

V&V Reference Report

L2 ASCDS Version : 10.3.3

Observation 16528 - L2 Version 1
Chandra X-Ray Center

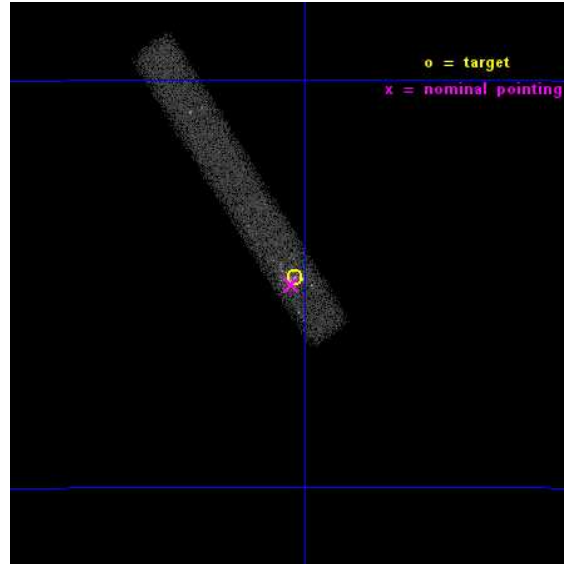
L2 Processing Date : Feb 3 2015

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1 Front

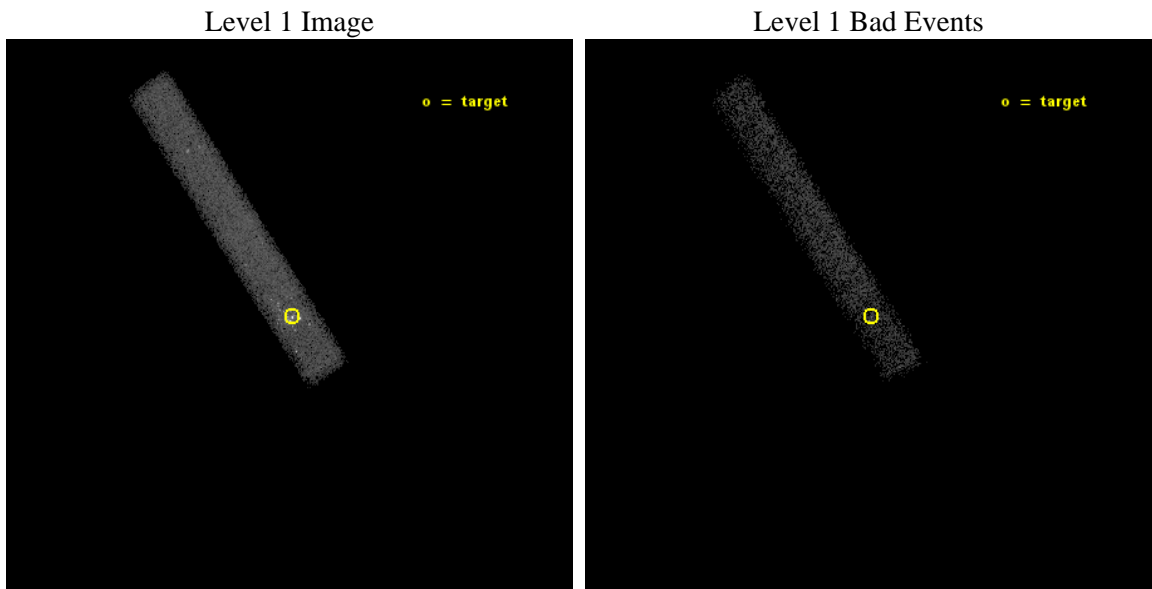
| | | |
|----------|--|---|
| seq_num | 401545 | Sequence number |
| obs_id | 16528 | Observation id |
| title | A DEEP SUBARRAY EXPOSURE OF X7 IN 47 TUC: TOWARDS CONSTRAINING NEUTRON STAR STRUCTURE | Proposal title |
| observer | DR. SLAVKO BOGDANOV | Principal investigator |
| object | 47 Tuc | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 6.014558 | Observer's specified target RA [deg] |
| dec_targ | -72.081094 | Observer's specified target Dec [deg] |
| ra_nom | 6.018511178157 | Nominal RA [deg] |
| dec_nom | -72.083952079264 | Nominal Dec [deg] |
| roll_nom | 236.47238352965 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 44416.797352433 | Sum of GTIs [s] |
| livetime | 40283.690687859 | Livetime [s] |
| ontime7 | 44416.797352433 | Sum of GTIs [s] |
| l2events | 32573 | Number of level 2 events |



2 OBI

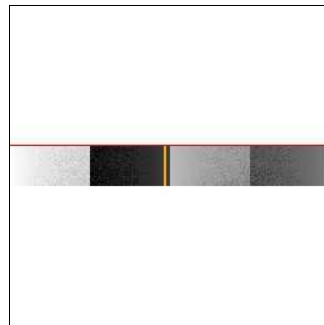
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 44348.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.3.3 | Processing system revision | ontime | 44416.797352433 | Sum of GTIs [s] |
| caldbver | 4.6.6 | | ontime7 | 44416.797352433 | Sum of GTIs [s] |
| date | 2015-02-03T16:12:16 | Date and time of file creation | l1events | 52735 | Number of level 1 events |
| revision | 1 | Processing version of data | | | |

2.1.4 Events

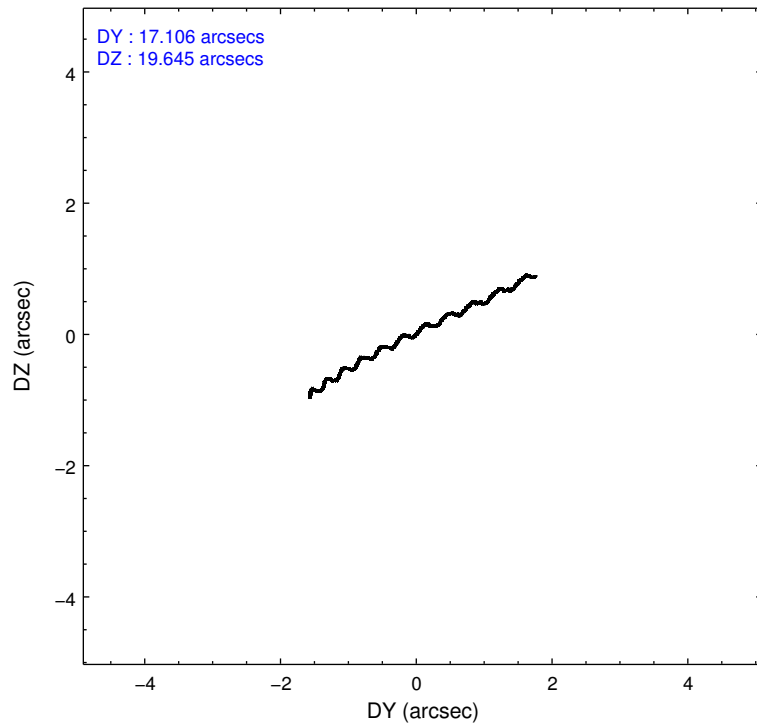
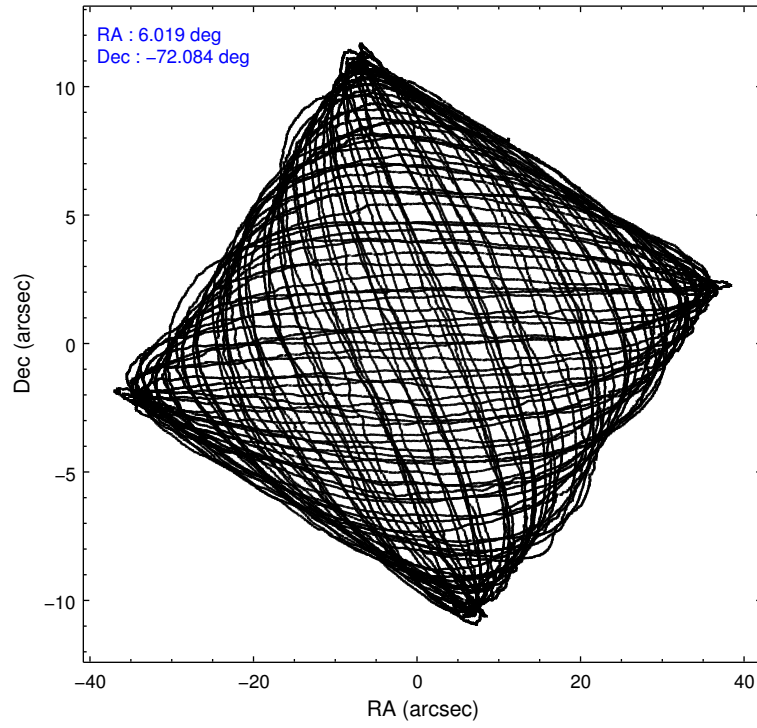
| | ccd 7 |
|-----------------|--------------|
| level 1 events | 52735 |
| rejected events | 19328 |
| rejected % | 36% |

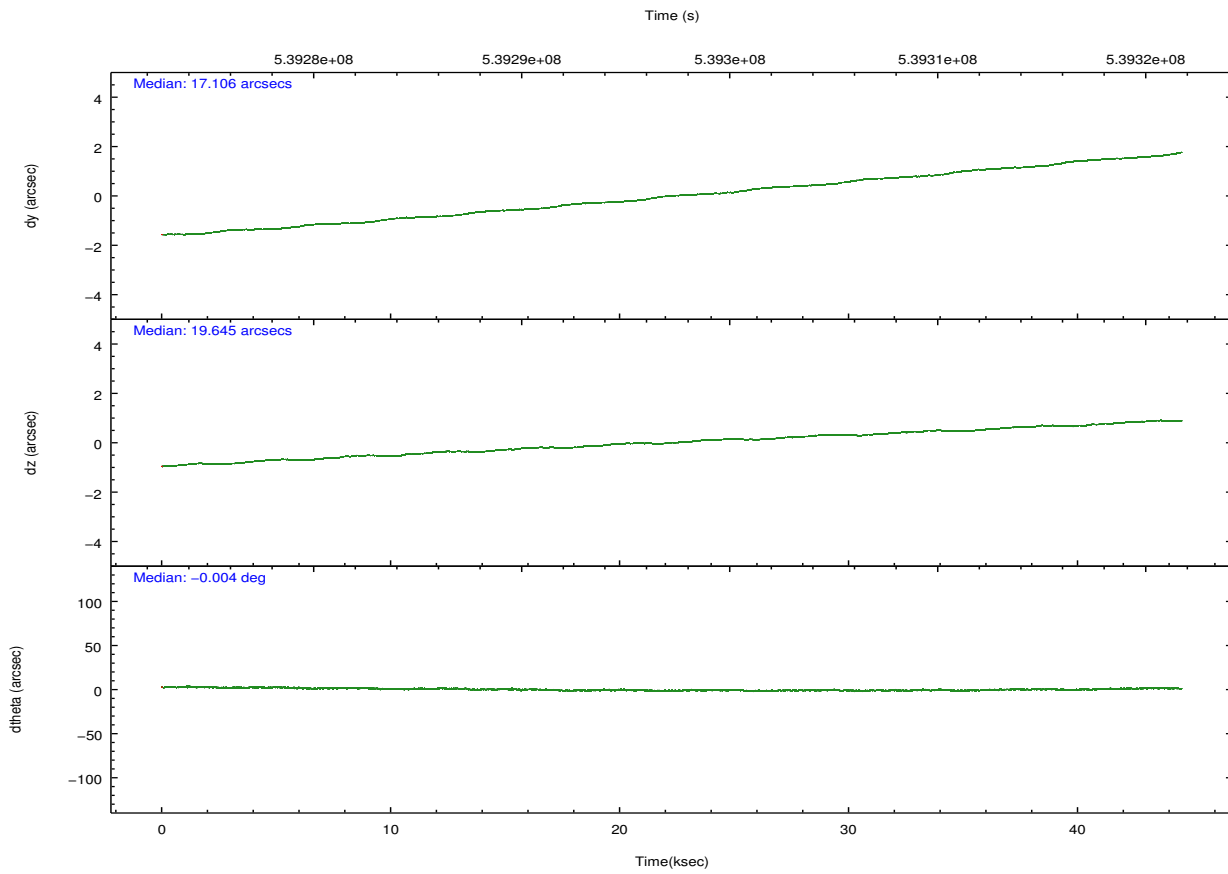
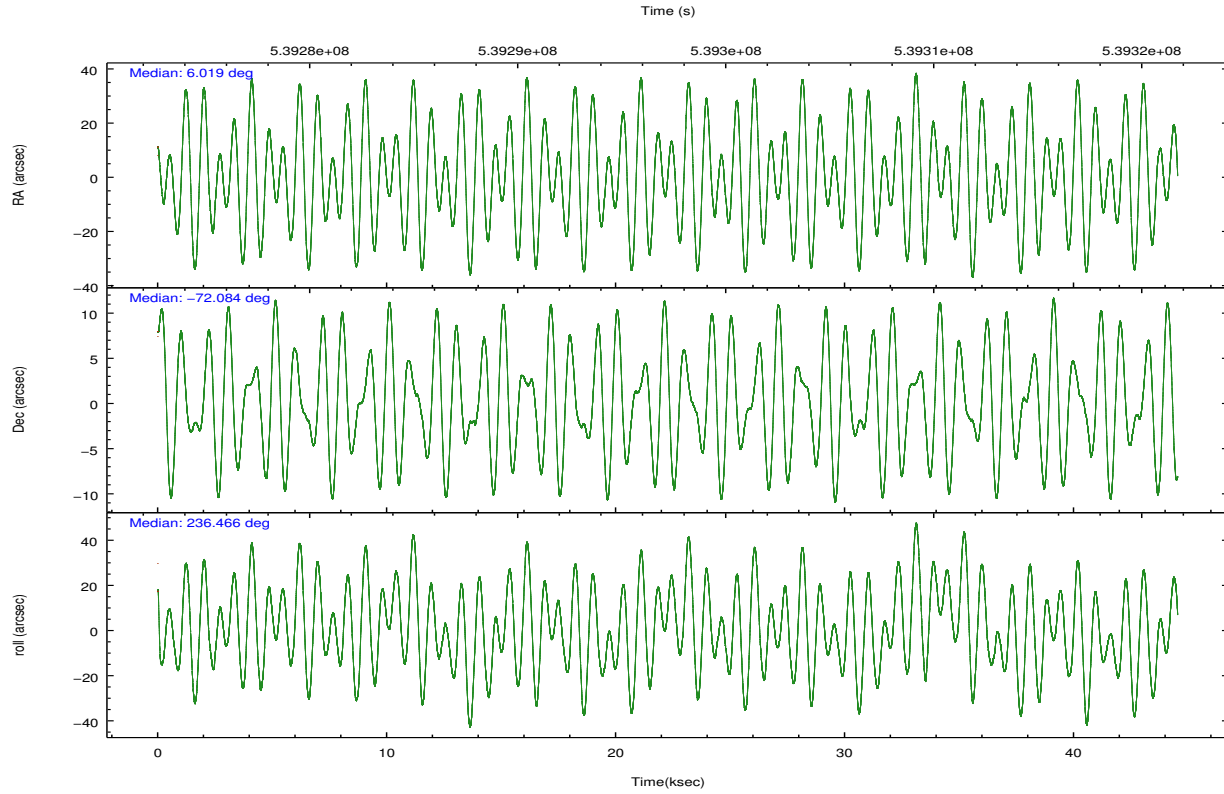
| | ccd 7 |
|----------------|--------------|
| grade 0 events | 6319 |
| | 11% |
| grade 1 events | 88 |
| | 0% |
| grade 2 events | 7527 |
| | 14% |
| grade 3 events | 4213 |
| | 7% |
| grade 4 events | 4029 |
| | 7% |
| grade 5 events | 3961 |
| | 7% |
| grade 6 events | 11319 |
| | 21% |
| grade 7 events | 15279 |
| | 28% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-7 | ACIS-7 | 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 | 6.022815 | 6.018511178156981 | Subarray requested | CUSTOM | 1/8 |
| [deg] Pointing Dec | -72.056546 | -72.08395207926439 | Subarray start row | 449 | 449 |
| [deg] Pointing Roll | 236.319849 | 236.472383529651 | Subarray row count | 128 | 128 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | Alternating exposures requested | N | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | [s] Primary exposure time | 0.000000 | 0.4 |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 539275146.184000 | 539274281.52171 | | | |
| Observation start date | 2015-02-02T14:37:59 | 2015-02-02T14:24:41 | | | |
| [s] Observation end time (MET) | 539319494.184000 | 539320828.31181 | | | |
| Observation end date | 2015-02-03T02:57:07 | 2015-02-03T03:20:28 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



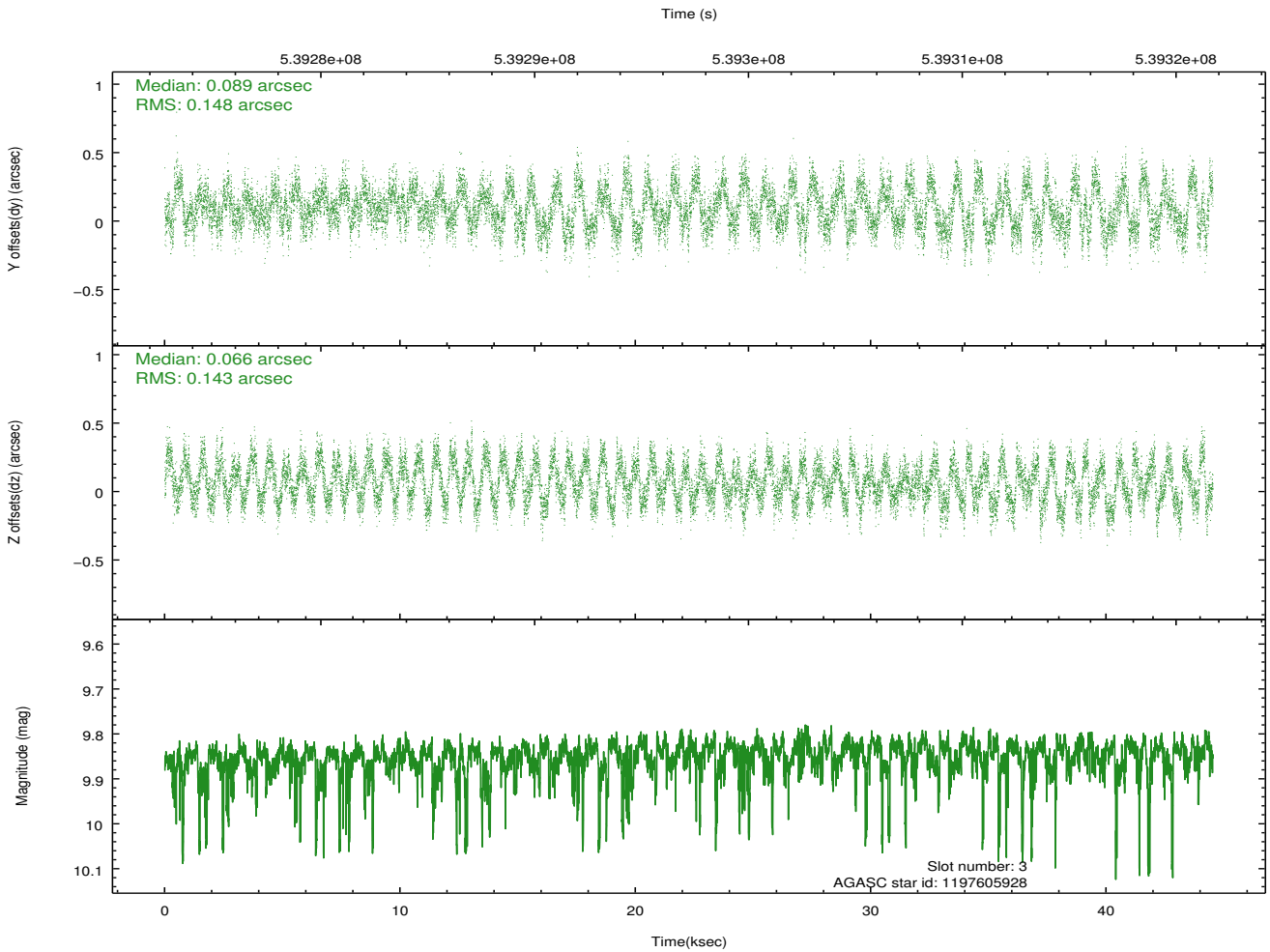
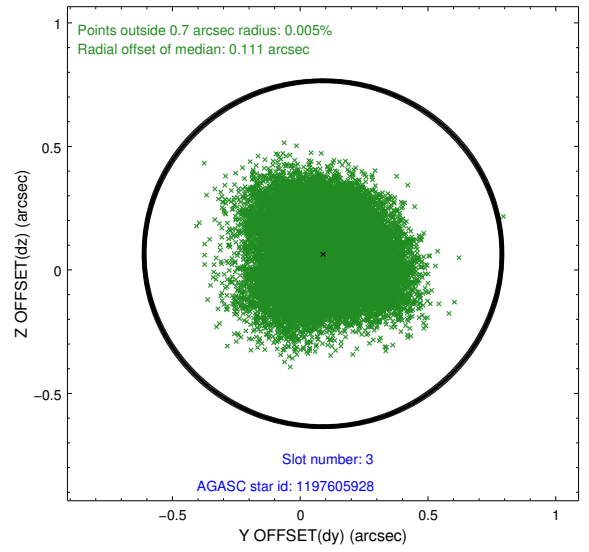
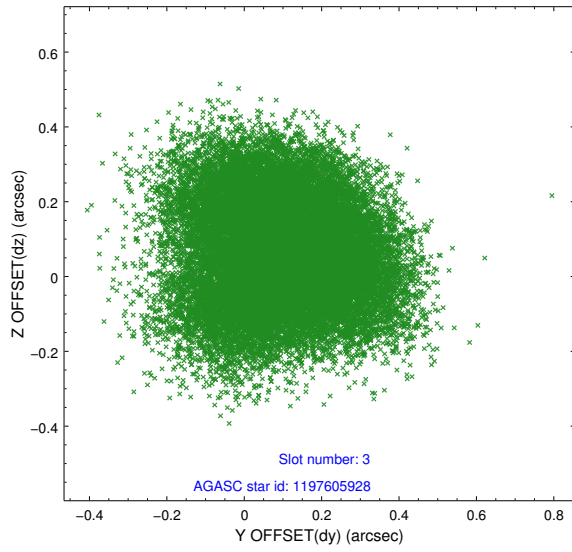


Slot Statistics

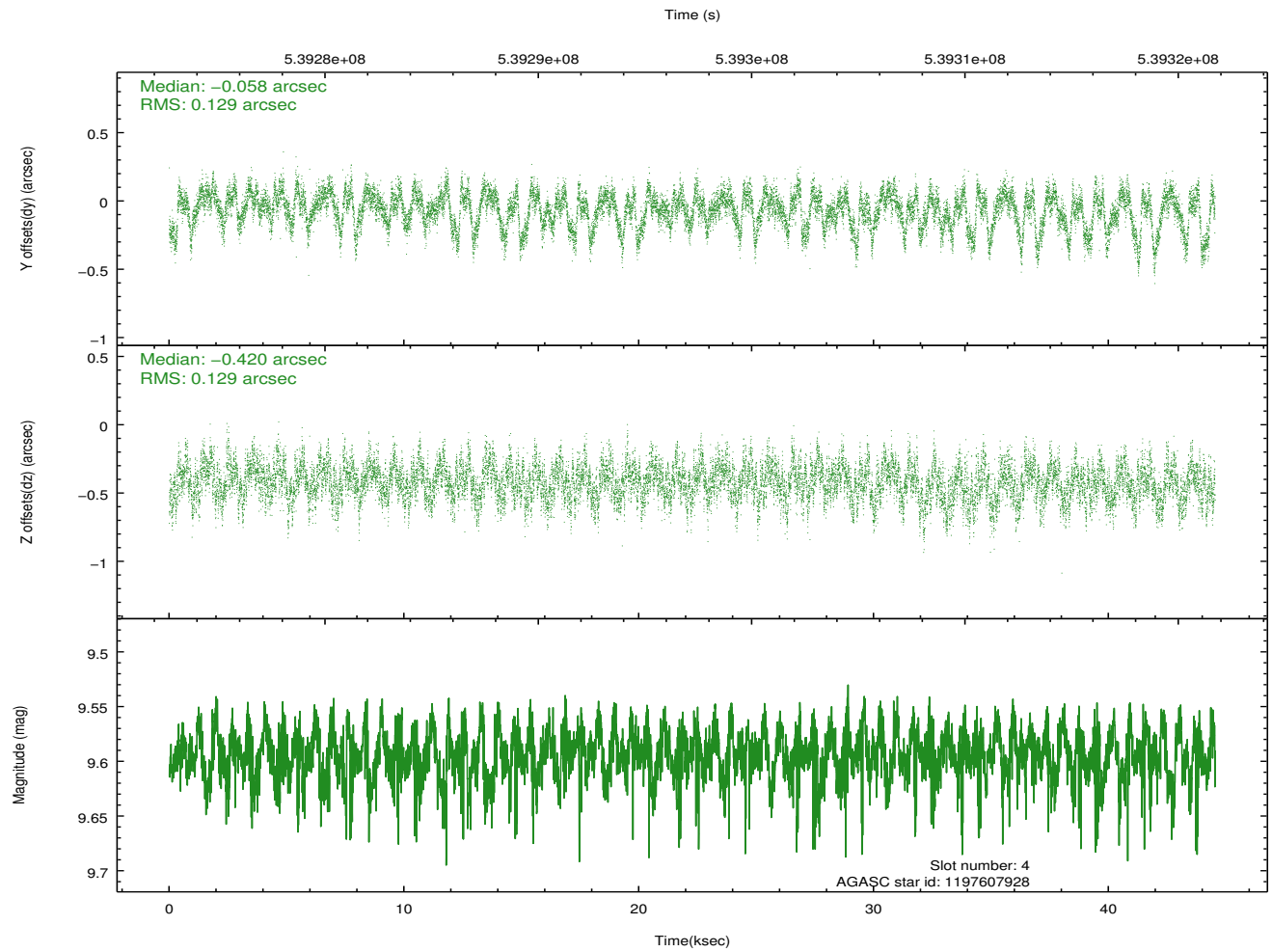
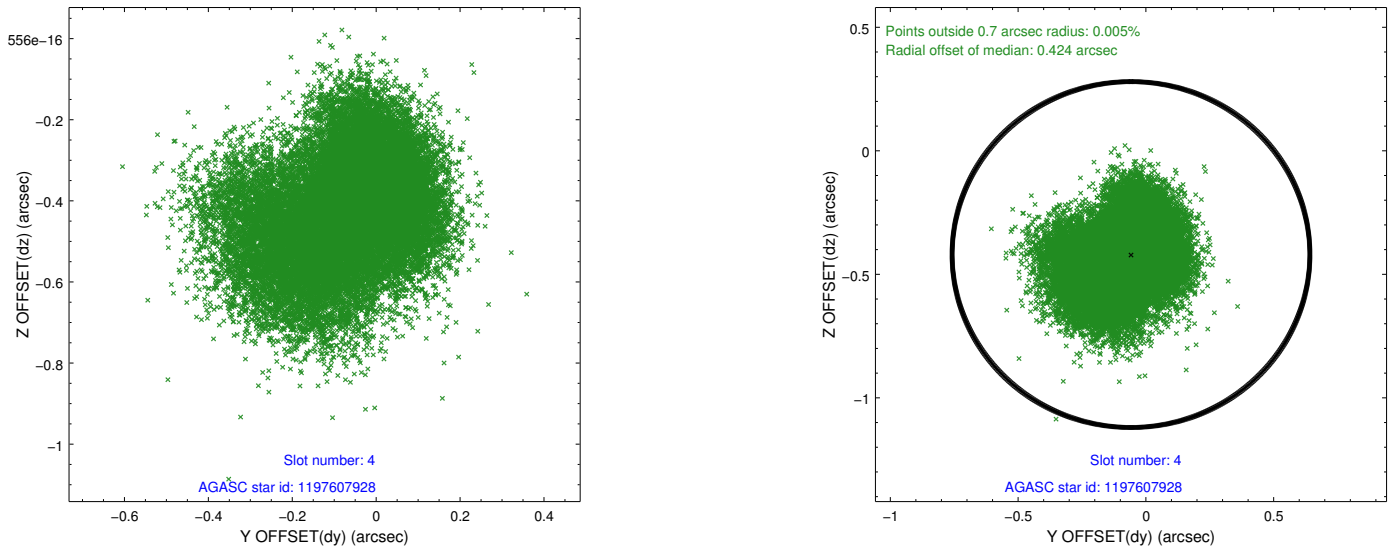
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|------------|-------|-------|--------|--------|-------|-------|----------|------------|----------|----------|
| 0 | FID | | ACIS-S-2 | 6.94 | 10862 | -0.098 | -0.021 | 0.015 | 0.023 | 0.000000 | 0.000000 | -770.22 | -1741.18 |
| 1 | FID | | ACIS-S-4 | 7.03 | 10863 | 0.265 | 0.054 | 0.017 | 0.041 | 0.000000 | 0.000000 | 2143.42 | 167.40 |
| 2 | FID | | ACIS-S-5 | 7.04 | 10863 | -0.201 | -0.024 | 0.018 | 0.026 | 0.000000 | 0.000000 | -1823.17 | 160.97 |
| 3 | GUIDE | used | 1197605928 | 9.85 | 21699 | 0.089 | 0.066 | 0.225 | 0.334 | 4.361277 | -72.423732 | 2123.40 | -755.71 |
| 4 | GUIDE | used | 1197607928 | 9.59 | 21706 | -0.058 | -0.420 | 0.196 | 0.313 | 7.837743 | -72.165759 | -757.11 | 1899.09 |
| 5 | GUIDE | used | 1197621088 | 9.86 | 21698 | 0.110 | 0.134 | 0.230 | 0.381 | 3.823480 | -72.180366 | 1750.60 | -1741.61 |
| 6 | GUIDE | used | 1197998392 | 9.70 | 21367 | -0.278 | -0.368 | 0.234 | 0.453 | 6.367452 | -72.761261 | 1908.62 | 1713.03 |
| 7 | GUIDE | used | 1197624568 | 10.12 | 21687 | 0.093 | 0.599 | 0.292 | 0.471 | 5.315302 | -71.324597 | -1735.32 | -2137.17 |

2.4 Star Slots

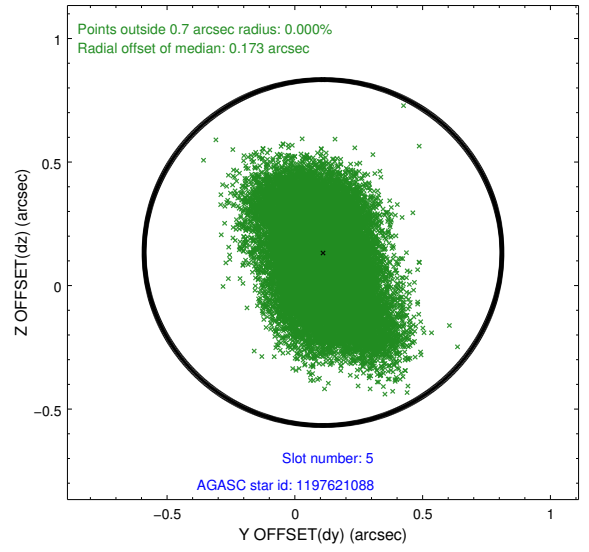
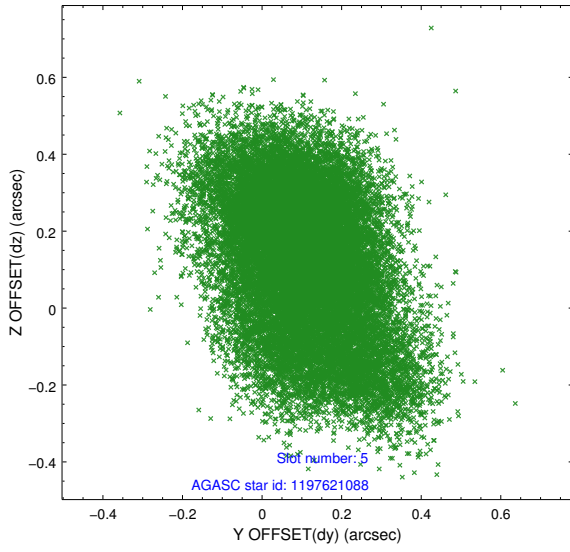
2.4.1 Slot 3



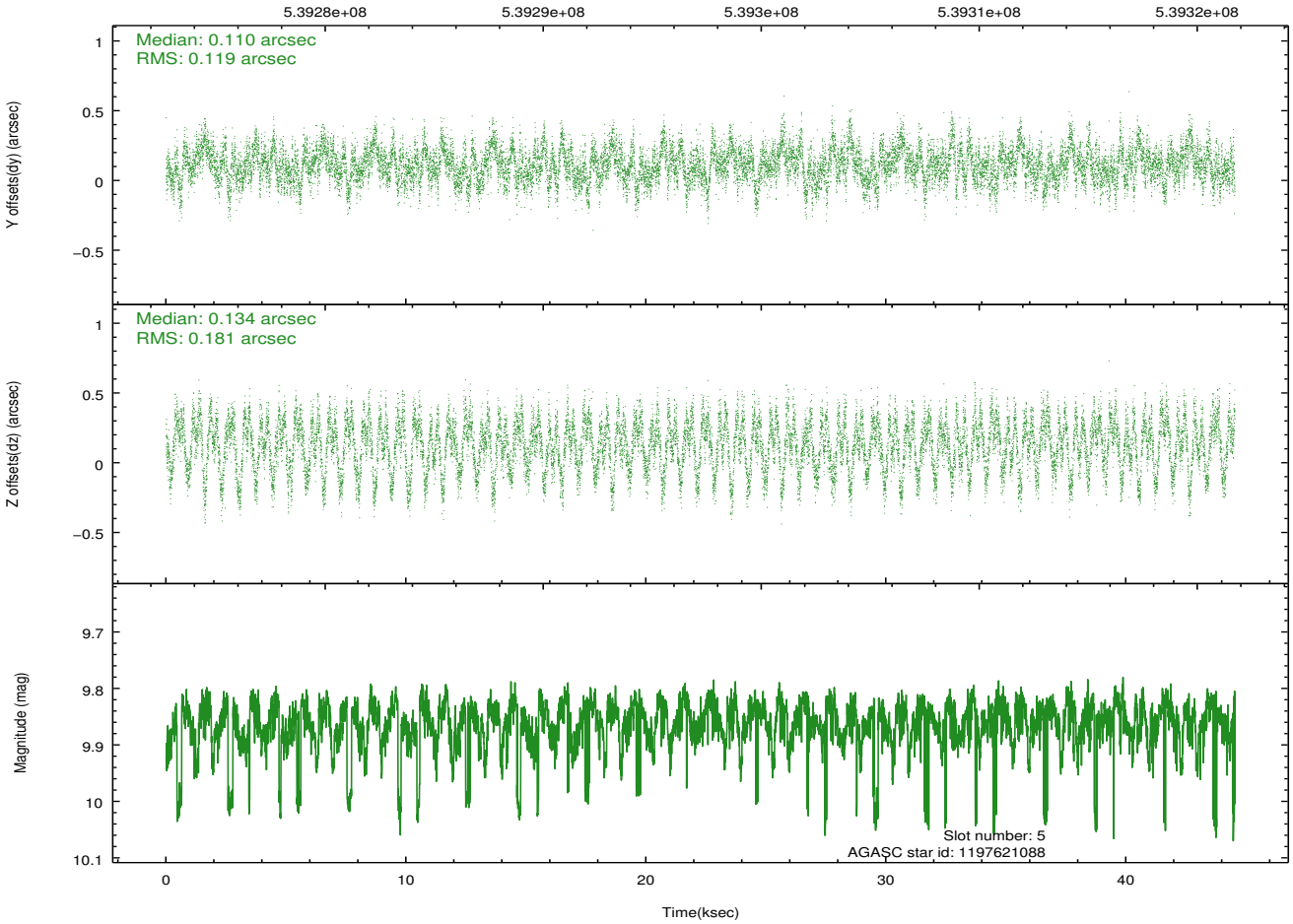
2.4.2 Slot 4



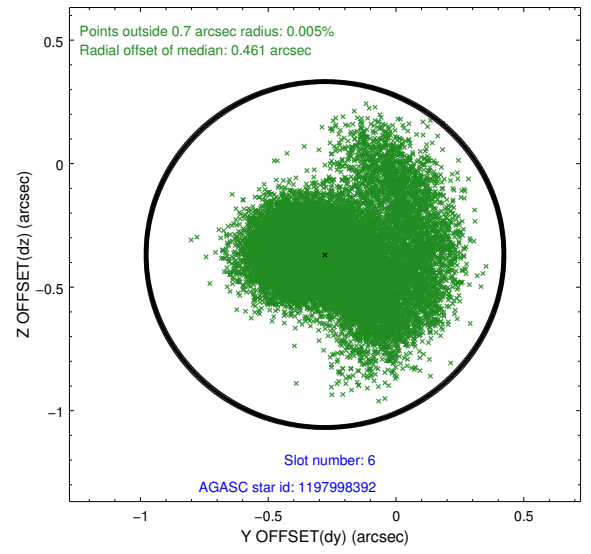
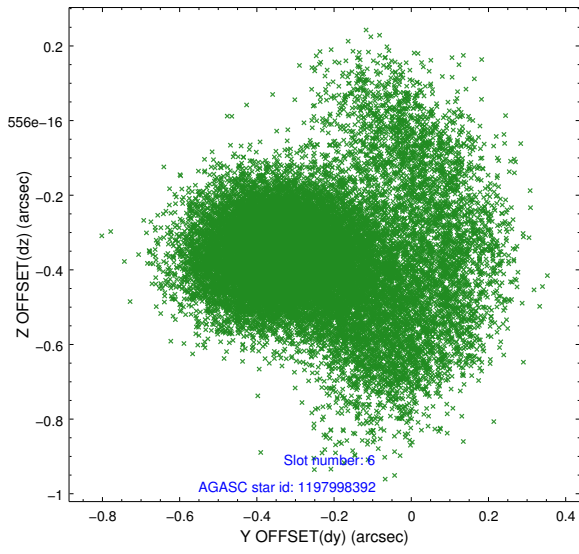
2.4.3 Slot 5



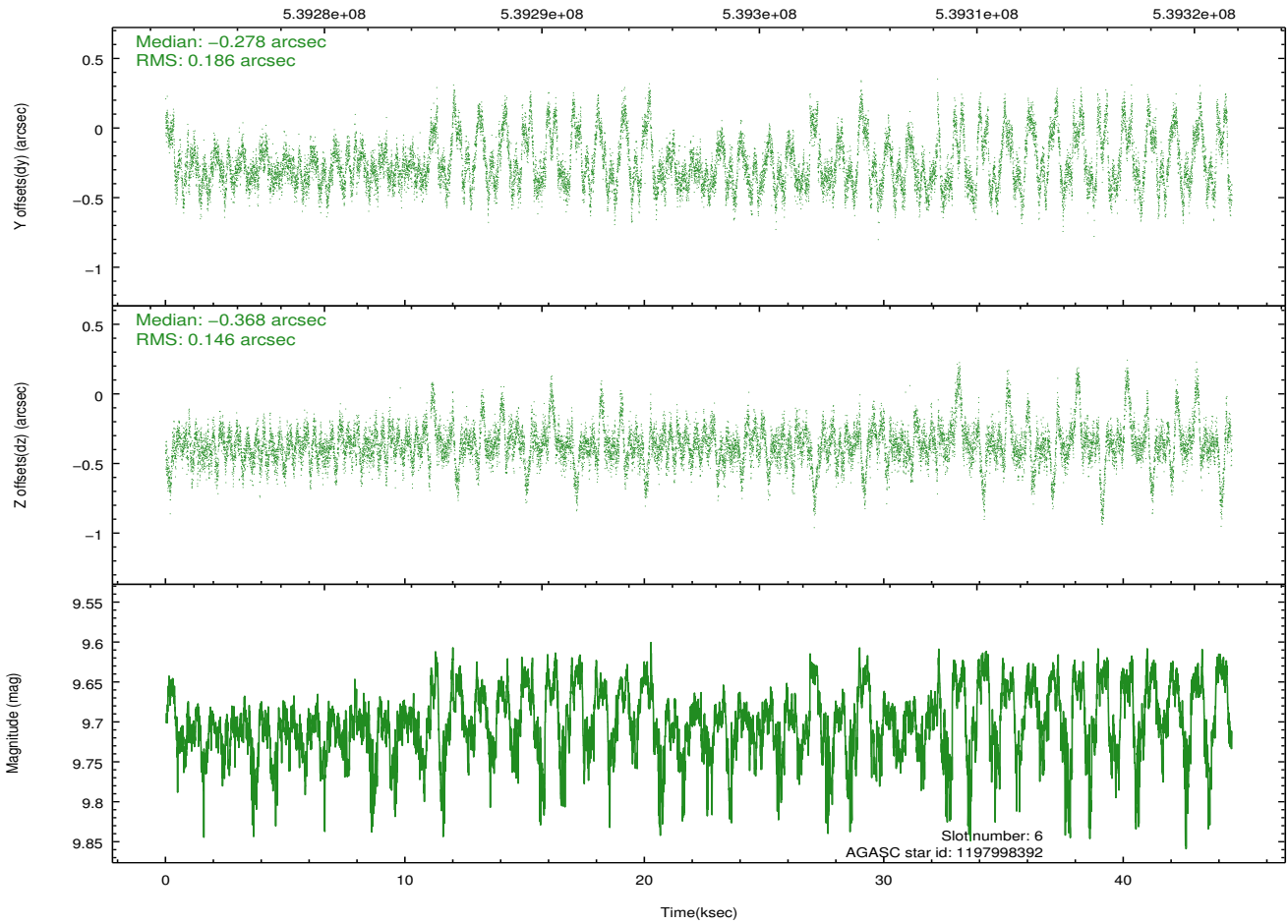
Time (s)



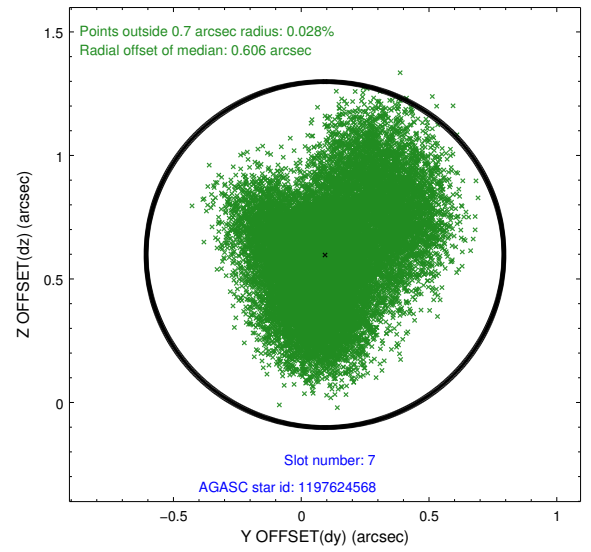
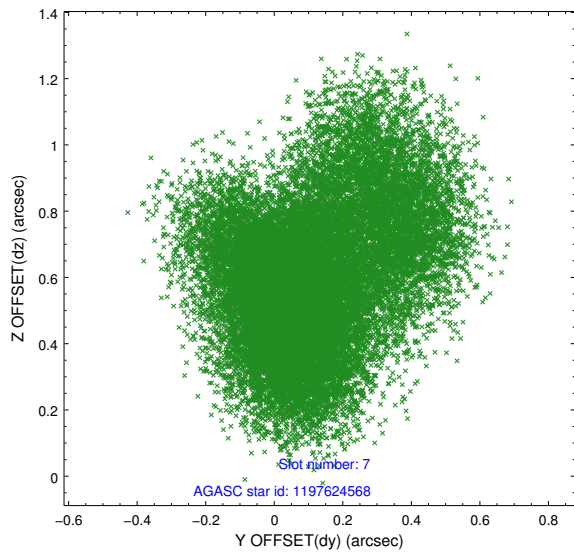
2.4.4 Slot 6



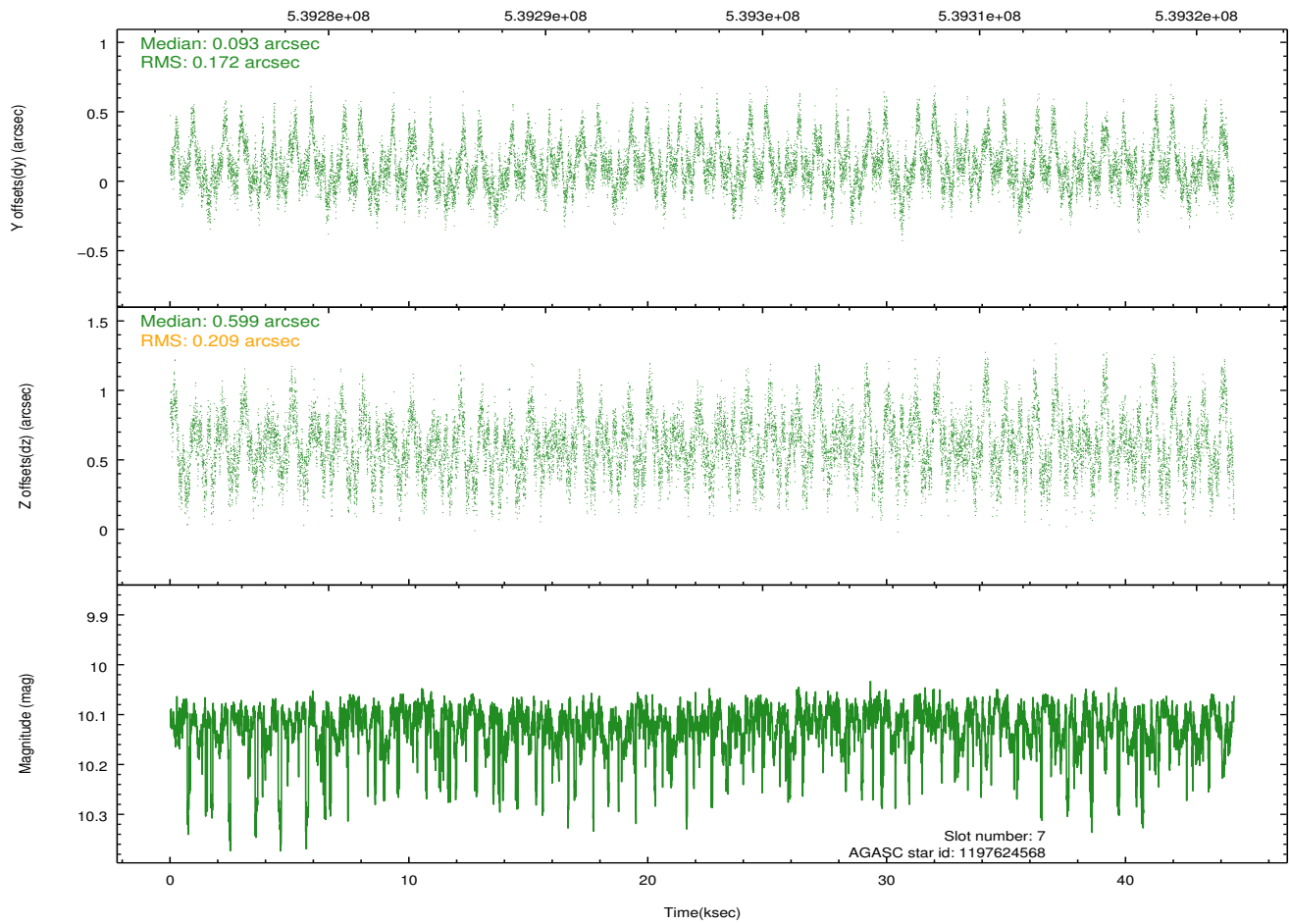
Time (s)



2.4.5 Slot 7

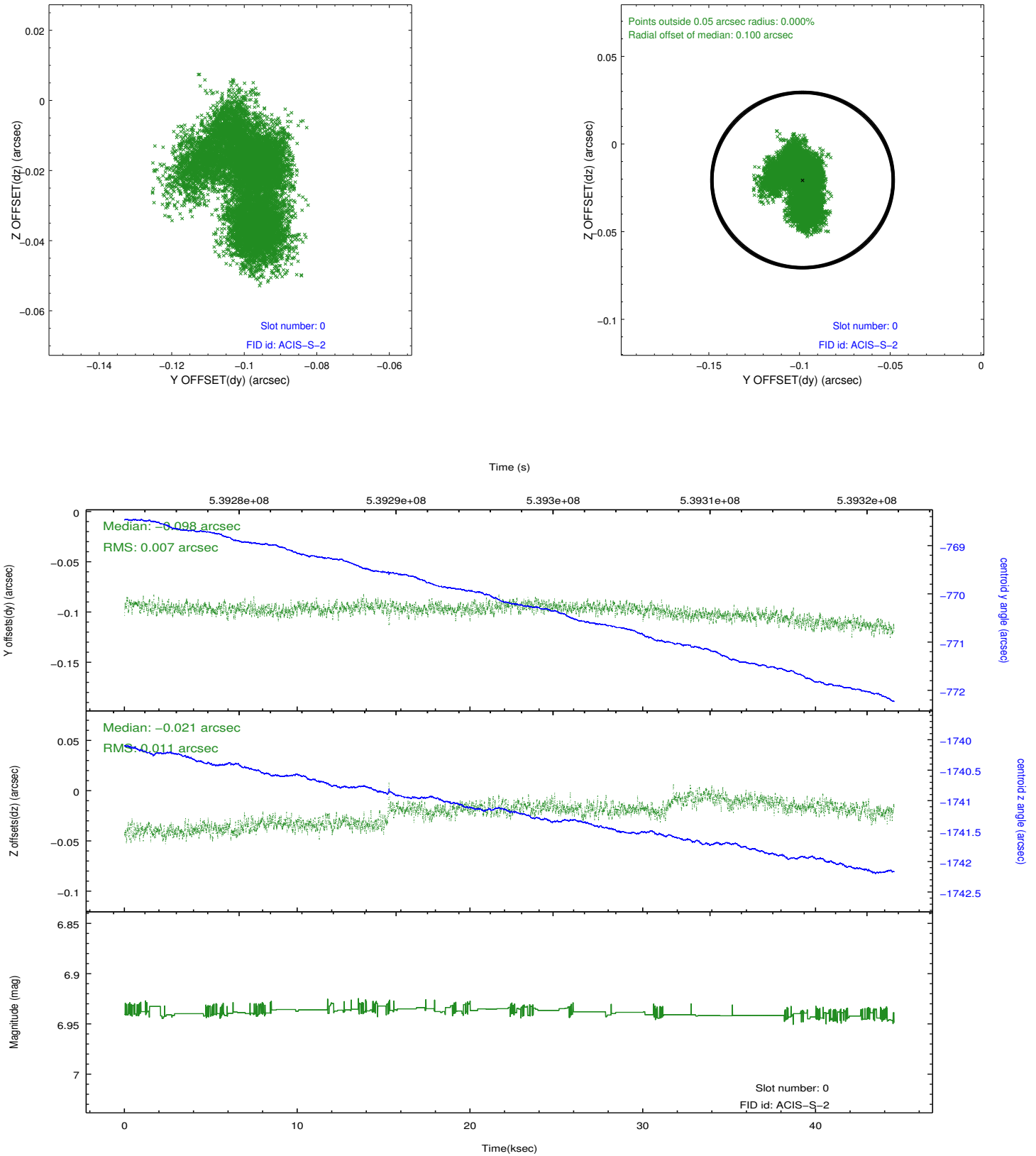


Time (s)

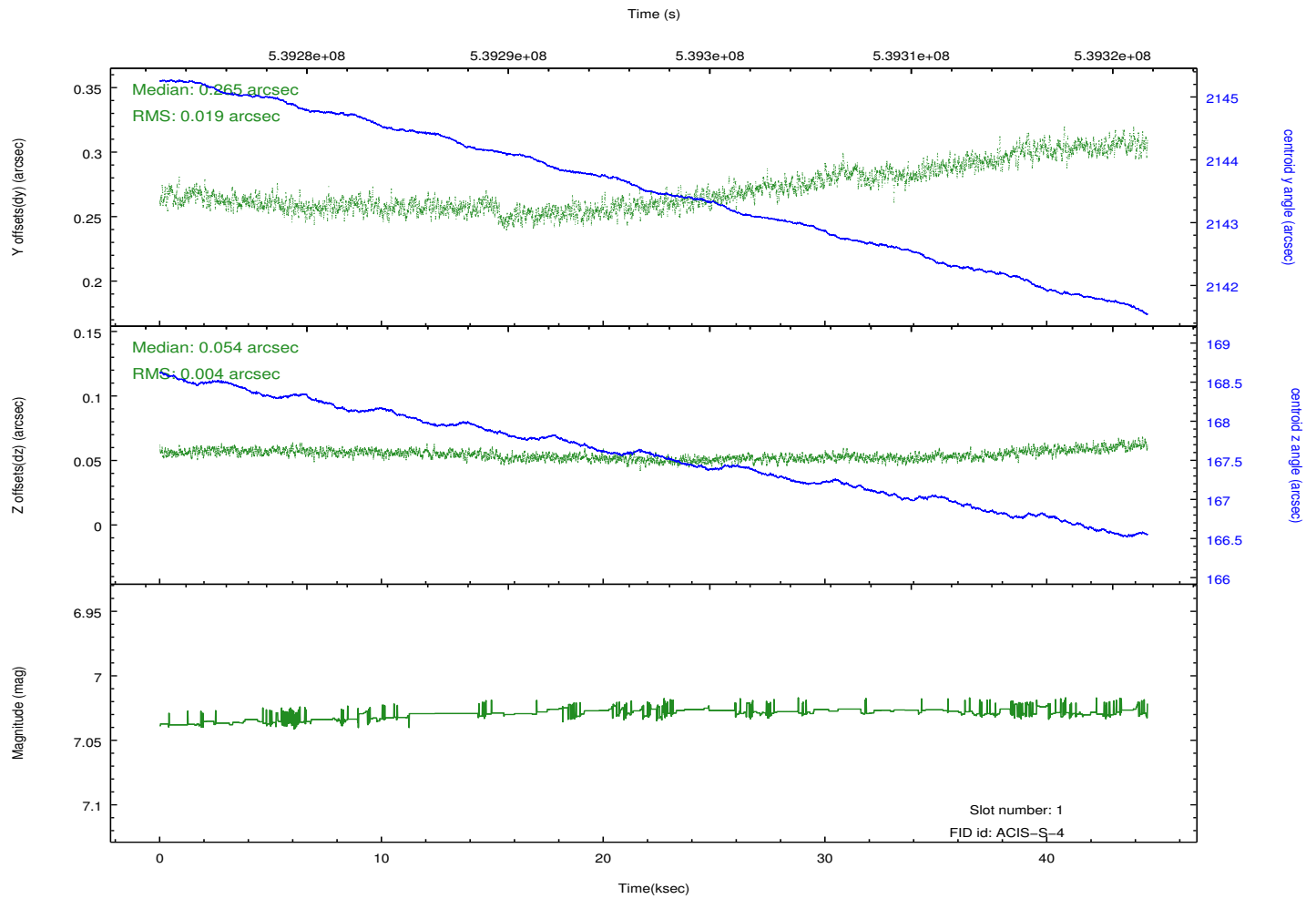
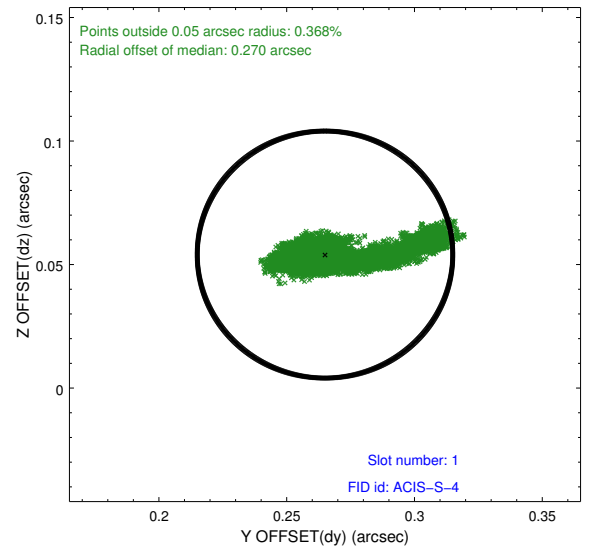
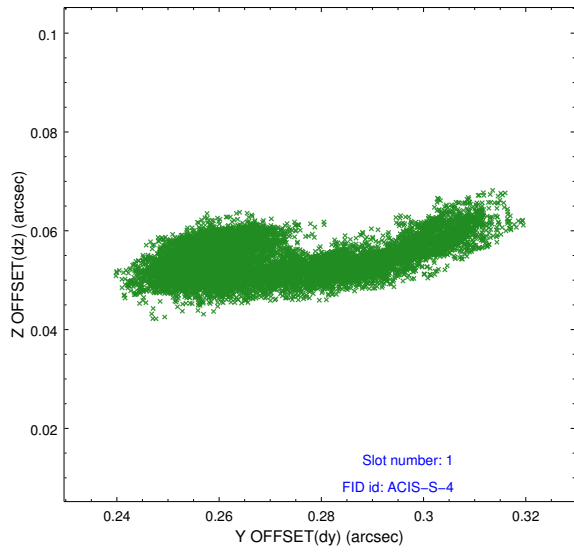


2.5 FID Slots

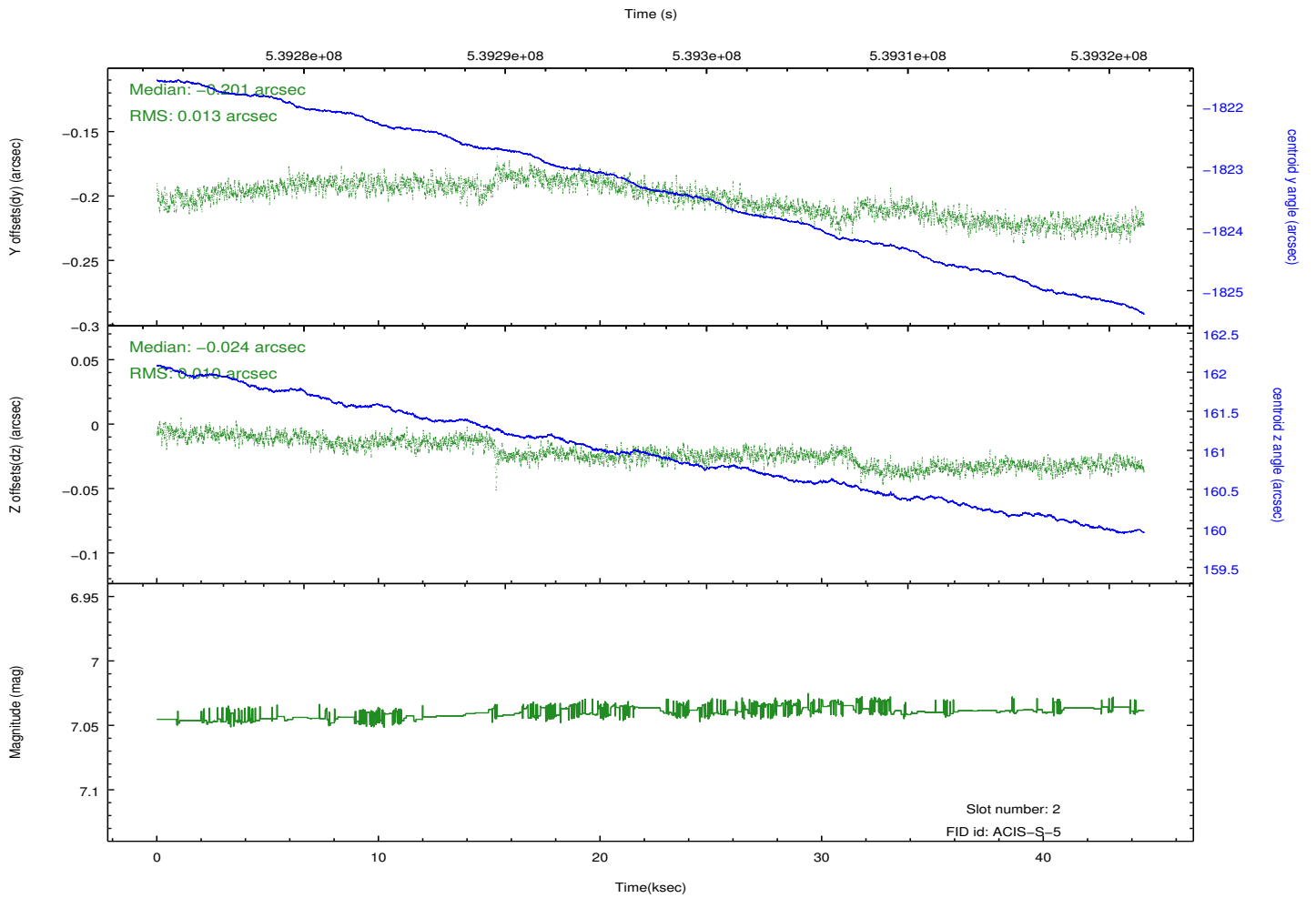
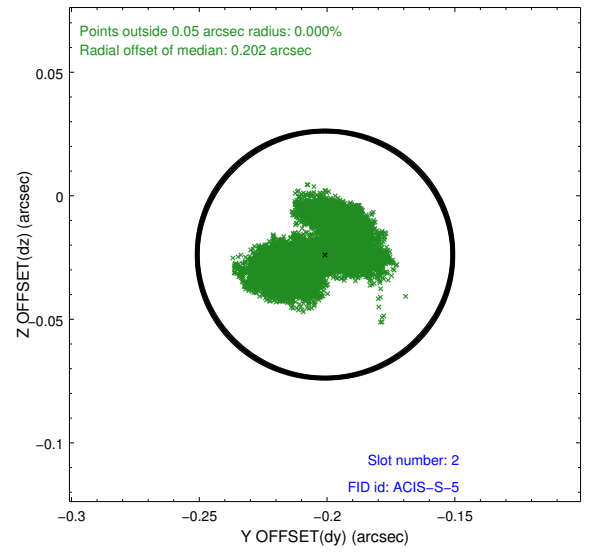
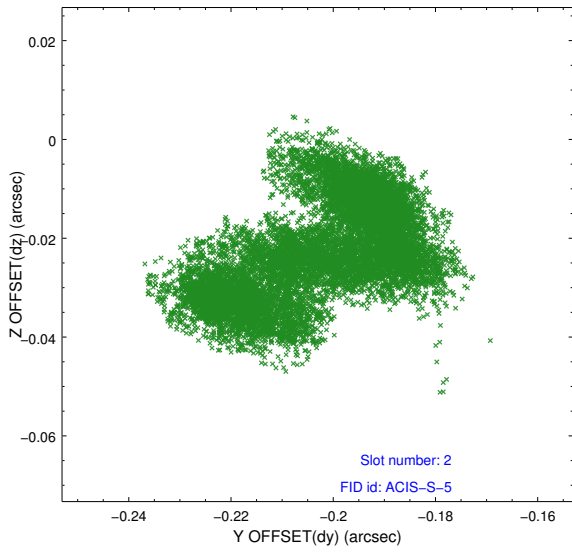
2.5.1 Slot 0



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) | 2015.02.03 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 44.416797352433 |

A.2 Comments