

V&V Reference Report

L2 ASCDS Version : 10.3.1

Observation 17556 - L2 Version 2
Chandra X-Ray Center

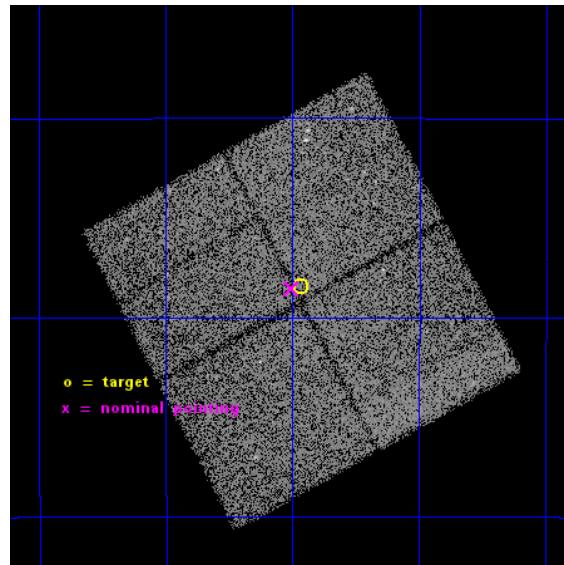
L2 Processing Date : Dec 11 2014

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Bias | 3 |
| 2.1.3 | Parameters | 4 |
| 2.1.4 | Events | 4 |
| 2.2 | Compared Parameters | 5 |
| 2.3 | Aspect | 6 |
| 2.4 | Star Slots | 9 |
| 2.4.1 | Slot 3 | 9 |
| 2.4.2 | Slot 4 | 10 |
| 2.4.3 | Slot 5 | 11 |
| 2.4.4 | Slot 7 | 12 |
| 2.5 | FID Slots | 13 |
| 2.5.1 | Slot 0 | 13 |
| 2.5.2 | Slot 1 | 14 |
| 2.5.3 | Slot 2 | 15 |
| A | Summary | 16 |
| A.1 | Status | 16 |
| A.2 | Comments | 16 |

1 Front

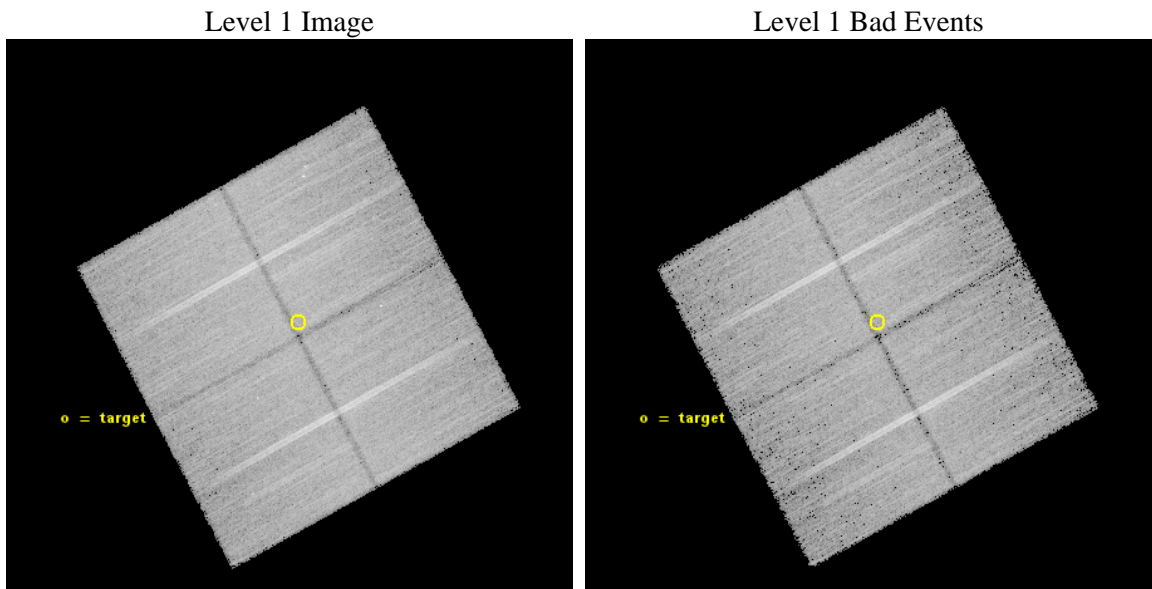
| | | |
|----------|--|---|
| seq_num | 901115 | Sequence number |
| obs_id | 17556 | Observation id |
| title | The Chandra Deep Field-South: A Peerless Ultradeep Survey for Exploring the Distant X-ray Universe | Proposal title |
| observer | Prof. W.N. Brandt | Principal investigator |
| object | Chandra 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 | 53.126162201616 | Nominal RA [deg] |
| dec_nom | -27.80887954516 | Nominal Dec [deg] |
| roll_nom | 331.71289996373 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 47491.959344923 | Sum of GTIs [s] |
| livetime | 46871.44193301 | Livetime [s] |
| ontime0 | 47488.818314672 | Sum of GTIs [s] |
| ontime1 | 47495.100365281 | Sum of GTIs [s] |
| ontime2 | 47491.959344923 | Sum of GTIs [s] |
| ontime3 | 47491.959344923 | Sum of GTIs [s] |
| l2events | 89116 | Number of level 2 events |



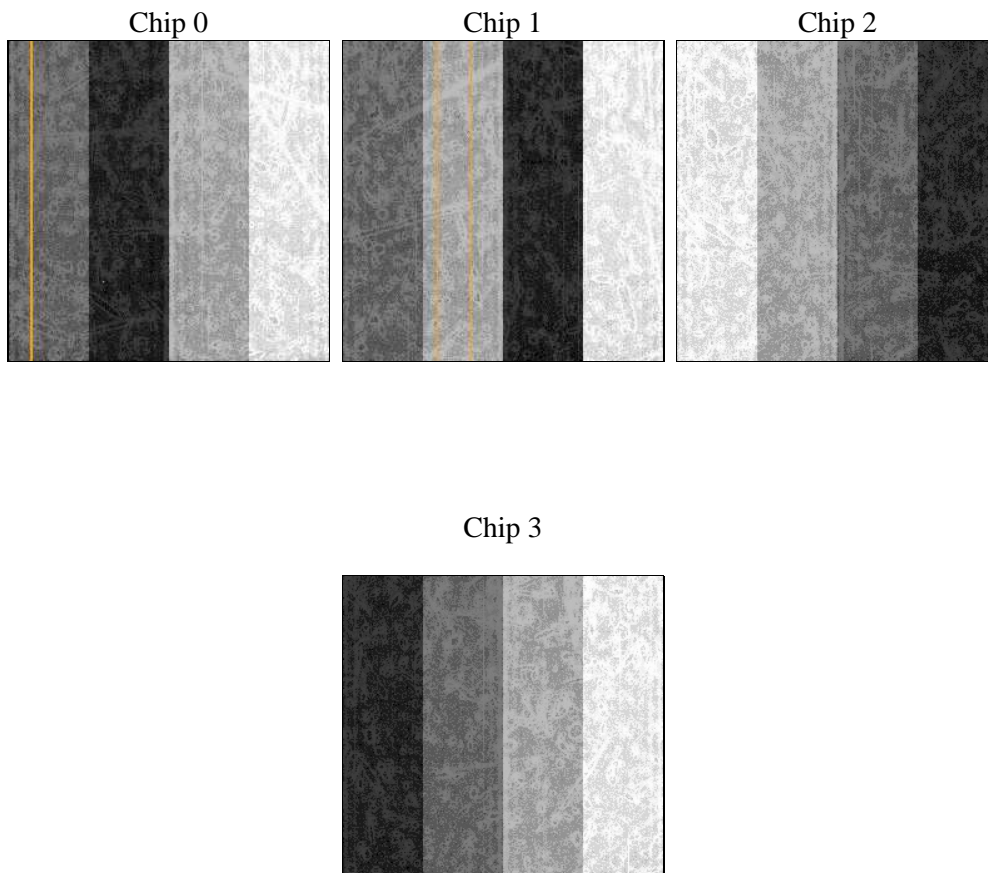
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 47402.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.3.1 | Processing system revision | ontime | 47491.959344923 | Sum of GTIs [s] |
| caldbver | 4.6.4 | | ontime0 | 47488.818314672 | Sum of GTIs [s] |
| date | 2014-12-11T22:03:07 | Date and time of file creation | ontime1 | 47495.100365281 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 47491.959344923 | Sum of GTIs [s] |
| | | | ontime3 | 47491.959344923 | Sum of GTIs [s] |
| | | | l1events | 869246 | Number of level 1 events |

2.1.4 Events

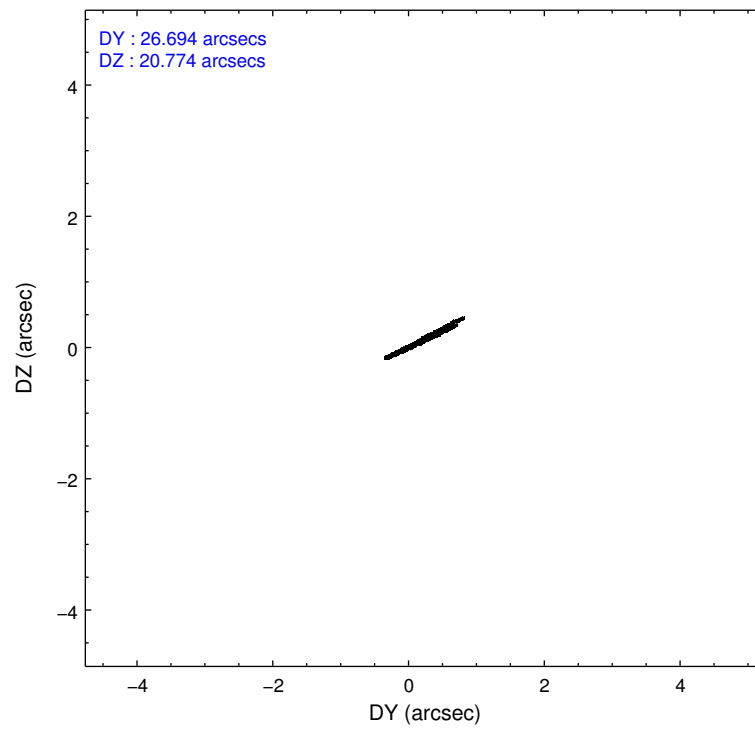
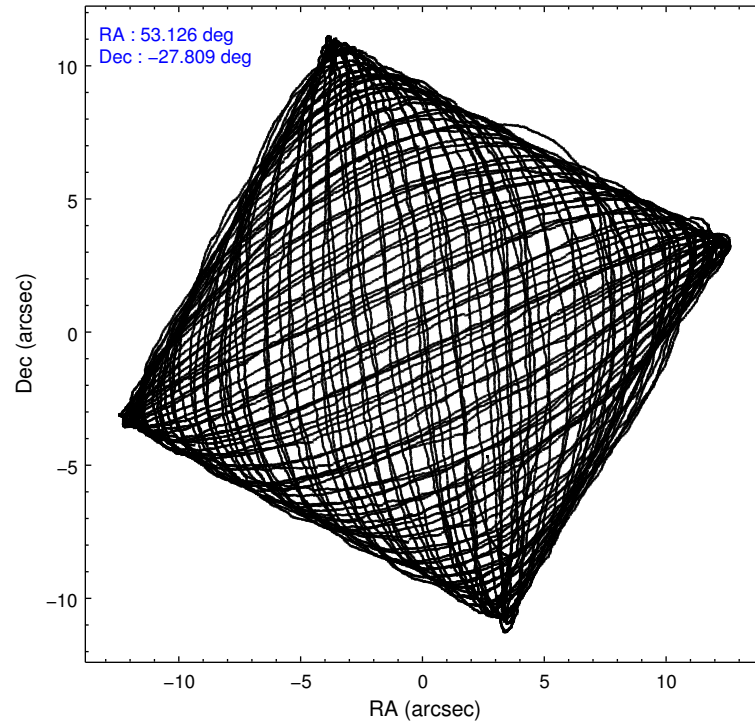
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|-----------------|--------|--------|--------|--------|
| level 1 events | 208189 | 213370 | 224682 | 223005 |
| rejected events | 182259 | 184077 | 199312 | 197652 |
| rejected % | 87% | 86% | 88% | 88% |

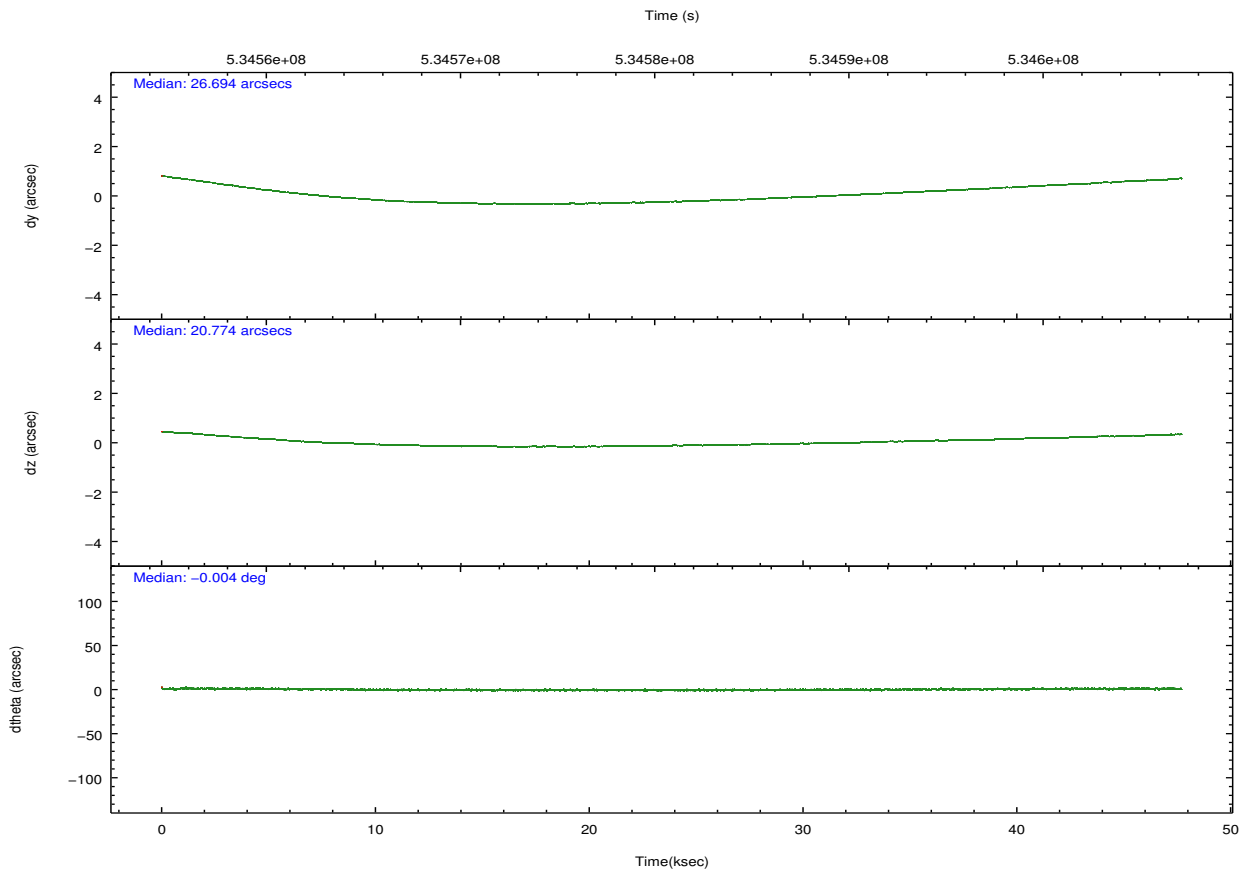
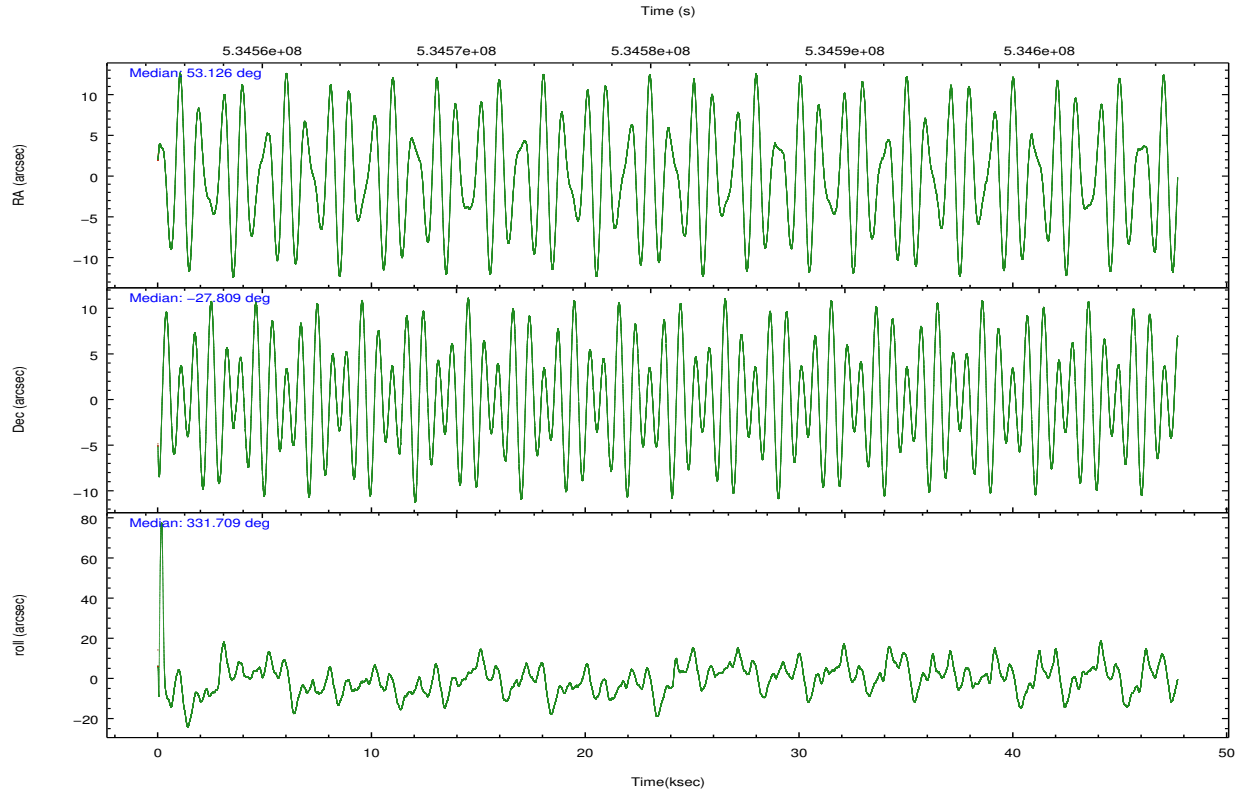
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|----------------|--------|--------|--------|--------|
| grade 0 events | 8803 | 9788 | 8792 | 8998 |
| | 4% | 4% | 3% | 4% |
| grade 1 events | 102 | 80 | 106 | 139 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 6372 | 7195 | 6112 | 5654 |
| | 3% | 3% | 2% | 2% |
| grade 3 events | 2685 | 2814 | 2628 | 2653 |
| | 1% | 1% | 1% | 1% |
| grade 4 events | 2489 | 2849 | 2603 | 2692 |
| | 1% | 1% | 1% | 1% |
| grade 5 events | 10611 | 10948 | 9890 | 12005 |
| | 5% | 5% | 4% | 5% |
| grade 6 events | 5584 | 6649 | 5239 | 5361 |
| | 2% | 3% | 2% | 2% |
| grade 7 events | 171543 | 173047 | 189312 | 185503 |
| | 82% | 81% | 84% | 83% |

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 | 53.094985 | 53.12616220161561 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -27.809800 | -27.80887954516043 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 331.489686 | 331.7128999637316 | [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) | 534557333.184000 | 534556397.93348 | | | |
| Observation start date | 2014-12-10T00:07:46 | 2014-12-09T23:53:17 | | | |
| [s] Observation end time (MET) | 534604735.184000 | 534605322.72371 | | | |
| Observation end date | 2014-12-10T13:17:48 | 2014-12-10T13:28:42 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect





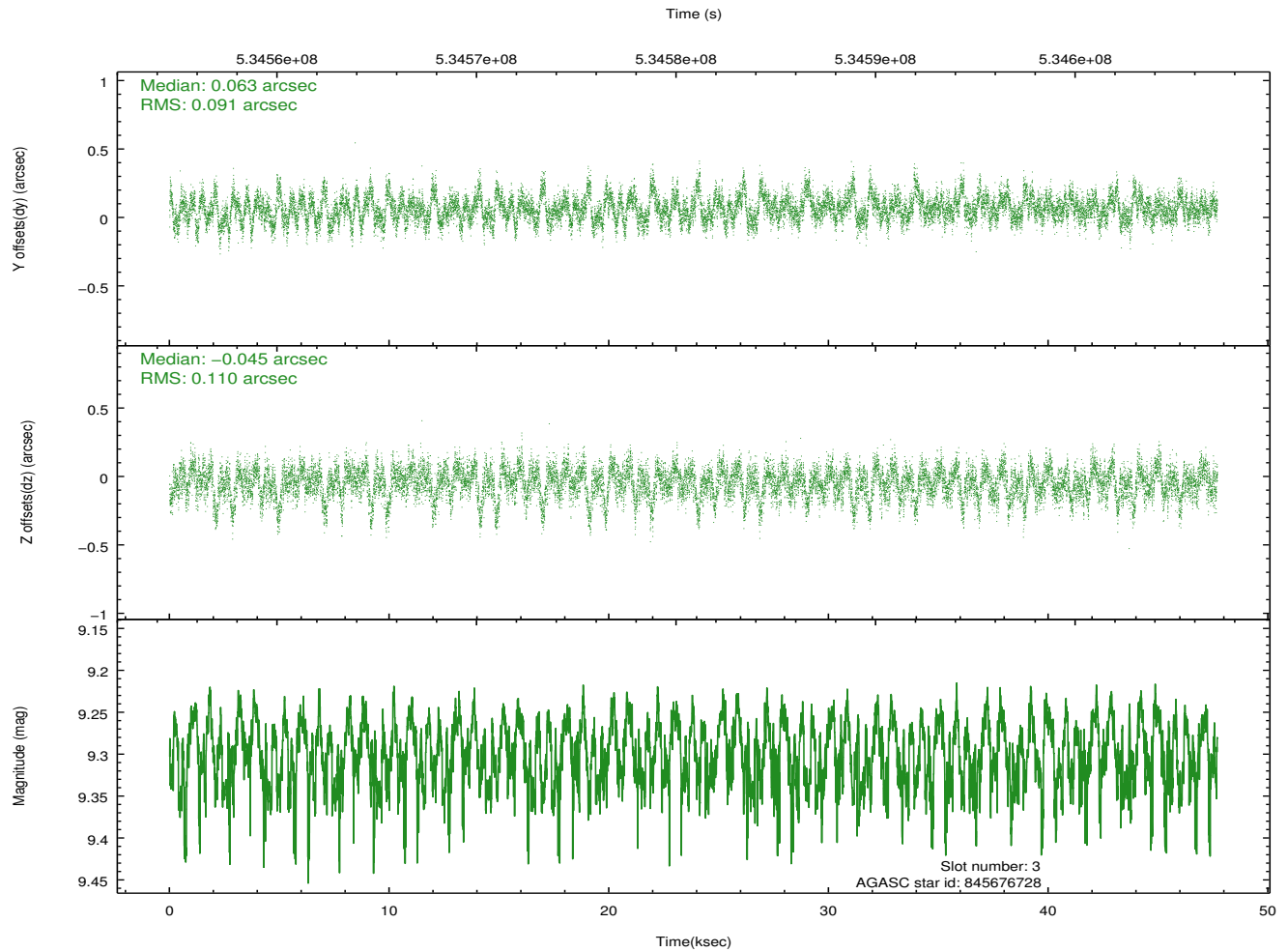
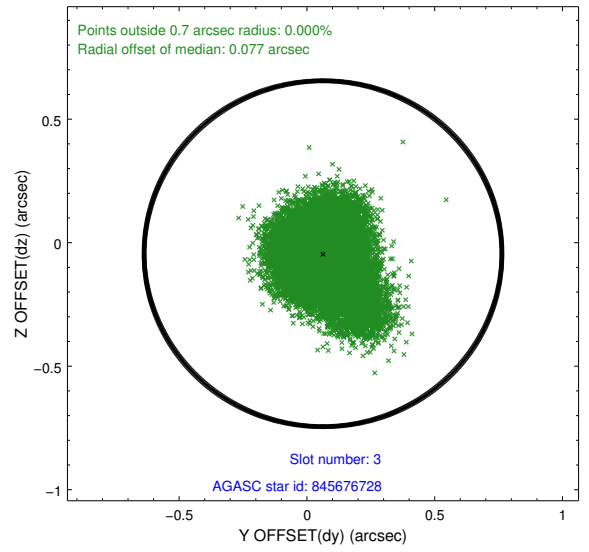
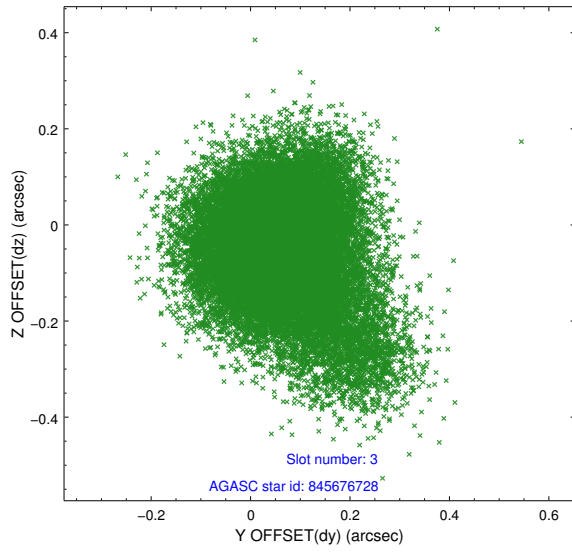
Slot Statistics

| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|---------|------|-----------|------|-------|--------|--------|-------|-------|-----------|------------|----------|---------|
| 0 | FID | | ACIS-I-1 | 7.26 | 11633 | 0.065 | -0.048 | 0.010 | 0.018 | 0.000000 | 0.000000 | 912.46 | -844.58 |
| 1 | FID | | ACIS-I-5 | 7.25 | 11633 | -0.321 | 0.033 | 0.008 | 0.012 | 0.000000 | 0.000000 | -1836.10 | 1052.92 |
| 2 | FID | | ACIS-I-6 | 7.25 | 11633 | 0.164 | 0.086 | 0.009 | 0.014 | 0.000000 | 0.000000 | 378.04 | 1697.52 |
| 3 | GUIDE | used | 845676728 | 9.30 | 23244 | 0.063 | -0.045 | 0.146 | 0.259 | 52.877179 | -27.664318 | -859.50 | 128.28 |
| 4 | GUIDE | used | 845676936 | 9.48 | 23242 | 0.239 | 0.256 | 0.149 | 0.237 | 52.843773 | -27.880153 | -580.14 | -603.99 |
| 5 | GUIDE | used | 845807880 | 8.76 | 23255 | -0.161 | -0.052 | 0.118 | 0.181 | 53.382027 | -27.886093 | 934.39 | 193.83 |
| 6 | OMITTED | | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |
| 7 | GUIDE | used | 845808968 | 9.93 | 22977 | -0.152 | -0.150 | 0.154 | 0.259 | 54.016598 | -27.589085 | 2210.21 | 2092.29 |

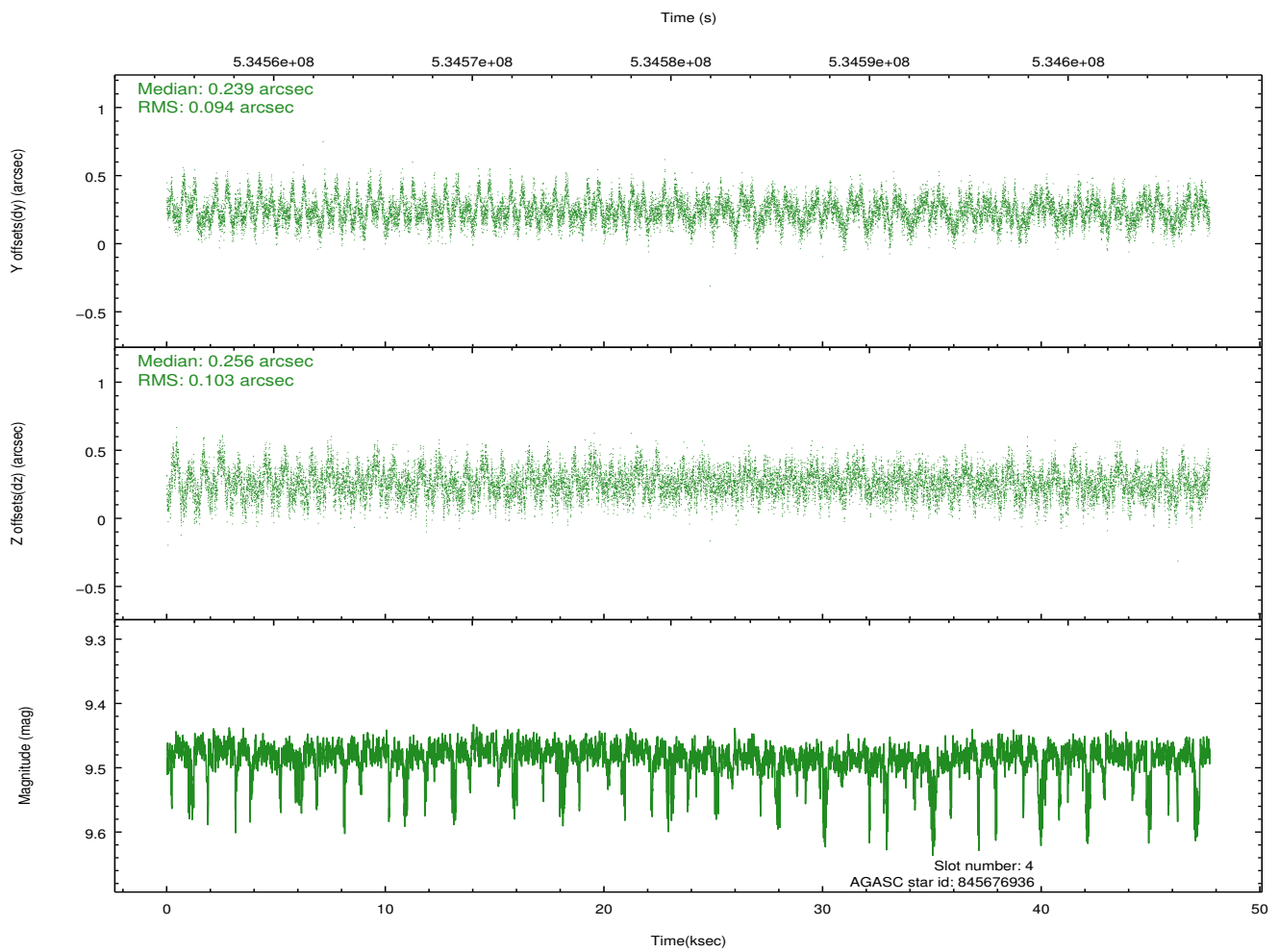
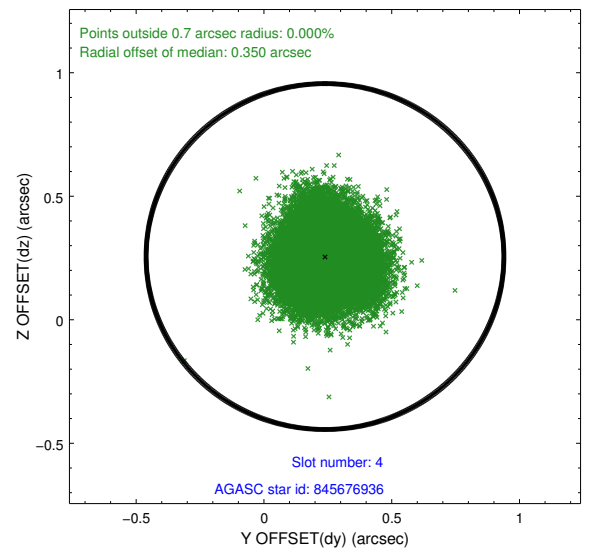
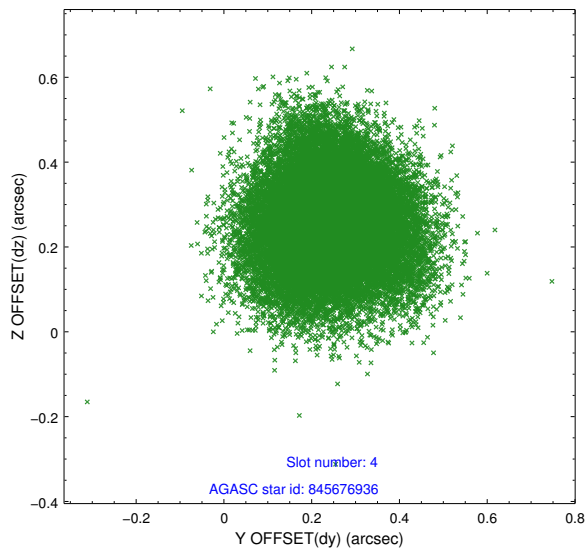
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2.4 Star Slots

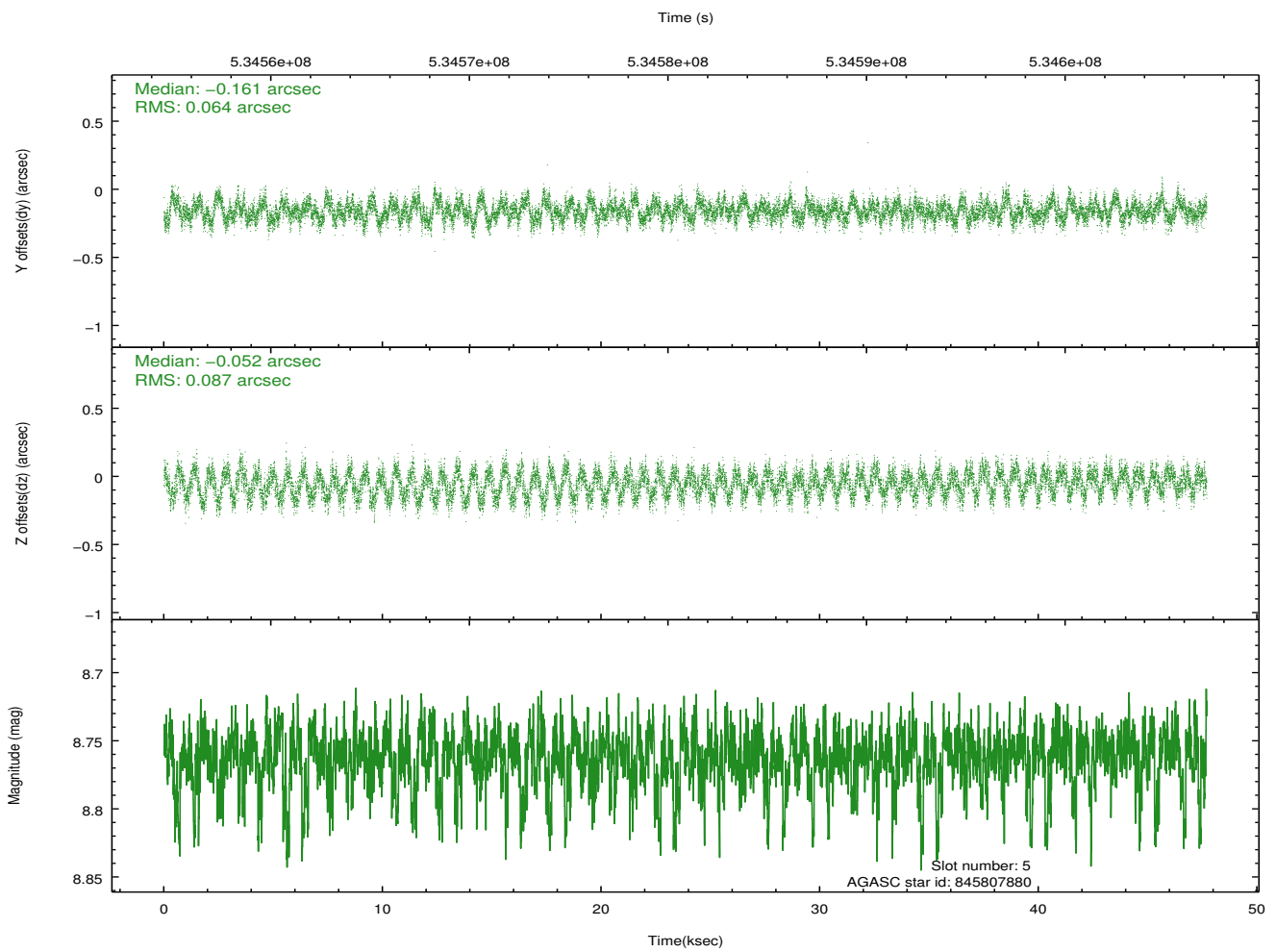
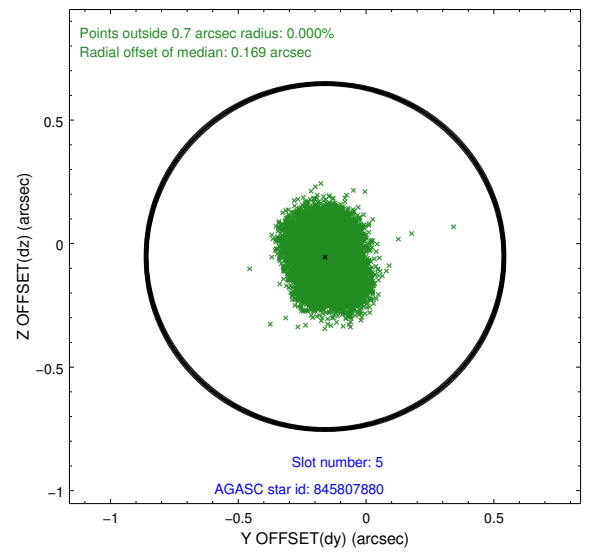
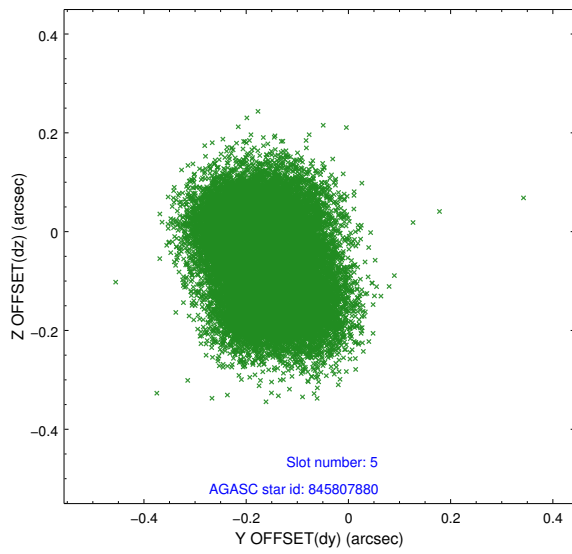
2.4.1 Slot 3



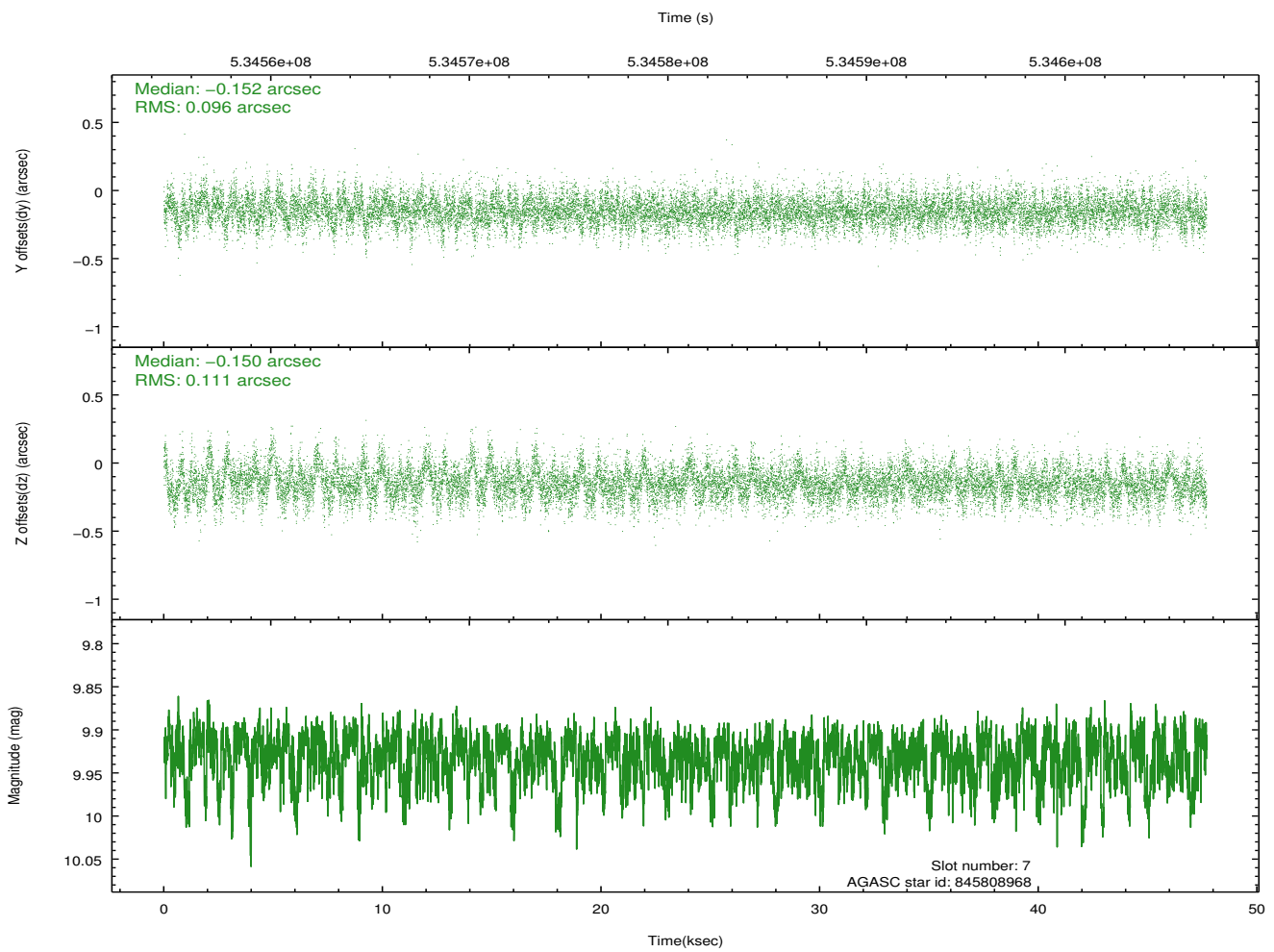
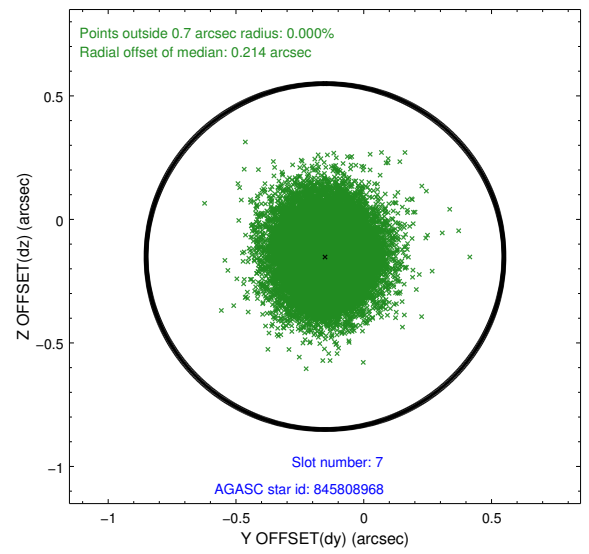
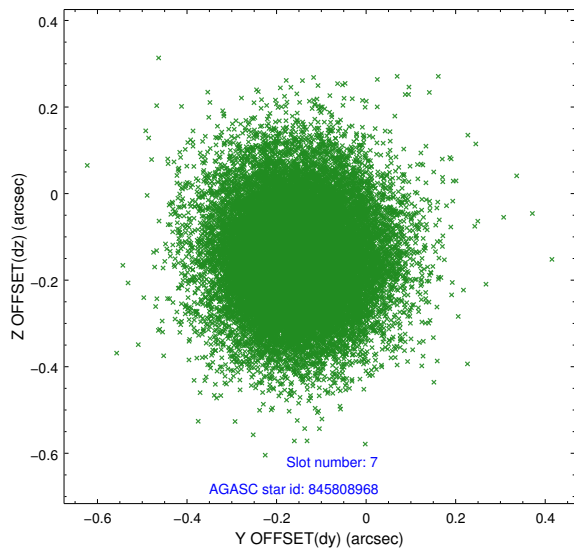
2.4.2 Slot 4



2.4.3 Slot 5

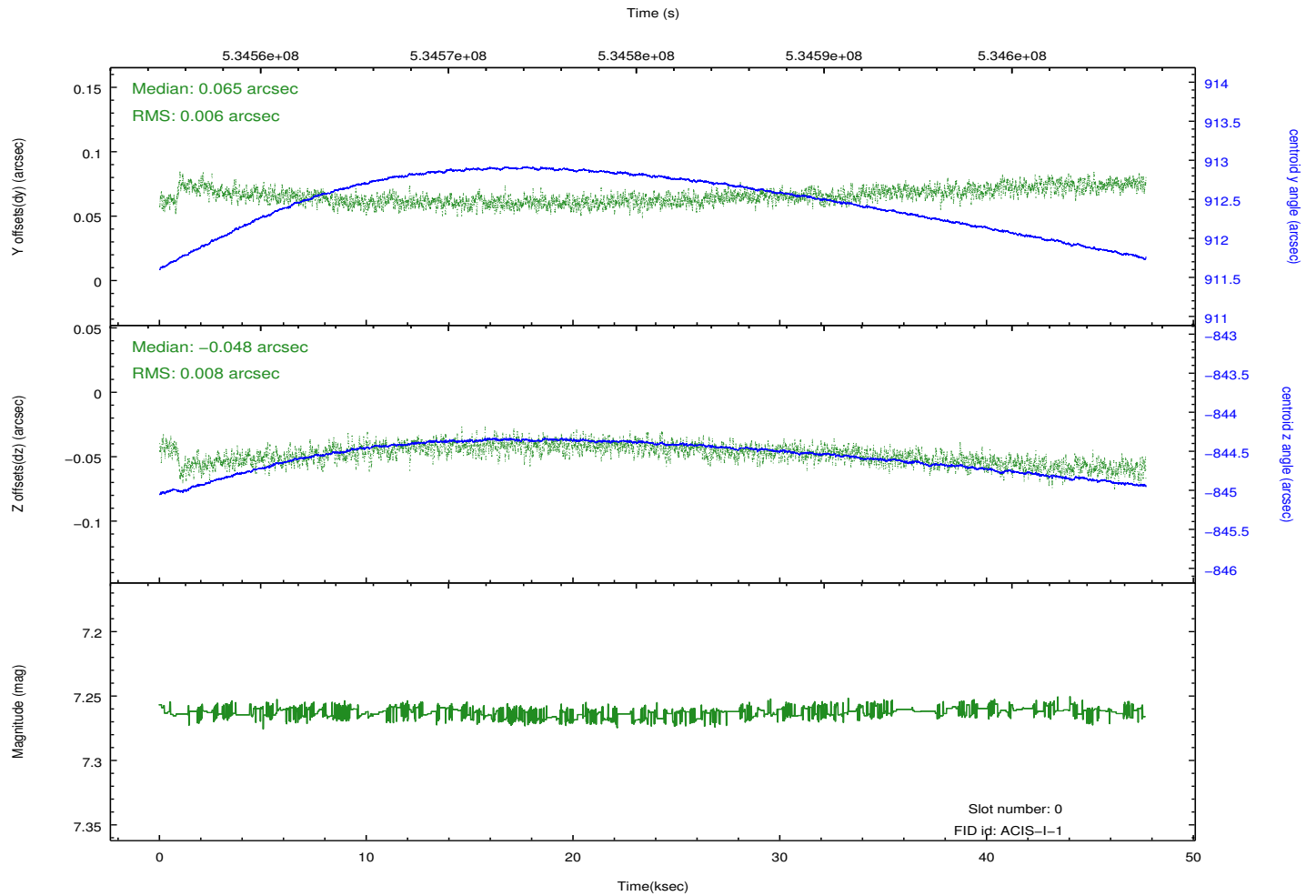
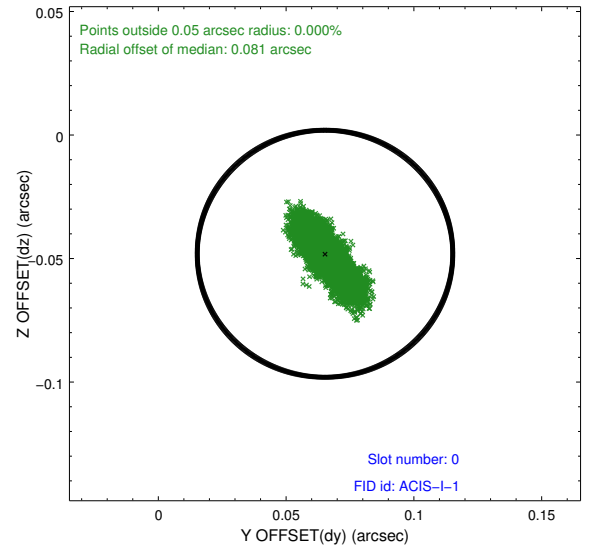
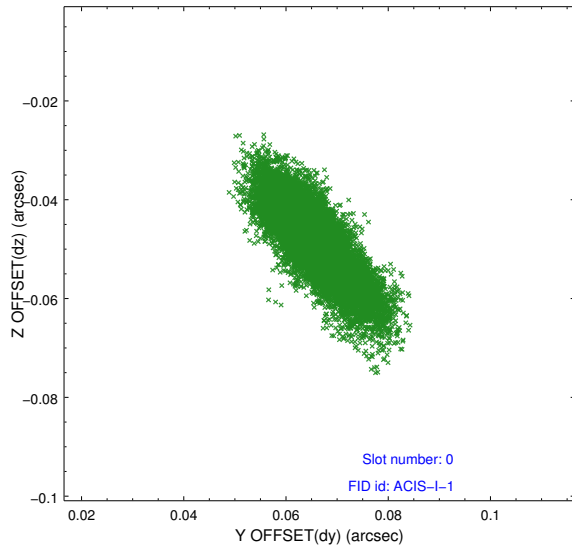


2.4.4 Slot 7

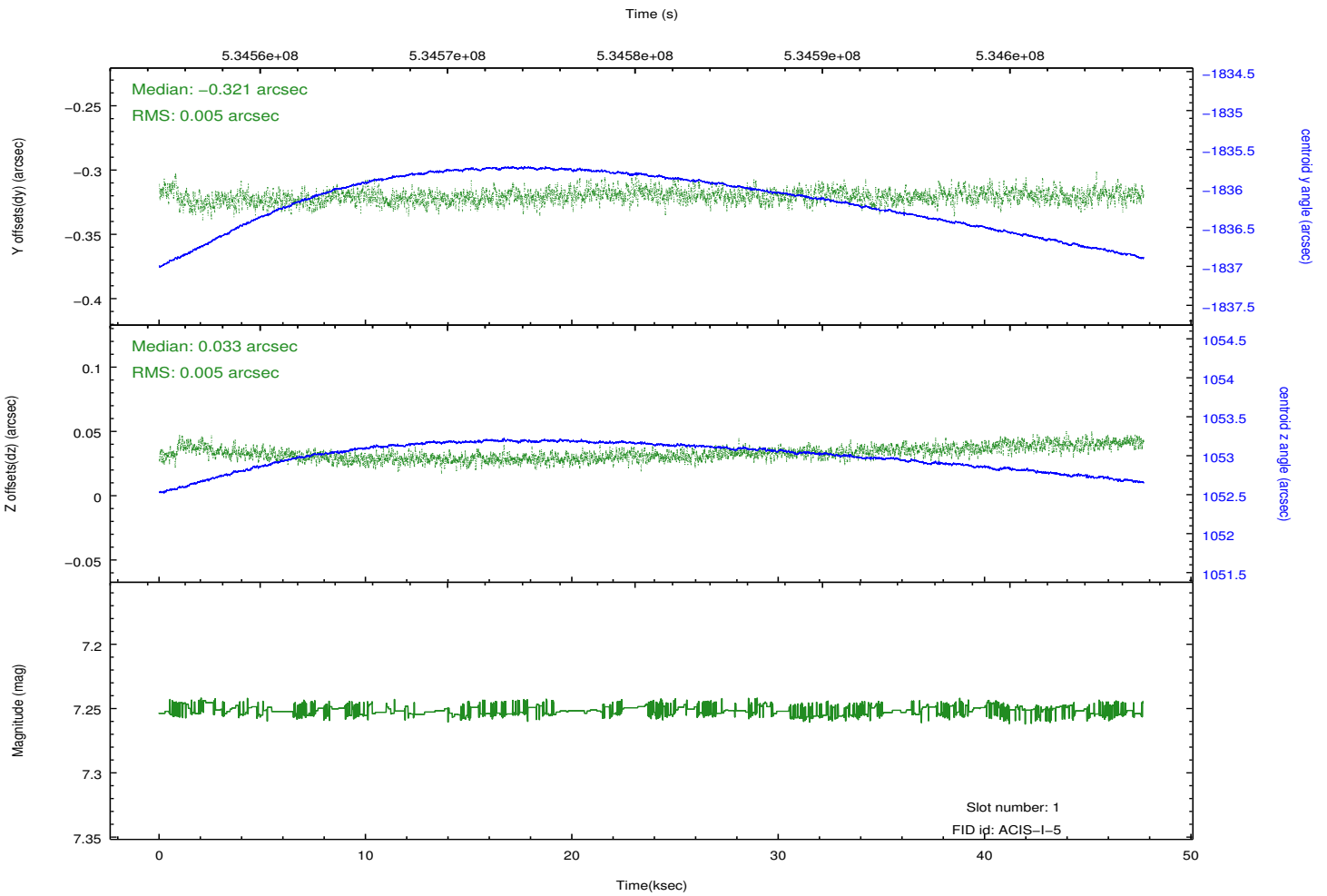
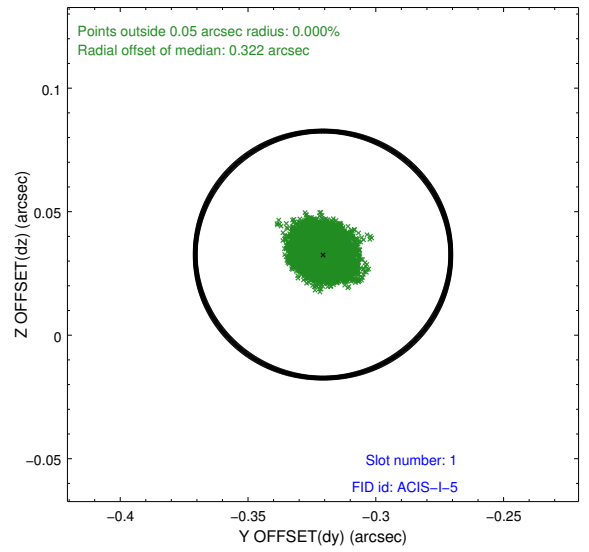
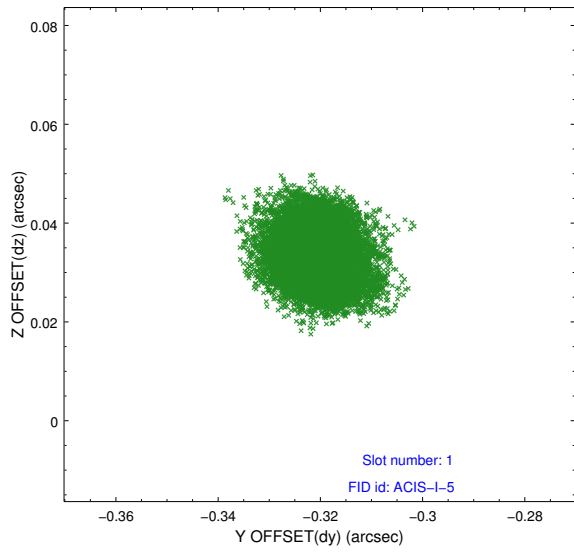


2.5 FID Slots

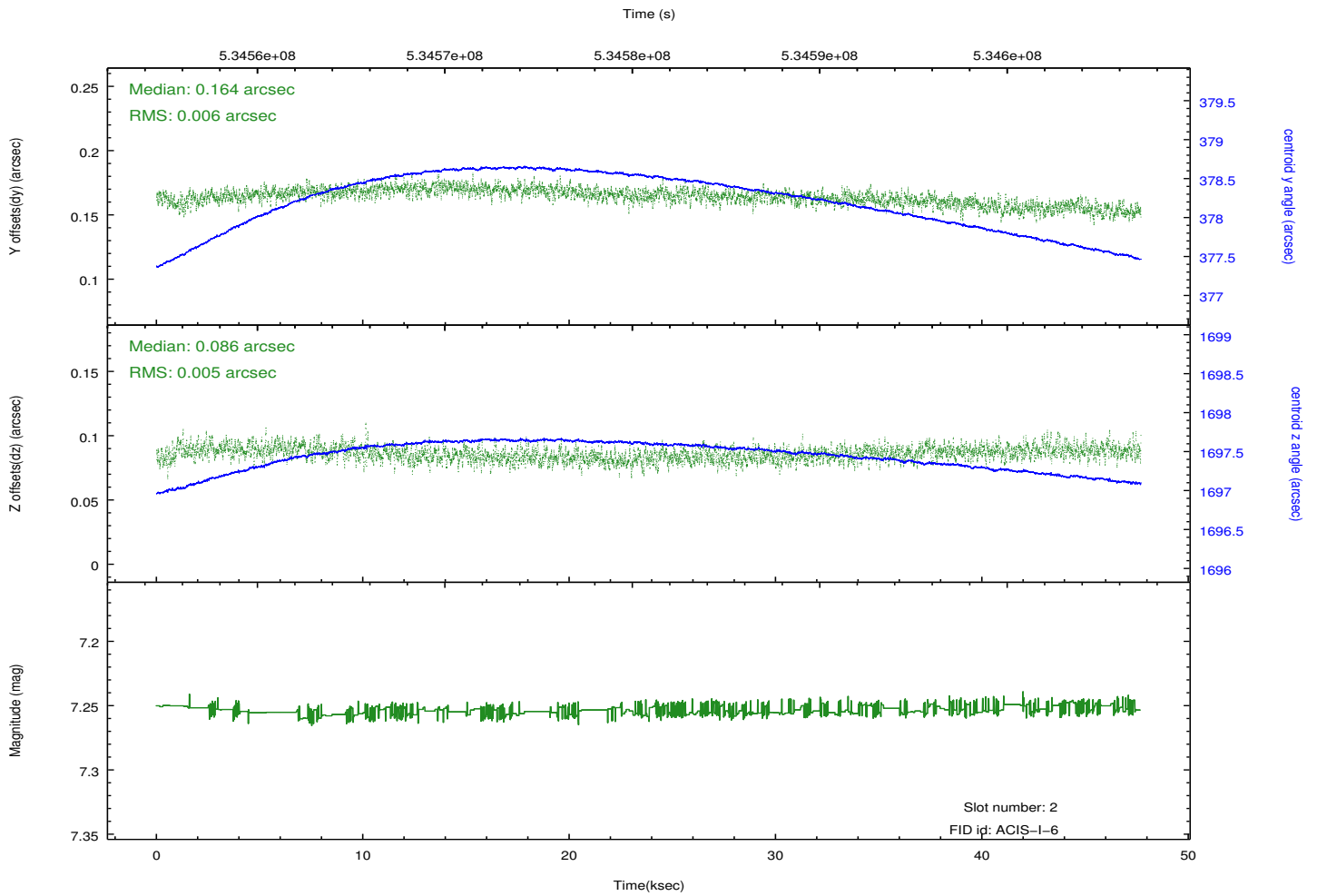
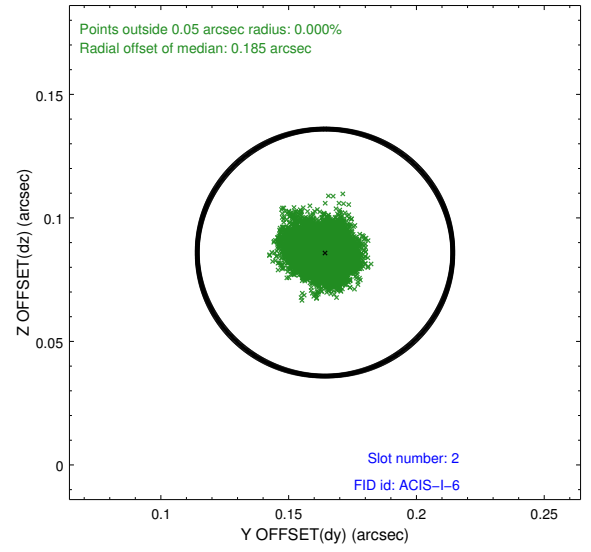
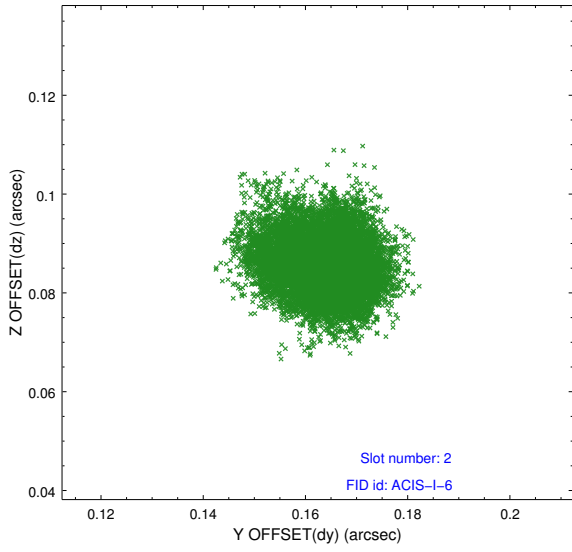
2.5.1 Slot 0



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) | 2014.12.12 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 47.491959344923 |

A.2 Comments

The guide star in slot 6 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.