

V&V Reference Report

L2 ASCDS Version : 10.2.4

Observation 16620 - L2 Version 2
Chandra X-Ray Center

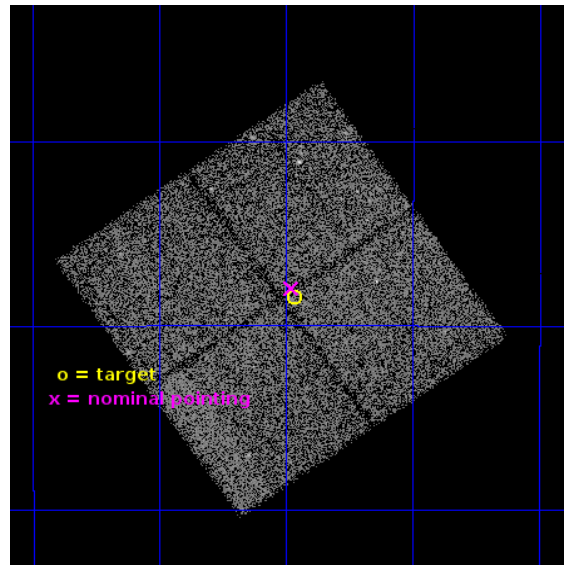
L2 Processing Date : Oct 17 2014

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1 Front

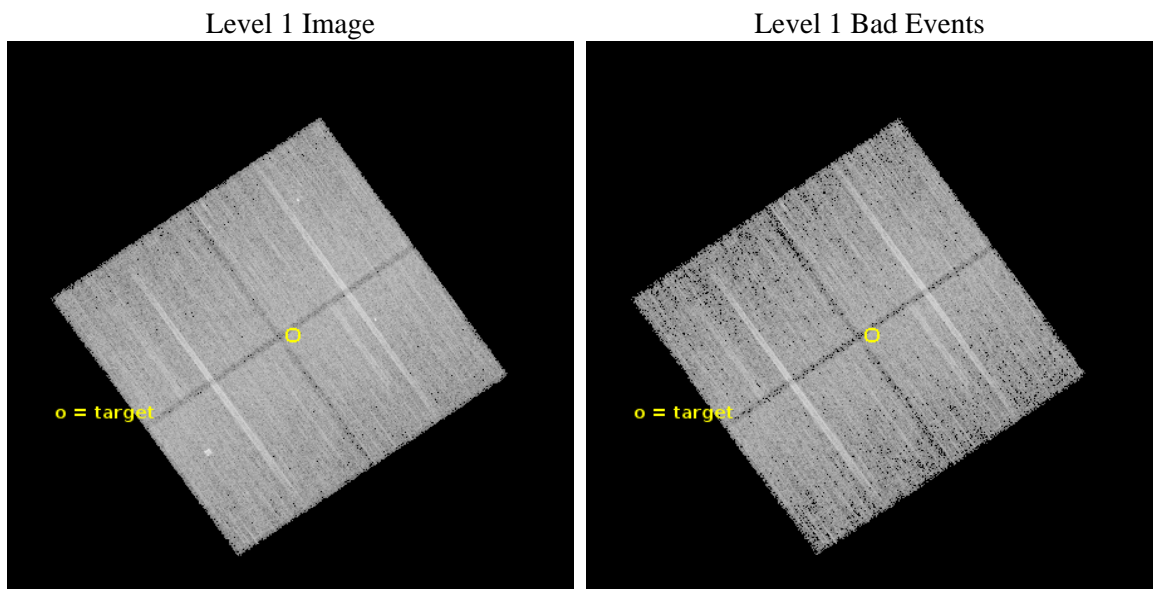
| | | |
|----------|--|---|
| seq_num | 901115 | Sequence number |
| obs_id | 16620 | Observation id |
| title | The Chandra Deep Field-South: A Peerless Ultradeep Survey for Exploring the Distant X-ray Universe | Proposal title |
| observer | Prof. W.N. Brandt | Principal investigator |
| object | Chandra Deep Field-South | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 53.117083 | Observer's specified target RA [deg] |
| dec_targ | -27.807333 | Observer's specified target Dec [deg] |
| ra_nom | 53.119862244624 | Nominal RA [deg] |
| dec_nom | -27.799529804751 | Nominal Dec [deg] |
| roll_nom | 55.009986449215 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 34157.629368365 | Sum of GTIs [s] |
| livetime | 33711.334794186 | Livetime [s] |
| ontime0 | 34160.64728874 | Sum of GTIs [s] |
| ontime1 | 34157.547288358 | Sum of GTIs [s] |
| ontime2 | 34160.729368746 | Sum of GTIs [s] |
| ontime3 | 34157.629368365 | Sum of GTIs [s] |
| l2events | 66462 | Number of level 2 events |



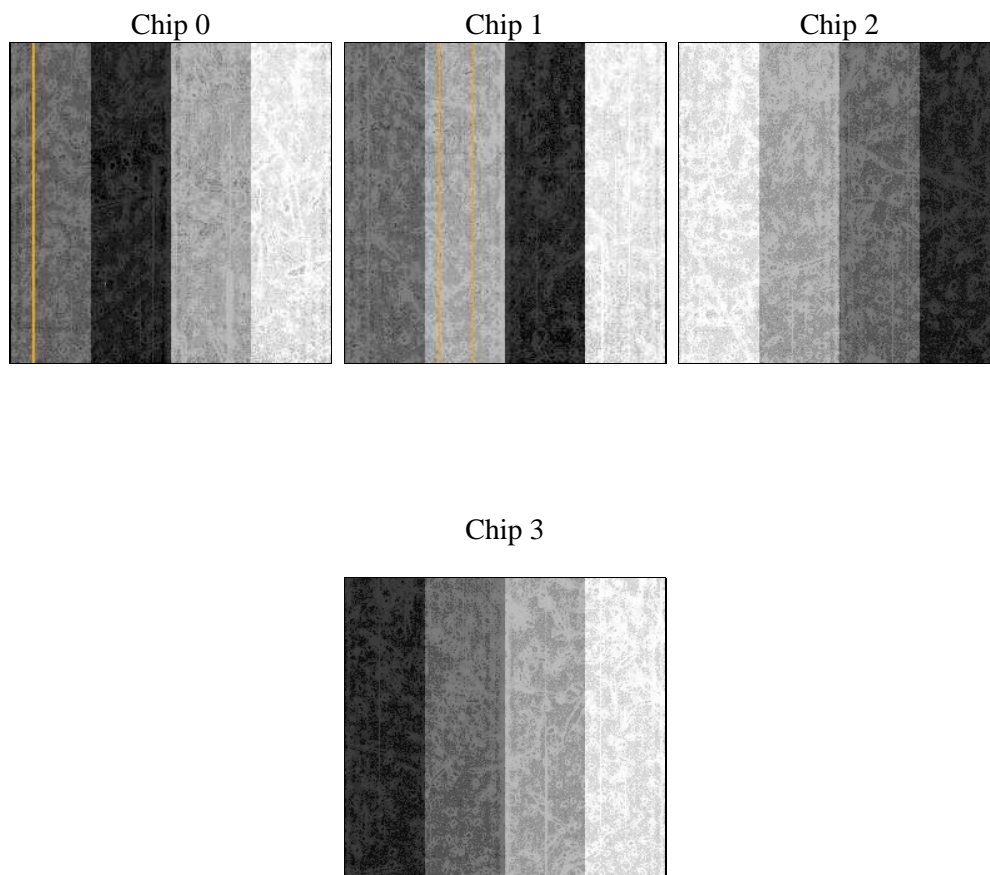
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 34069.803000 | [s] Scheduled observation exposure time |
| ascdsver | 10.2.4 | Processing system revision | ontime | 34157.629368365 | Sum of GTIs [s] |
| caldsver | 4.6.3 | | ontime0 | 34160.64728874 | Sum of GTIs [s] |
| date | 2014-10-17T14:32:23 | Date and time of file creation | ontime1 | 34157.547288358 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 34160.729368746 | Sum of GTIs [s] |
| | | | ontime3 | 34157.629368365 | Sum of GTIs [s] |
| | | | l1events | 640795 | Number of level 1 events |

2.1.4 Events

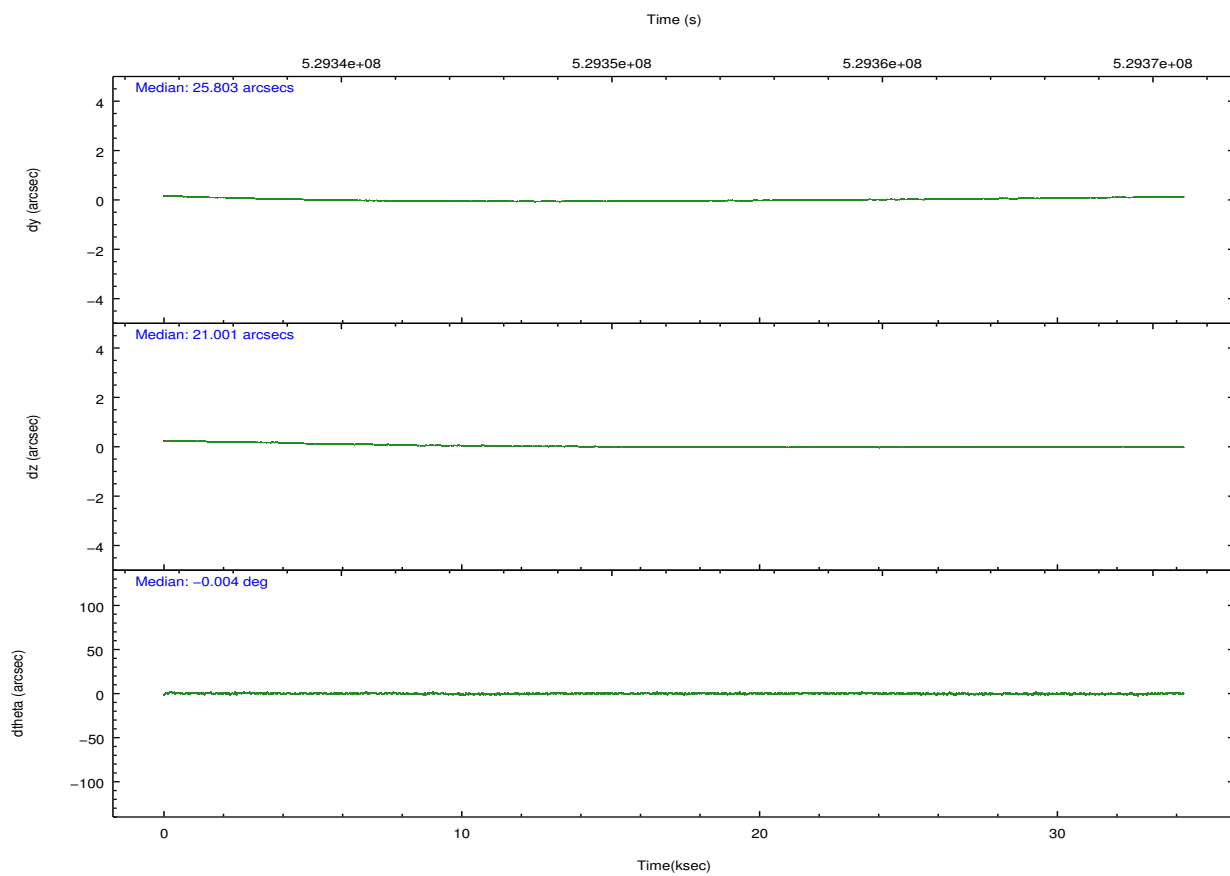
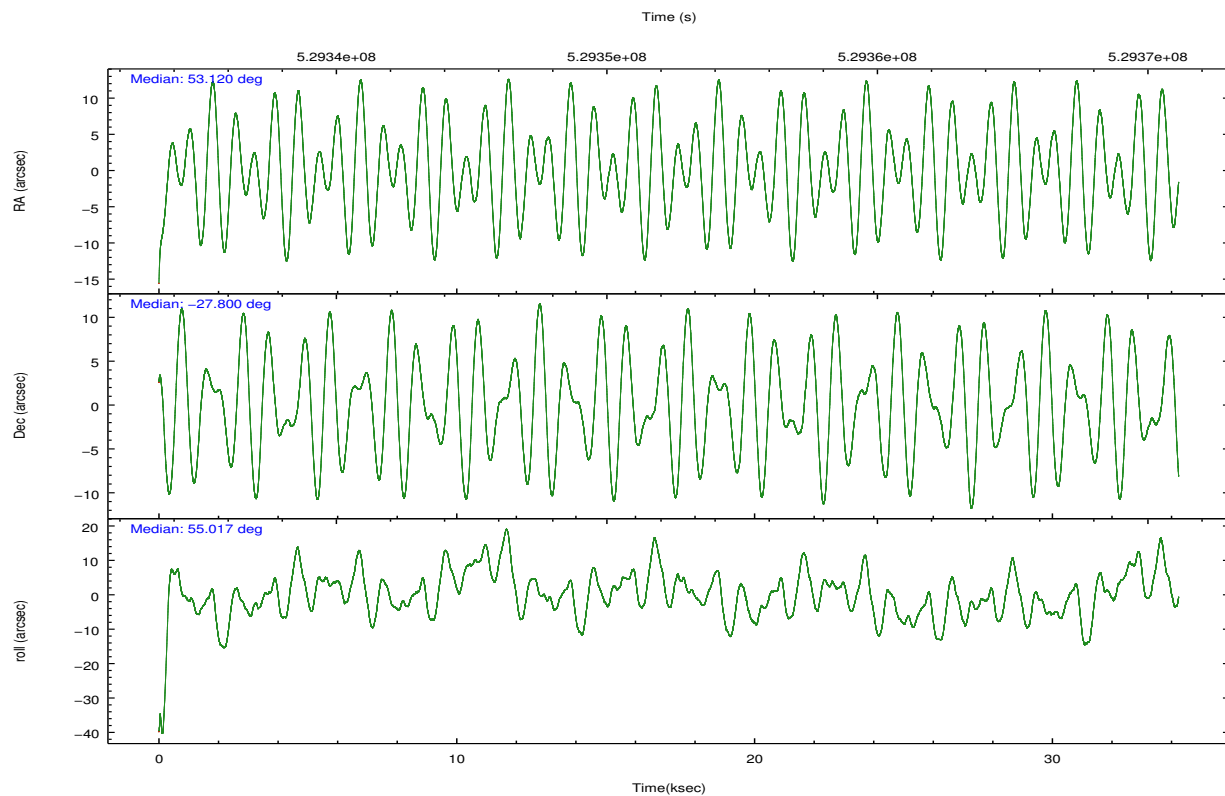
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|-----------------|--------|--------|--------|--------|
| level 1 events | 150333 | 158152 | 168929 | 163381 |
| rejected events | 130820 | 135975 | 149271 | 144522 |
| rejected % | 87% | 85% | 88% | 88% |

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|----------------|--------|--------|--------|--------|
| grade 0 events | 6605 | 8084 | 7143 | 6436 |
| | 4% | 5% | 4% | 3% |
| grade 1 events | 97 | 94 | 84 | 98 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 4809 | 5155 | 4792 | 4330 |
| | 3% | 3% | 2% | 2% |
| grade 3 events | 2043 | 2063 | 1983 | 1986 |
| | 1% | 1% | 1% | 1% |
| grade 4 events | 1995 | 2048 | 1955 | 2092 |
| | 1% | 1% | 1% | 1% |
| grade 5 events | 7969 | 8432 | 7284 | 9044 |
| | 5% | 5% | 4% | 5% |
| grade 6 events | 4065 | 4830 | 3787 | 4015 |
| | 2% | 3% | 2% | 2% |
| grade 7 events | 122750 | 127446 | 141901 | 135380 |
| | 81% | 80% | 84% | 82% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-0123 | ACIS-0123 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 53.117283 | 53.11986224462439 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -27.827032 | -27.79952980475146 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 54.800097 | 55.00998644921477 | [s] Primary exposure time | 0.000000 | 3.1 |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | | | |
| [mm] SIM defocus | 0 | 0.001439871863259334 | | | |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | | | |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | | | |
| [s] Observation start time (MET) | 529335338.184000 | 529334455.70543 | | | |
| Observation start date | 2014-10-10T13:34:31 | 2014-10-10T13:20:55 | | | |
| [s] Observation end time (MET) | 529369408.184000 | 529369645.49488 | | | |
| Observation end date | 2014-10-10T23:02:21 | 2014-10-10T23:07:25 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect

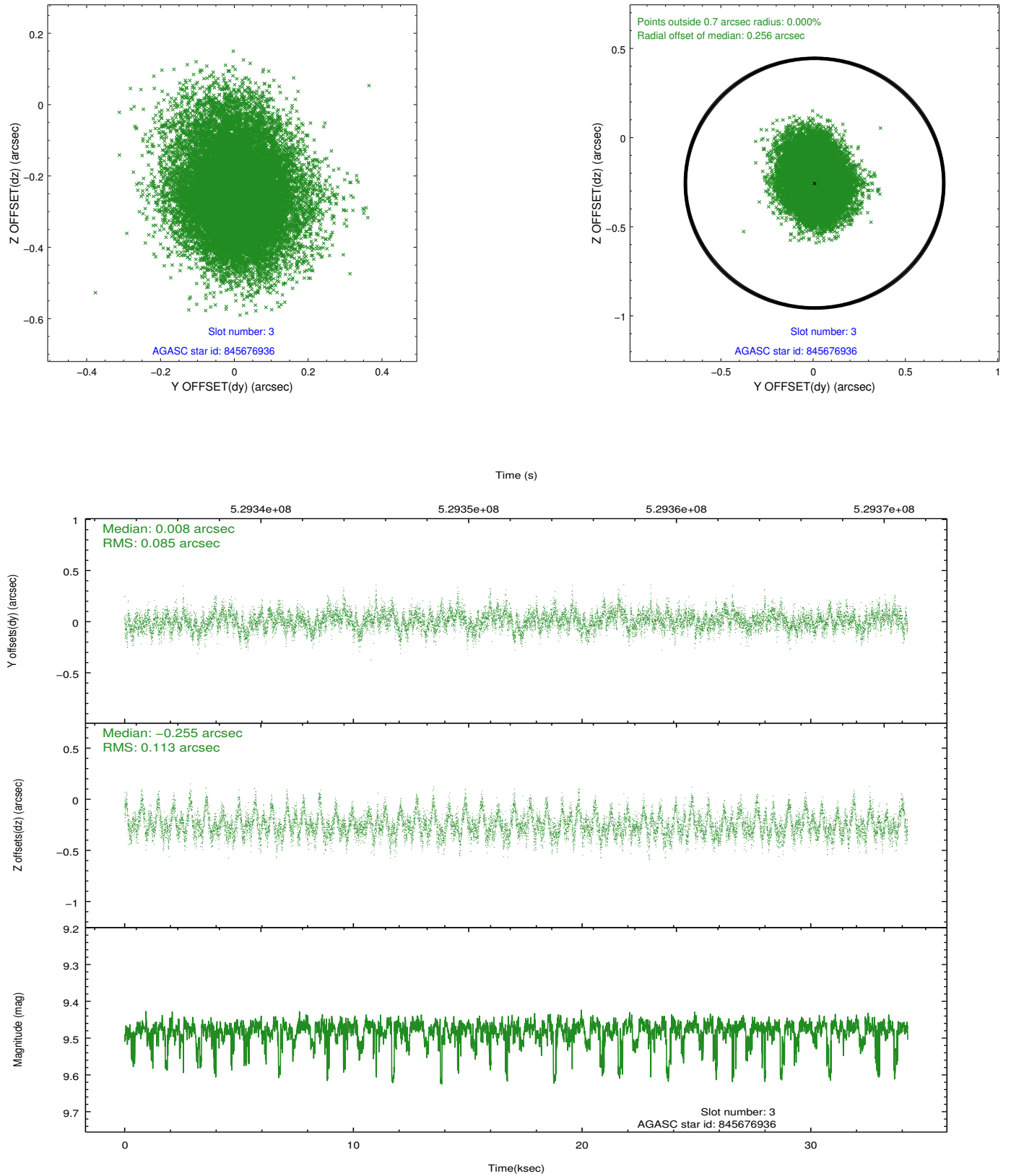


Slot Statistics

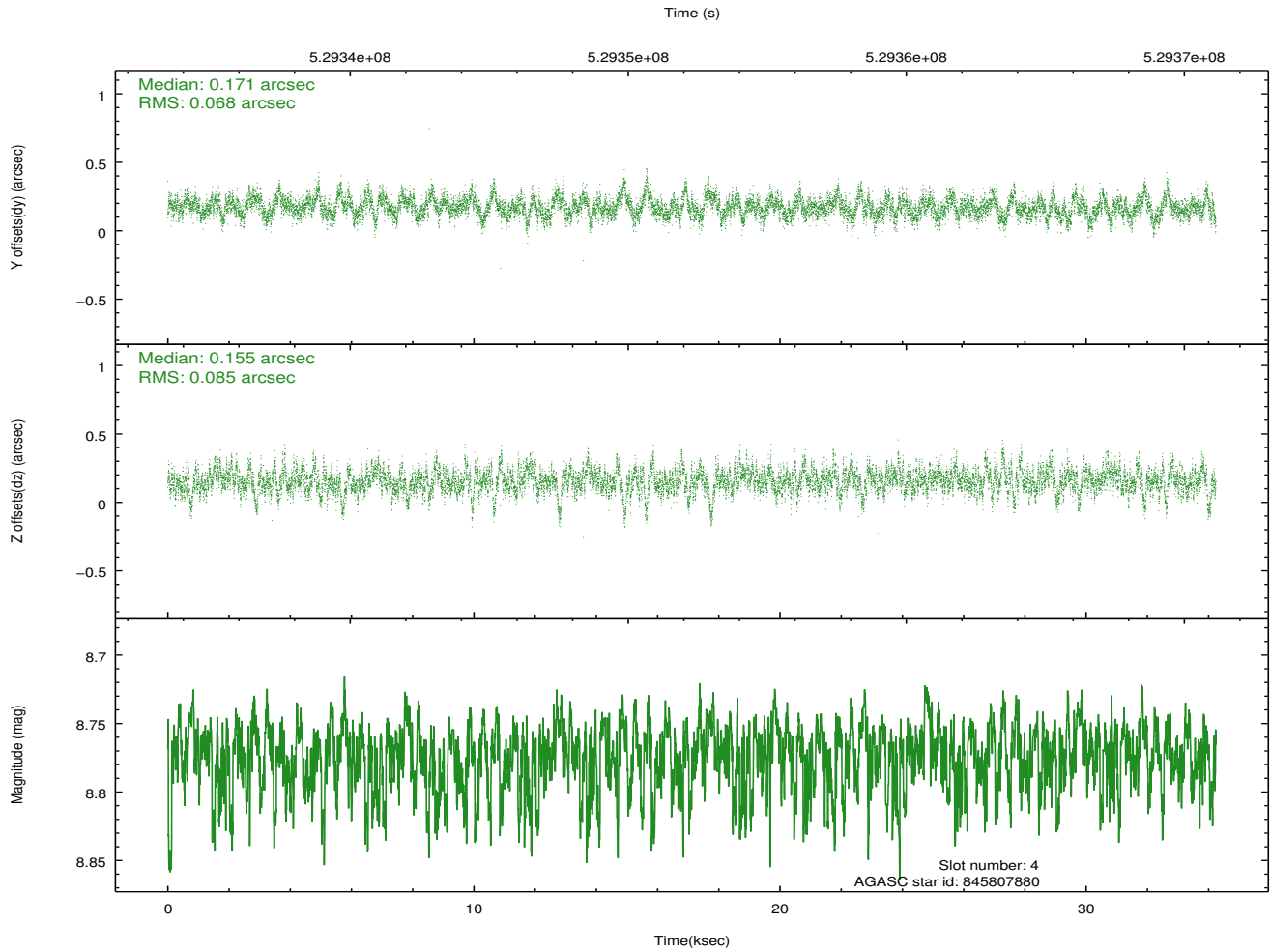
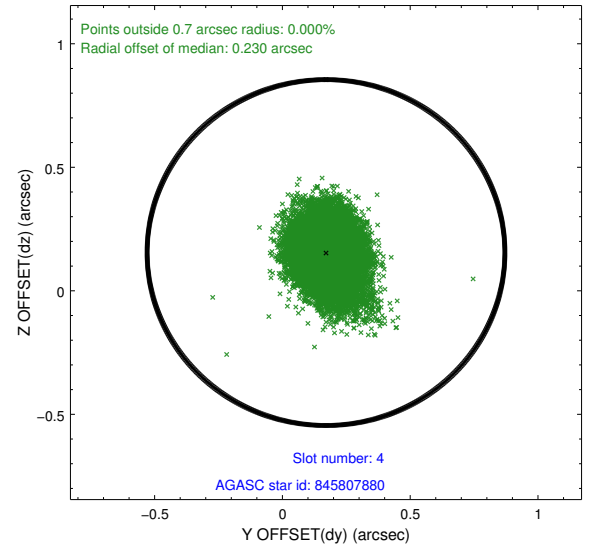
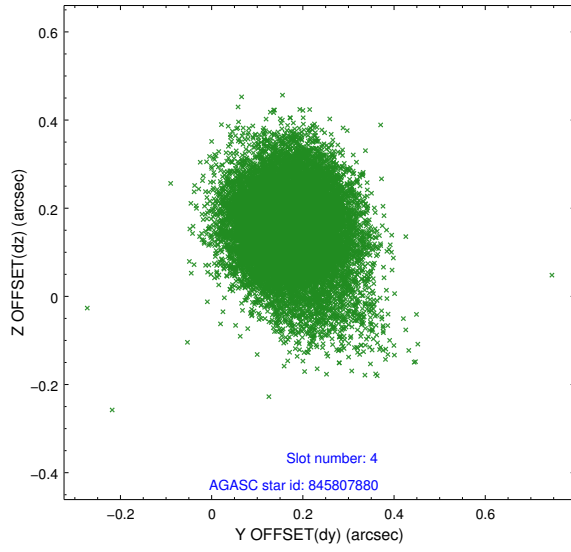
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|---------|-----------|-------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.18 | 8352 | -0.022 | -0.075 | 0.009 | 0.016 | 0.000000 | 0.000000 | 913.35 | -844.83 |
| 1 | FID | ACIS-I-4 | 7.15 | 8350 | 0.338 | 0.087 | 0.009 | 0.014 | 0.000000 | 0.000000 | 2133.72 | 1055.15 |
| 2 | FID | ACIS-I-5 | 7.17 | 8352 | -0.415 | 0.060 | 0.007 | 0.013 | 0.000000 | 0.000000 | -1835.05 | 1052.90 |
| 3 | GUIDE | 845676936 | 9.48 | 16695 | 0.008 | -0.255 | 0.150 | 0.248 | 52.843773 | -27.880153 | -657.54 | 599.89 |
| 4 | GUIDE | 845807880 | 8.77 | 16690 | 0.171 | 0.155 | 0.112 | 0.193 | 53.382027 | -27.886093 | 311.79 | -811.30 |
| 5 | GUIDE | 845808496 | 10.16 | 16676 | 0.257 | 0.175 | 0.253 | 0.406 | 53.777917 | -27.725281 | 1508.98 | -1512.47 |
| 6 | BAD | 845808968 | 9.91 | 15863 | -0.444 | -0.088 | 0.244 | 0.389 | 54.016598 | -27.589085 | 2346.44 | -1856.78 |
| 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

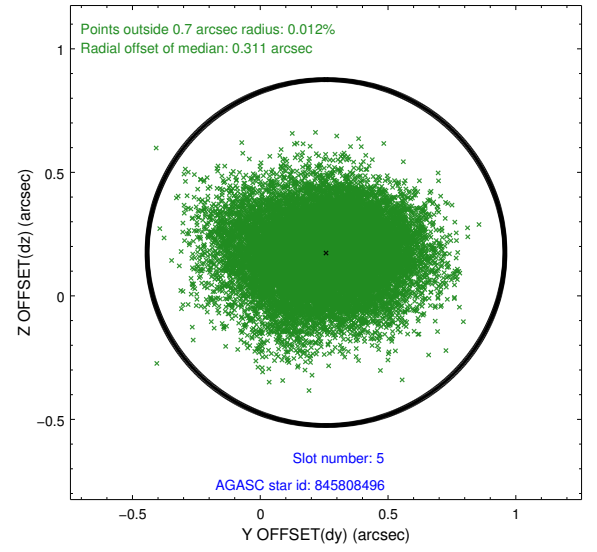
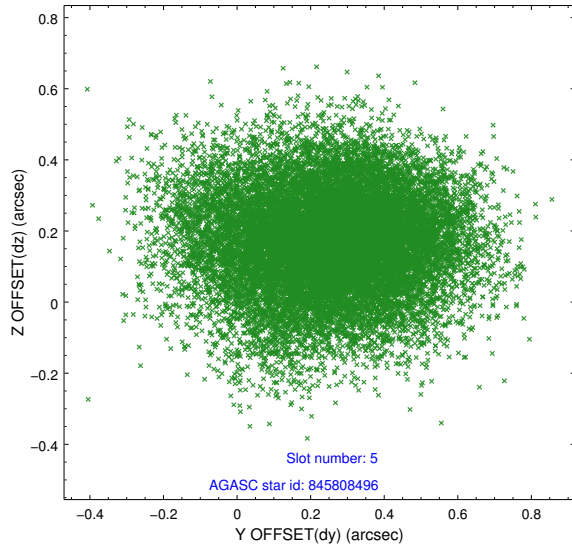
2.4.1 Slot 3



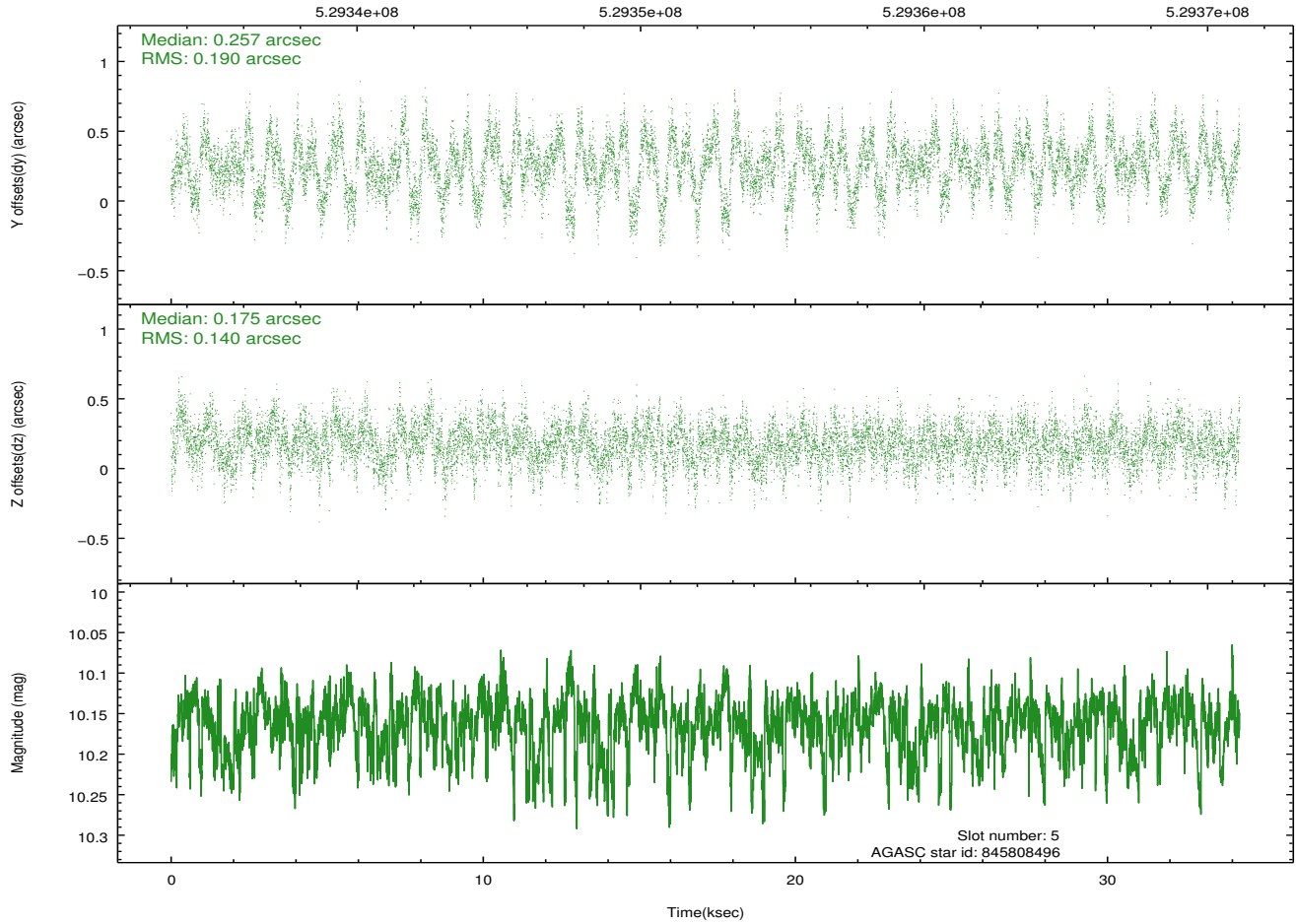
2.4.2 Slot 4



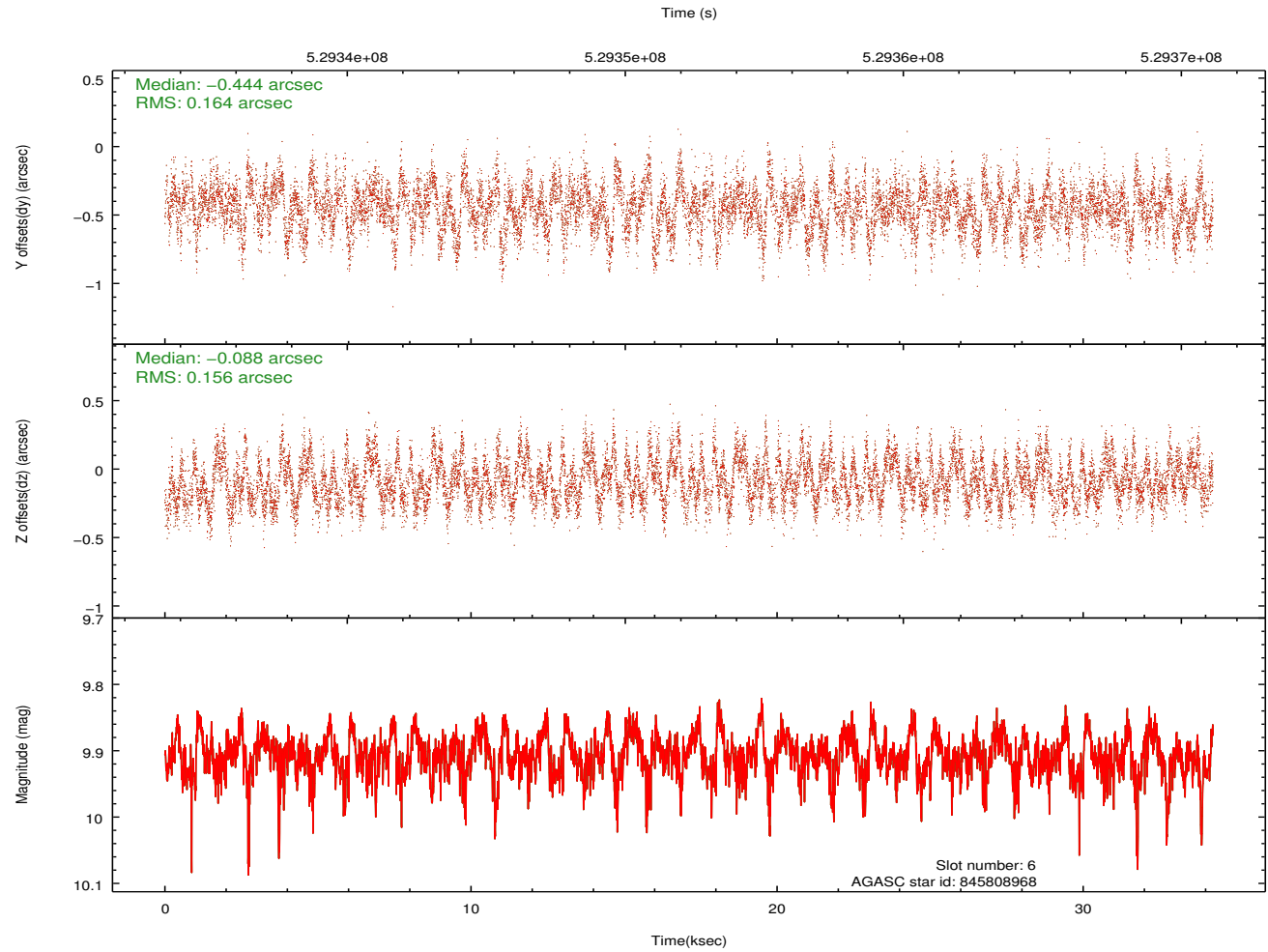
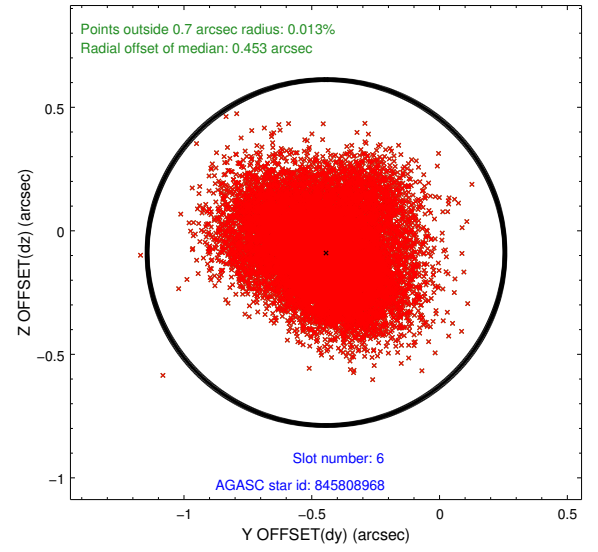
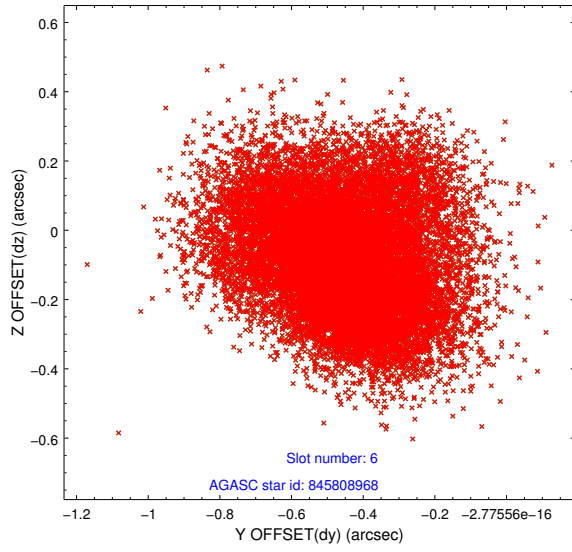
2.4.3 Slot 5



Time (s)

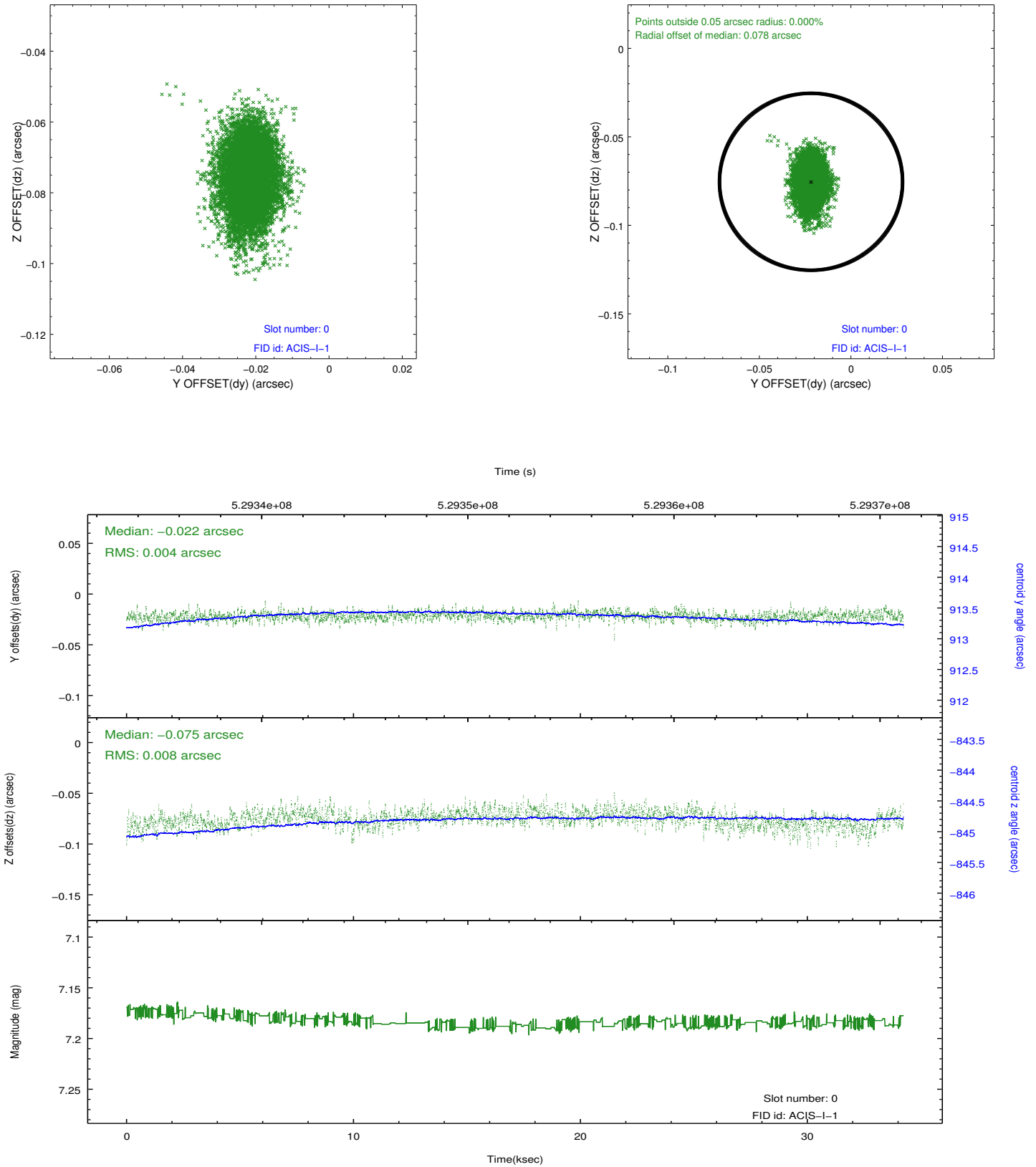


2.4.4 Slot 6

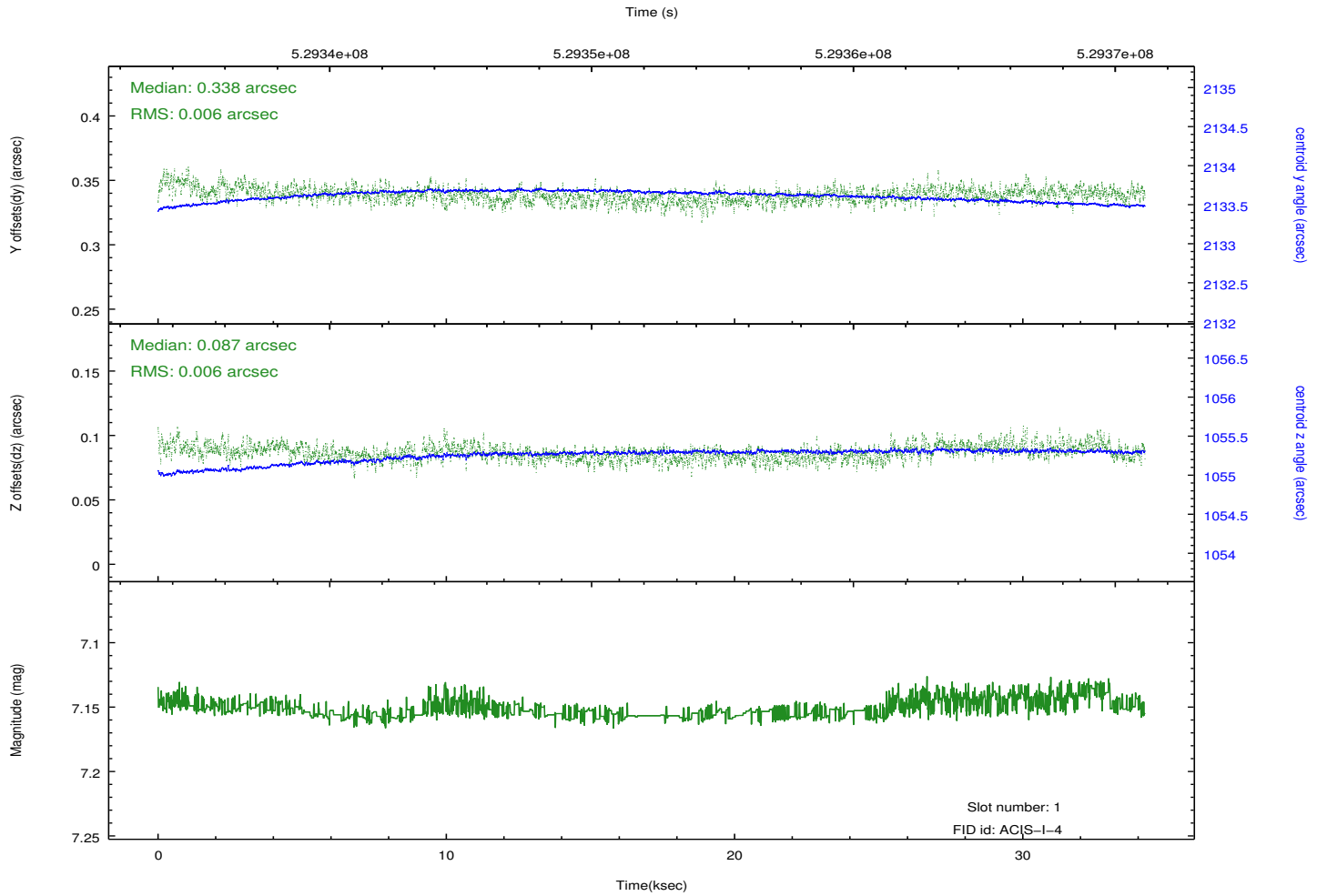
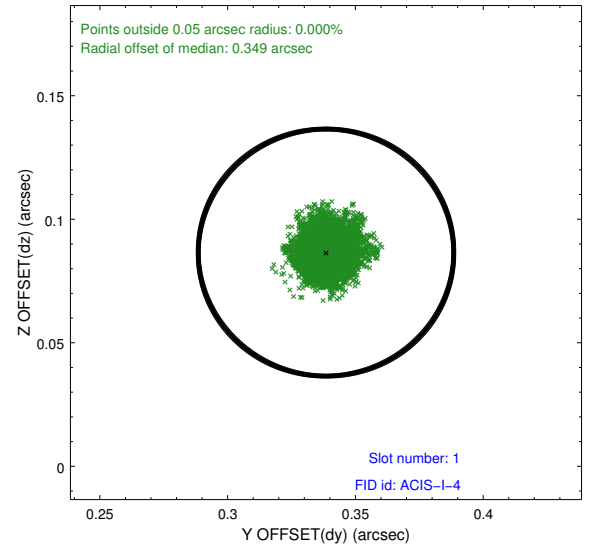
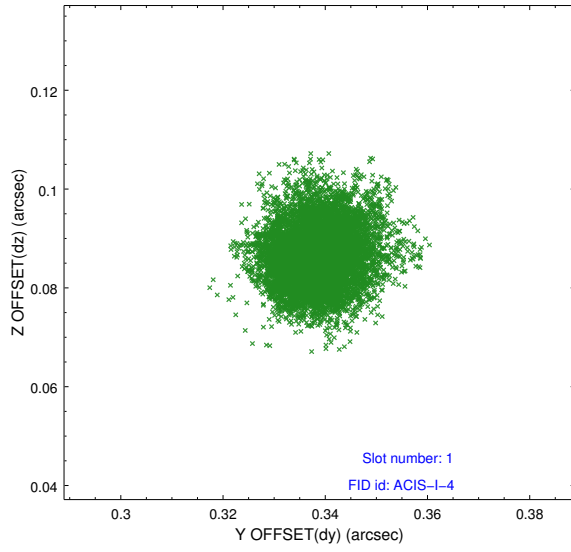


2.5 FID Slots

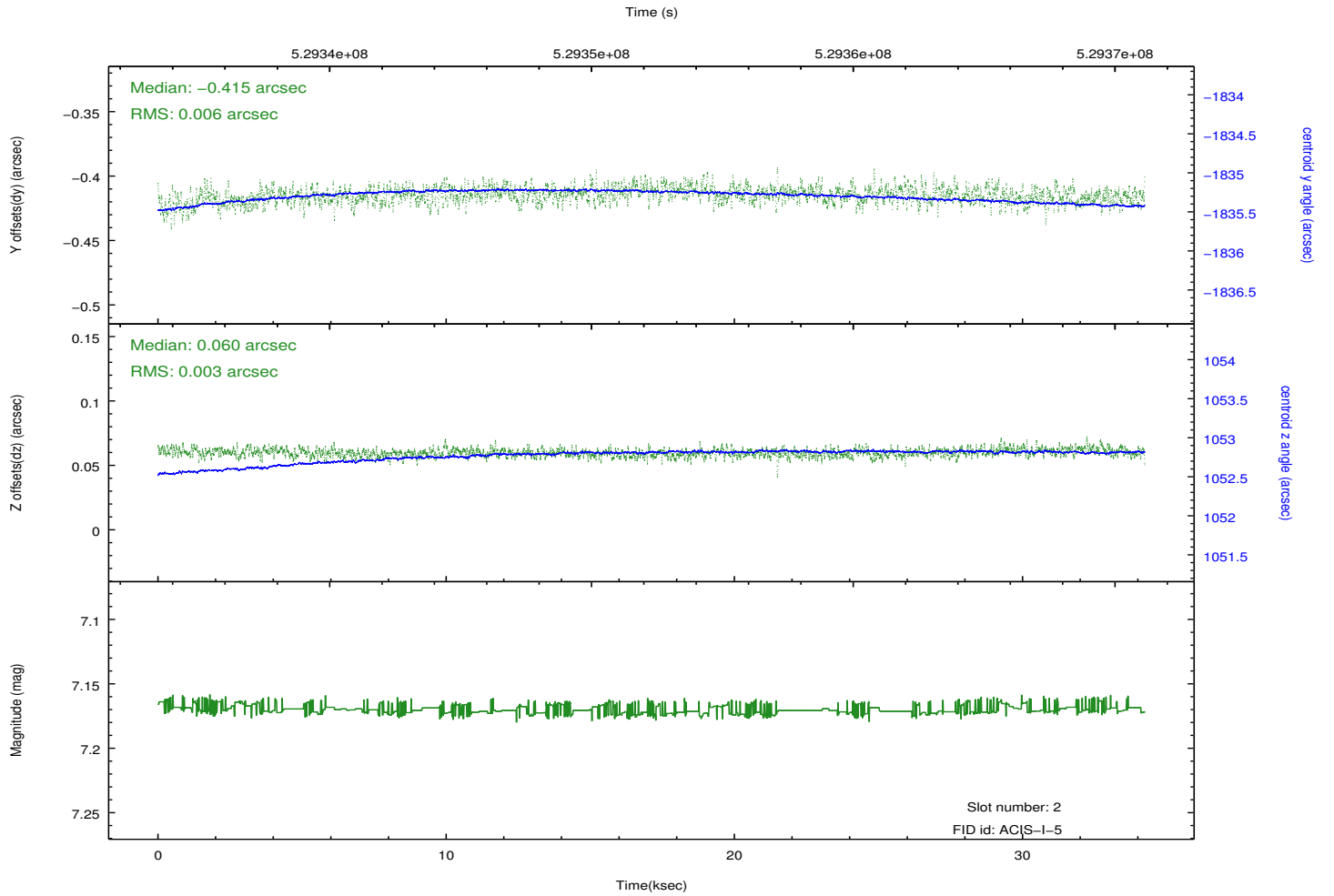
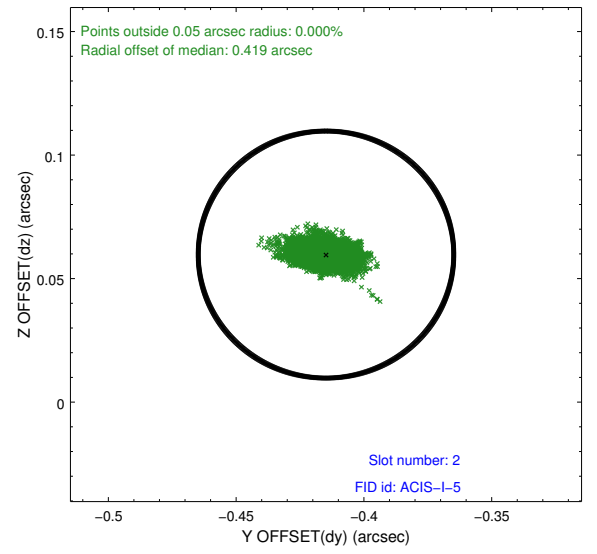
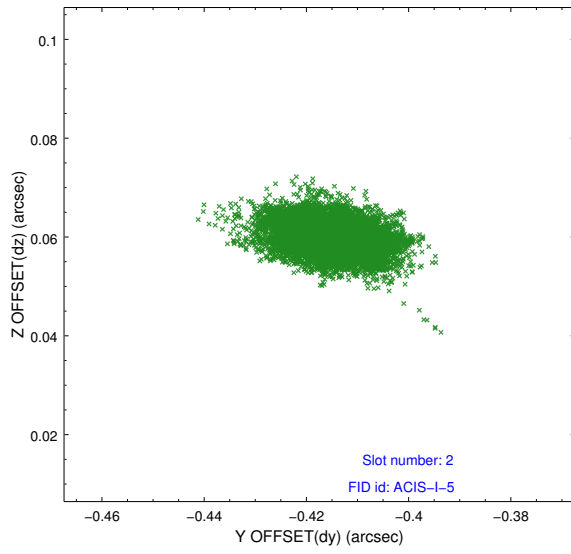
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2014.10.17 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 34.157629368365 |

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 star from the solution.