

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 4973 - L2 Version 3
Chandra X-Ray Center

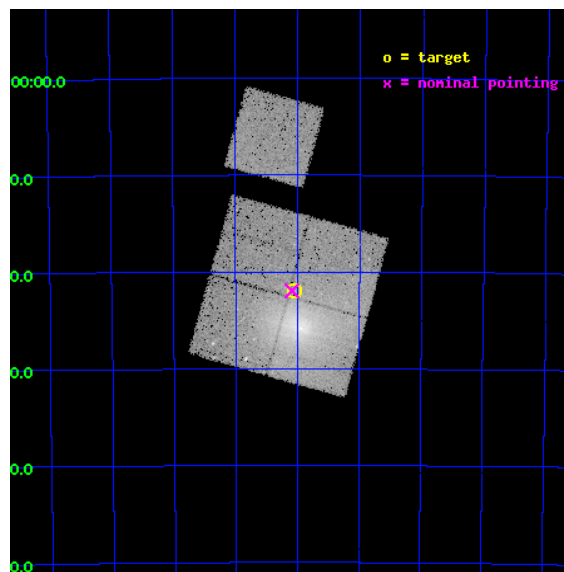
L2 Processing Date : Dec 7 2012

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1 Front

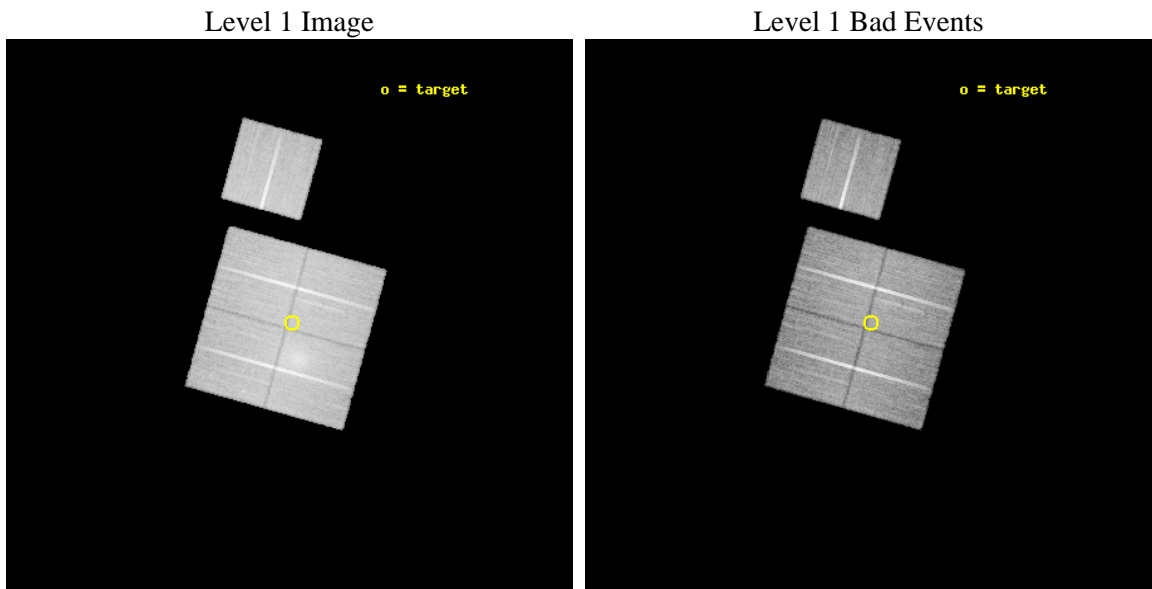
| | | |
|----------|--|---|
| seq_num | 800418 | Sequence number |
| obs_id | 4973 | Observation id |
| title | High resolution observations of the merging cluster Abell 3921 | Pro |
| observer | Dr. Chiara Ferrari | Principal investigator |
| object | Abell 3921 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 342.5125 | Observer's specified target RA [deg] |
| dec_targ | -64.365278 | Observer's specified target Dec [deg] |
| ra_nom | 342.52315622335 | Nominal RA [deg] |
| dec_nom | -64.36585392929 | Nominal Dec [deg] |
| roll_nom | 15.585536066228 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 29762.457792789 | Sum of GTIs [s] |
| livetime | 29373.589370923 | Livetime [s] |
| ontime0 | 29771.757633418 | Sum of GTIs [s] |
| ontime1 | 29765.516722918 | Sum of GTIs [s] |
| ontime2 | 29762.416762739 | Sum of GTIs [s] |
| ontime3 | 29762.457792789 | Sum of GTIs [s] |
| ontime6 | 29765.434593111 | Sum of GTIs [s] |
| l2events | 129724 | Number of level 2 events |



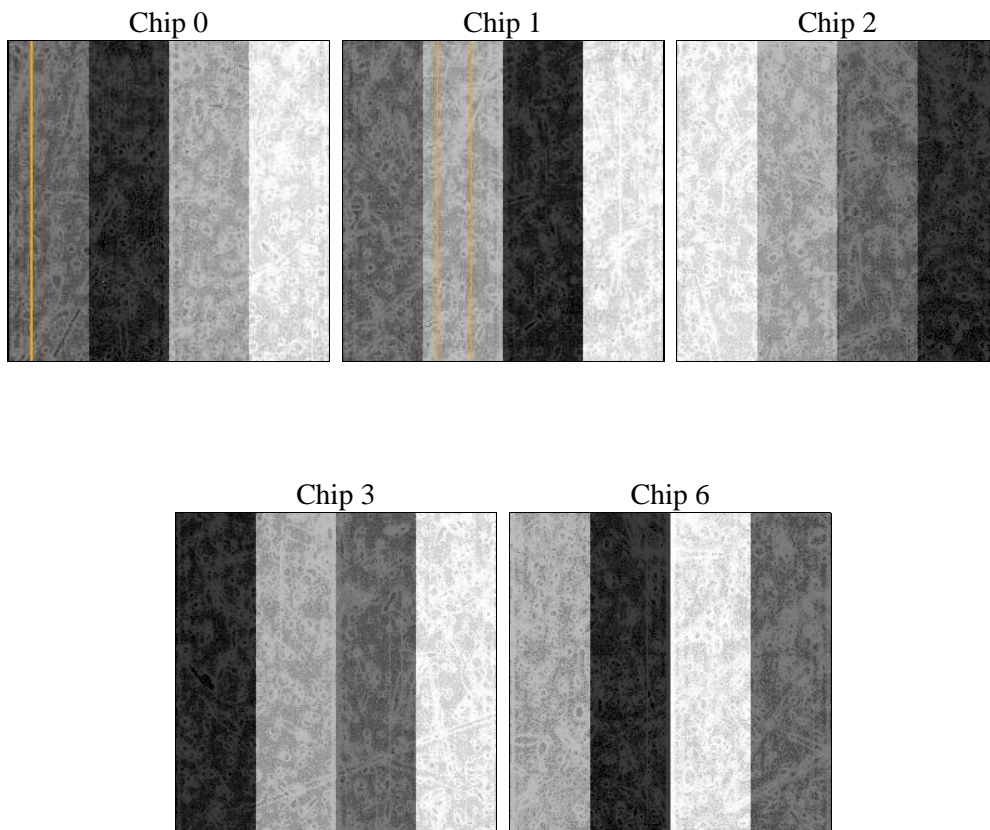
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 30000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.5 | Processing system revision | ontime | 29762.457792789 | Sum of GTIs [s] |
| caldbver | 4.5.4 | | ontime0 | 29771.757633418 | Sum of GTIs [s] |
| date | 2012-12-07T18:17:14 | Date and time of file creation | ontime1 | 29765.516722918 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 29762.416762739 | Sum of GTIs [s] |
| | | | ontime3 | 29762.457792789 | Sum of GTIs [s] |
| | | | ontime6 | 29765.434593111 | Sum of GTIs [s] |
| | | | l1events | 988956 | Number of level 1 events |

2.1.4 Events

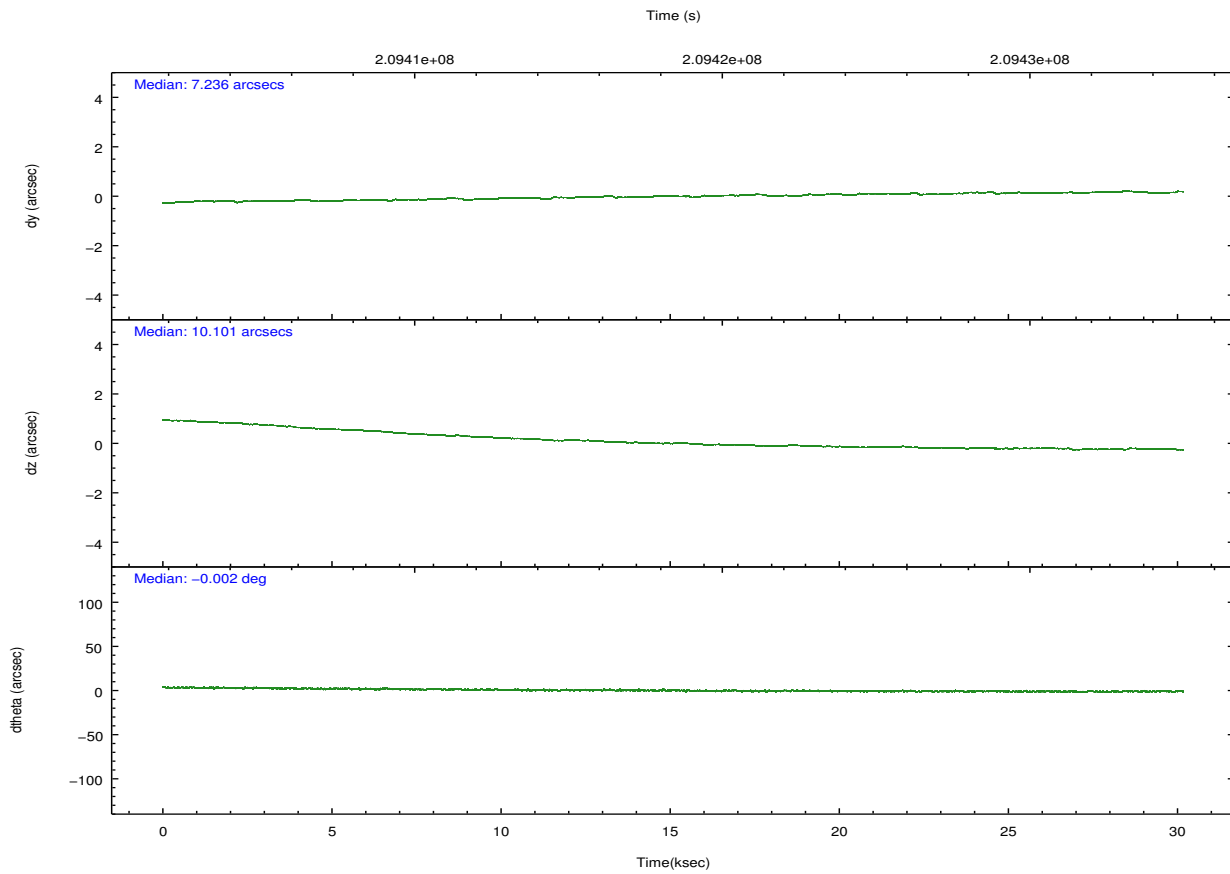
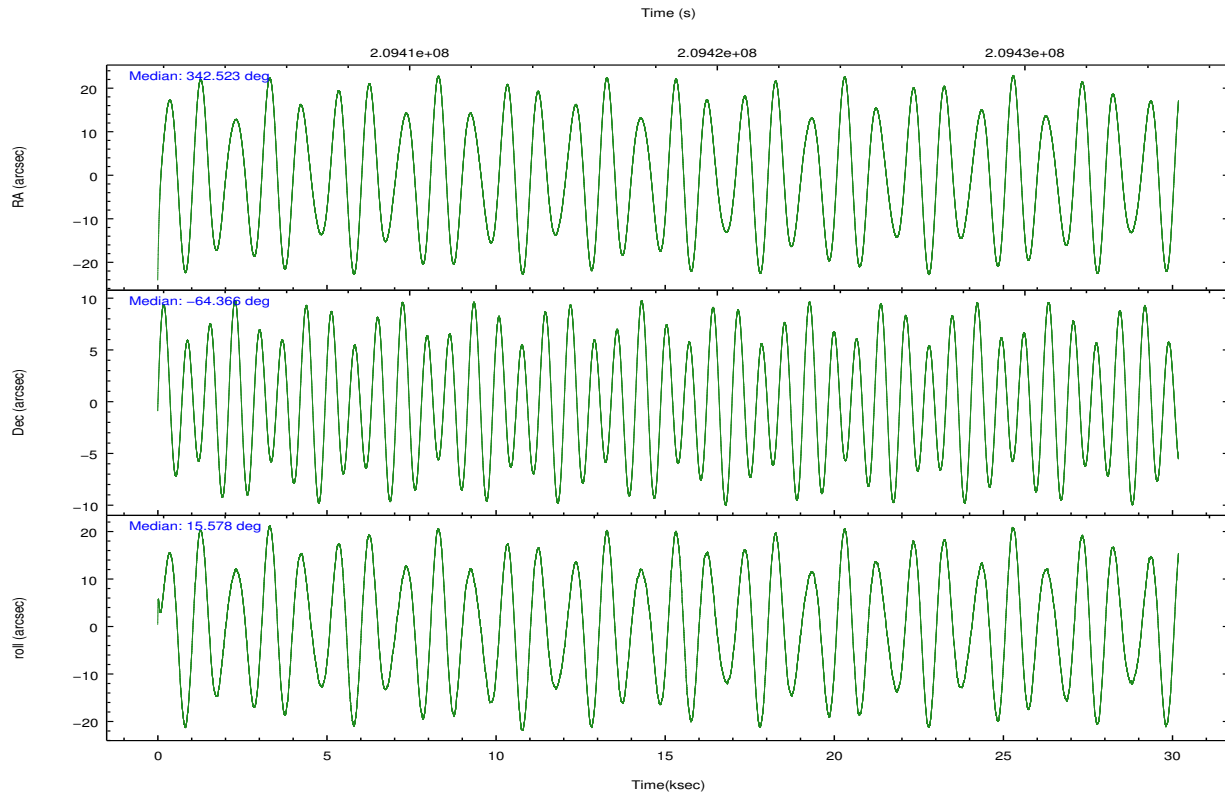
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 183917 | 215503 | 199533 | 196521 | 193482 |
| rejected events | 155768 | 155992 | 179688 | 173435 | 174499 |
| rejected % | 84% | 72% | 90% | 88% | 90% |

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 14324 | 39277 | 7672 | 10690 | 6494 |
| | 7% | 18% | 3% | 5% | 3% |
| grade 1 events | 136 | 223 | 124 | 119 | 69 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 5206 | 8255 | 4487 | 4358 | 4039 |
| | 2% | 3% | 2% | 2% | 2% |
| grade 3 events | 2490 | 3401 | 2037 | 2237 | 2218 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 2311 | 3434 | 2133 | 2189 | 2148 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 6468 | 7130 | 6182 | 7440 | 7479 |
| | 3% | 3% | 3% | 3% | 3% |
| grade 6 events | 3821 | 5156 | 3520 | 3620 | 4087 |
| | 2% | 2% | 1% | 1% | 2% |
| grade 7 events | 149161 | 148627 | 173378 | 165868 | 166948 |
| | 81% | 68% | 86% | 84% | 86% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-01236 | ACIS-01236 | 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 | 342.478982 | 342.5231562233469 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -64.385499 | -64.3658539292904 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 15.337007 | 15.58553606622822 | [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) | 209403488.184000 | 209402554.72084 | | | |
| Observation start date | 2004-08-20T15:37:04 | 2004-08-20T15:22:34 | | | |
| [s] Observation end time (MET) | 209433488.184000 | 209434196.98474 | | | |
| Observation end date | 2004-08-20T23:57:04 | 2004-08-21T00:09:56 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect

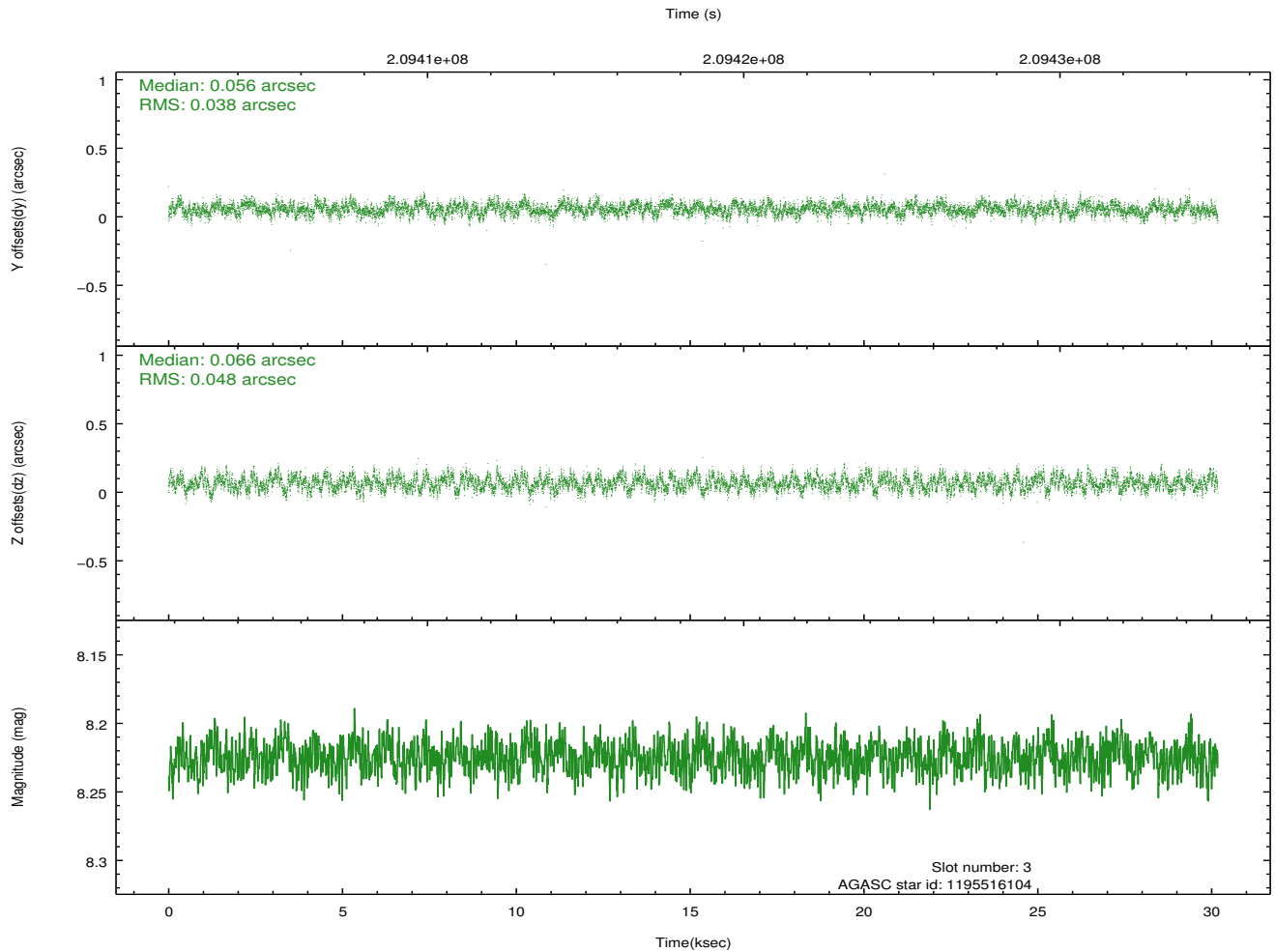
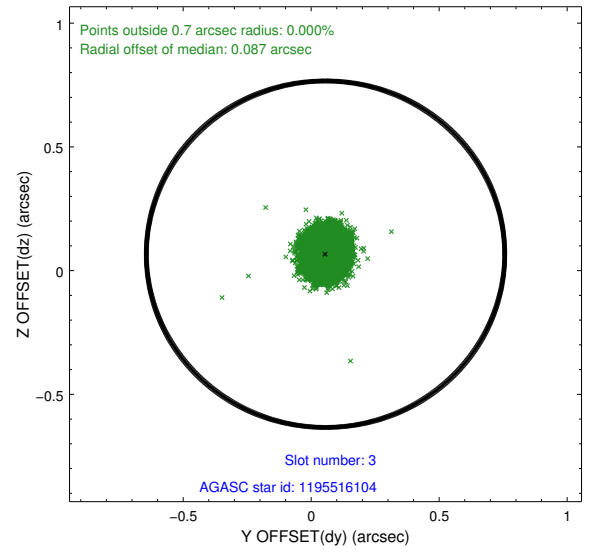
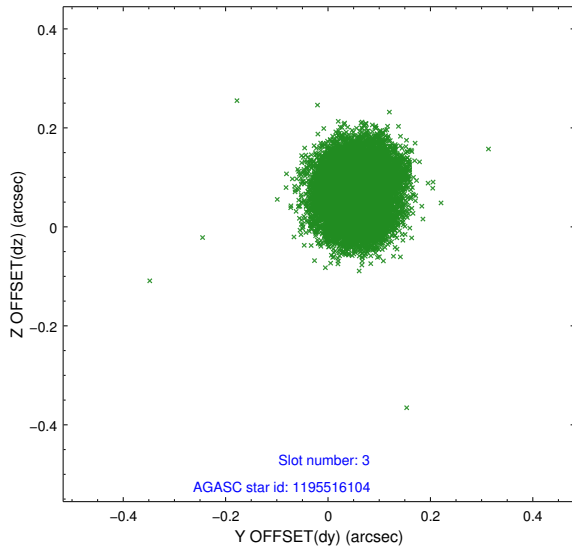


Slot Statistics

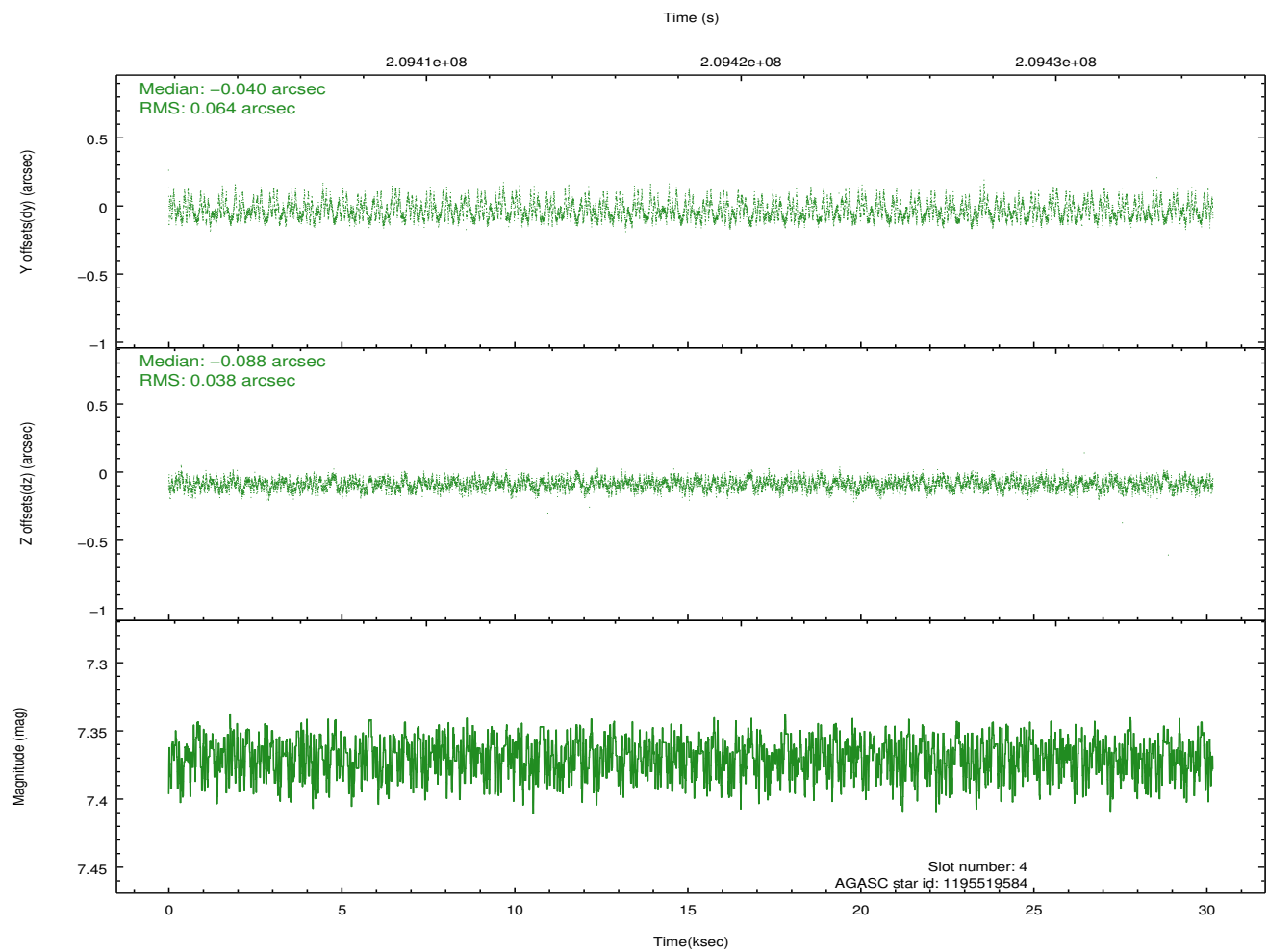
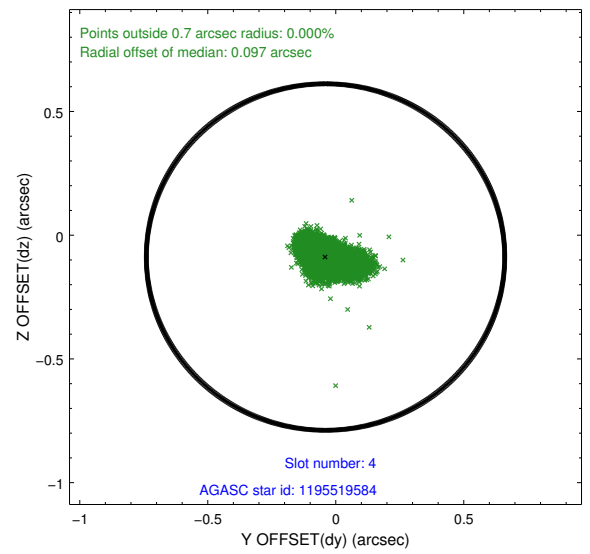
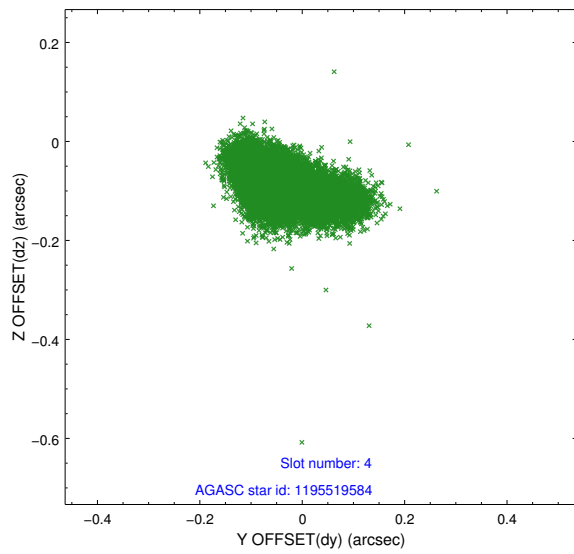
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.24 | 7361 | 0.007 | 0.011 | 0.012 | 0.033 | 0.000000 | 0.000000 | 932.46 | -833.70 |
| 1 | FID | ACIS-I-5 | 7.23 | 7362 | -0.158 | 0.027 | 0.010 | 0.019 | 0.000000 | 0.000000 | -1815.77 | 1063.78 |
| 2 | FID | ACIS-I-6 | 7.25 | 7361 | 0.061 | 0.033 | 0.013 | 0.025 | 0.000000 | 0.000000 | 397.99 | 1708.36 |
| 3 | GUIDE | 1195516104 | 8.22 | 14716 | 0.056 | 0.066 | 0.065 | 0.103 | 342.199615 | -64.457745 | -487.02 | -137.07 |
| 4 | GUIDE | 1195519584 | 7.37 | 14720 | -0.040 | -0.088 | 0.077 | 0.132 | 341.141289 | -63.953912 | -1634.37 | 2035.96 |
| 5 | GUIDE | 1196435400 | 7.73 | 14722 | 0.011 | -0.081 | 0.054 | 0.086 | 343.317051 | -63.764930 | 1874.81 | 1793.38 |
| 6 | GUIDE | 1196439480 | 8.97 | 14714 | 0.058 | 0.063 | 0.078 | 0.128 | 343.915909 | -64.377153 | 2158.85 | -586.71 |
| 7 | GUIDE | 1196439840 | 7.24 | 14719 | -0.096 | 0.040 | 0.052 | 0.086 | 343.200523 | -64.907990 | 563.77 | -2111.45 |

2.4 Star Slots

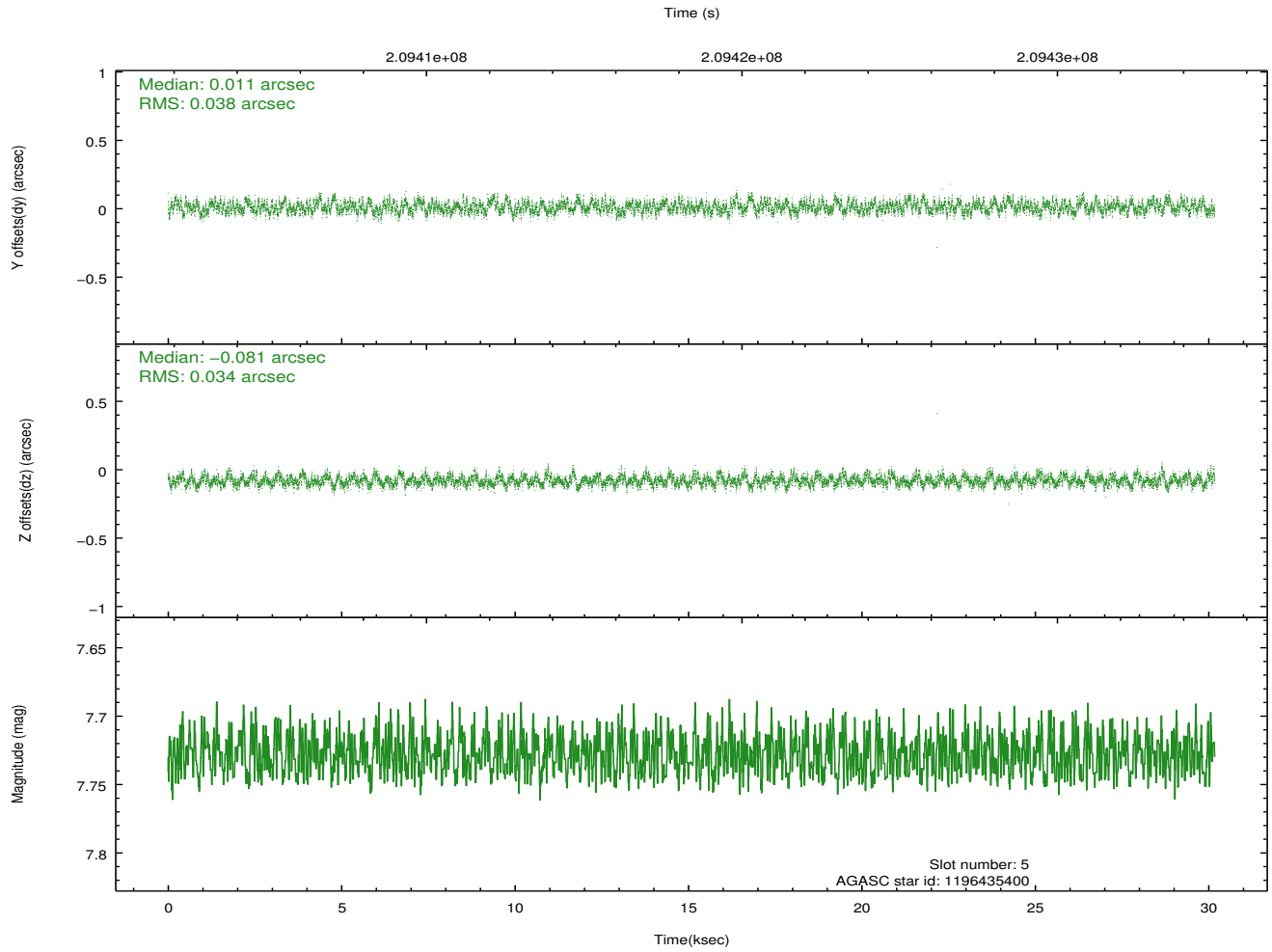
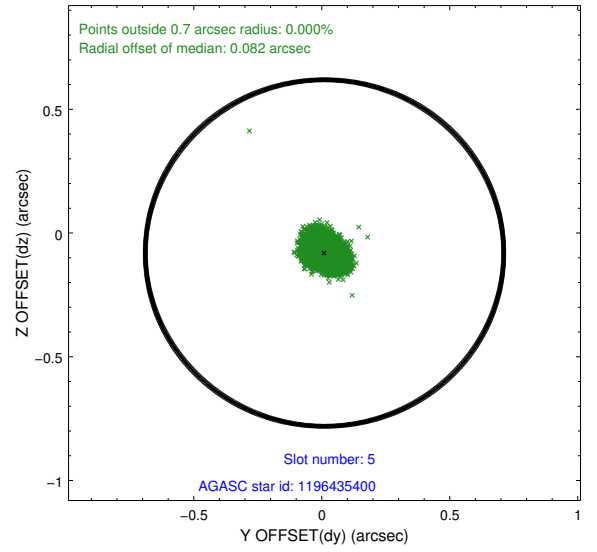
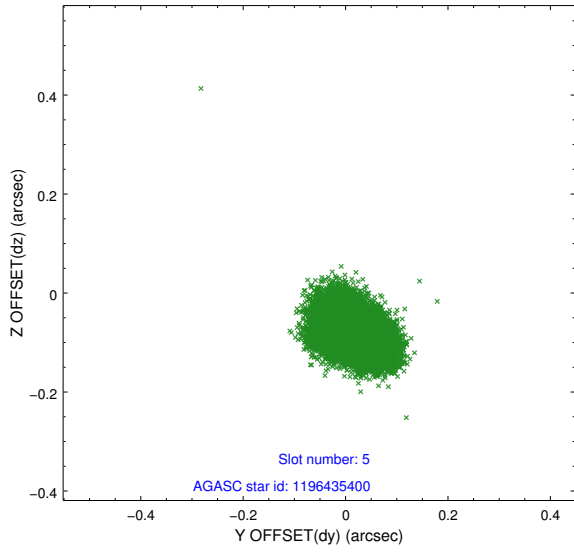
2.4.1 Slot 3



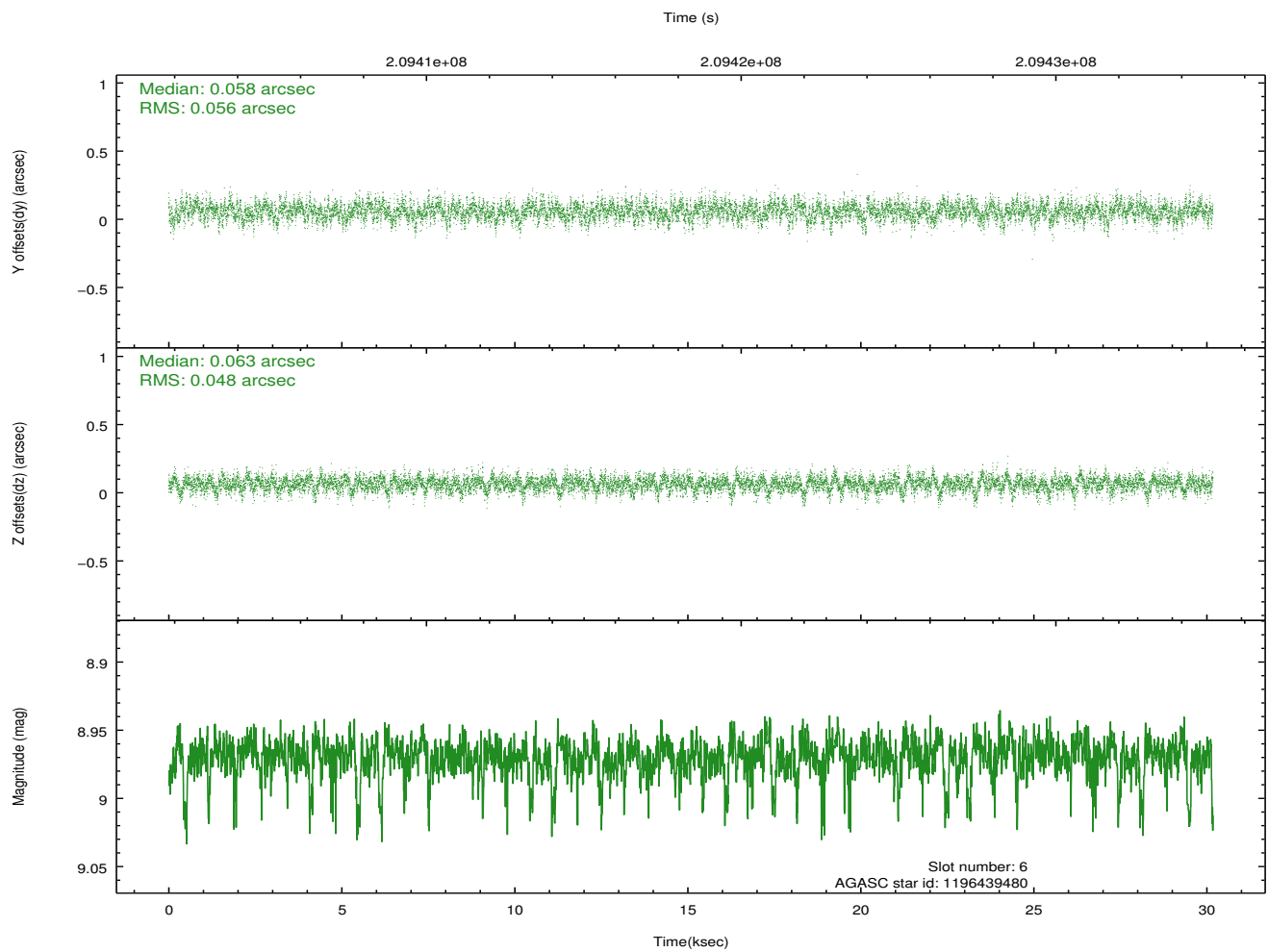
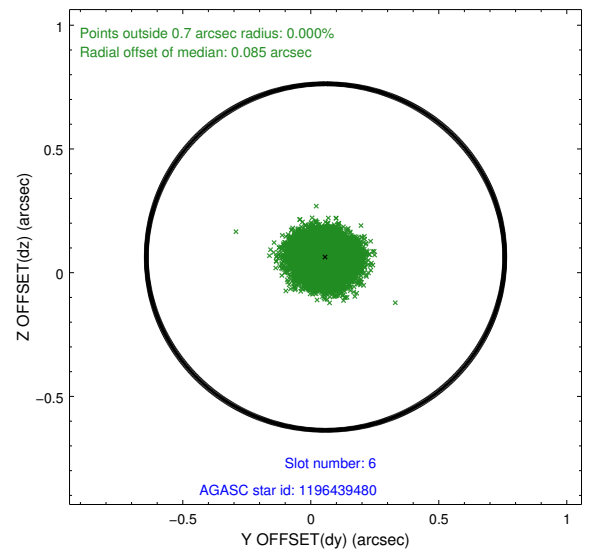
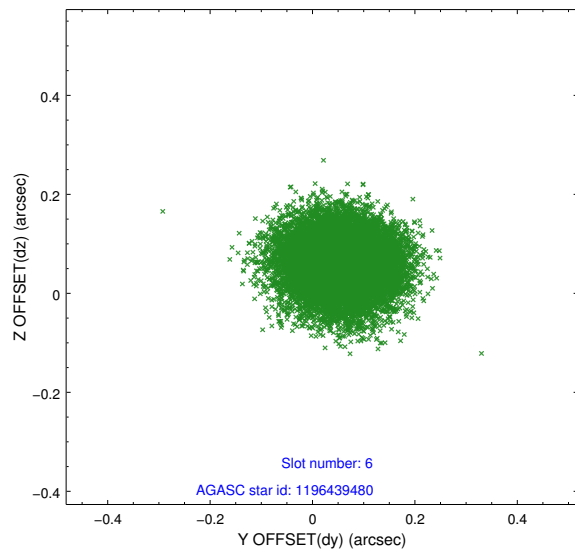
2.4.2 Slot 4



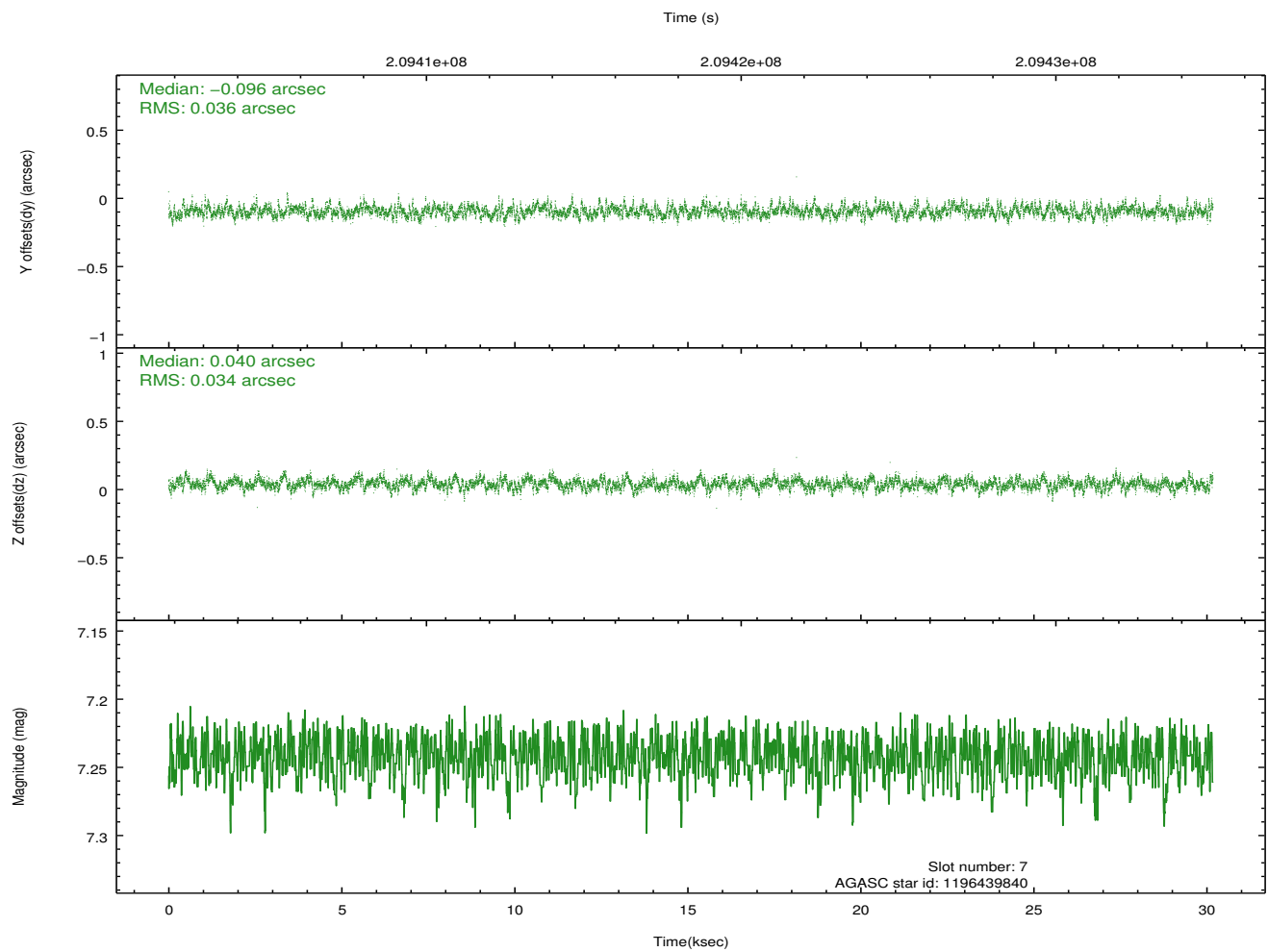
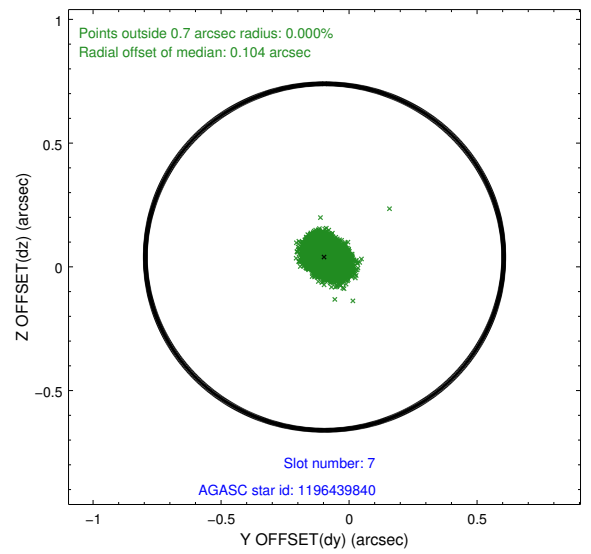
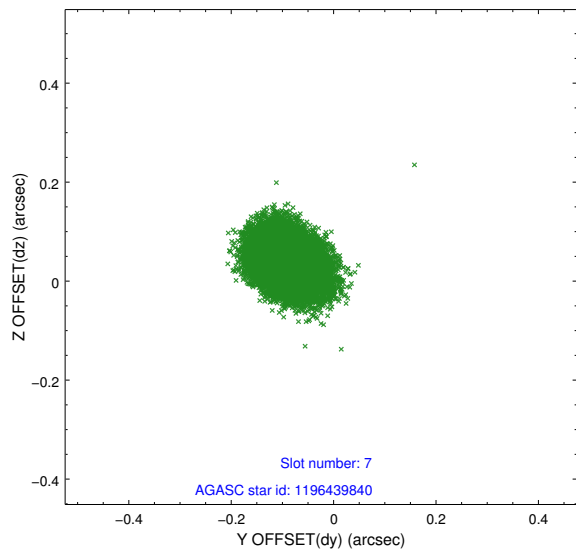
2.4.3 Slot 5



2.4.4 Slot 6

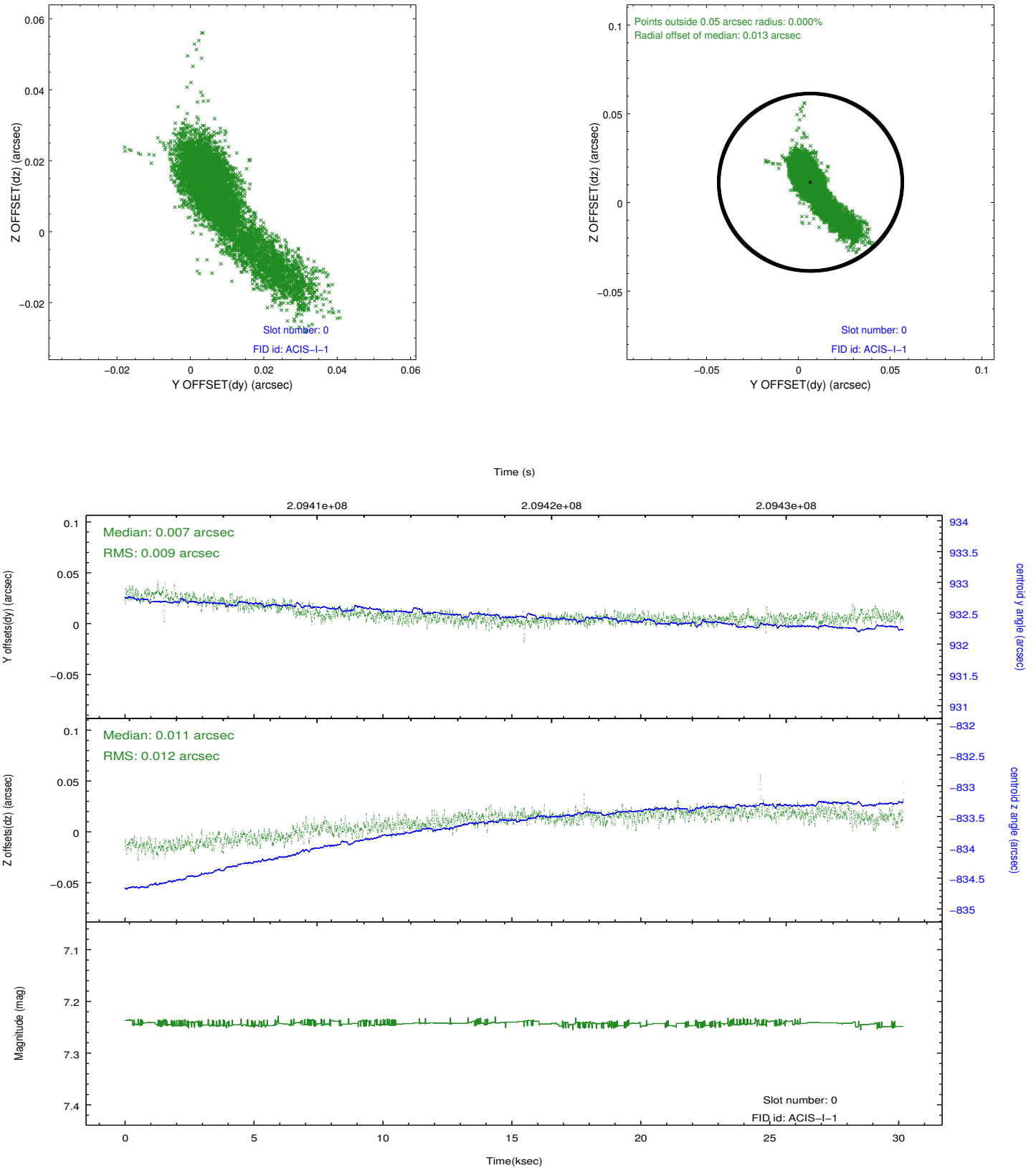


2.4.5 Slot 7

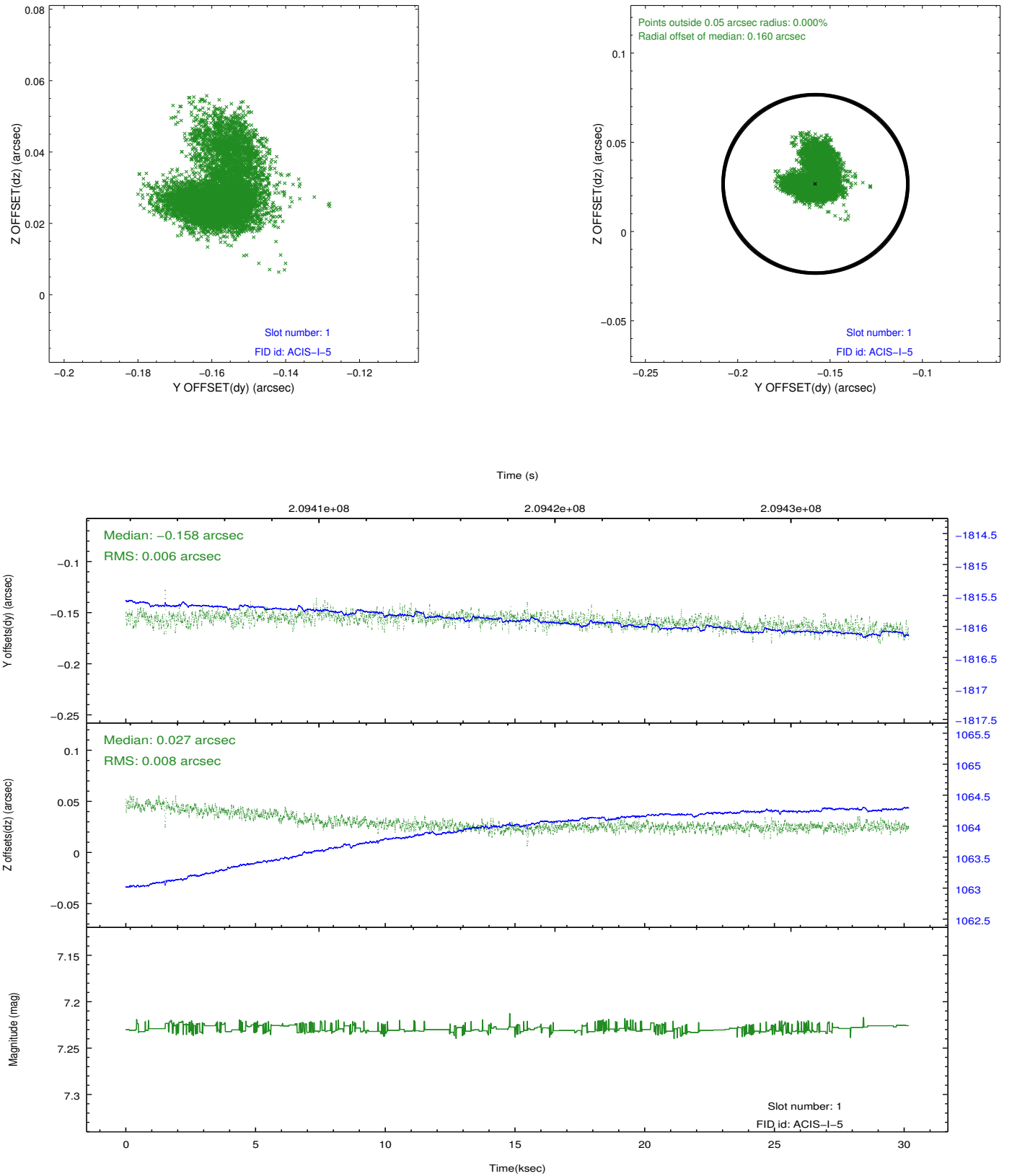


2.5 FID Slots

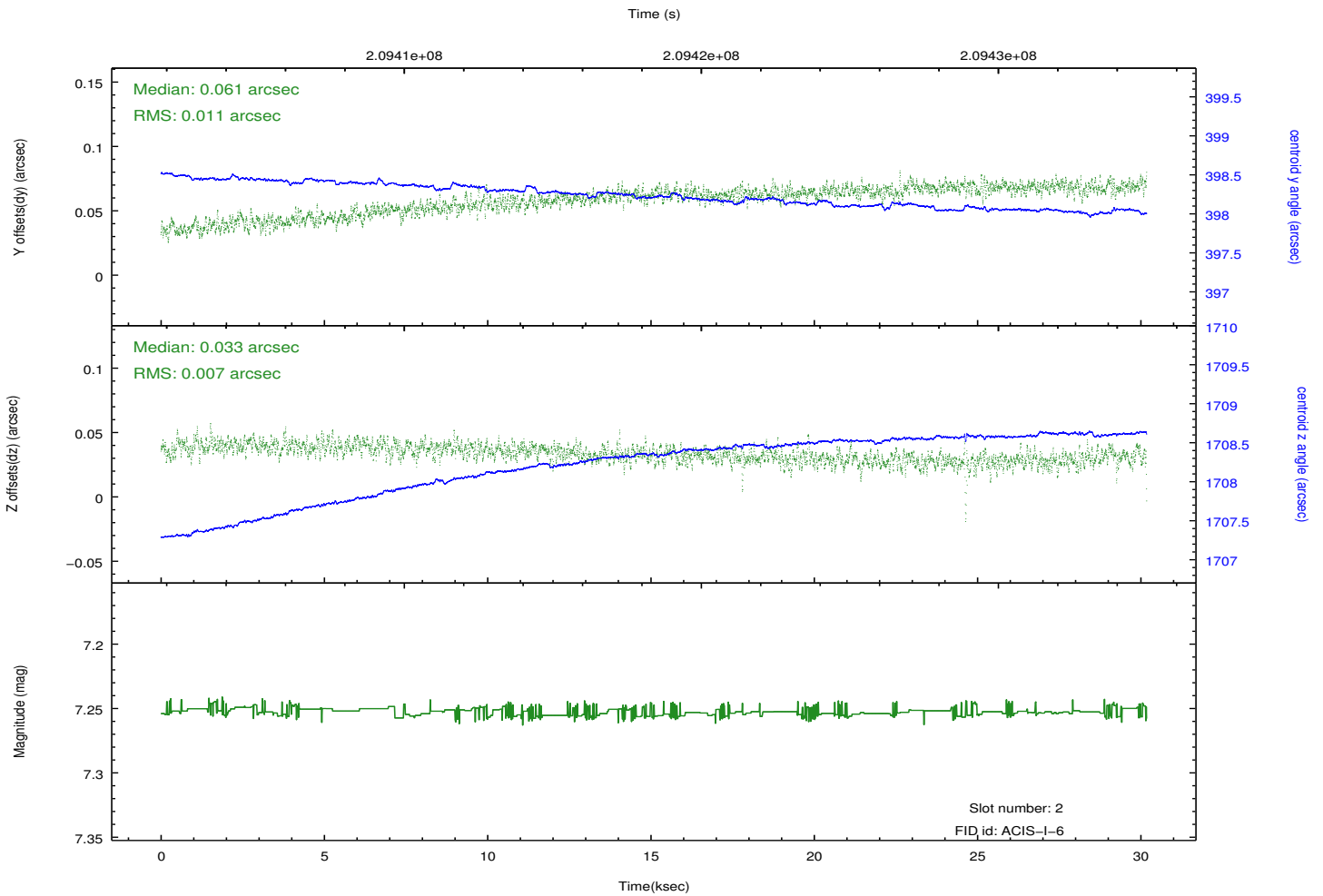
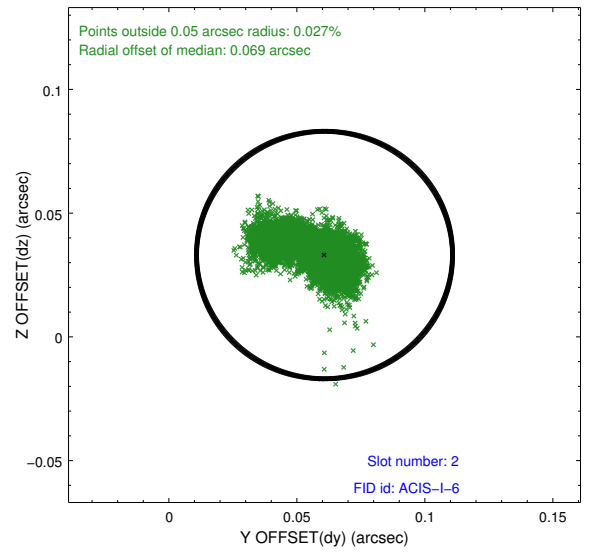
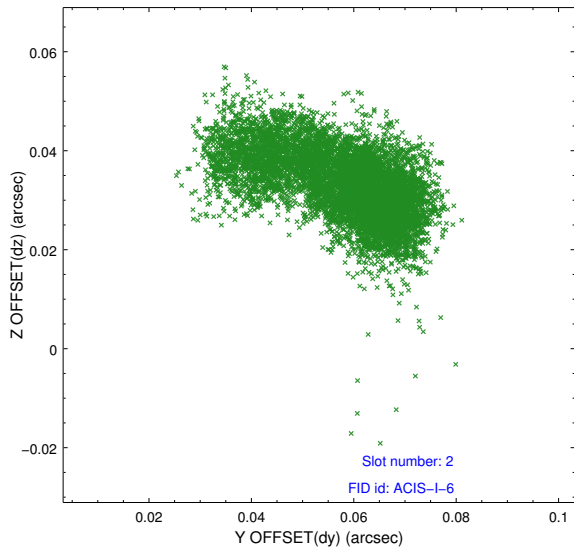
2.5.1 Slot 0



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) | 2012.12.19 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 29.762 |

A.2 Comments