

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21458 - L2 Version 1
Chandra X-Ray Center

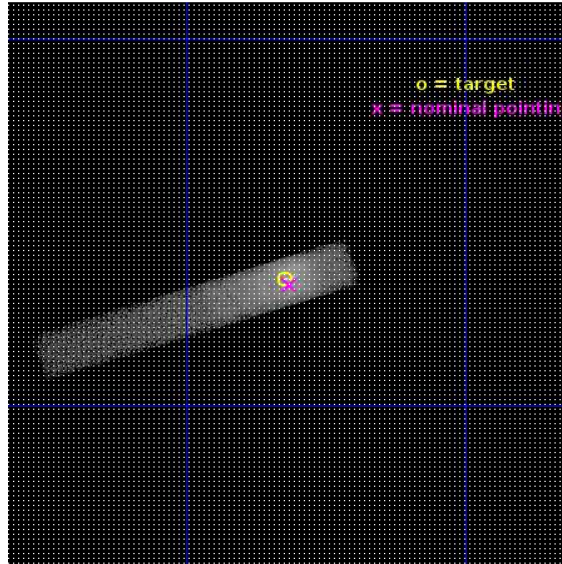
L2 Processing Date : Mar 29 2019

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1 Front

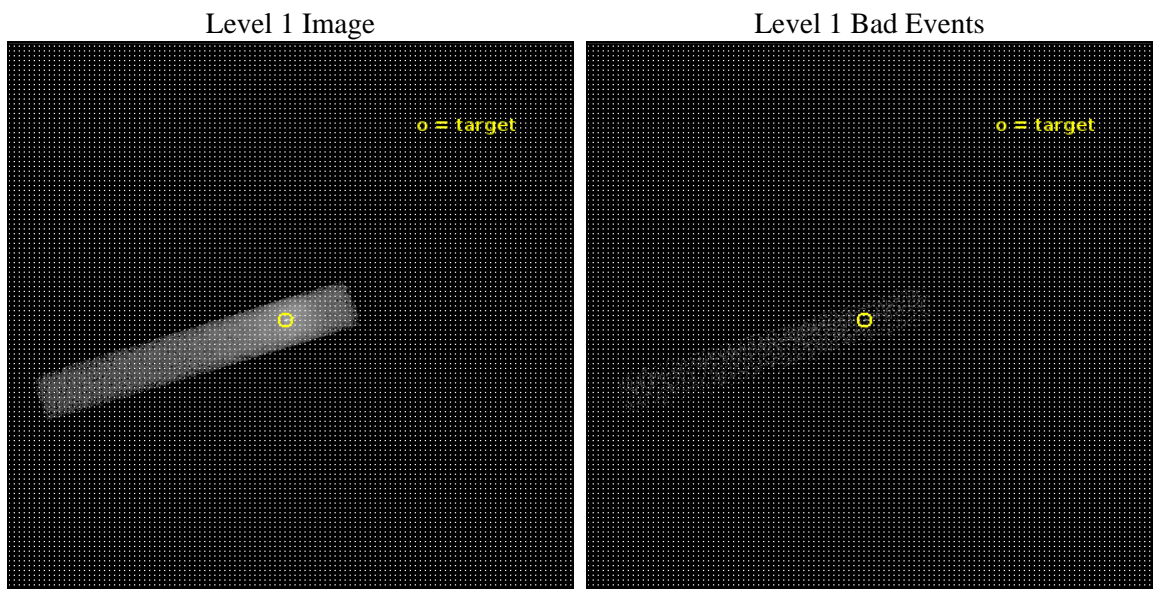
| | | |
|----------|---|---|
| seq_num | 703755 | Sequence number |
| obs_id | 21458 | Observation id |
| title | Event Horizon Dynamics: Joint Chandra/EHT Imaging of Sgr A* and M87 | |
| observer | Daryl Haggard | Principal investigator |
| object | M87 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 187.705833 | Observer's specified target RA [deg] |
| dec_targ | 12.391111 | Observer's specified target Dec [deg] |
| ra_nom | 187.70386263206 | Nominal RA [deg] |
| dec_nom | 12.388435736673 | Nominal Dec [deg] |
| roll_nom | 162.15705264068 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 14068.799161315 | Sum of GTIs [s] |
| livetime | 12759.658227204 | Livetime [s] |
| ontime7 | 14068.799161315 | Sum of GTIs [s] |
| l2events | 73601 | Number of level 2 events |



2 OBI

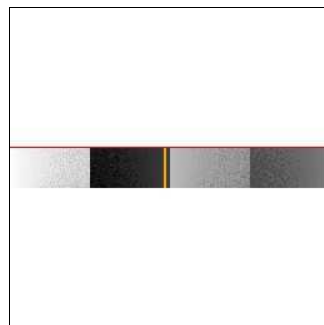
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 14000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.7.1 | Processing system revision | ontime | 14068.799161315 | Sum of GTIs [s] |
| caldsver | 4.8.2 | | ontime7 | 14068.799161315 | Sum of GTIs [s] |
| date | 2019-03-29T09:29:38 | Date and time of file creation | l1events | 84511 | Number of level 1 events |
| revision | 1 | Processing version of data | | | |

2.1.4 Events

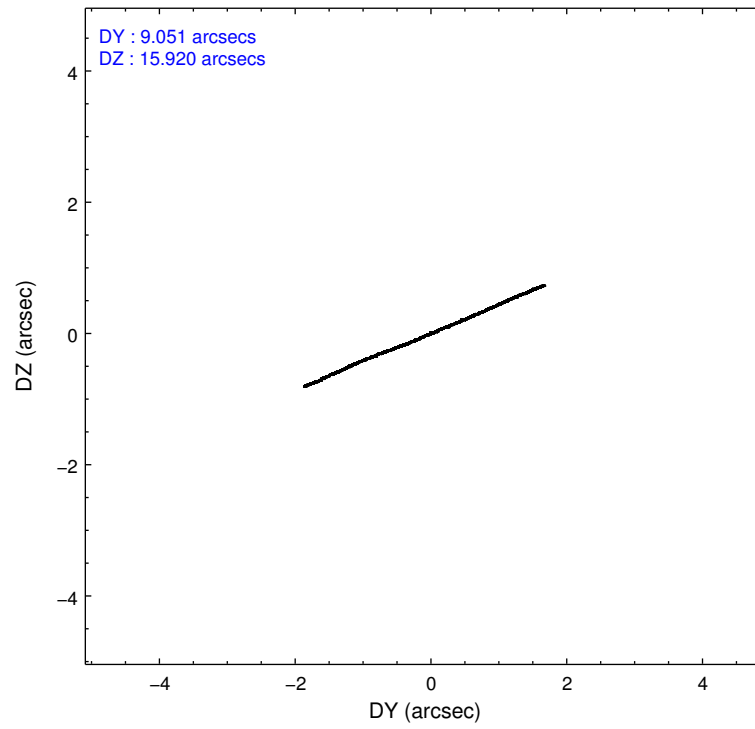
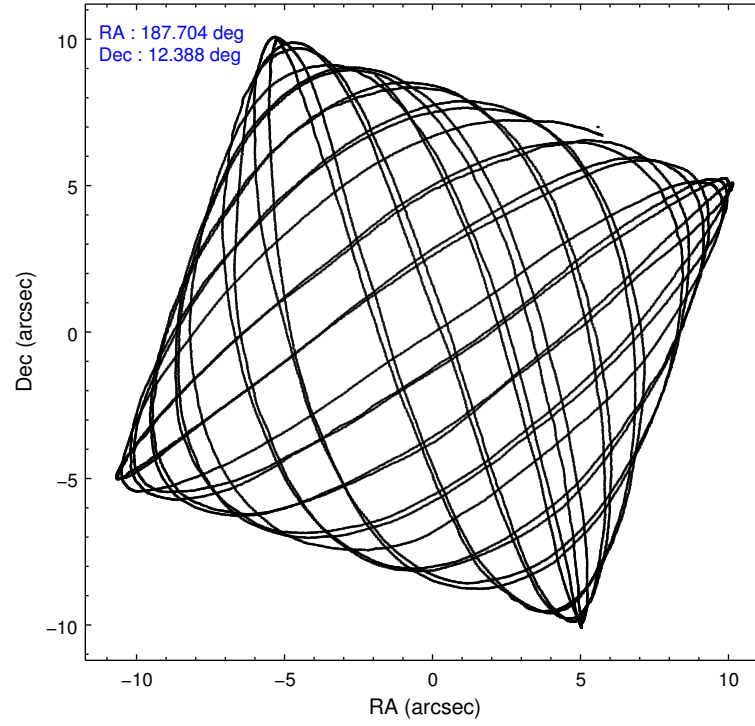
| | |
|-----------------|--------------|
| | ccd 7 |
| level 1 events | 84511 |
| rejected events | 9976 |
| rejected % | 11% |

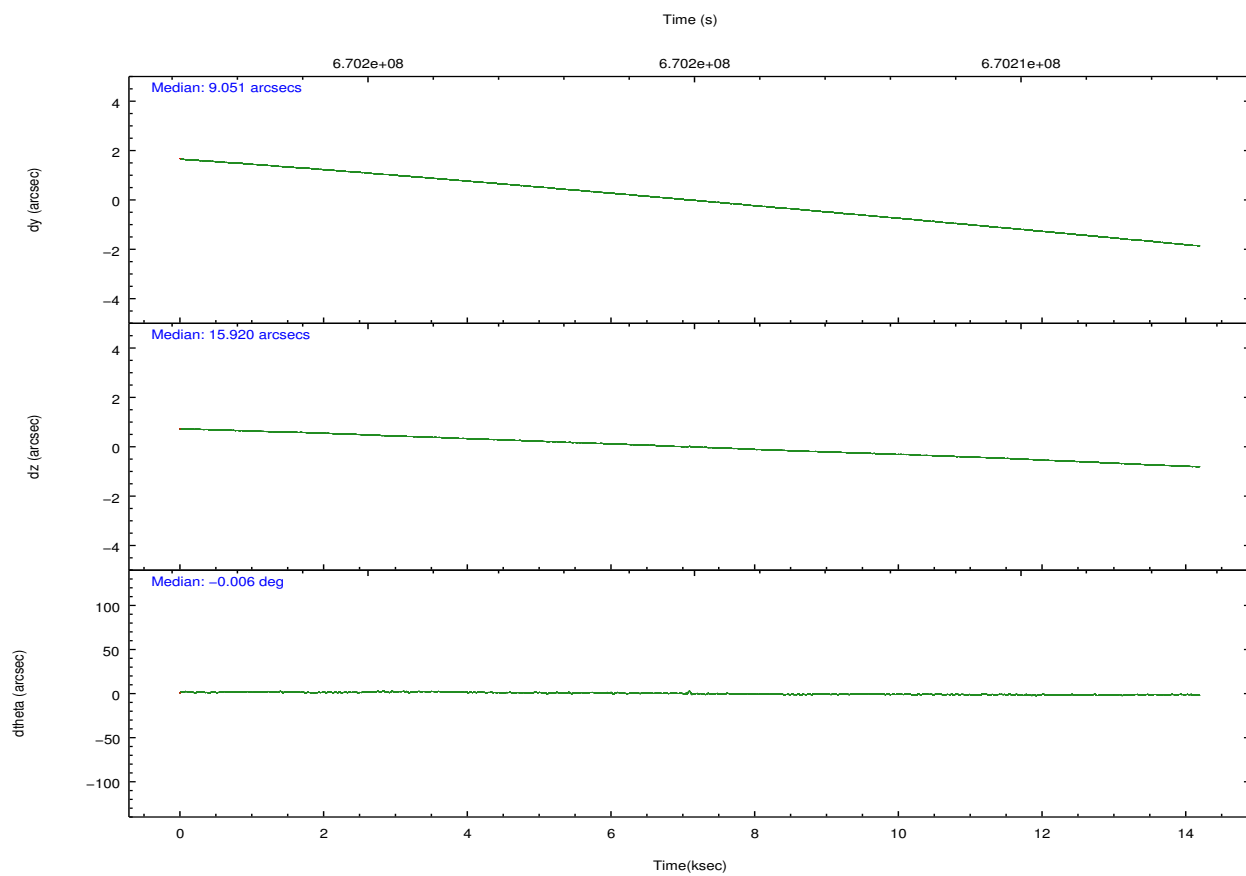
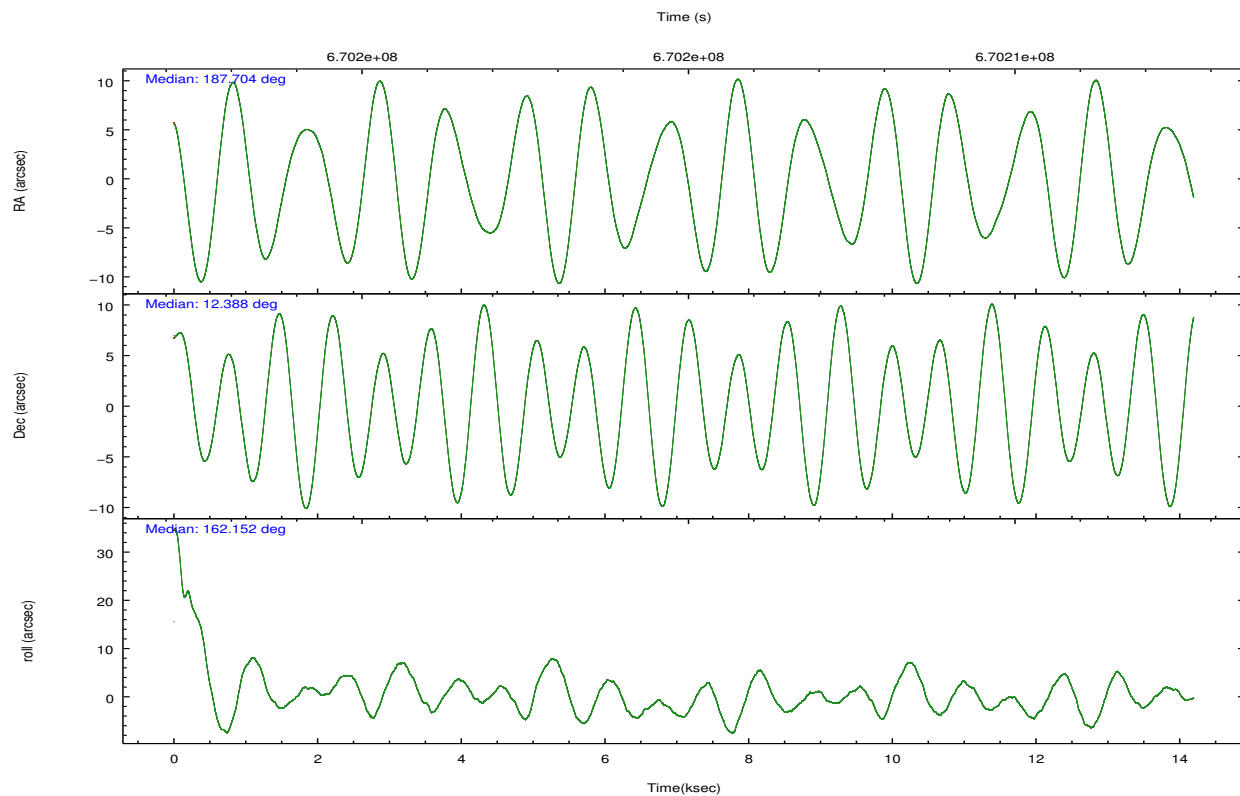
| | |
|----------------|--------------|
| | ccd 7 |
| grade 0 events | 19636 |
| | 23% |
| grade 1 events | 36 |
| | 0% |
| grade 2 events | 19041 |
| | 22% |
| grade 3 events | 8922 |
| | 10% |
| grade 4 events | 8727 |
| | 10% |
| grade 5 events | 2226 |
| | 2% |
| grade 6 events | 18211 |
| | 21% |
| grade 7 events | 7712 |
| | 9% |

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 | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 187.731251 | 187.703862632058 | Subarray requested | CUSTOM | 1/8 |
| [deg] Pointing Dec | 12.394569 | 12.38843573667276 | Subarray start row | 449 | 449 |
| [deg] Pointing Roll | 161.994552 | 162.1570526406789 | 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) | 670198028.184000 | 670197385.64836 | | | |
| Observation start date | 2019-03-28T22:05:59 | 2019-03-28T21:56:25 | | | |
| [s] Observation end time (MET) | 670212028.184000 | 670212674.54928 | | | |
| Observation end date | 2019-03-29T01:59:19 | 2019-03-29T02:11:14 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



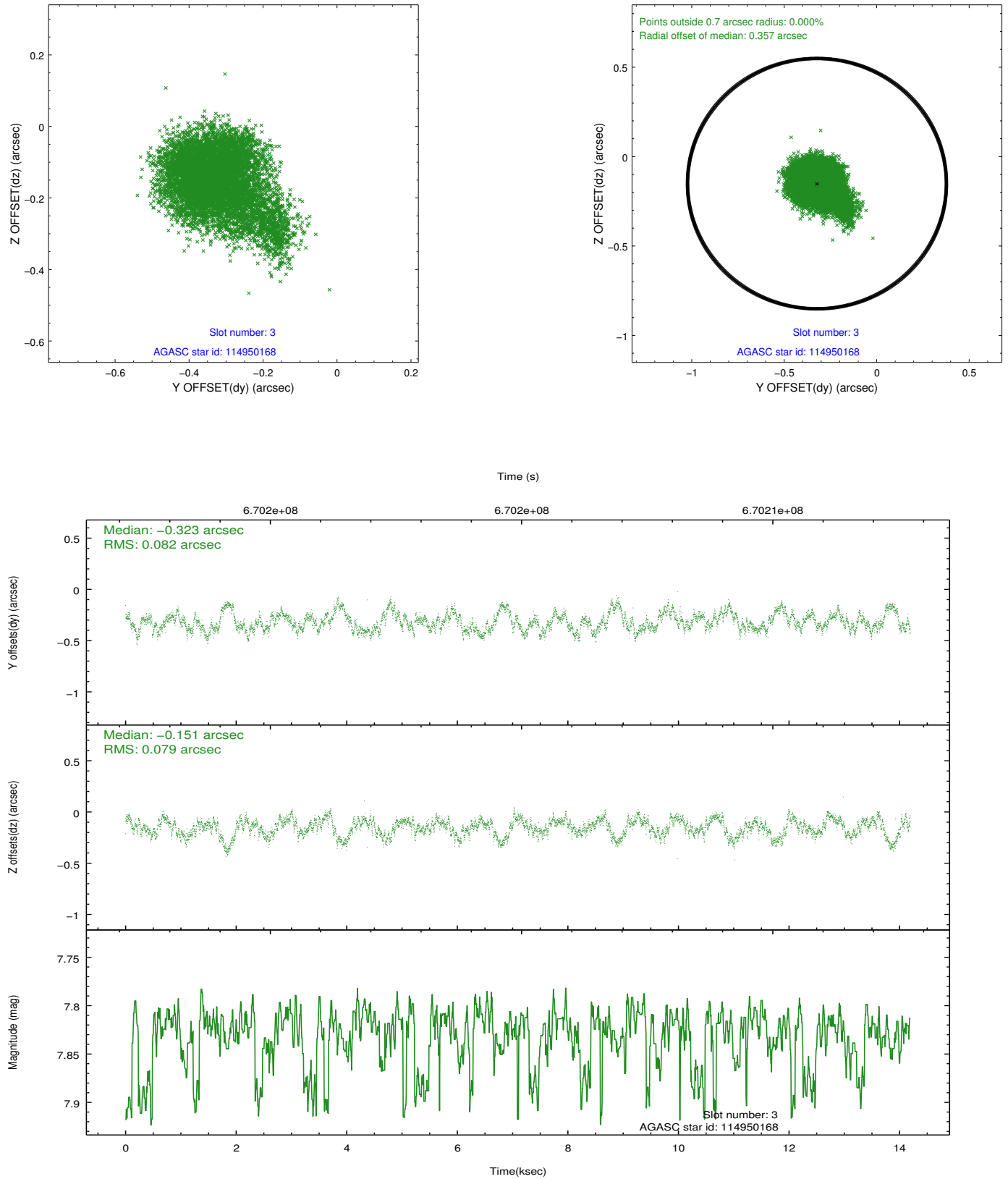


Slot Statistics

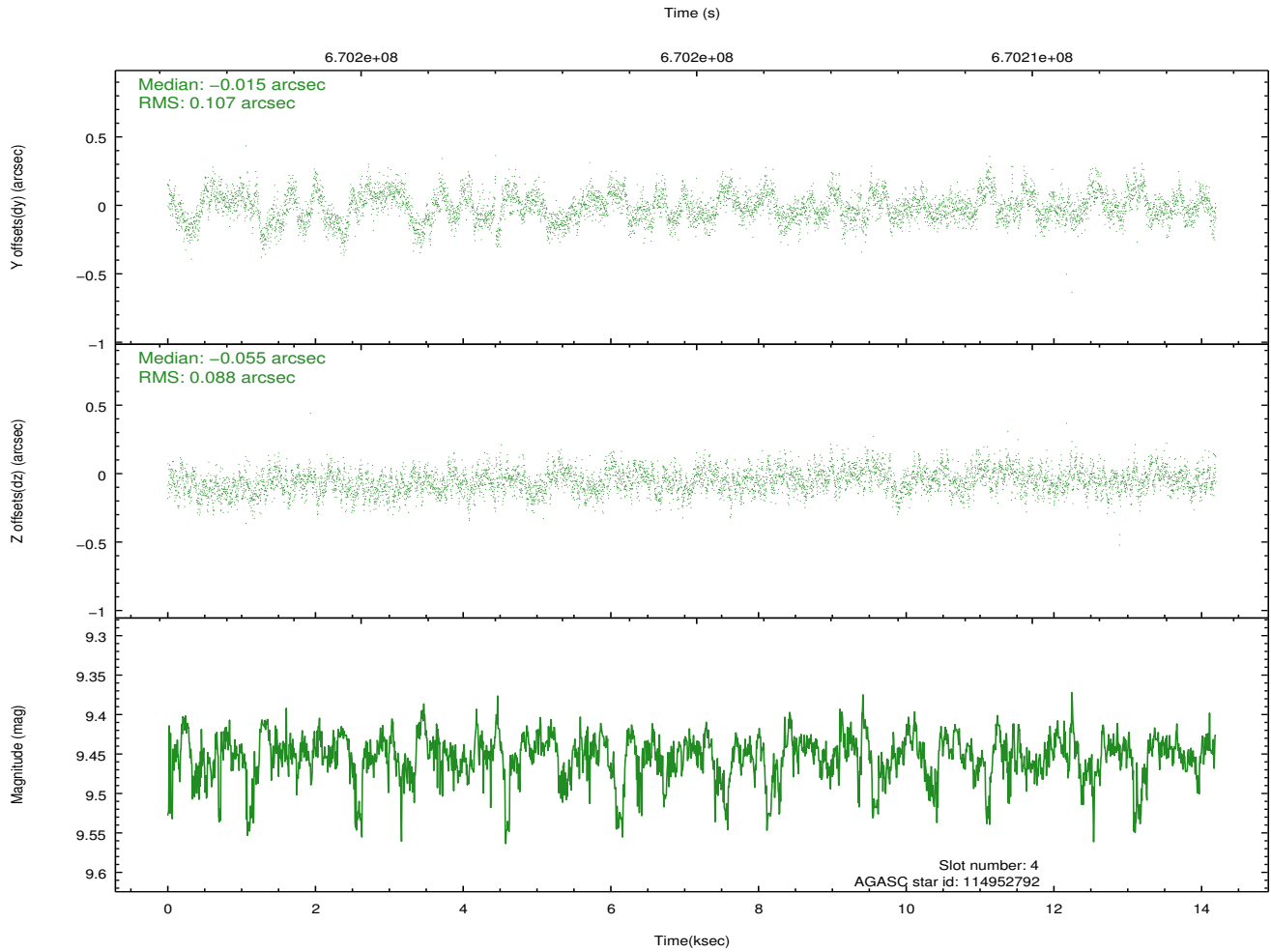
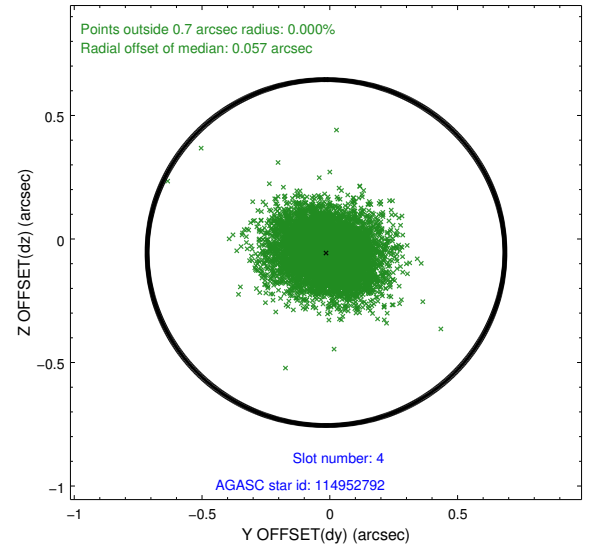
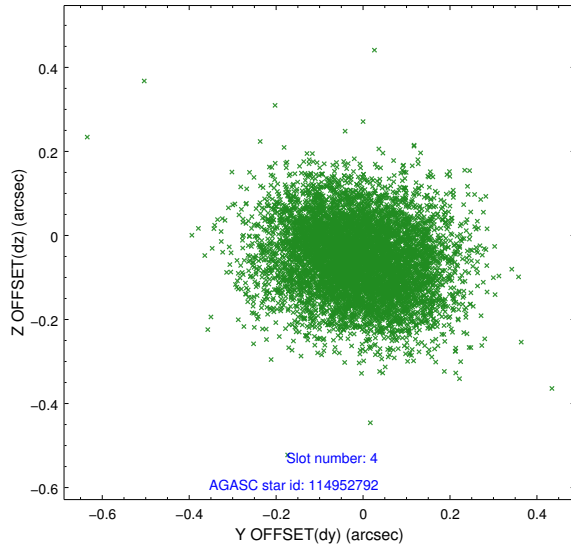
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.07 | 3463 | 1.000 | -0.285 | -0.133 | 0.019 | 0.025 | 0.000000 | 0.000000 | -762.06 | -1737 |
| 1 | FID | | ACIS-S-4 | 7.21 | 3463 | 1.000 | 0.683 | 0.172 | 0.039 | 0.069 | 0.000000 | 0.000000 | 2151.97 | 171 |
| 2 | FID | | ACIS-S-5 | 7.17 | 3463 | 1.000 | -0.430 | -0.030 | 0.023 | 0.071 | 0.000000 | 0.000000 | -1814.67 | 164 |
| 3 | GUIDE | used | 114950168 | 7.83 | 6923 | 1.000 | -0.323 | -0.151 | 0.119 | 0.203 | 187.143398 | 12.117441 | 1659.49 | 1586 |
| 4 | GUIDE | used | 114952792 | 9.45 | 6913 | 1.000 | -0.015 | -0.055 | 0.147 | 0.239 | 187.070263 | 12.344747 | 2157.70 | 888 |
| 5 | GUIDE | used | 114952824 | 8.55 | 6915 | 1.000 | 0.225 | 0.477 | 0.126 | 0.200 | 187.703904 | 12.486727 | 195.18 | -284 |
| 6 | GUIDE | used | 114955056 | 8.30 | 6919 | 1.000 | 0.128 | -0.087 | 0.110 | 0.181 | 187.914001 | 12.127854 | -907.03 | 714 |
| 7 | GUIDE | used | 114956144 | 9.67 | 6834 | 1.000 | 0.001 | -0.174 | 0.210 | 0.312 | 187.100545 | 12.039156 | 1720.88 | 1902 |

2.4 Star Slots

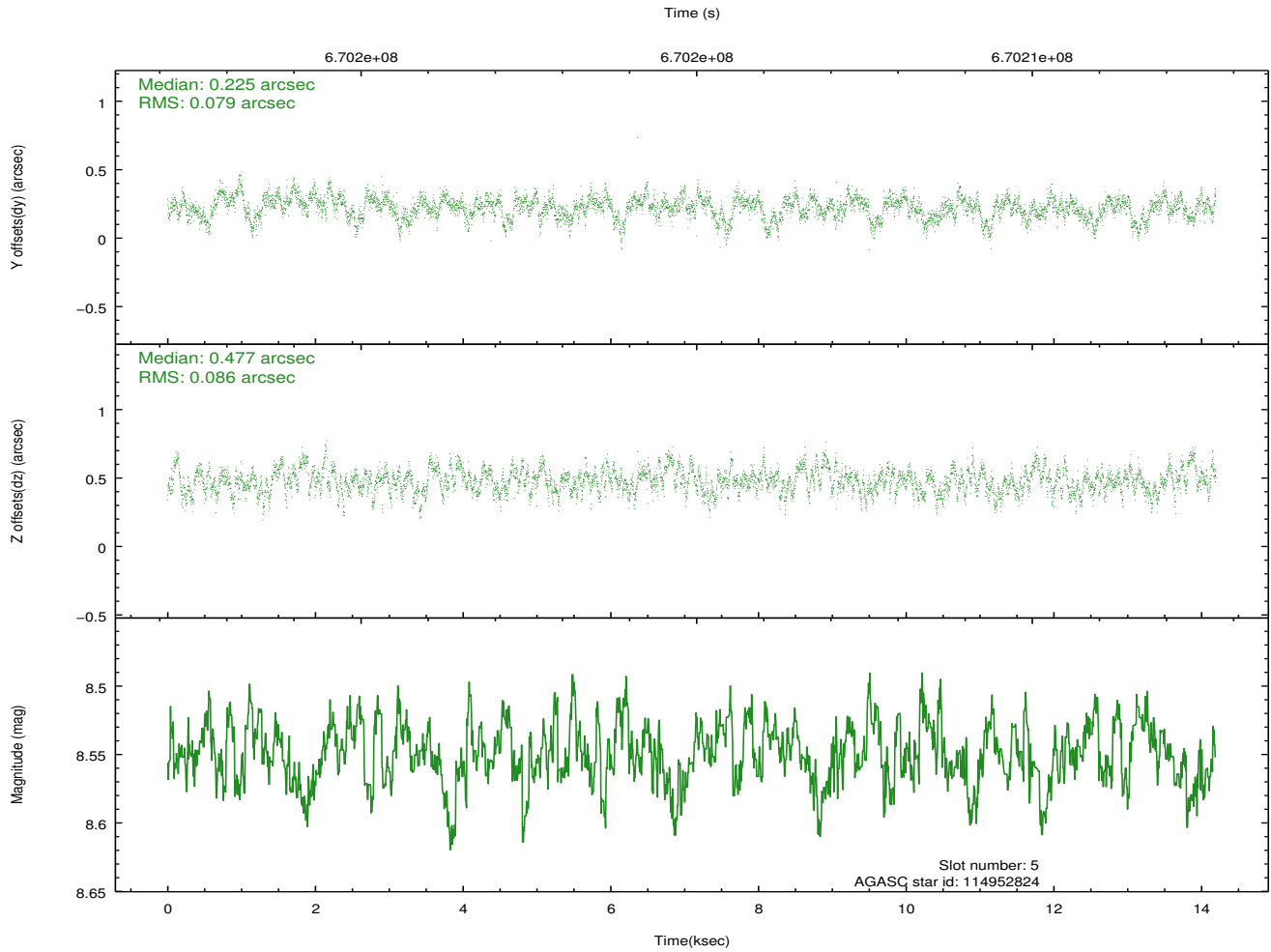
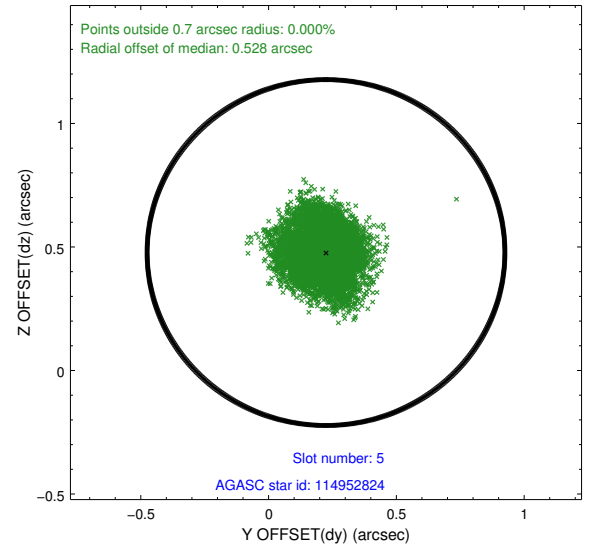
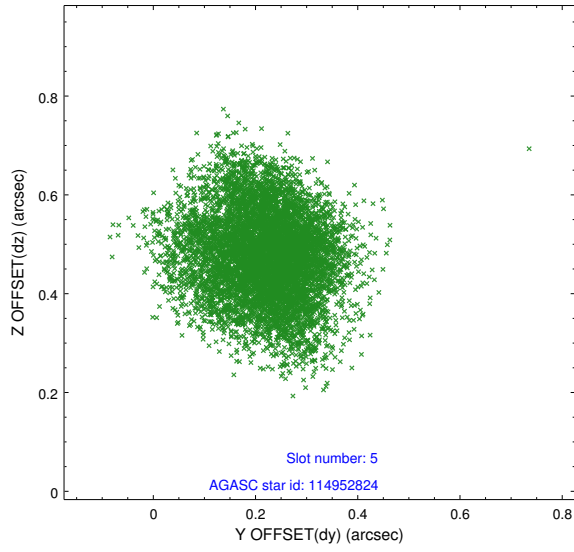
2.4.1 Slot 3



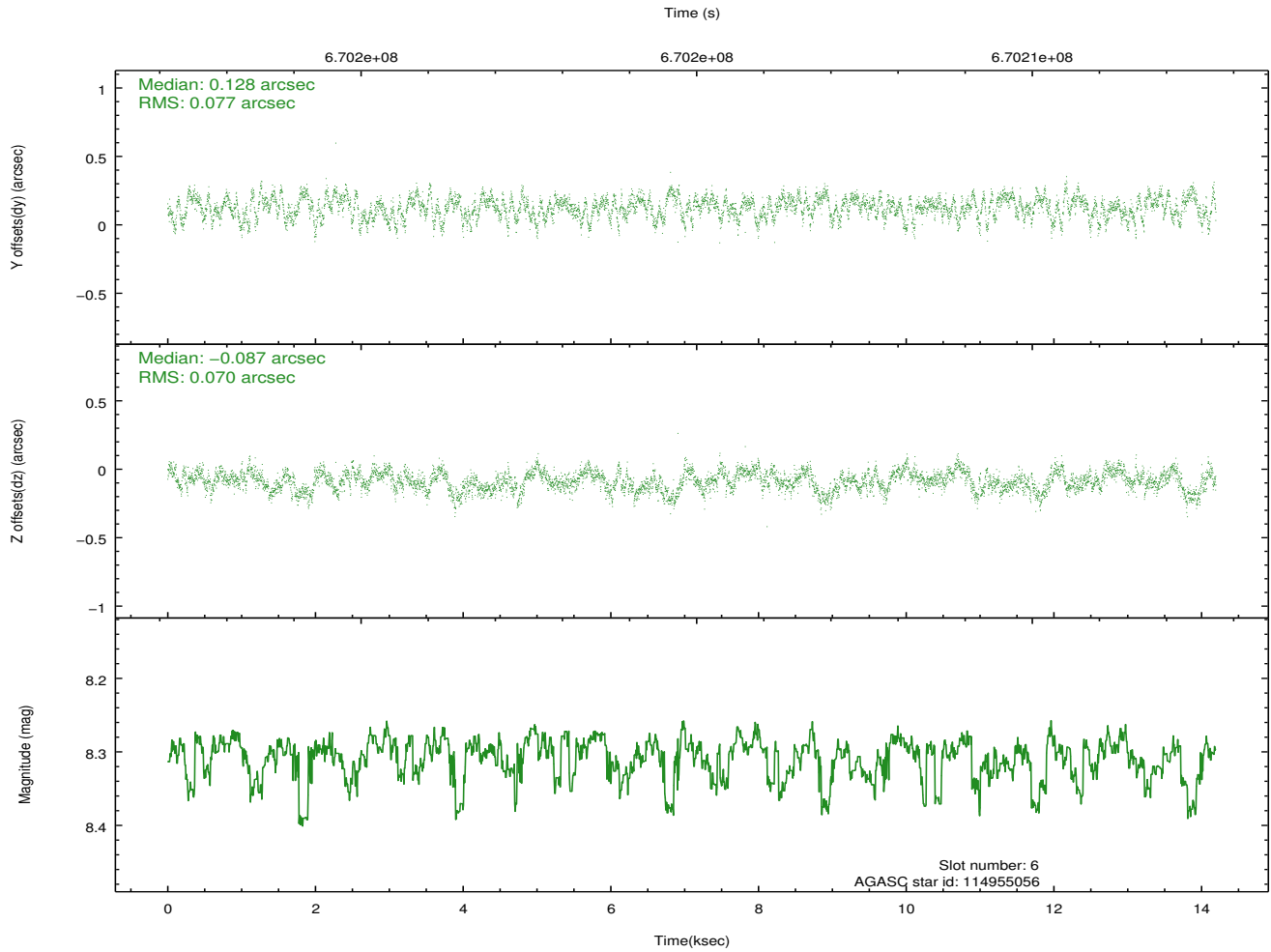
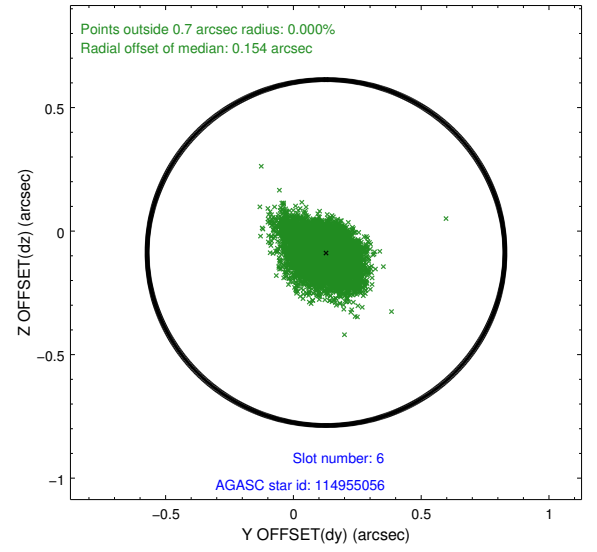
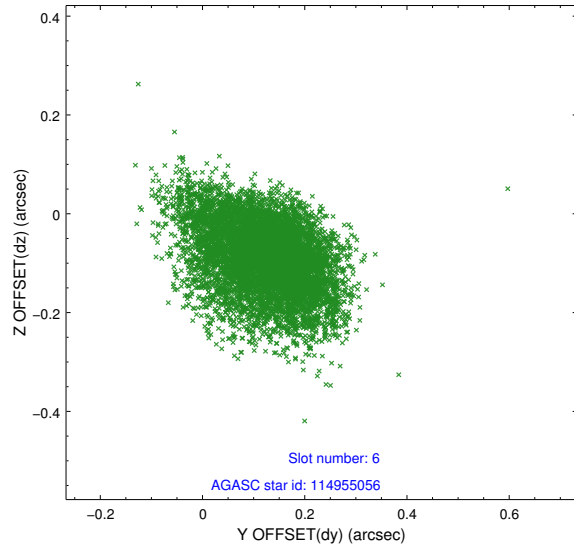
2.4.2 Slot 4



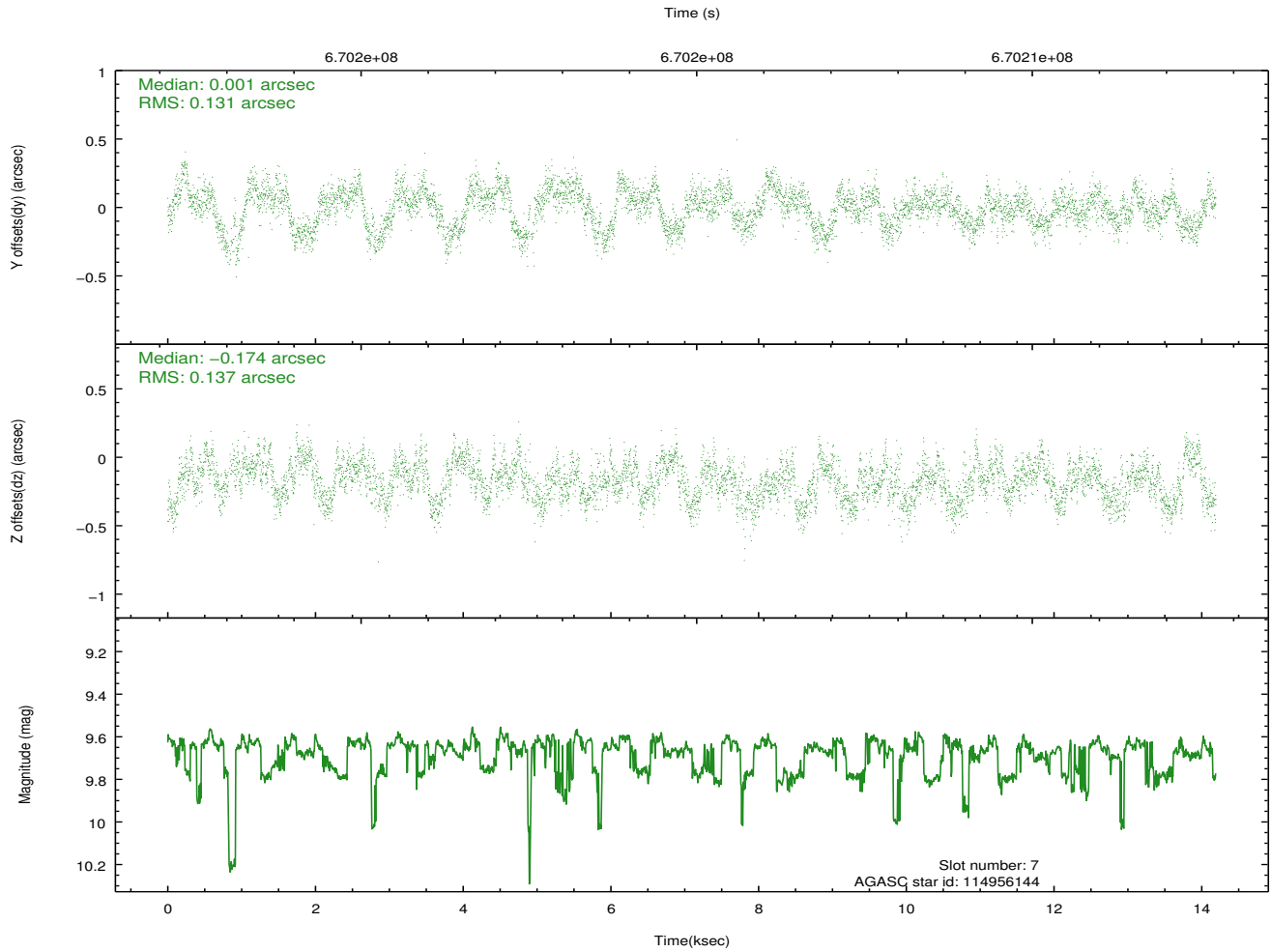
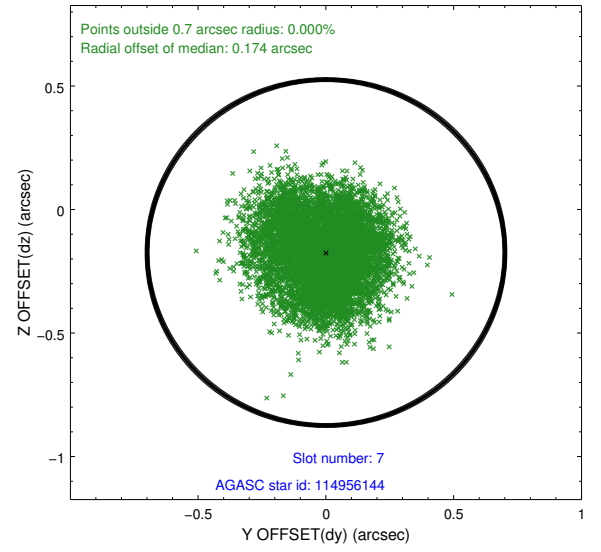
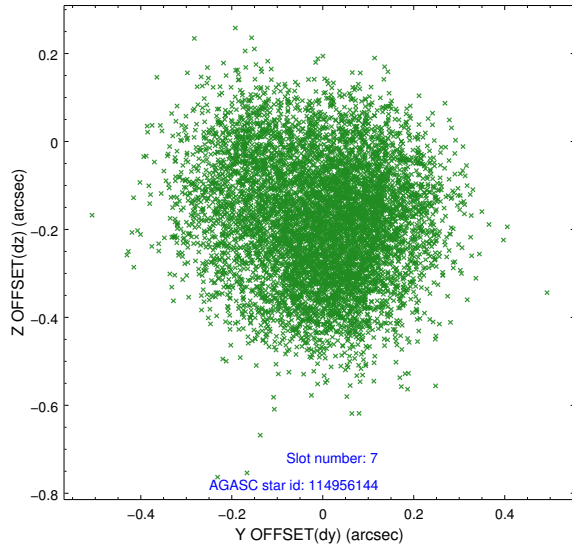
2.4.3 Slot 5



2.4.4 Slot 6

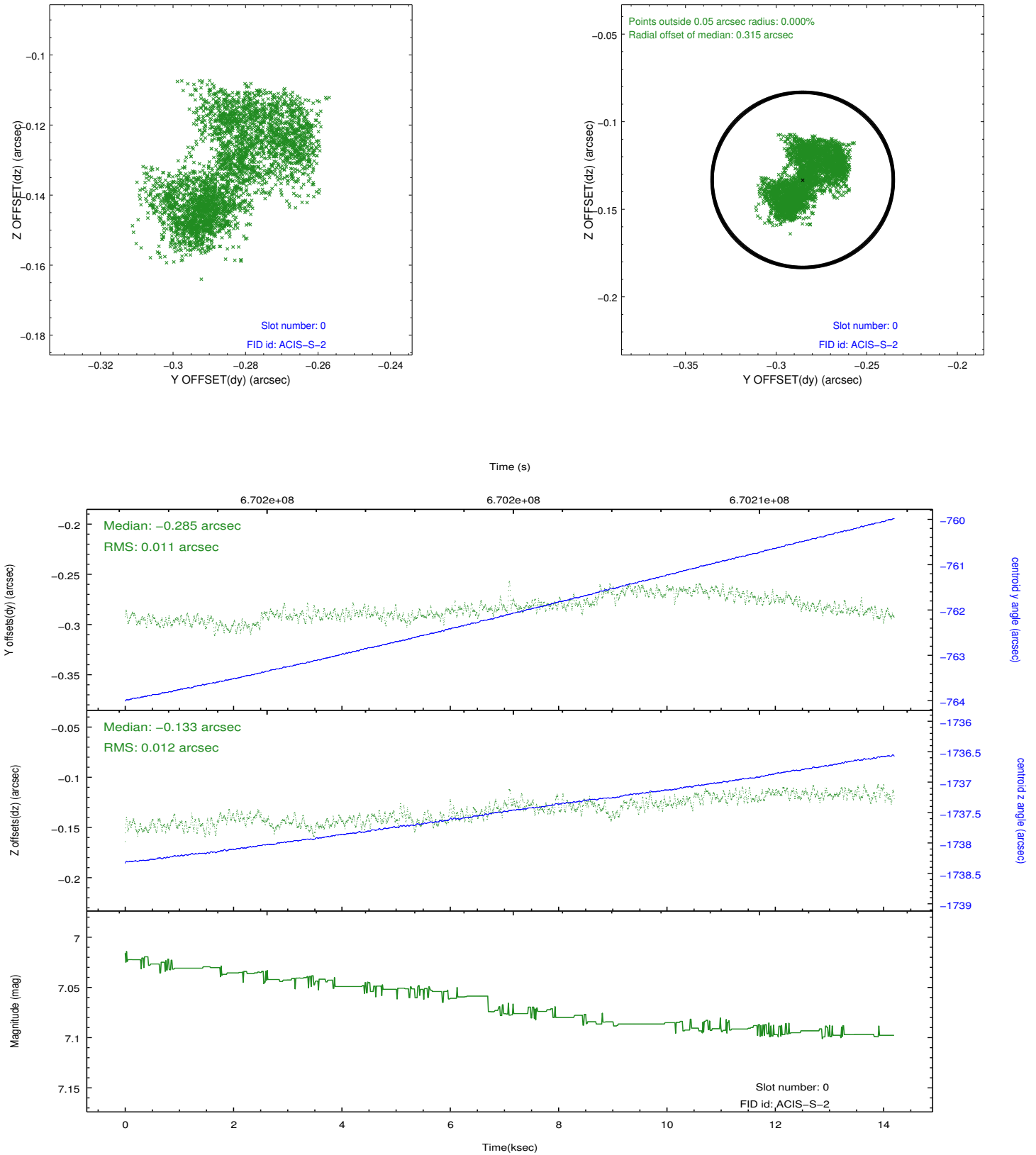


2.4.5 Slot 7

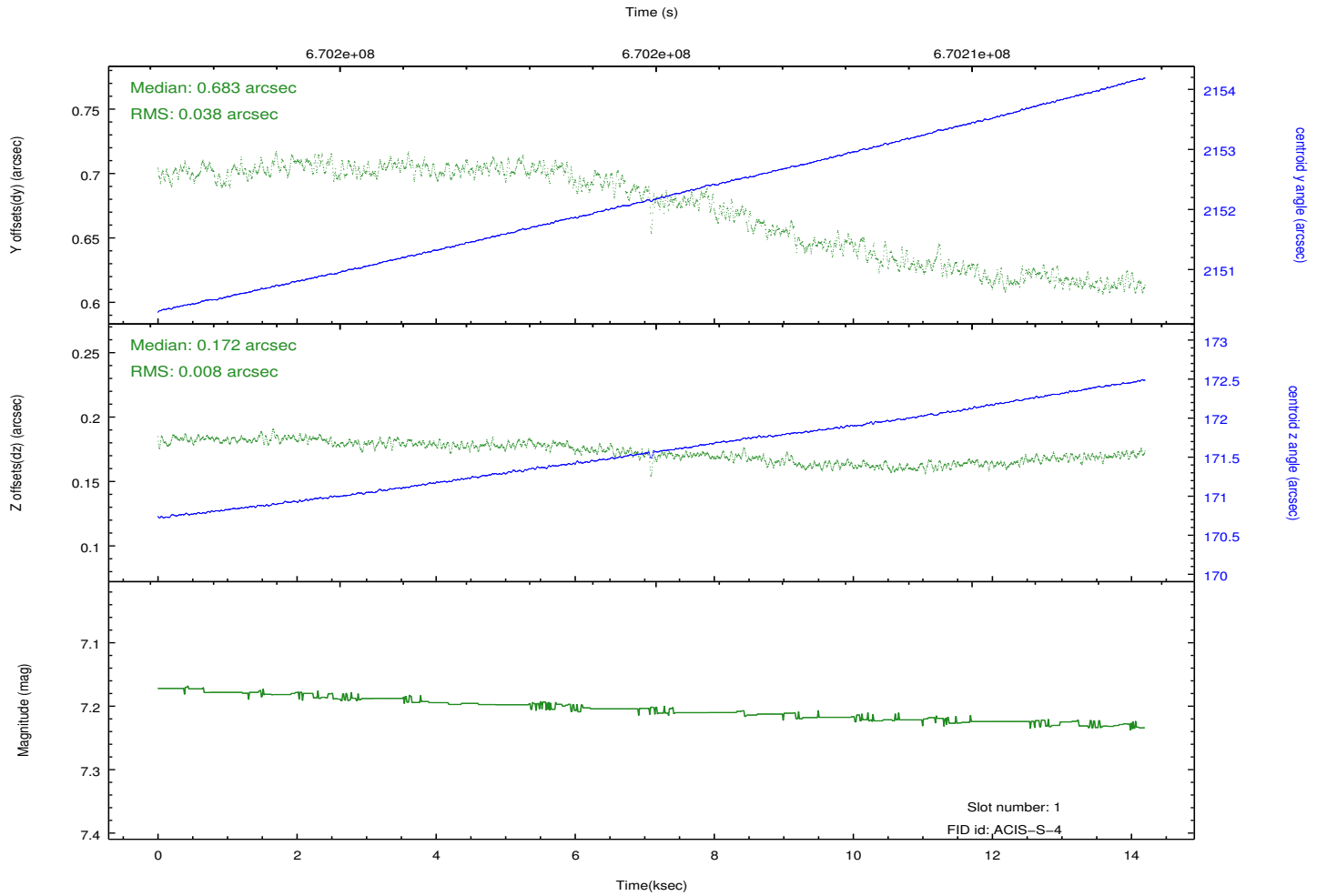
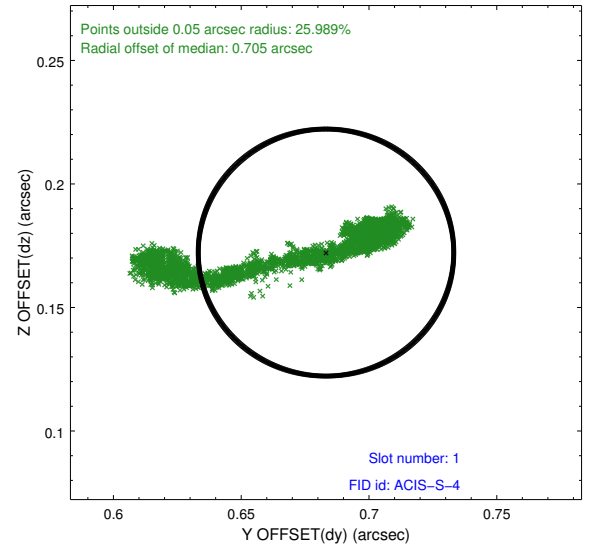
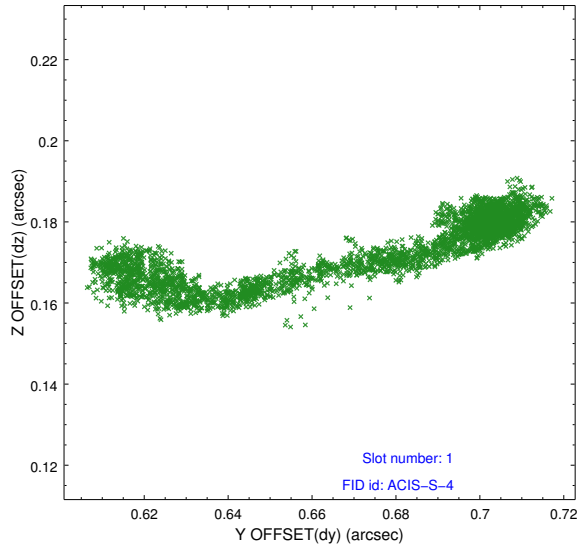


2.5 FID Slots

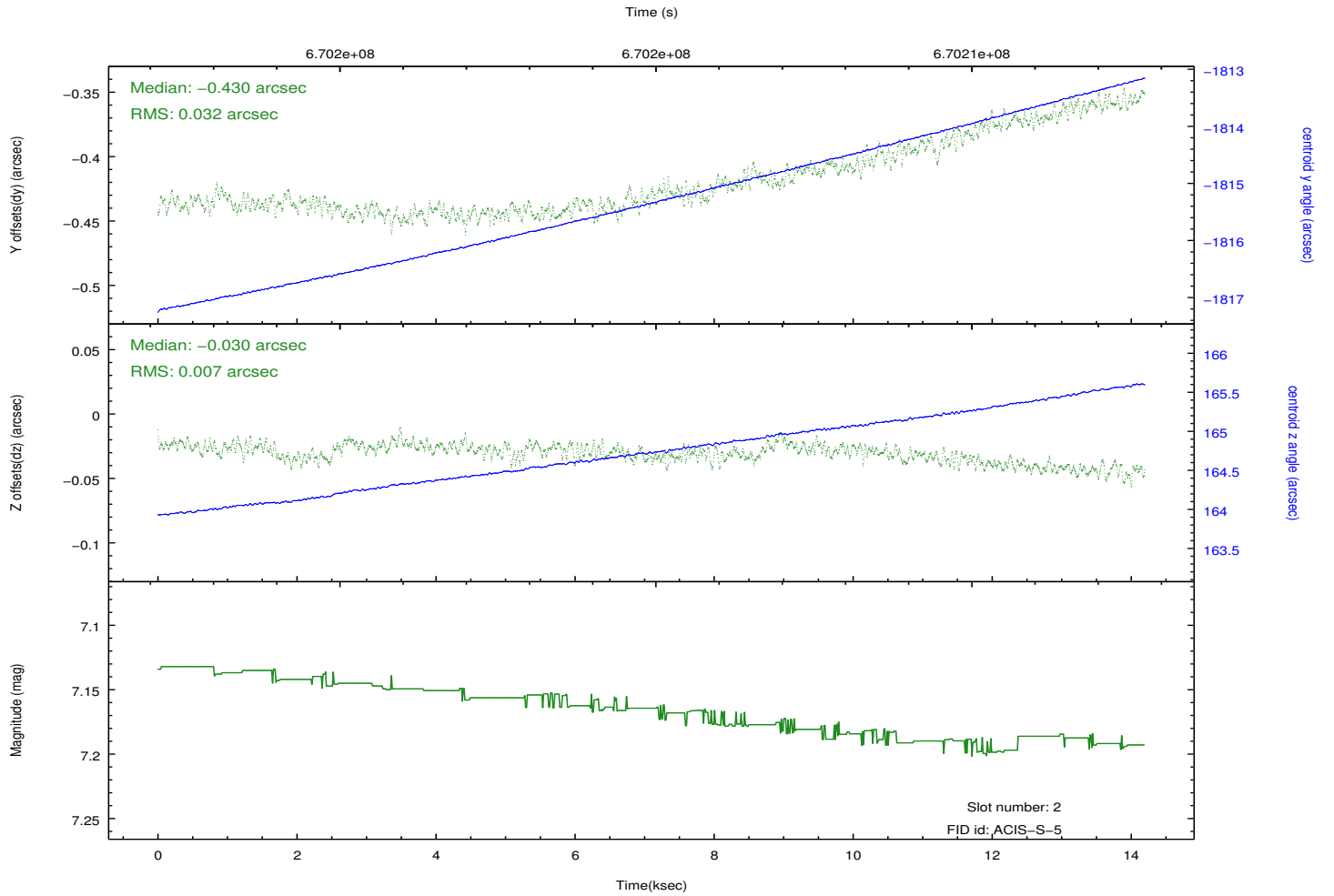
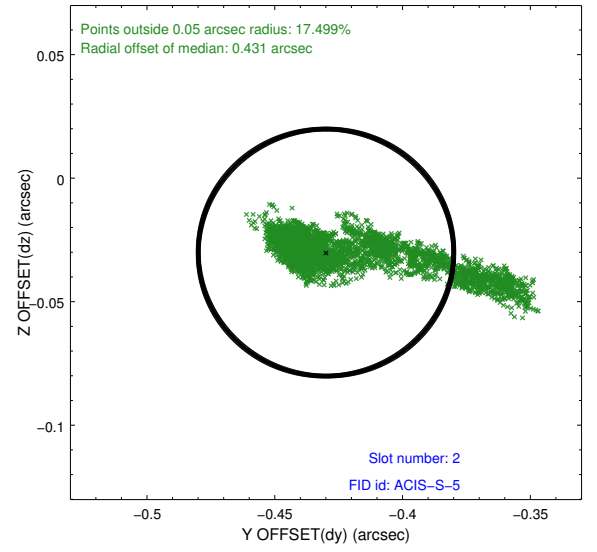
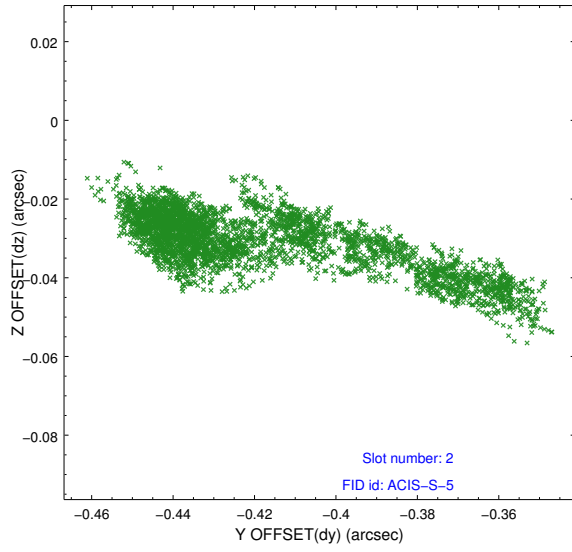
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2019.03.29 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 14.068799161315 |

A.2 Comments

Monitor constraint met.