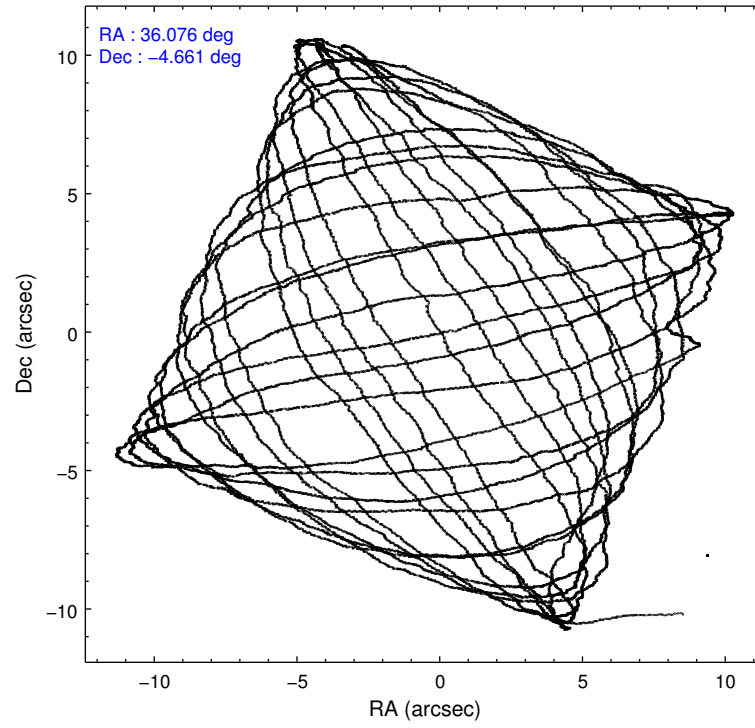
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 2917 | 2730 | 10072 | 2960 | 3724 |
| | 3% | 3% | 7% | 3% | 3% |
| grade 1 events | 51 | 32 | 263 | 34 | 142 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 2201 | 1772 | 19946 | 2146 | 9309 |
| | 2% | 2% | 14% | 2% | 9% |
| grade 3 events | 865 | 895 | 1893 | 909 | 3614 |
| | 1% | 1% | 1% | 1% | 3% |
| grade 4 events | 867 | 912 | 1791 | 907 | 3552 |
| | 1% | 1% | 1% | 1% | 3% |
| grade 5 events | 3144 | 3858 | 9064 | 3782 | 10318 |
| | 4% | 5% | 6% | 4% | 10% |
| grade 6 events | 1643 | 1735 | 32502 | 2071 | 23934 |
| | 2% | 2% | 24% | 2% | 23% |
| grade 7 events | 63608 | 62453 | 57456 | 65464 | 46921 |
| | 84% | 83% | 43% | 83% | 46% |

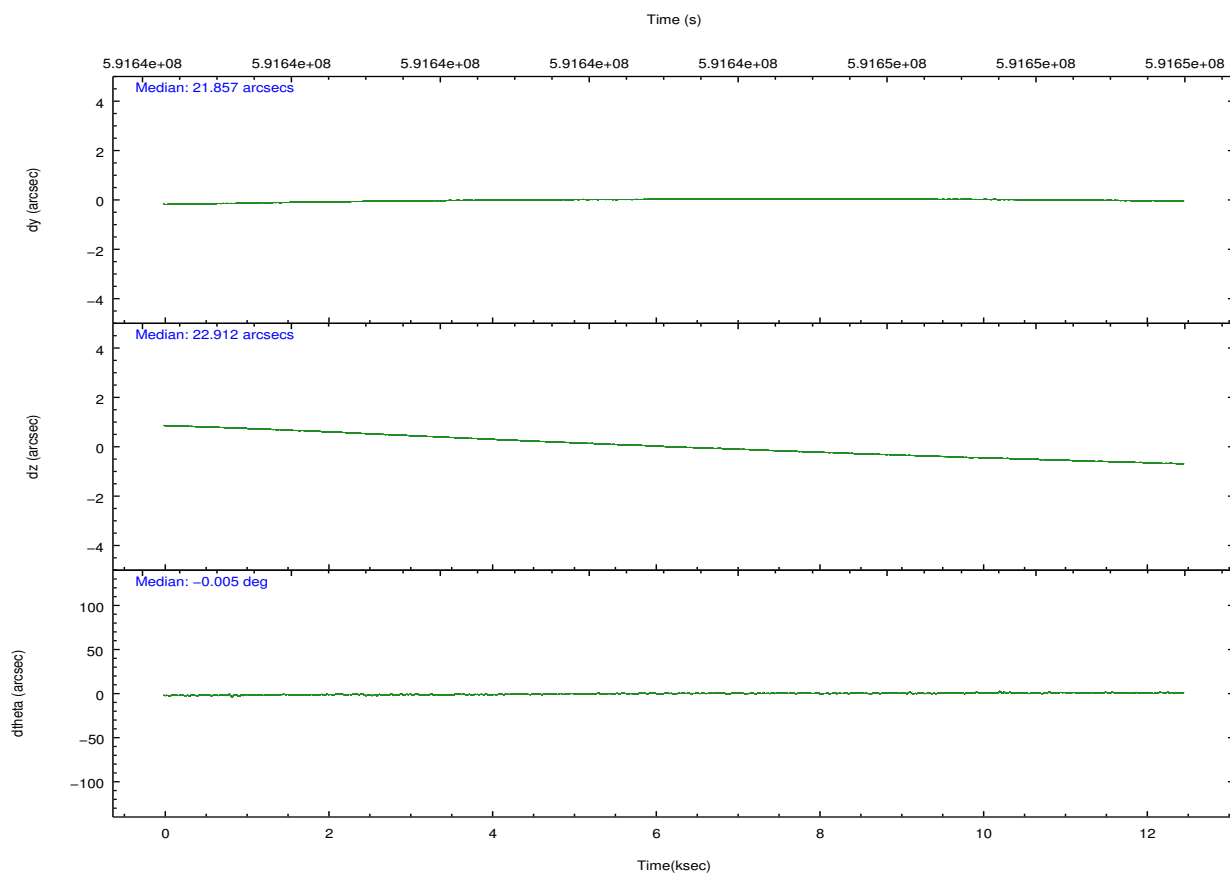
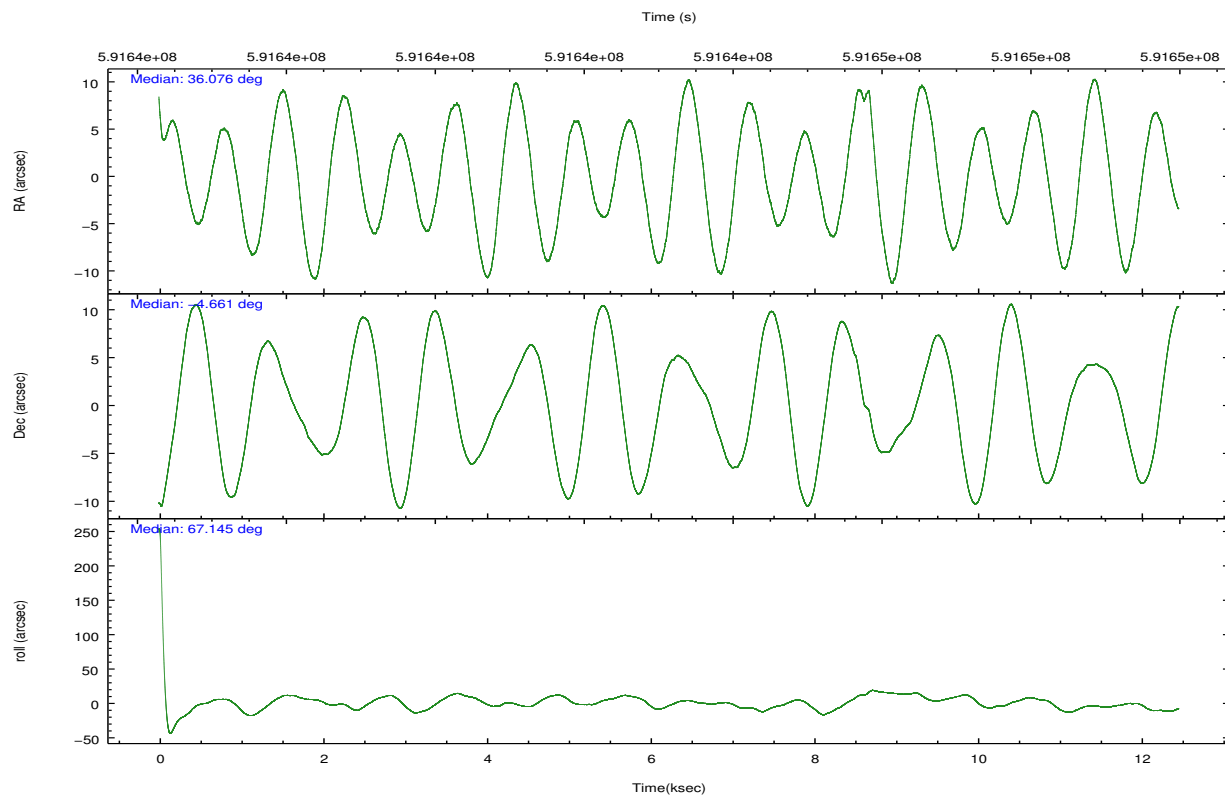
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|
| Instrument | ACIS | ACIS |
| Detector | ACIS-23567 | ACIS-23567 |
| Grating | NONE | NONE |
| Data mode | FAINT | FAINT |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 36.079520 | 36.07575246506232 |
| [deg] Pointing Dec | -4.688301 | -4.661114896139877 |
| [deg] Pointing Roll | 67.000138 | 67.15680157248936 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 |
| [mm] SIM defocus | 0 | 0.001444936568705701 |
| [mm] SIM translation stage pos | -190.132523 | -190.1425803651734 |
| [mm] SIM translation stage offset | 0 | 0.01005778216563158 |
| [s] Observation start time (MET) | 591637372.184000 | 591636265.6902699 |
| Observation start date | 2016-09-30T15:41:44 | 2016-09-30T15:24:25 |
| [s] Observation end time (MET) | 591649372.184000 | 591650409.66608 |
| Observation end date | 2016-09-30T19:01:44 | 2016-09-30T19:20:09 |
| 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



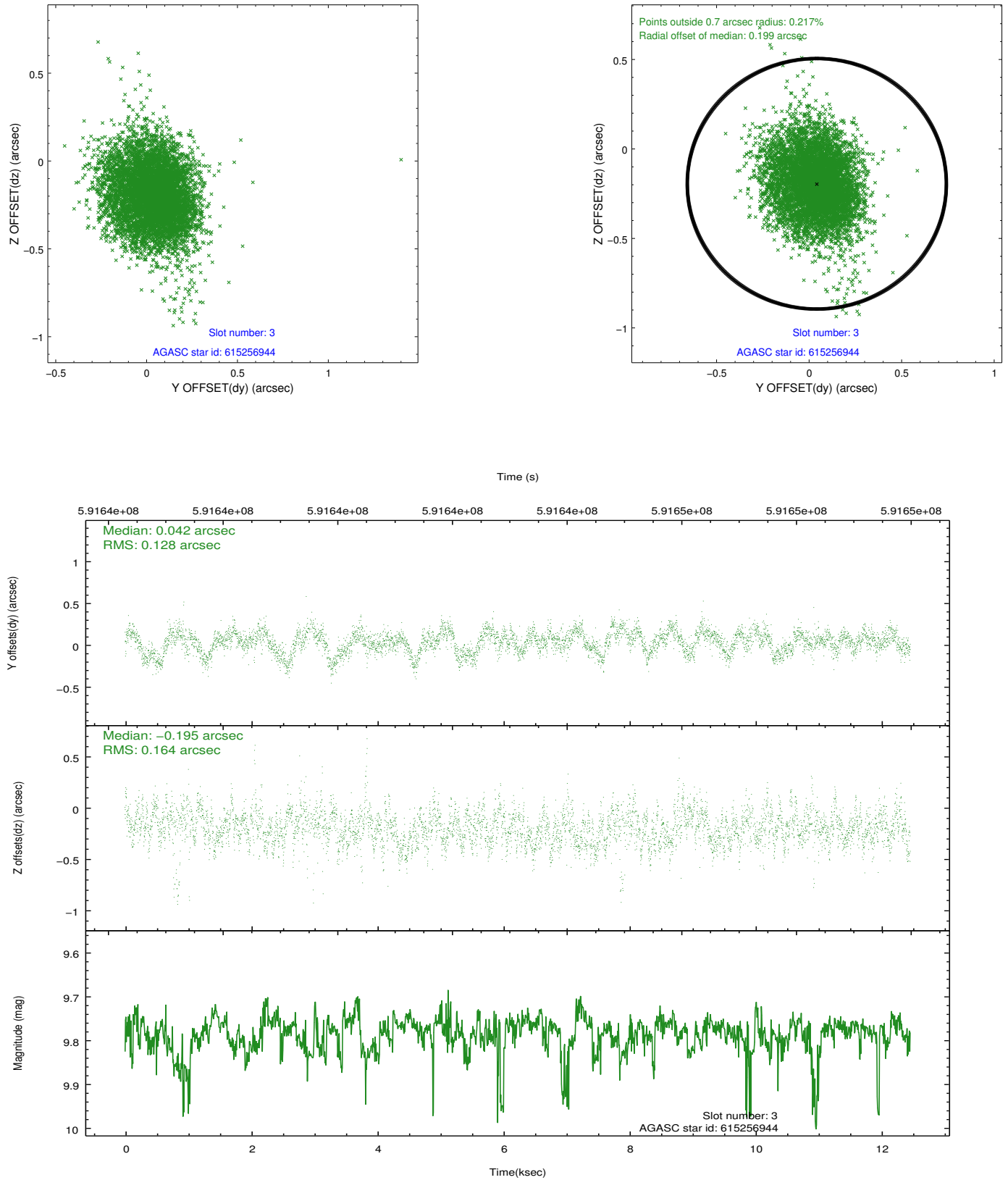


Slot Statistics

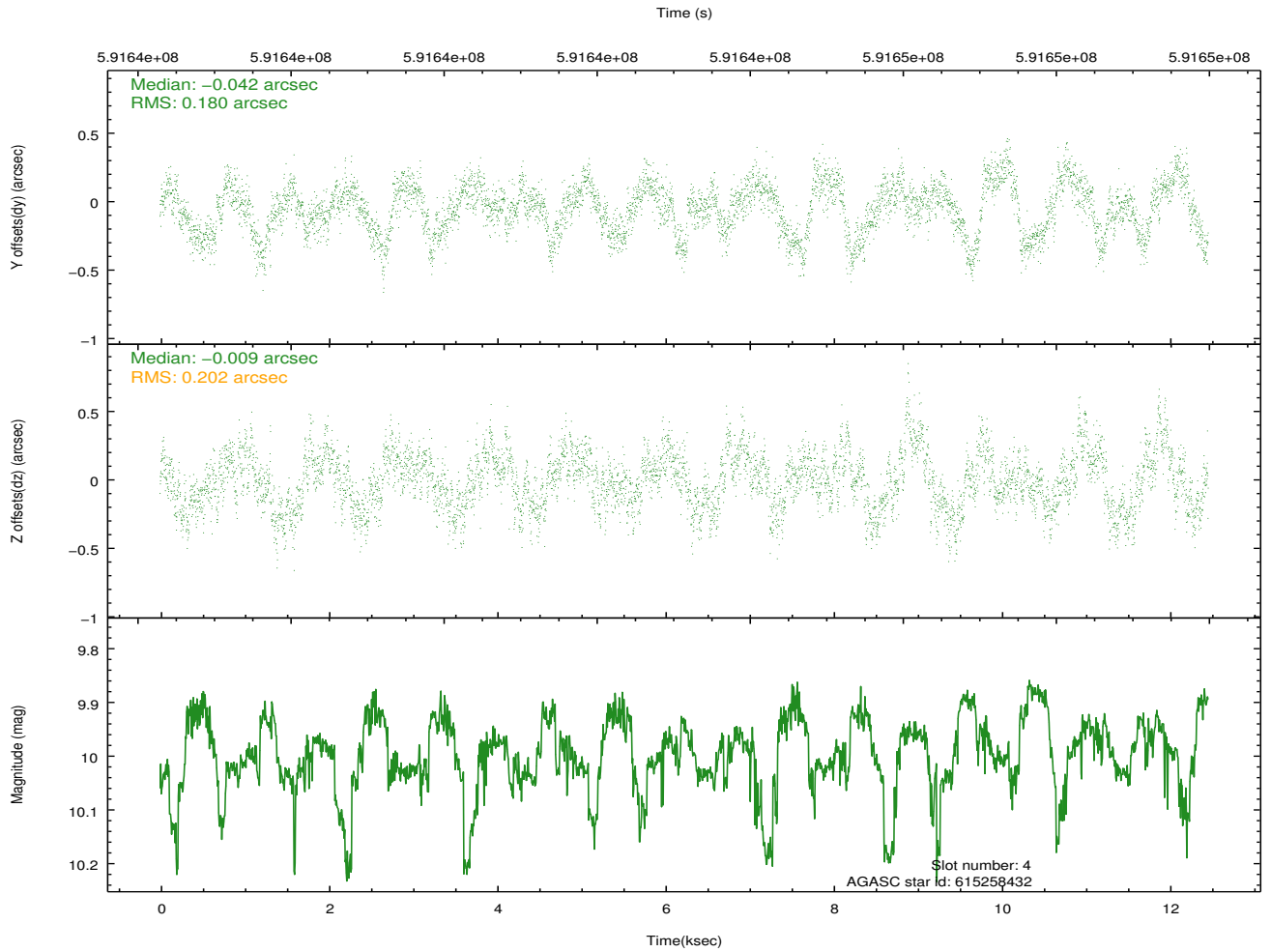
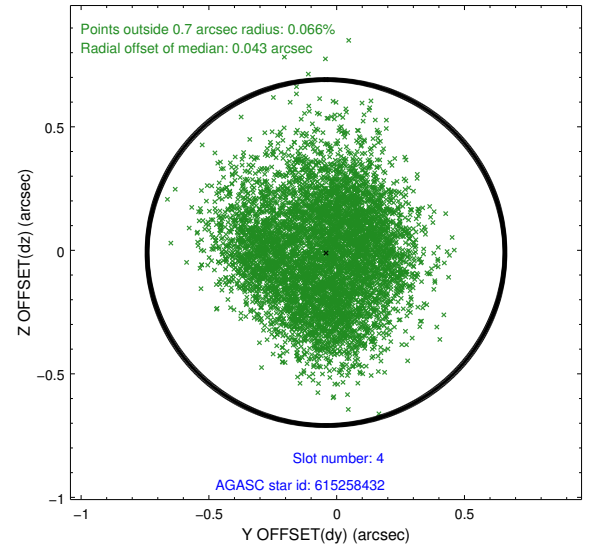
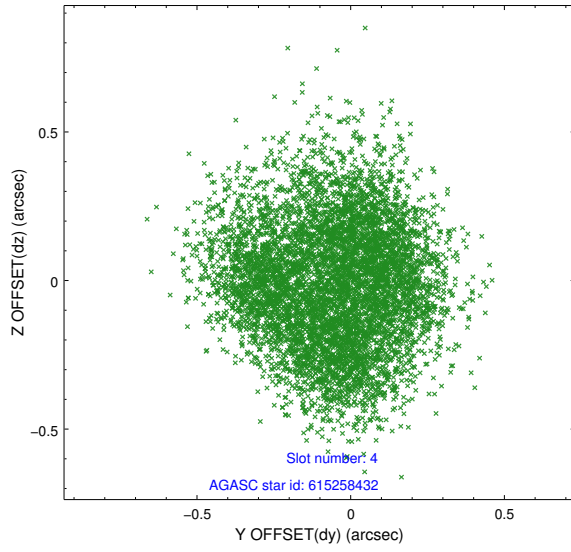
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|---------|------|-----------|-------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0 | FID | | ACIS-S-2 | 6.96 | 3040 | -0.218 | -0.145 | 0.012 | 0.024 | 0.000000 | 0.000000 | -775.20 | -1744.64 |
| 1 | FID | | ACIS-S-4 | 7.06 | 3040 | 0.483 | 0.143 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2138.58 | 163.75 |
| 2 | FID | | ACIS-S-5 | 7.08 | 3040 | -0.297 | 0.010 | 0.013 | 0.025 | 0.000000 | 0.000000 | -1827.63 | 157.69 |
| 3 | GUIDE | used | 615256944 | 9.78 | 5982 | 0.042 | -0.195 | 0.217 | 0.357 | 35.497386 | -4.510719 | -229.39 | 2172.53 |
| 4 | GUIDE | used | 615258432 | 10.00 | 6072 | -0.042 | -0.009 | 0.294 | 0.447 | 36.673522 | -4.852705 | 287.30 | -2192.31 |
| 5 | GUIDE | used | 615260160 | 9.65 | 6066 | -0.050 | -0.314 | 0.328 | 0.480 | 35.737387 | -3.921265 | 2059.49 | 2208.91 |
| 6 | GUIDE | used | 615260632 | 9.93 | 5977 | 0.037 | 0.540 | 0.302 | 0.441 | 36.806956 | -4.653233 | 1135.69 | -2352.36 |
| 7 | OMITTED | | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |

2.4 Star Slots

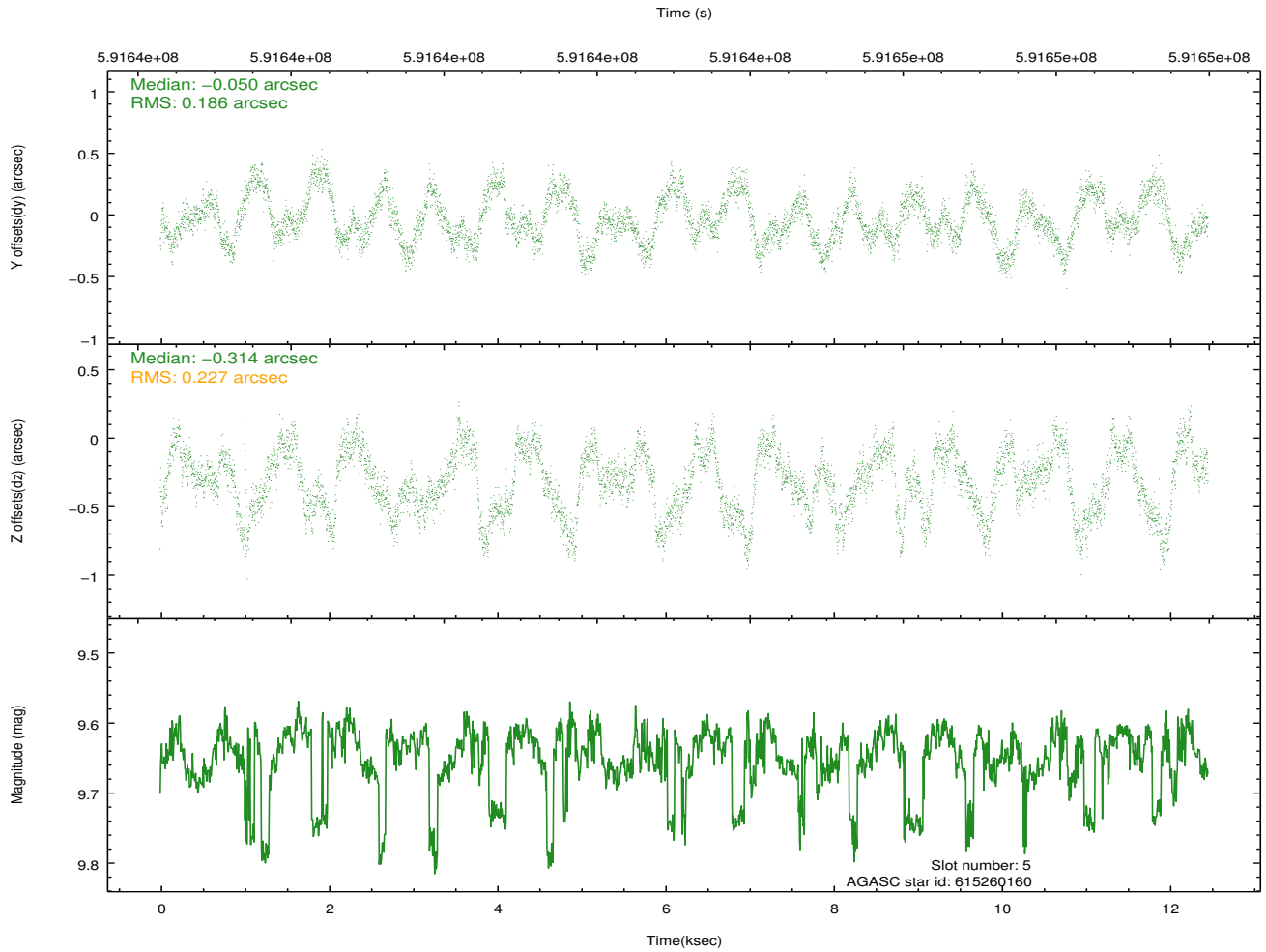
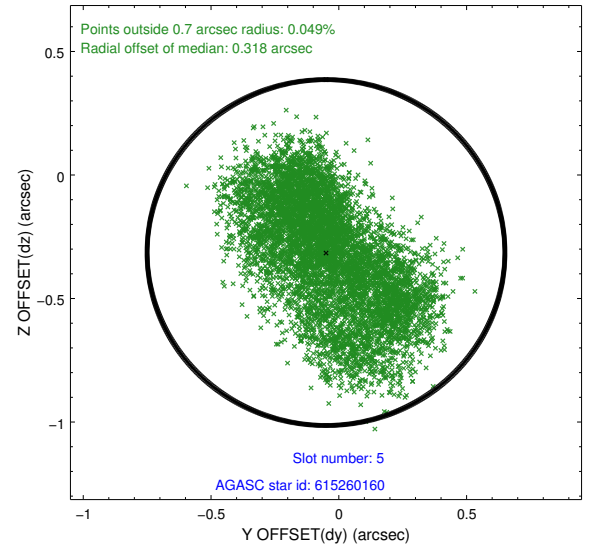
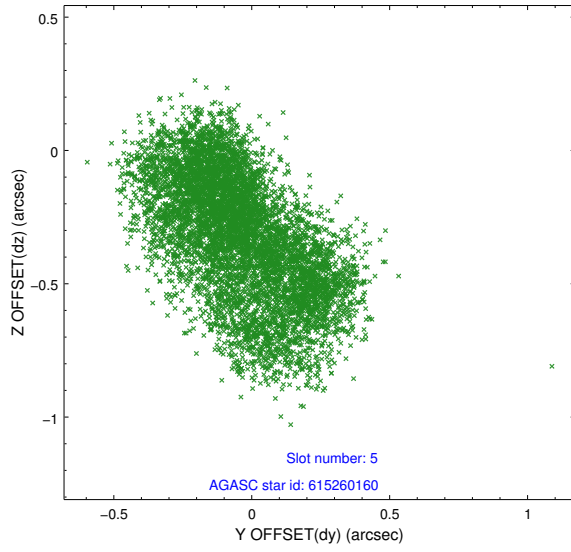
2.4.1 Slot 3



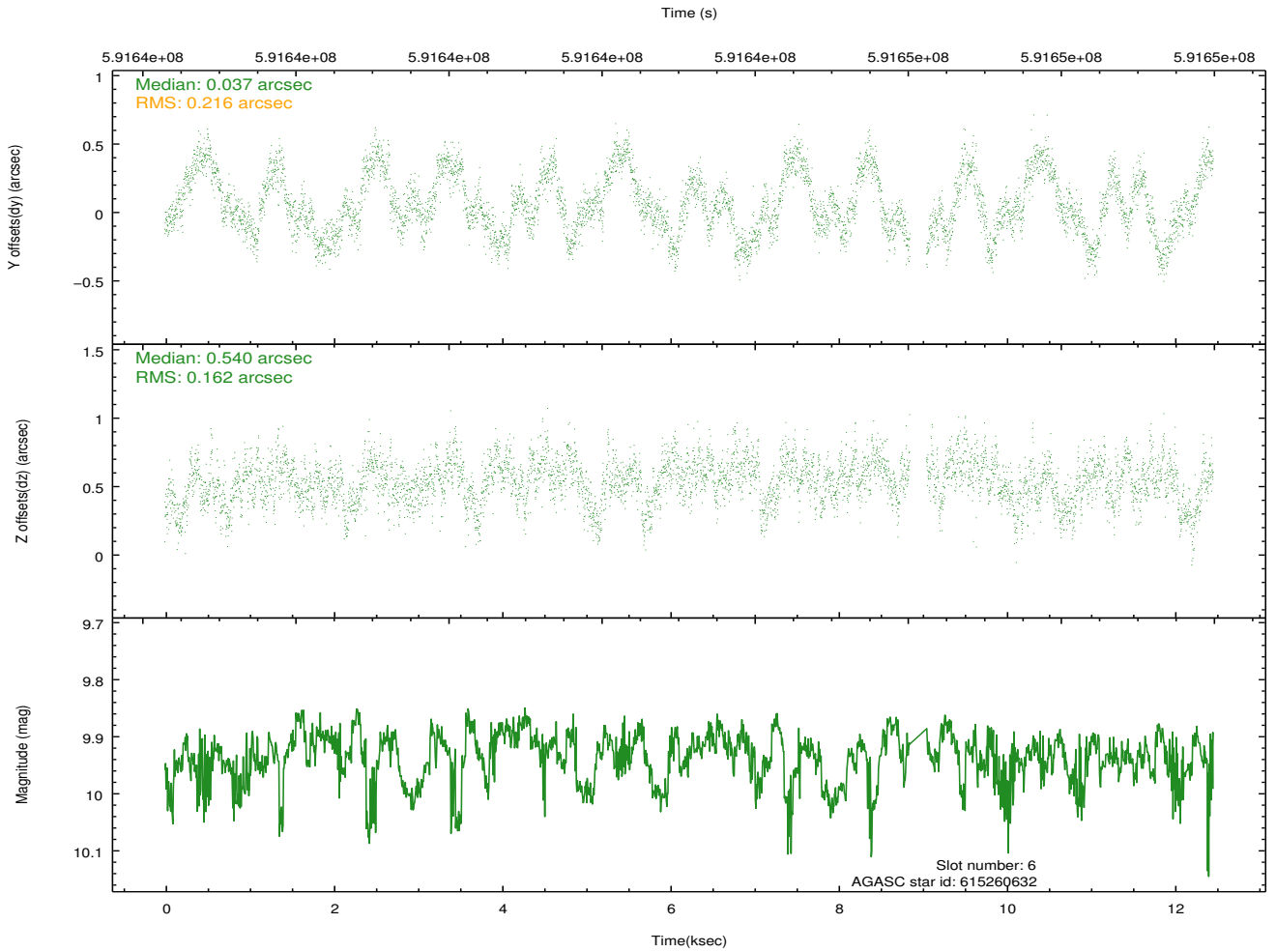
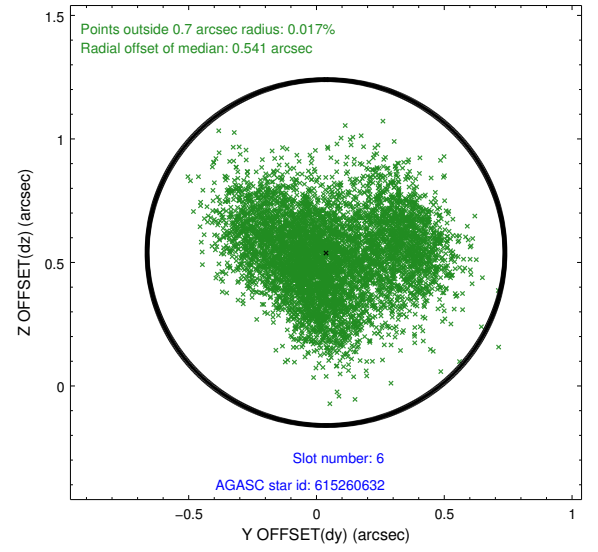
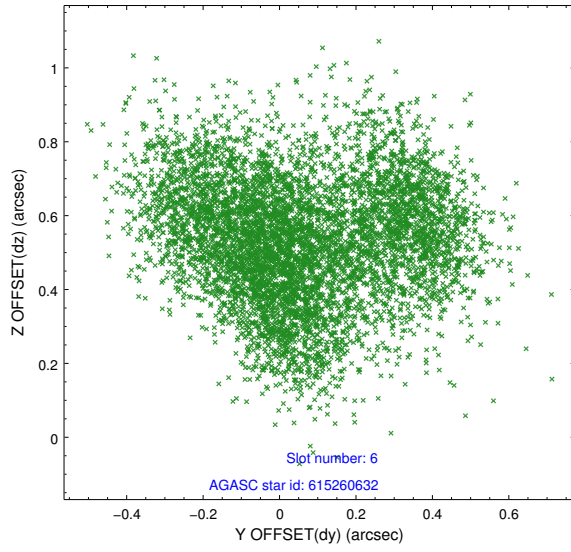
2.4.2 Slot 4



2.4.3 Slot 5

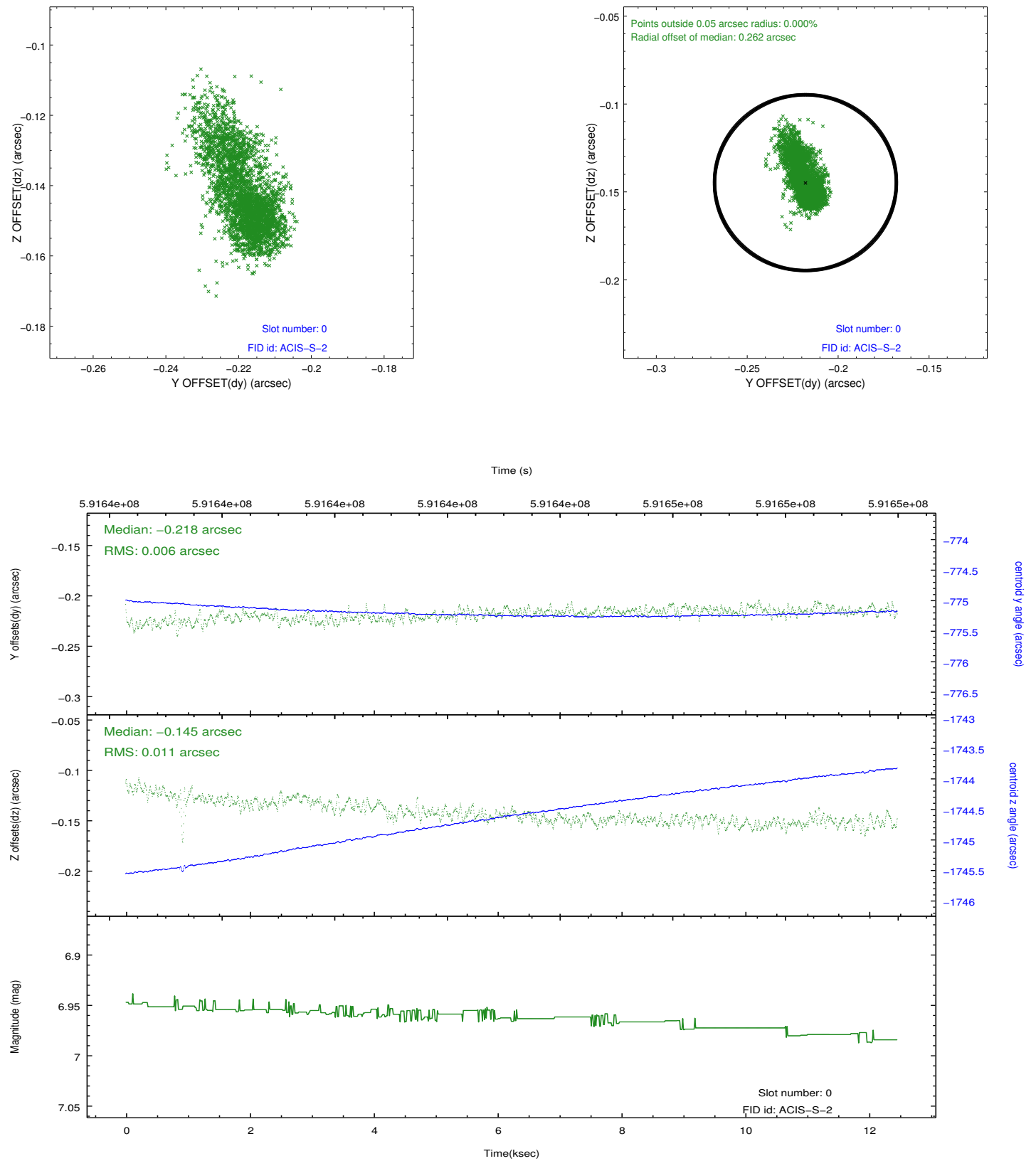


2.4.4 Slot 6

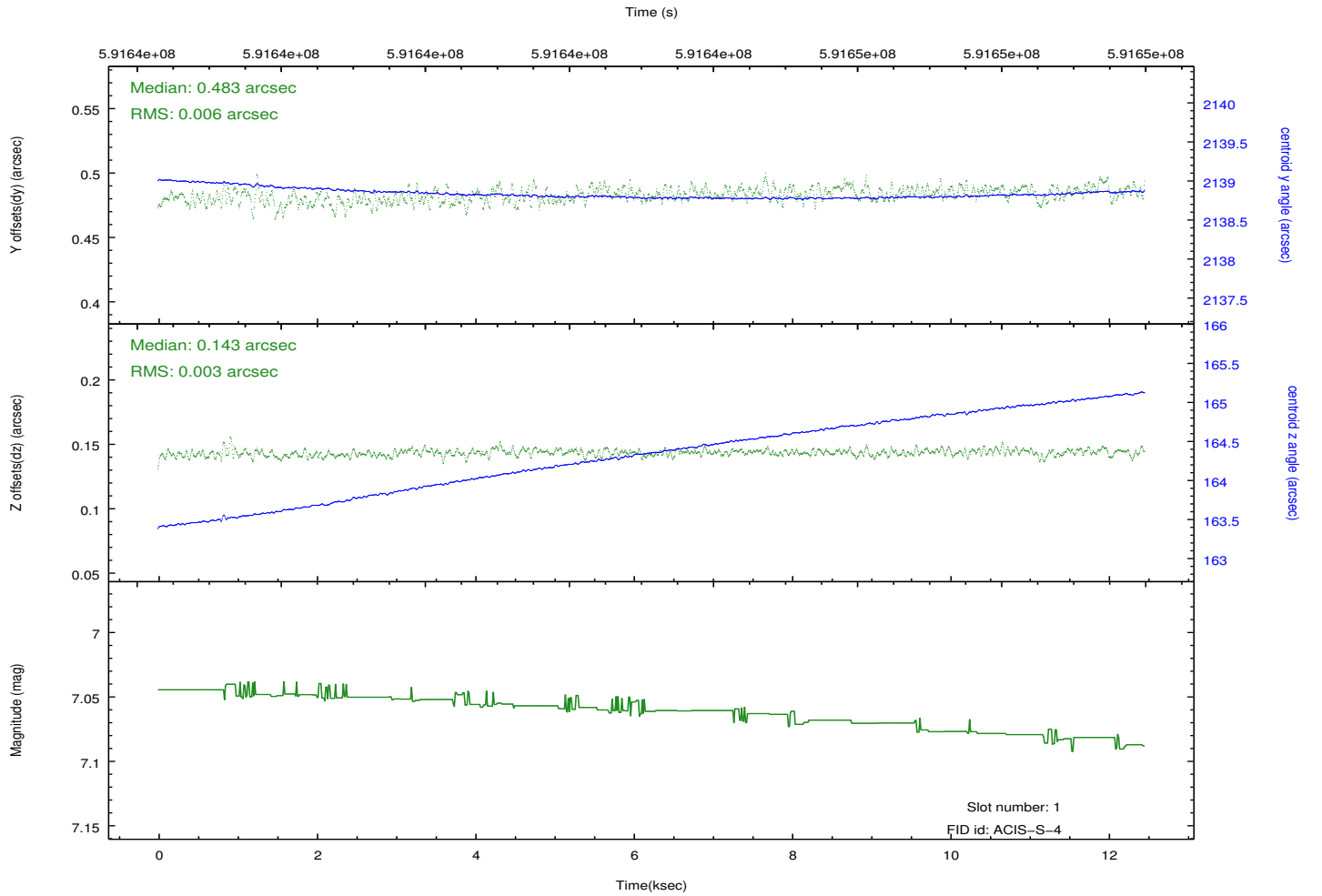
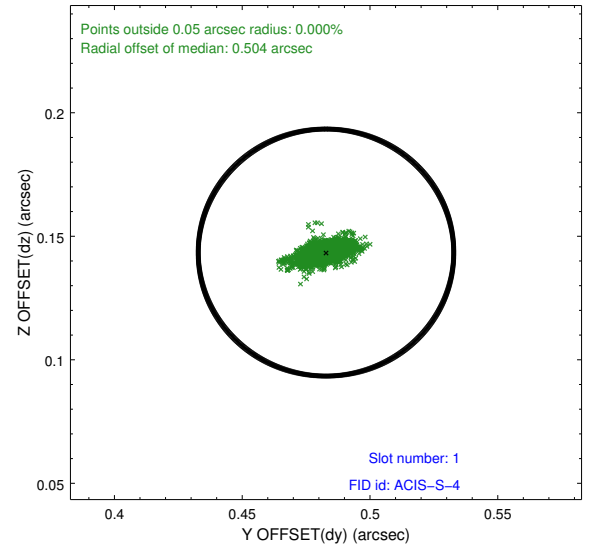
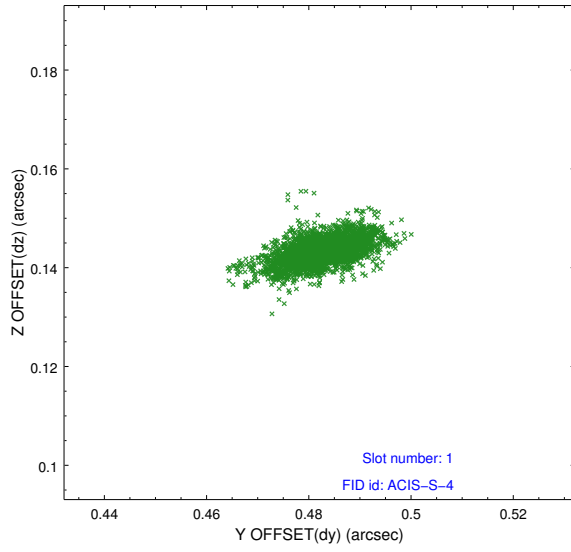


2.5 FID Slots

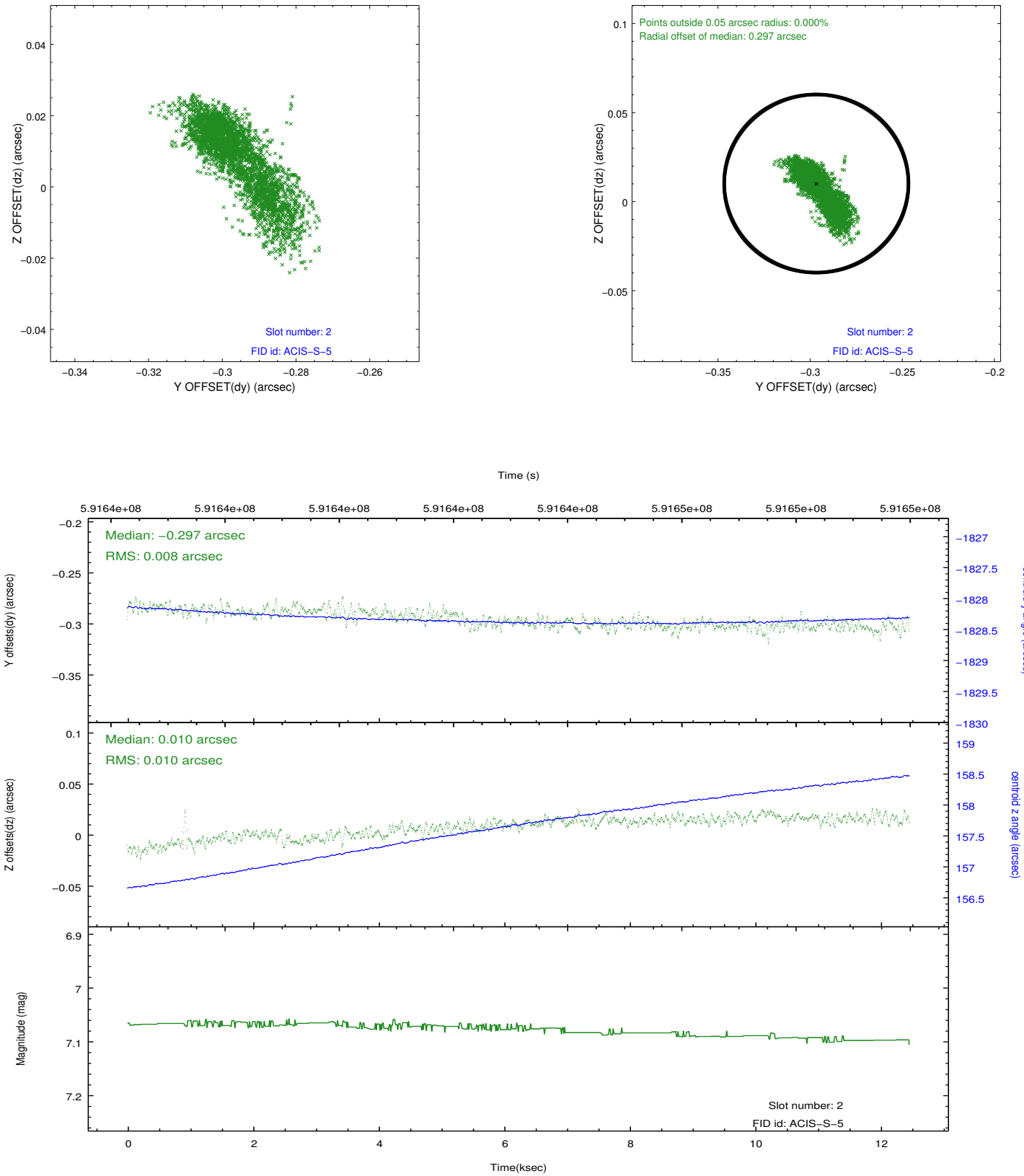
2.5.1 Slot 0



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) | 2016.10.05 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 12.062100092888 |

A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.