

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 17234 - L2 Version 1
Chandra X-Ray Center

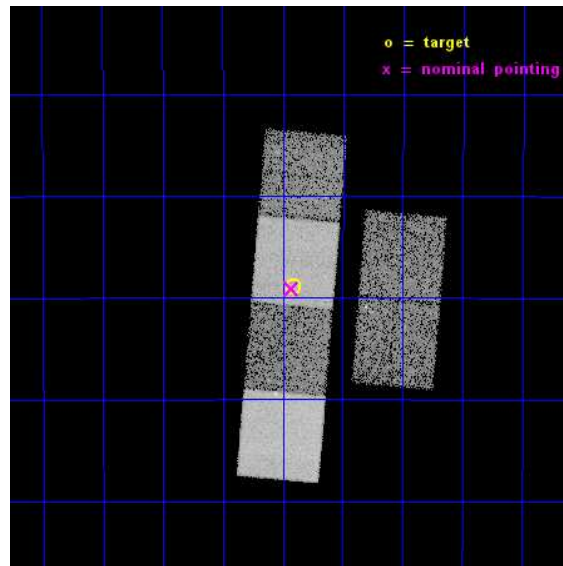
L2 Processing Date : Feb 10 2015

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1 Front

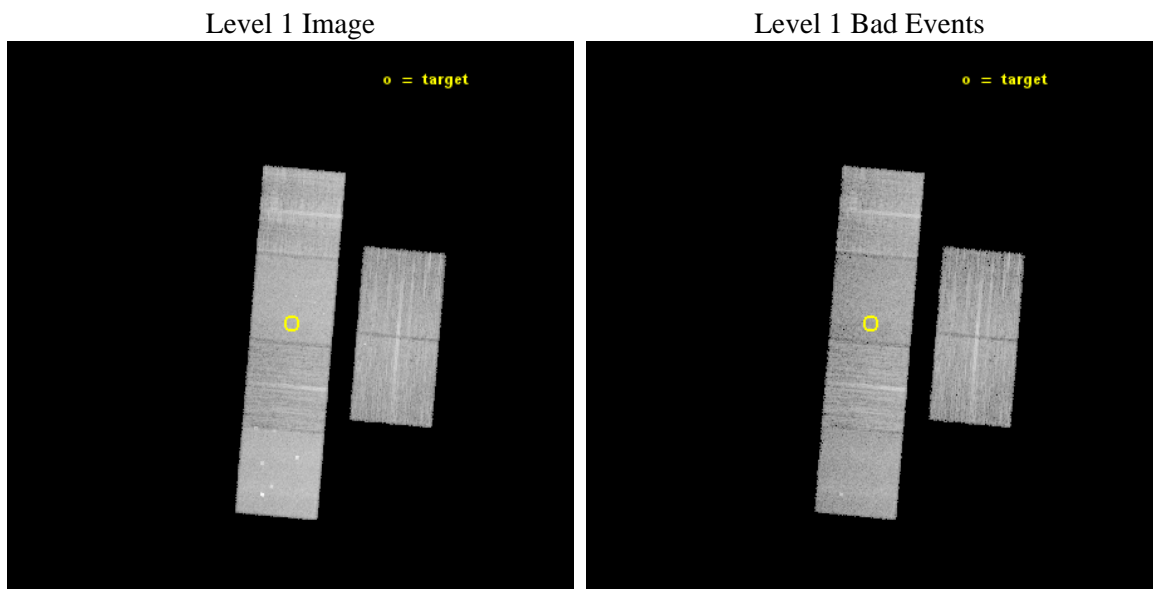
| | | |
|----------|---|---|
| seq_num | 901130 | Sequence number |
| obs_id | 17234 | Observation id |
| title | A Chandra/HST survey of dark gamma-ray bursts | Proposal title |
| observer | PROF ANDREW LEVAN | Principal investigator |
| object | GRB150202A | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 39.227458 | Observer's specified target RA [deg] |
| dec_targ | -33.148056 | Observer's specified target Dec [deg] |
| ra_nom | 39.231995571031 | Nominal RA [deg] |
| dec_nom | -33.151970936004 | Nominal Dec [deg] |
| roll_nom | 274.98467499773 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 14928.000222445 | Sum of GTIs [s] |
| livetime | 14738.972895065 | Livetime [s] |
| ontime2 | 14928.000222445 | Sum of GTIs [s] |
| ontime3 | 14928.000222445 | Sum of GTIs [s] |
| ontime5 | 14928.000222445 | Sum of GTIs [s] |
| ontime6 | 14928.000222445 | Sum of GTIs [s] |
| ontime7 | 14928.000222445 | Sum of GTIs [s] |
| ontime8 | 14928.000222445 | Sum of GTIs [s] |
| l2events | 131286 | Number of level 2 events |



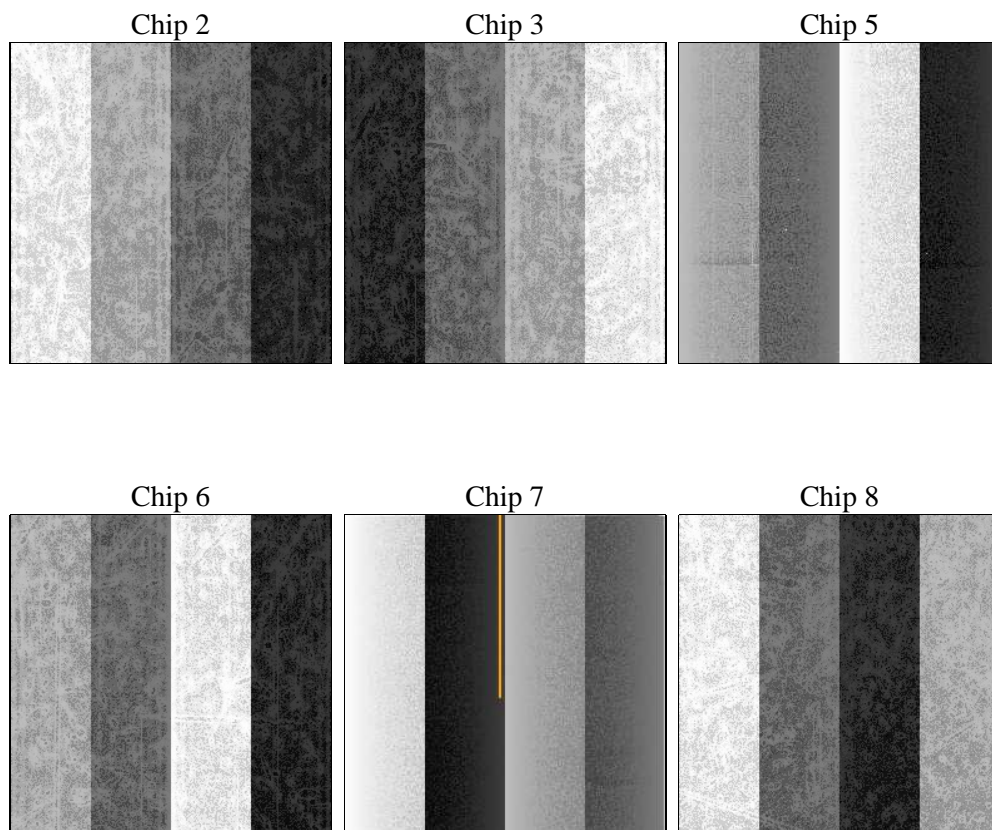
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 15000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.3.3 | Processing system revision | ontime | 14928.000222445 | Sum of GTIs [s] |
| caldsver | 4.6.6 | | ontime2 | 14928.000222445 | Sum of GTIs [s] |
| date | 2015-02-11T04:00:07 | Date and time of file creation | ontime3 | 14928.000222445 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime5 | 14928.000222445 | Sum of GTIs [s] |
| | | | ontime6 | 14928.000222445 | Sum of GTIs [s] |
| | | | ontime7 | 14928.000222445 | Sum of GTIs [s] |
| | | | ontime8 | 14928.000222445 | Sum of GTIs [s] |
| | | | l1events | 566526 | Number of level 1 events |

2.1.4 Events

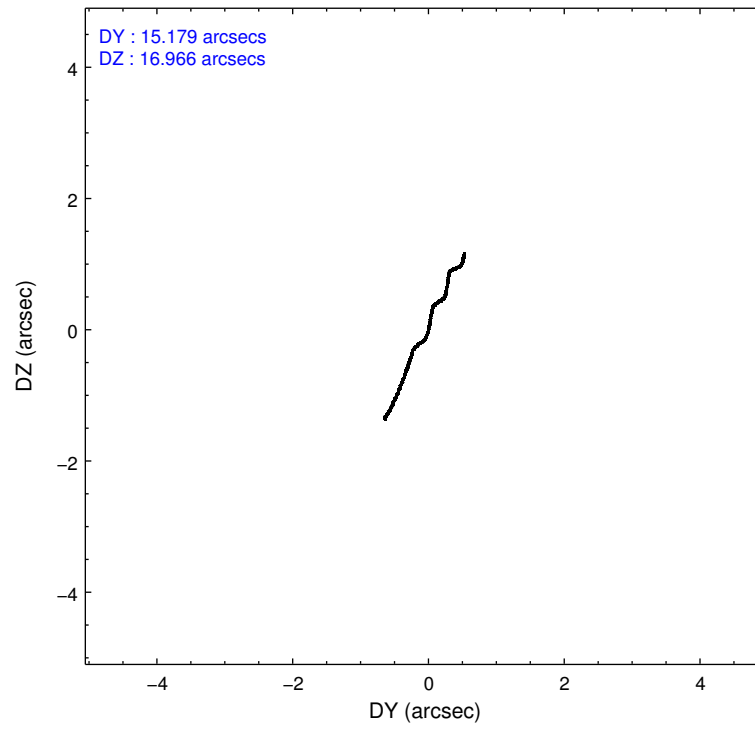
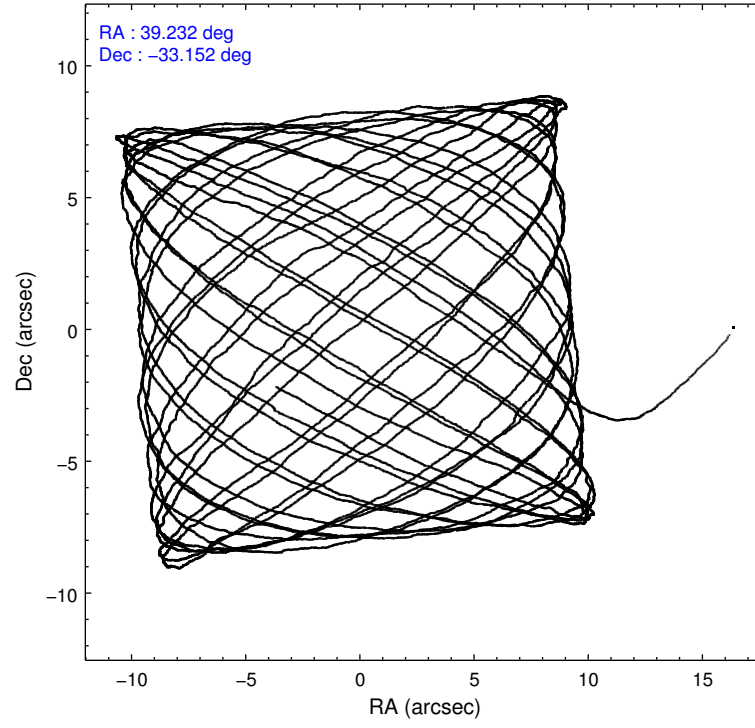
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|--------|-------|--------|--------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 80178 | 74419 | 125926 | 79650 | 103151 | 103202 | grade 0 events | 3304 | 2846 | 6182 | 2954 | 3835 | 7249 |
| rejected events | 71324 | 66284 | 64951 | 70740 | 58639 | 76901 | | 4% | 3% | 4% | 3% | 3% | 7% |
| rejected % | 88% | 89% | 51% | 88% | 56% | 74% | grade 1 events | 33 | 38 | 523 | 40 | 130 | 69 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 2018 | 1825 | 18550 | 2103 | 9199 | 6556 |
| | | | | | | | | 2% | 2% | 14% | 2% | 8% | 6% |
| | | | | | | | grade 3 events | 850 | 857 | 1837 | 878 | 3636 | 2615 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 4 events | 904 | 887 | 1757 | 844 | 3520 | 2581 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 5 events | 3409 | 3827 | 8416 | 3863 | 10382 | 5609 |
| | | | | | | | | 4% | 5% | 6% | 4% | 10% | 5% |
| | | | | | | | grade 6 events | 1781 | 1723 | 32670 | 2137 | 24344 | 7308 |
| | | | | | | | | 2% | 2% | 25% | 2% | 23% | 7% |
| | | | | | | | grade 7 events | 67879 | 62416 | 55991 | 66831 | 48105 | 71215 |
| | | | | | | | | 84% | 83% | 44% | 83% | 46% | 69% |

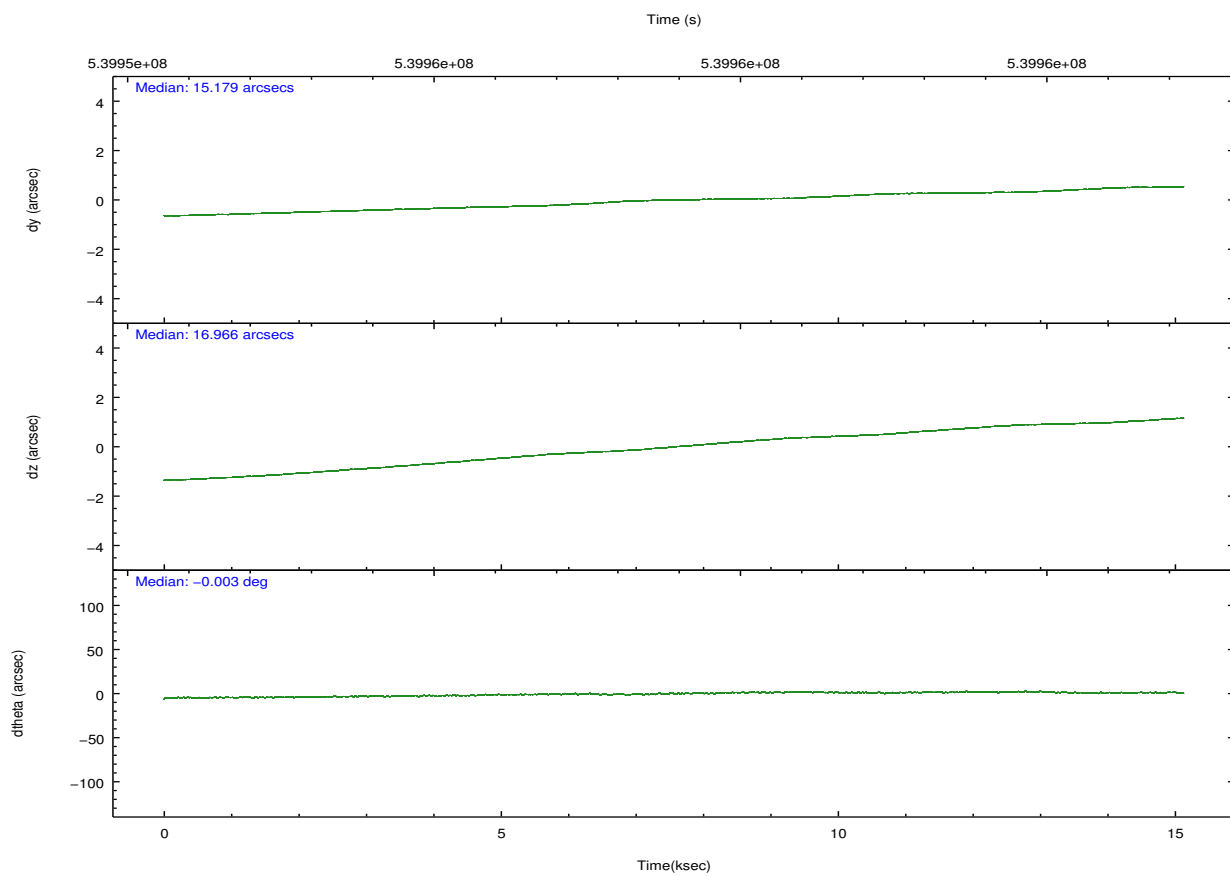
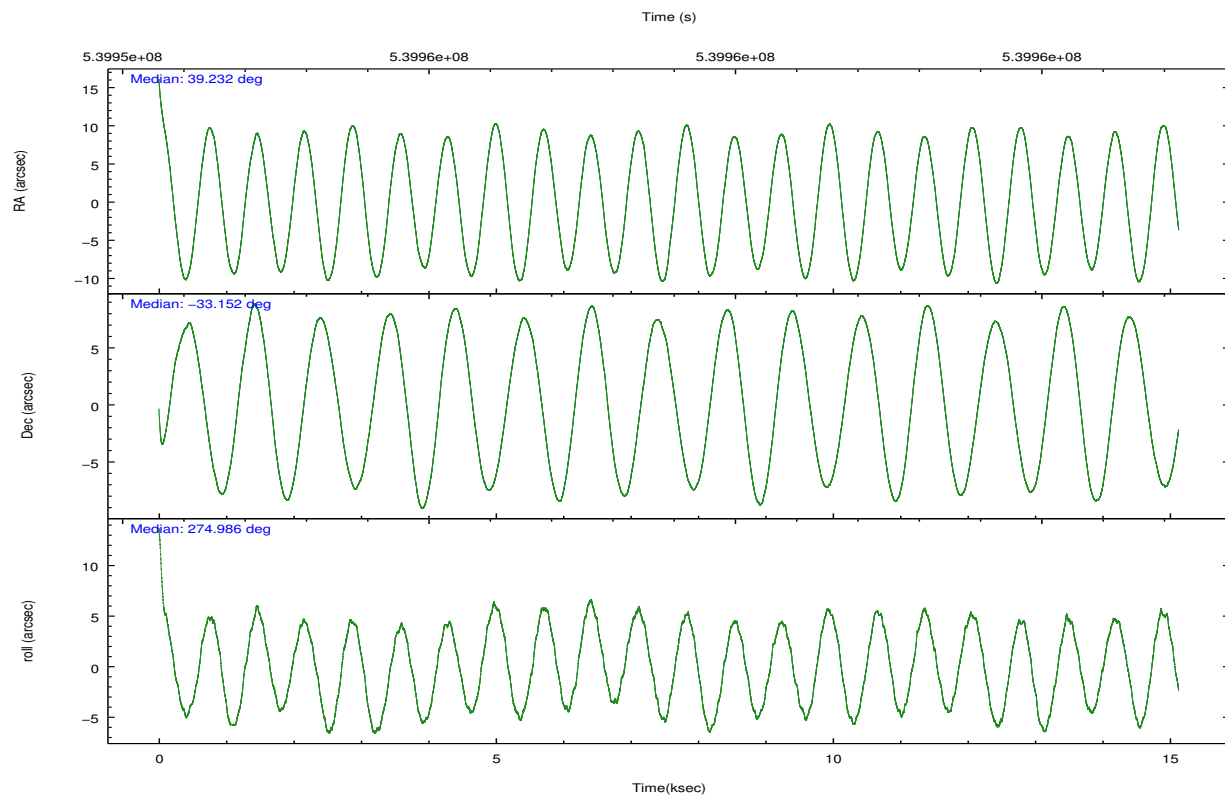
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|
| Instrument | ACIS | ACIS |
| Detector | ACIS-235678 | ACIS-235678 |
| Grating | NONE | NONE |
| Data mode | VFAINT | VFAINT |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 39.212828 | 39.23199557103106 |
| [deg] Pointing Dec | -33.129683 | -33.15197093600449 |
| [deg] Pointing Roll | 274.817570 | 274.9846749977253 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 |
| [mm] SIM defocus | 0 | 0.001444936568705701 |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 |
| [s] Observation start time (MET) | 539951483.184000 | 539950030.23448 |
| Observation start date | 2015-02-10T10:30:16 | 2015-02-10T10:07:10 |
| [s] Observation end time (MET) | 539966483.184000 | 539967869.3354599 |
| Observation end date | 2015-02-10T14:40:16 | 2015-02-10T15:04:29 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---------------------------------------|-----------|---------|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |
| CCD I0 on | N | N |
| CCD I1 on | N | N |
| CCD I2 on | O2 | Y |
| CCD I3 on | O3 | Y |
| CCD S0 on | N | N |
| CCD S1 on | O1 | Y |
| CCD S2 on | Y | Y |
| CCD S3 on | Y | Y |
| CCD S4 on | O4 | Y |
| CCD S5 on | N | N |
| 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 | 3.2 |

2.3 Aspect



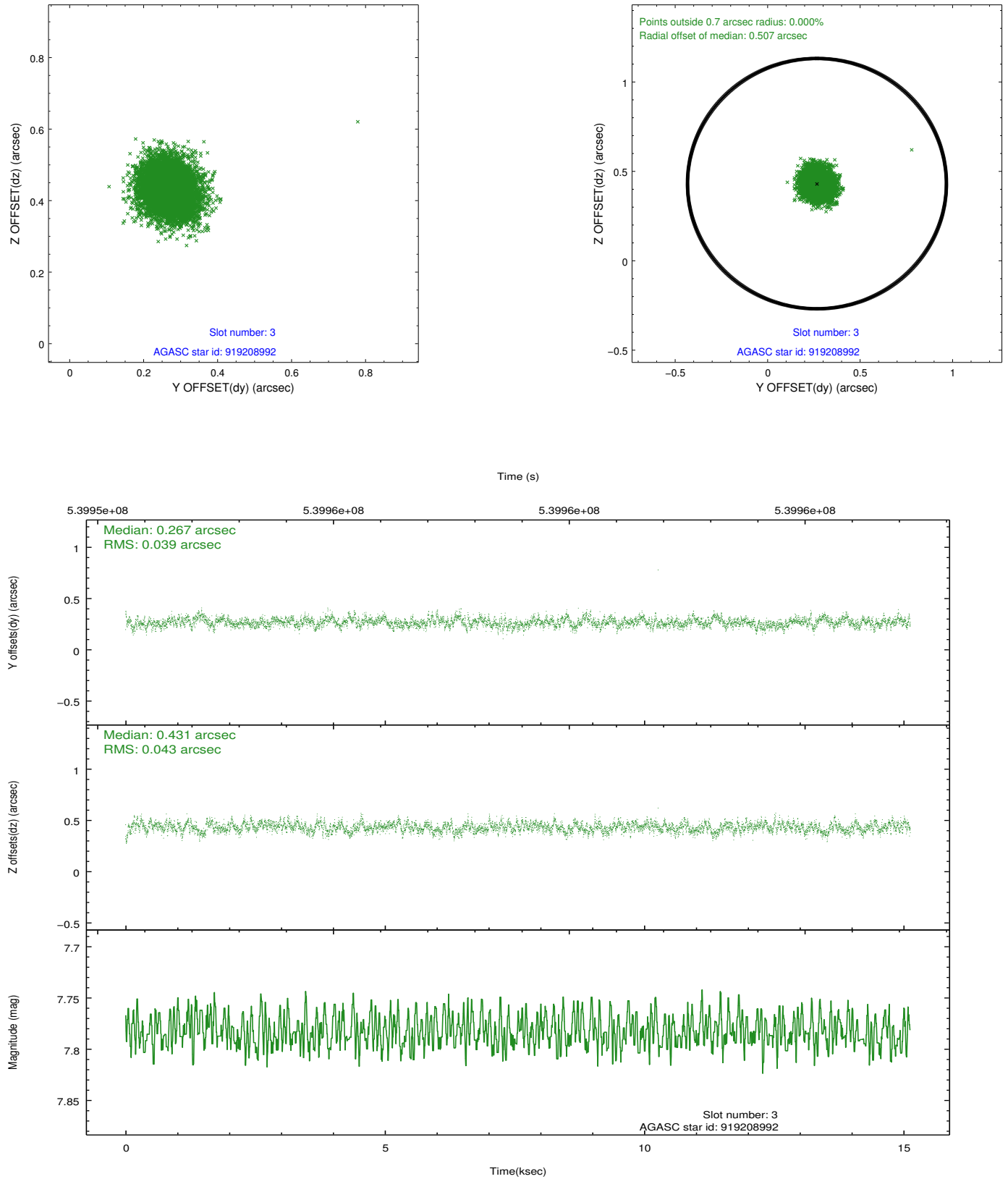


Slot Statistics

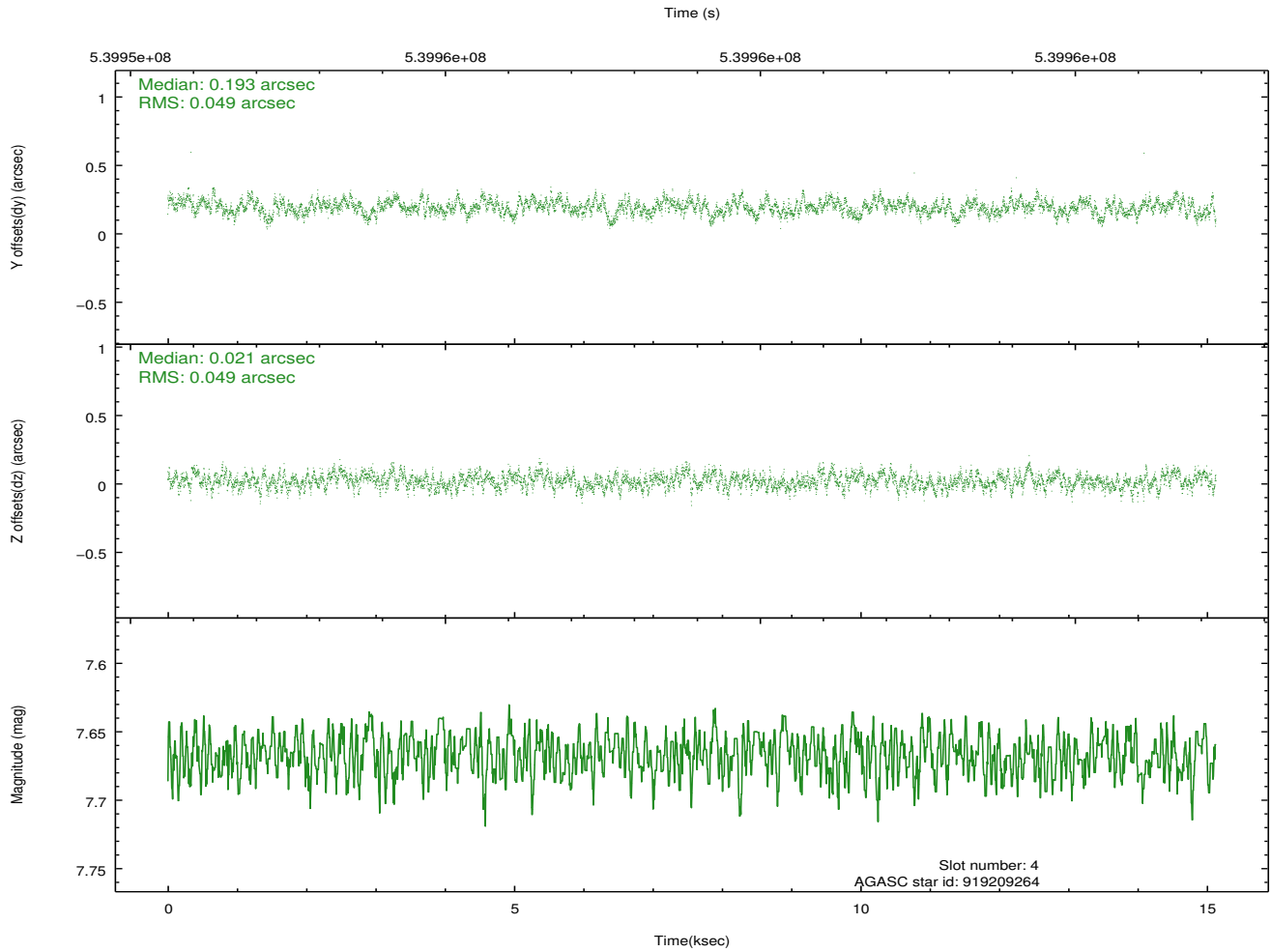
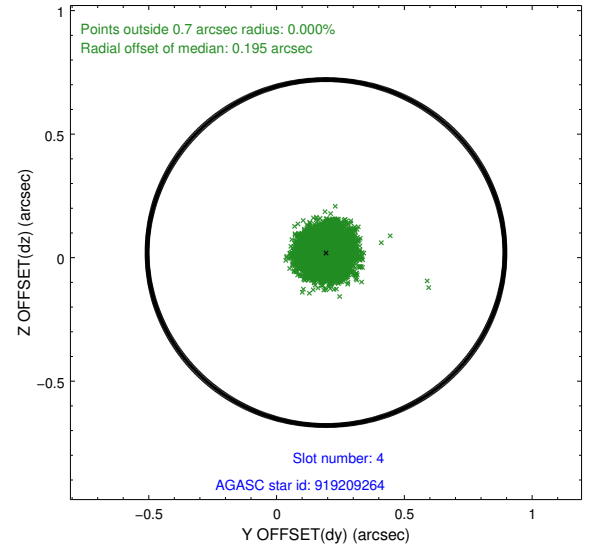
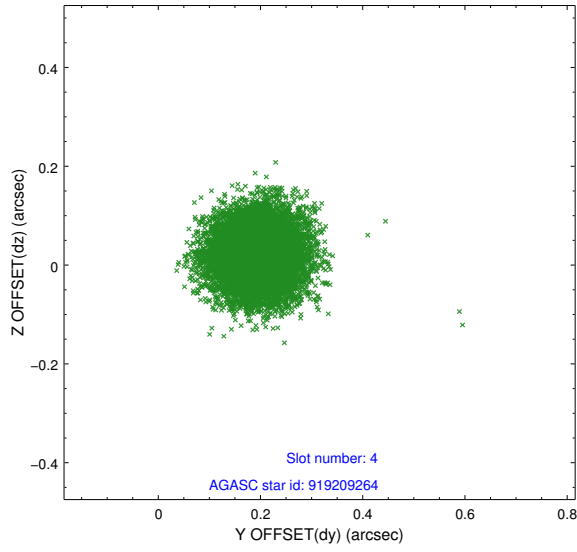
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|-----------|------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | | ACIS-S-2 | 7.06 | 3689 | -0.103 | -0.060 | 0.025 | 0.037 | 0.000000 | 0.000000 | -768.22 | -1738.40 |
| 1 | FID | | ACIS-S-4 | 7.15 | 3690 | 0.311 | 0.066 | 0.011 | 0.019 | 0.000000 | 0.000000 | 2145.35 | 169.87 |
| 2 | FID | | ACIS-S-5 | 7.17 | 3690 | -0.239 | 0.004 | 0.022 | 0.032 | 0.000000 | 0.000000 | -1820.80 | 163.84 |
| 3 | GUIDE | used | 919208992 | 7.78 | 7380 | 0.267 | 0.431 | 0.062 | 0.100 | 38.606716 | -32.718429 | -1623.64 | -1704.83 |
| 4 | GUIDE | used | 919209264 | 7.67 | 7379 | 0.193 | 0.021 | 0.076 | 0.117 | 38.403077 | -32.826454 | -1283.66 | -2350.43 |
| 5 | GUIDE | used | 919343120 | 8.88 | 7375 | -0.069 | -0.165 | 0.107 | 0.164 | 39.292305 | -32.906145 | -781.23 | 306.52 |
| 6 | GUIDE | used | 919344760 | 8.52 | 7379 | -0.011 | -0.162 | 0.086 | 0.139 | 39.337249 | -33.649190 | 1895.11 | 214.61 |
| 7 | GUIDE | used | 919346208 | 6.89 | 7380 | -0.381 | -0.126 | 0.063 | 0.102 | 39.471936 | -33.677251 | 2030.67 | 607.93 |

2.4 Star Slots

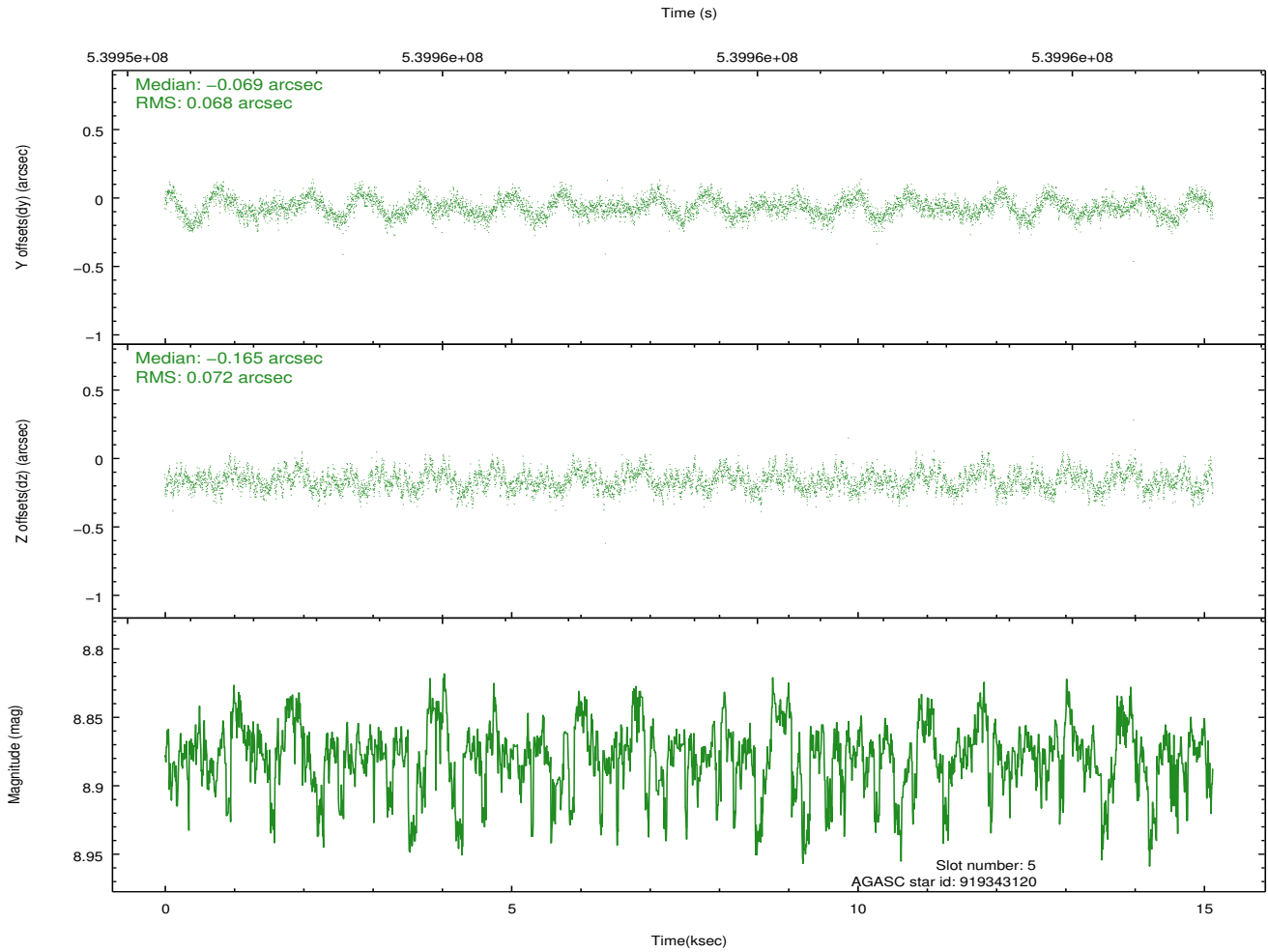
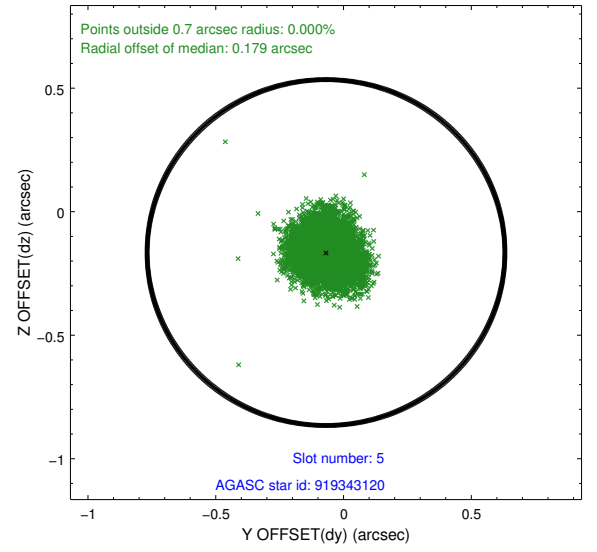
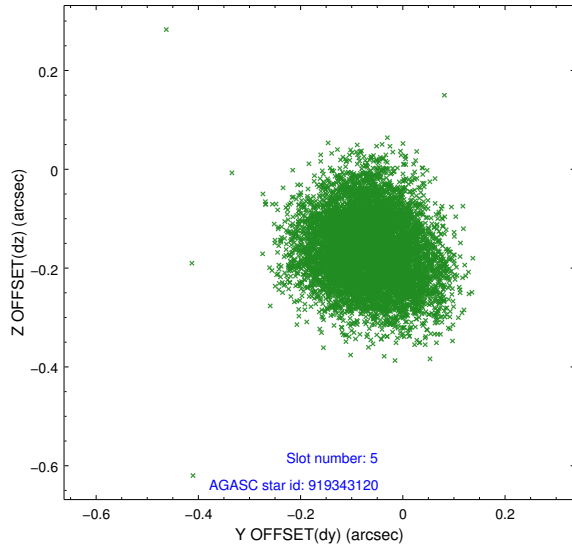
2.4.1 Slot 3



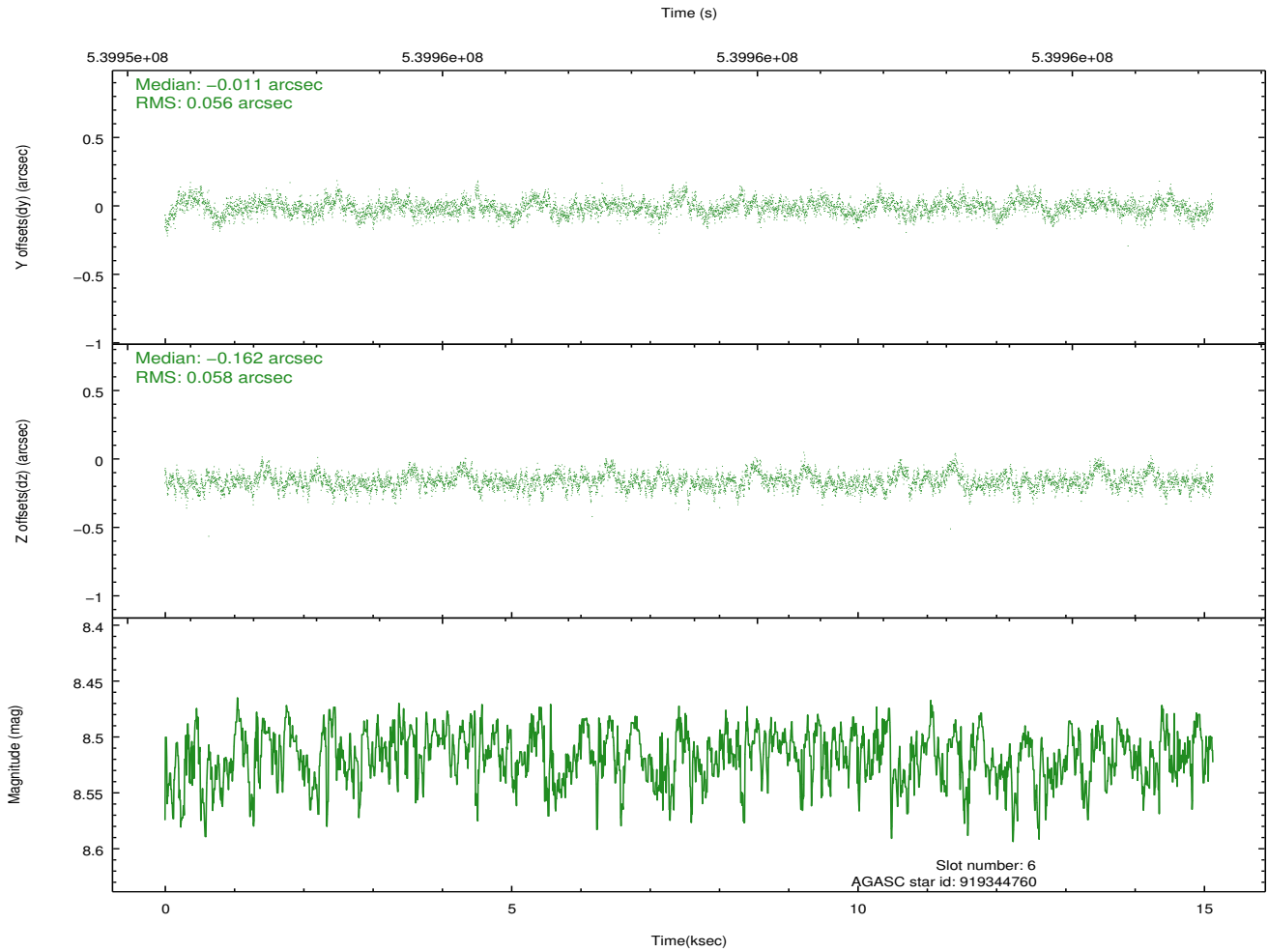
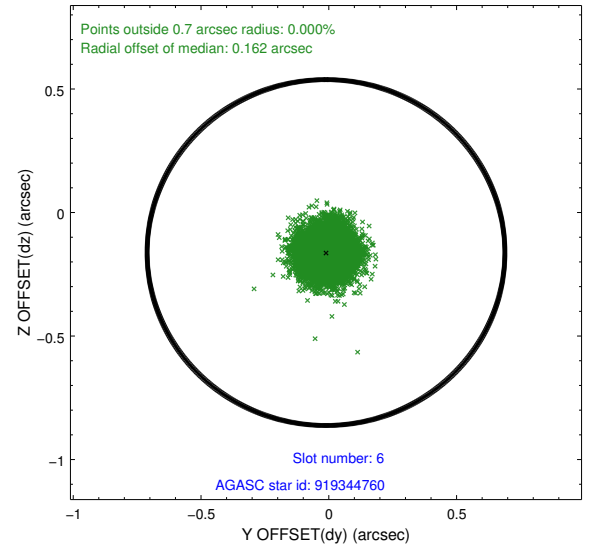
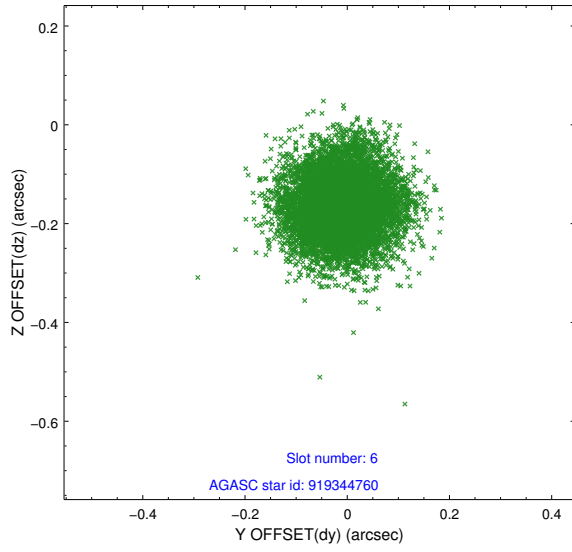
2.4.2 Slot 4



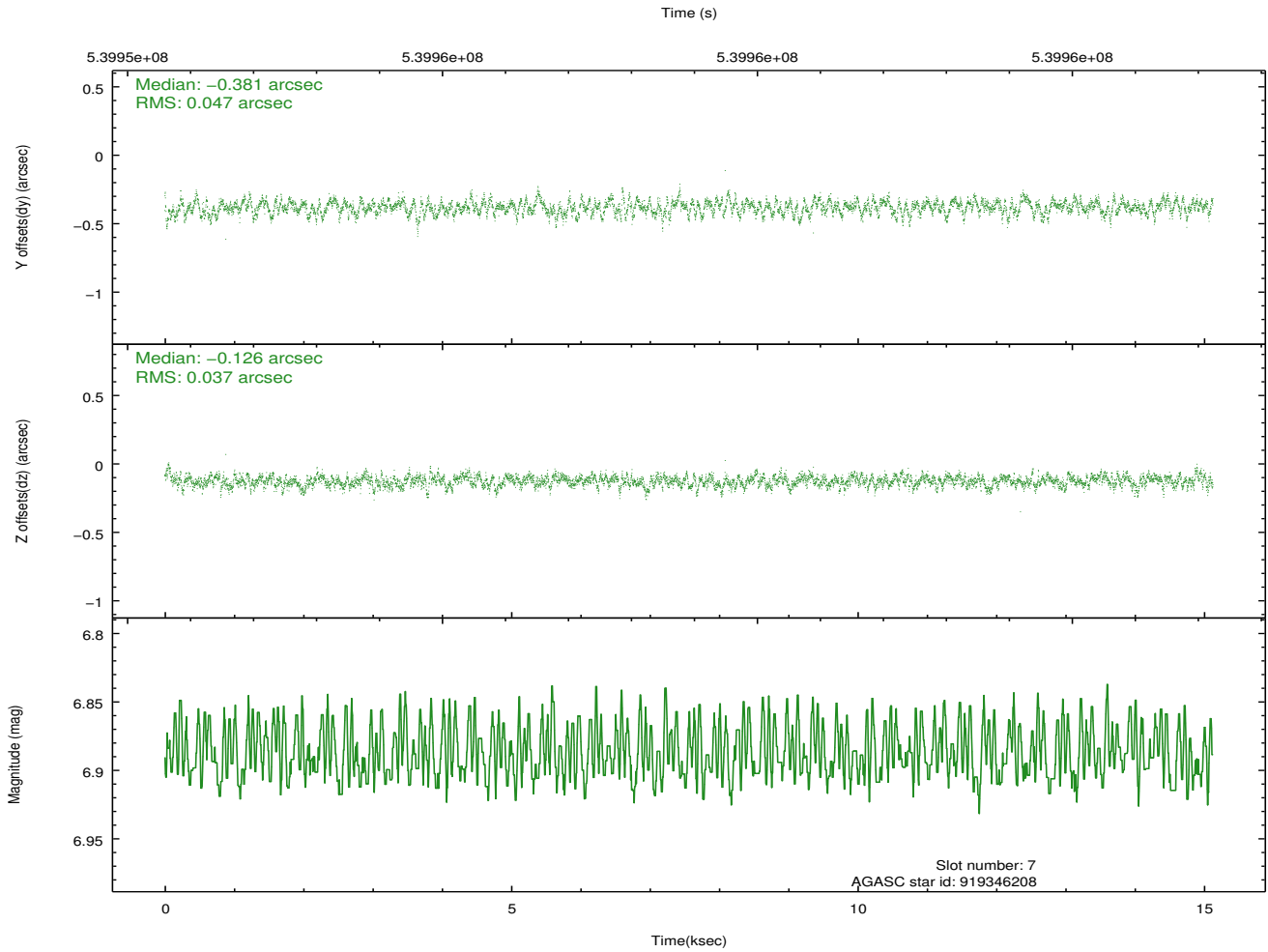
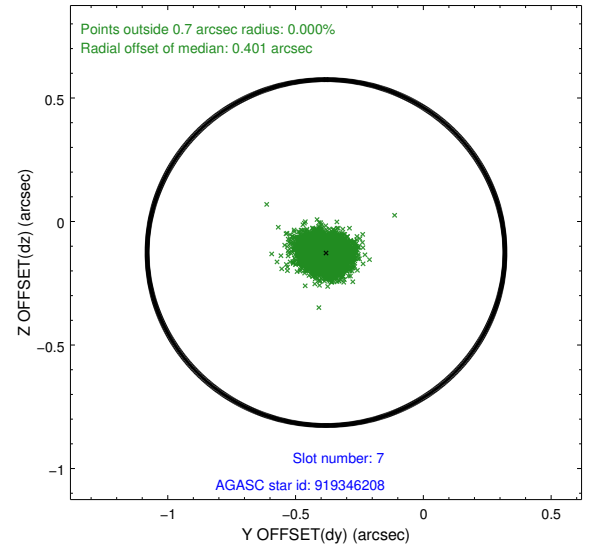
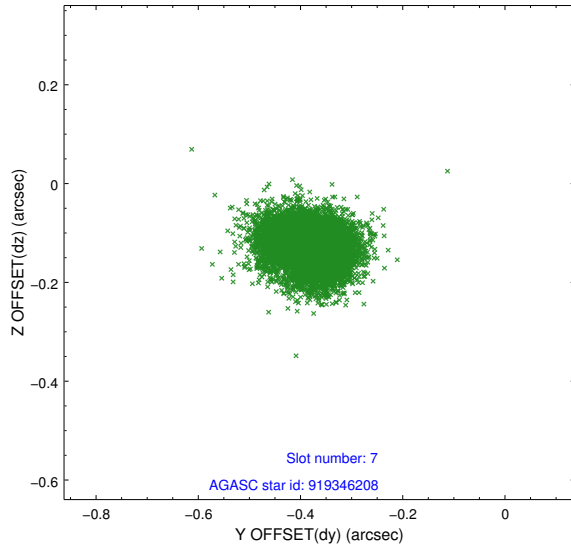
2.4.3 Slot 5



2.4.4 Slot 6

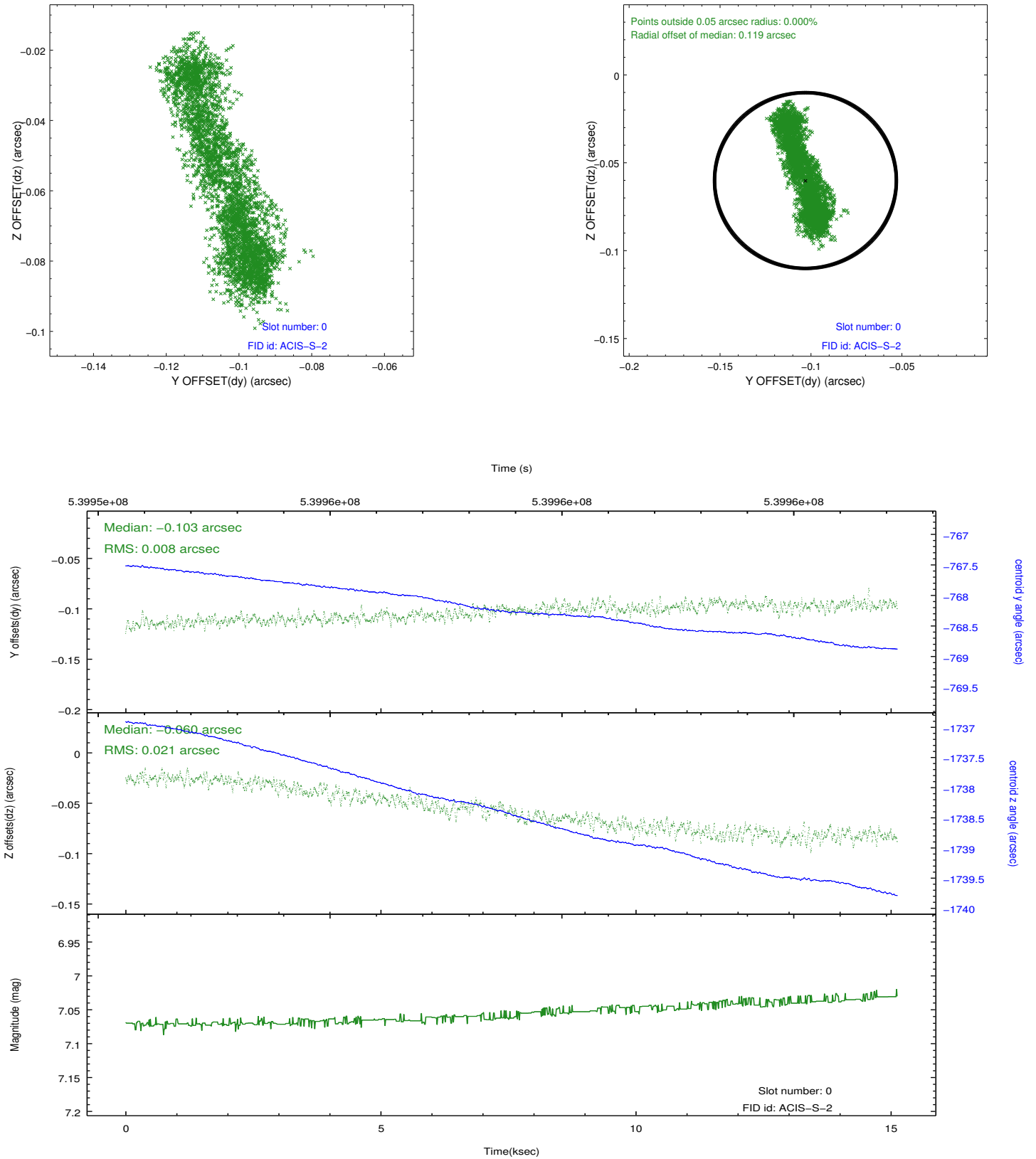


2.4.5 Slot 7

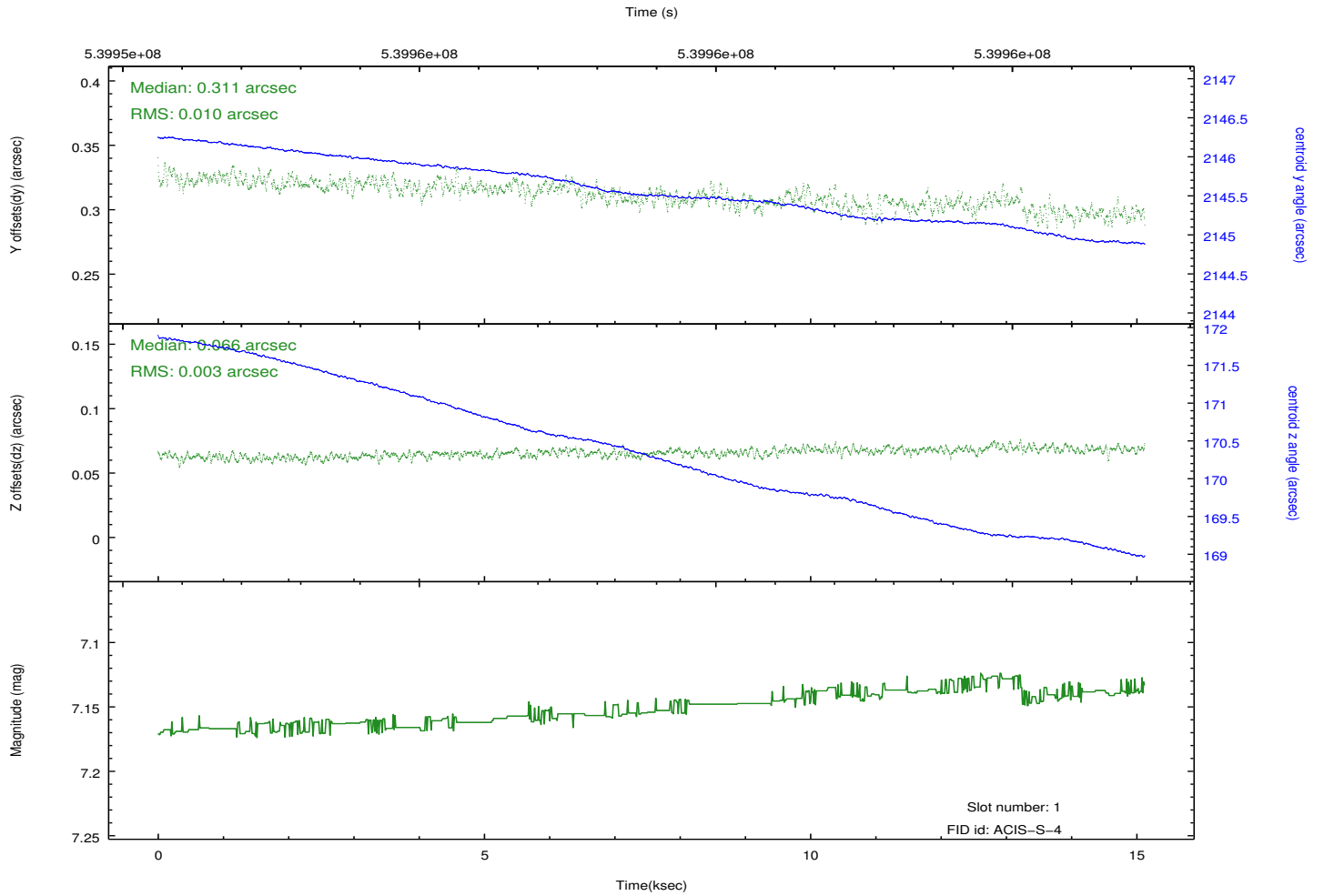
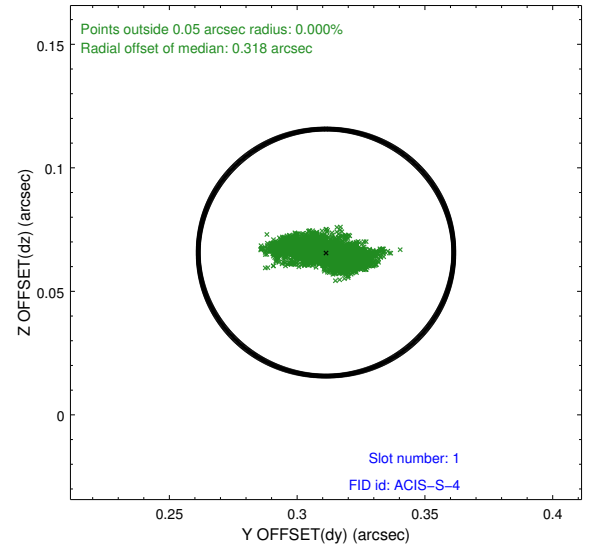
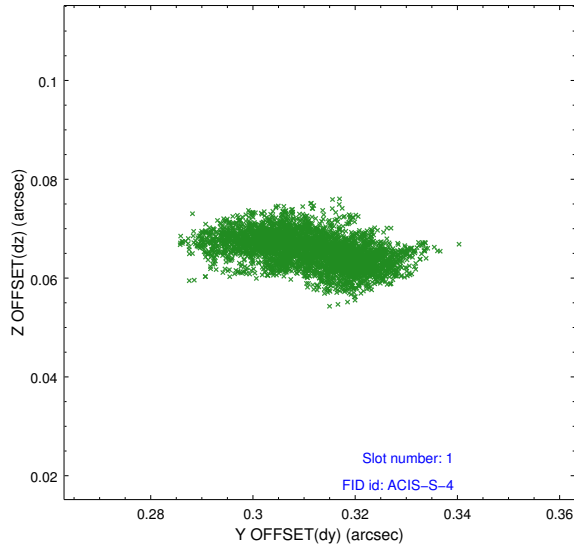


2.5 FID Slots

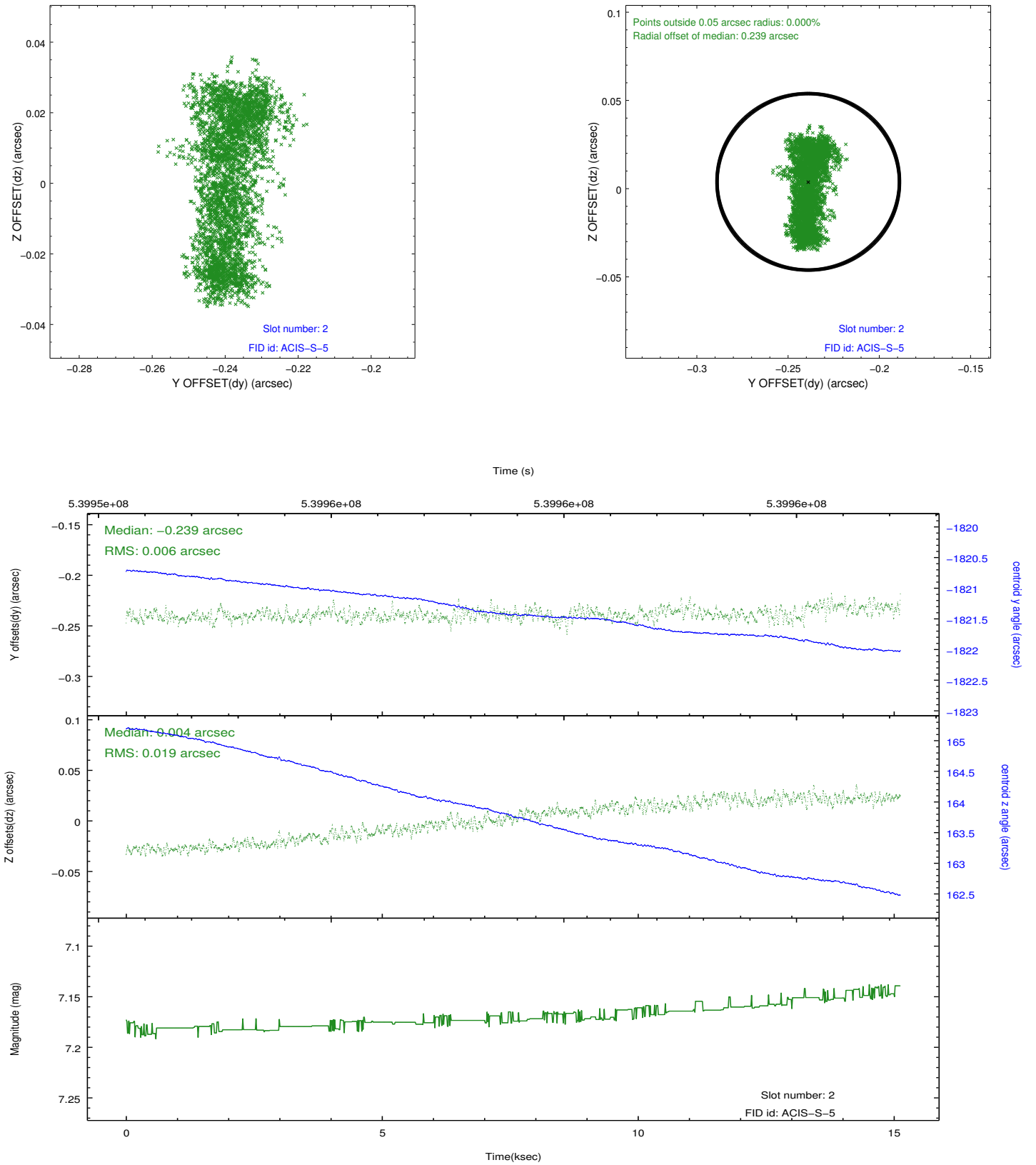
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Joy Nichols |
| V&V Date (YYYY-MM-DD) | 2015.02.11 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 14.928000222445 |

A.2 Comments