

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5924 - L2 Version 3
Chandra X-Ray Center

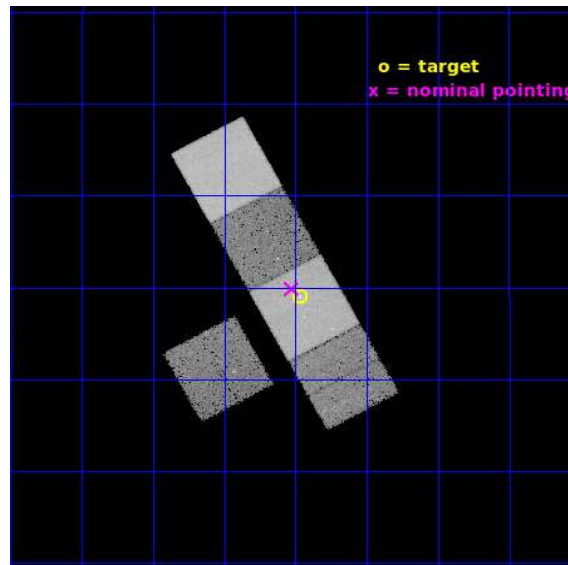
L2 Processing Date : Oct 11 2020

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1 Front

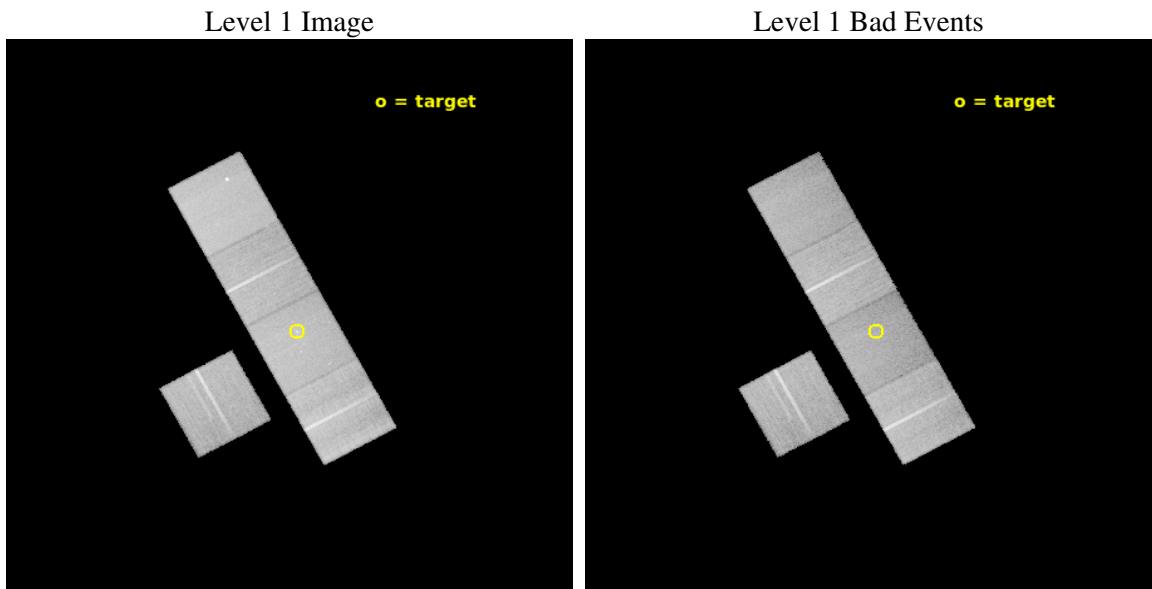
| | | |
|----------|---|---|
| seq_num | 600443 | Sequence number |
| obs_id | 5924 | Observation id |
| title | Low Mass X-ray Binaries and Globular Clusters in the Early-Type Galaxy NGC 4365 | Proposal title |
| observer | Prof. Gregory Sivakoff | Principal investigator |
| object | NGC4365 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 186.117917 | Observer's specified target RA [deg] |
| dec_targ | 7.317722 | Observer's specified target Dec [deg] |
| ra_nom | 186.13138072928 | Nominal RA [deg] |
| dec_nom | 7.3315970154916 | Nominal Dec [deg] |
| roll_nom | 61.450842302633 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 27124.999947816 | Sum of GTIs [s] |
| livetime | 26770.591854363 | Livetime [s] |
| ontime3 | 27121.858957678 | Sum of GTIs [s] |
| ontime5 | 27124.999947816 | Sum of GTIs [s] |
| ontime6 | 27115.577017128 | Sum of GTIs [s] |
| ontime7 | 27124.999947816 | Sum of GTIs [s] |
| ontime8 | 27106.154096335 | Sum of GTIs [s] |
| l2events | 262808 | Number of level 2 events |



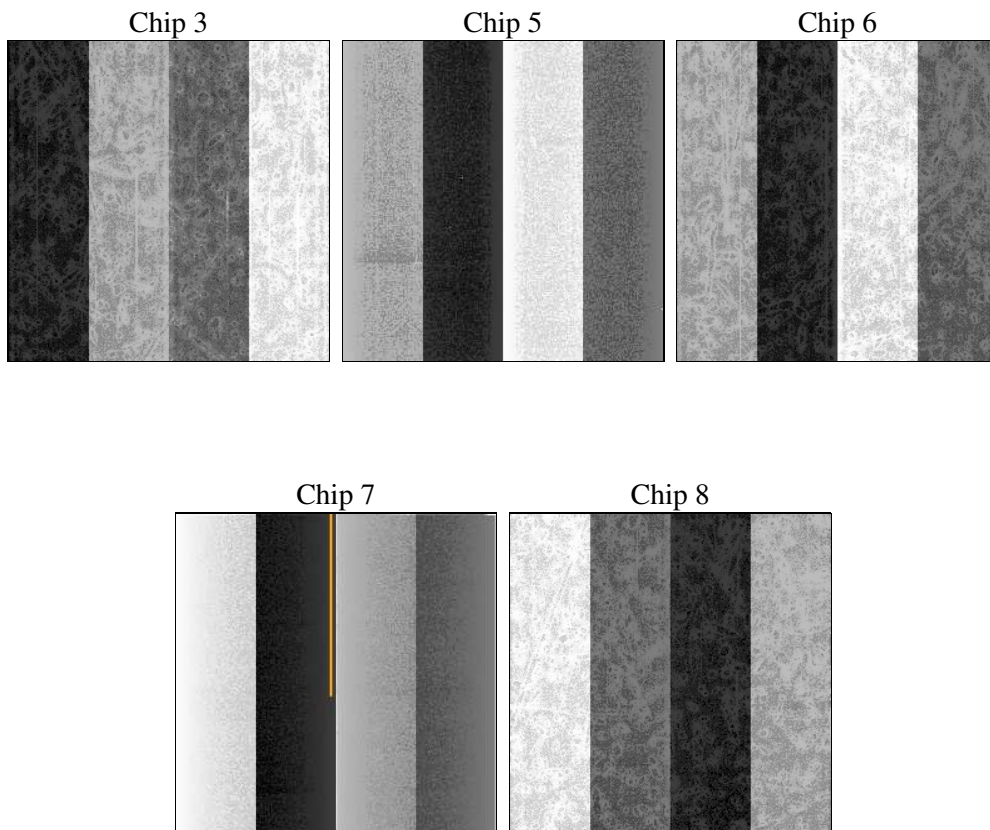
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 27000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 27124.999947816 | Sum of GTIs [s] |
| caldbver | 4.9.2 | | ontime3 | 27121.858957678 | Sum of GTIs [s] |
| date | 2020-10-11T16:32:19 | Date and time of file creation | ontime5 | 27124.999947816 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime6 | 27115.577017128 | Sum of GTIs [s] |
| | | | ontime7 | 27124.999947816 | Sum of GTIs [s] |
| | | | ontime8 | 27106.154096335 | Sum of GTIs [s] |
| | | | l1events | 1061367 | Number of level 1 events |

2.1.4 Events

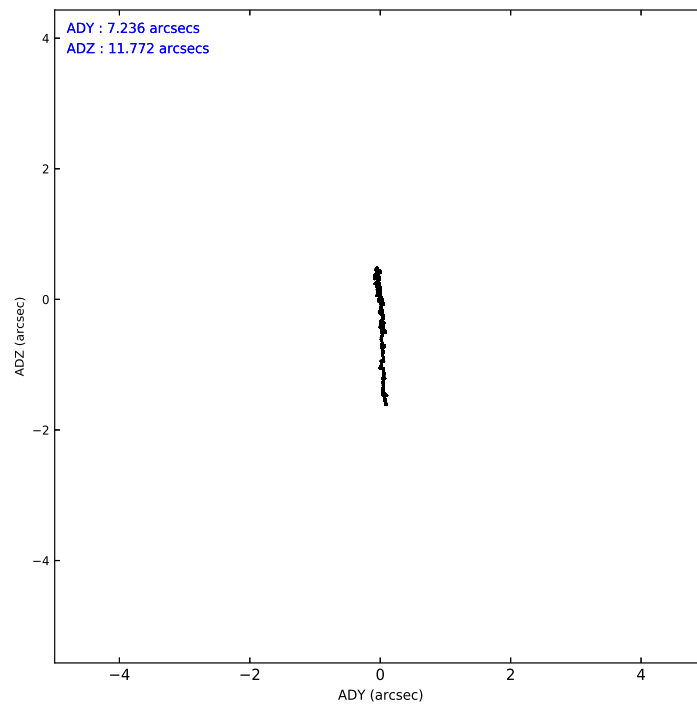
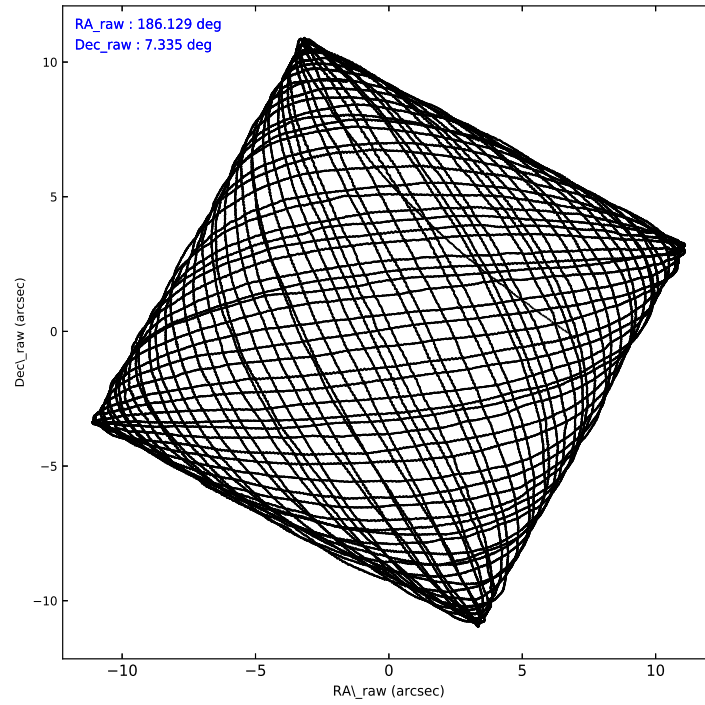
| | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 175222 | 250200 | 190271 | 210966 | 234708 |
| rejected events | 158077 | 129035 | 170251 | 114146 | 180497 |
| rejected % | 90% | 51% | 89% | 54% | 76% |

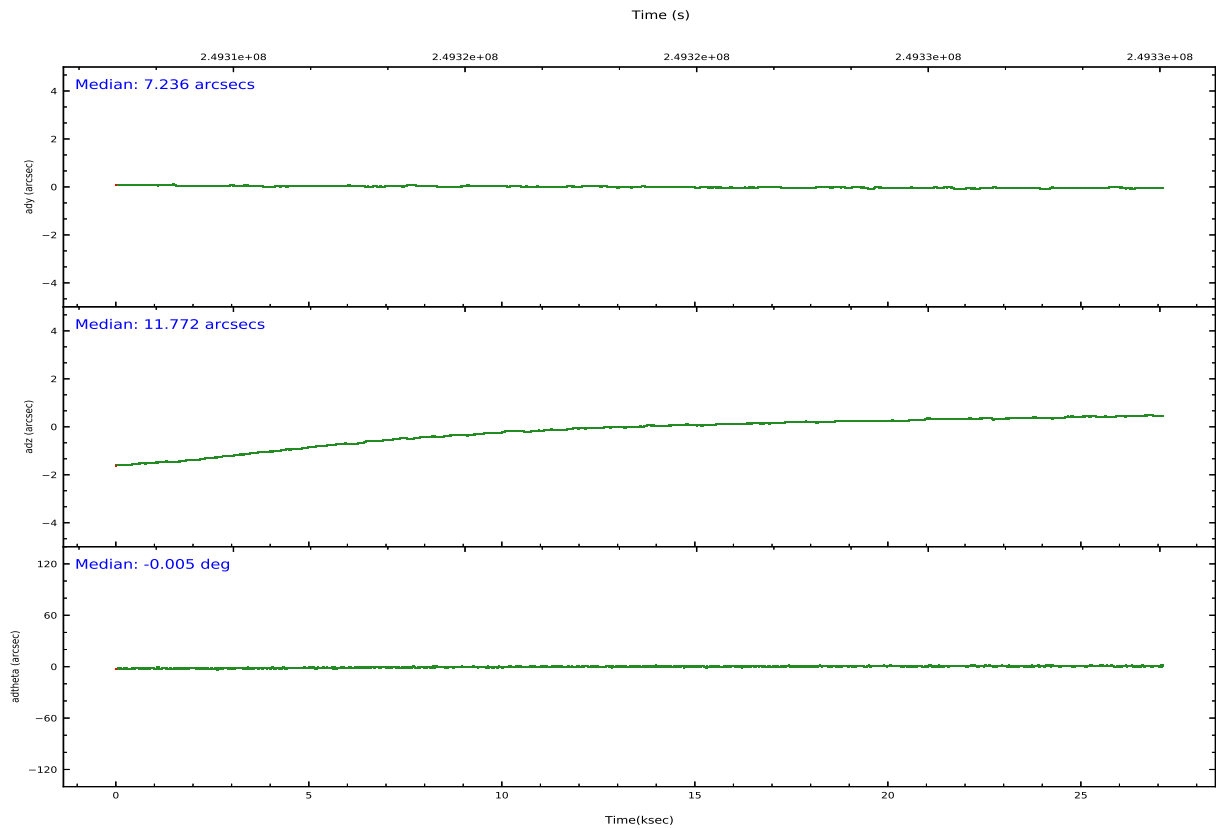
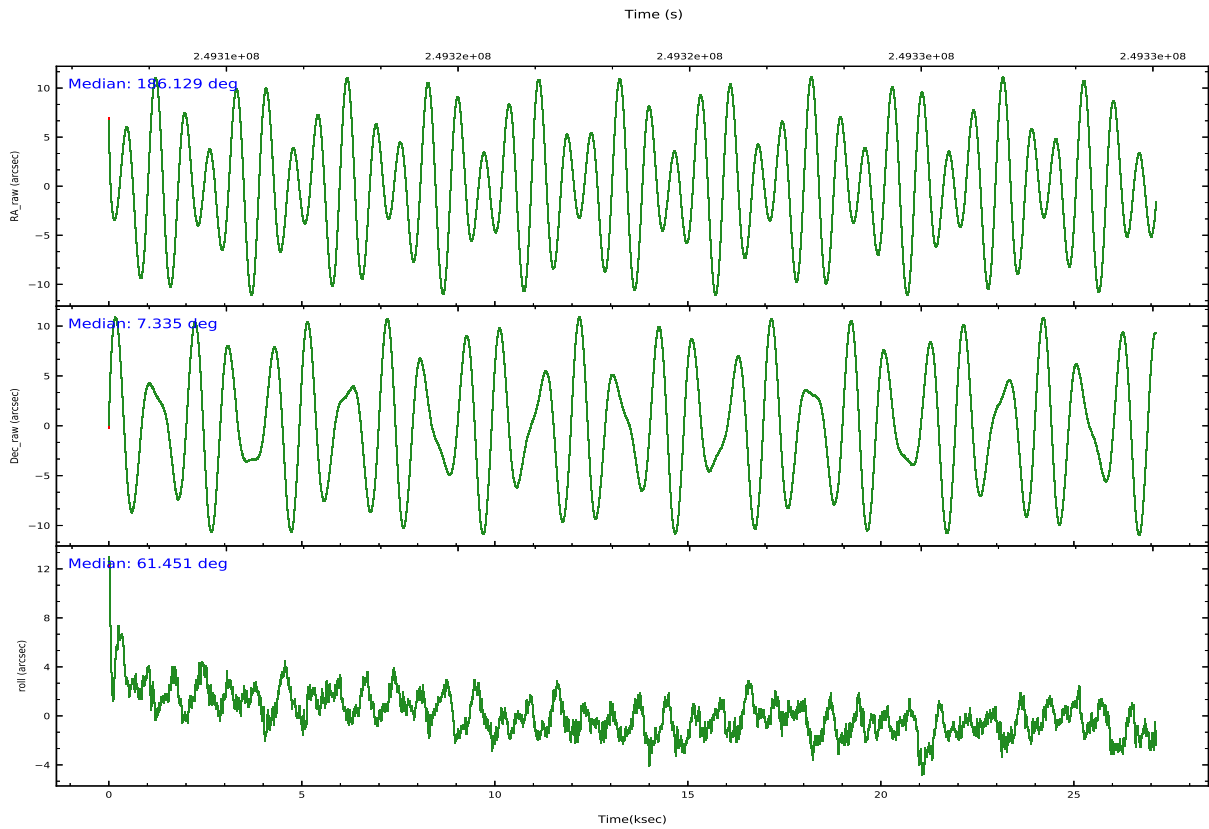
| | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|--------|--------|--------|-------|--------|
| grade 0 events | 6306 | 10404 | 7536 | 10110 | 16749 |
| | 3% | 4% | 3% | 4% | 7% |
| grade 1 events | 95 | 250 | 95 | 170 | 176 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 3575 | 35881 | 4353 | 19842 | 12262 |
| | 2% | 14% | 2% | 9% | 5% |
| grade 3 events | 2031 | 5882 | 2184 | 9403 | 5804 |
| | 1% | 2% | 1% | 4% | 2% |
| grade 4 events | 2021 | 5873 | 2116 | 9352 | 5456 |
| | 1% | 2% | 1% | 4% | 2% |
| grade 5 events | 7143 | 20634 | 7299 | 21761 | 10717 |
| | 4% | 8% | 3% | 10% | 4% |
| grade 6 events | 3448 | 65214 | 4131 | 49603 | 14758 |
| | 1% | 26% | 2% | 23% | 6% |
| grade 7 events | 150603 | 106062 | 162557 | 90725 | 168786 |
| | 85% | 42% | 85% | 43% | 71% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| Detector | ACIS-35678 | ACIS-35678 | 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 | 186.130477 | 186.13138072928 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 7.307859 | 7.3315970154916 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 61.298402 | 61.450842302633 | [s] Primary exposure time | 0.000000 | 3.1 |
| [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) | 249307085.184000 | 249305898.7825 | | | |
| Observation start date | 2005-11-25T11:57:01 | 2005-11-25T11:38:18 | | | |
| [s] Observation end time (MET) | 249334085.184000 | 249335272.72136 | | | |
| Observation end date | 2005-11-25T19:27:01 | 2005-11-25T19:47:52 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect





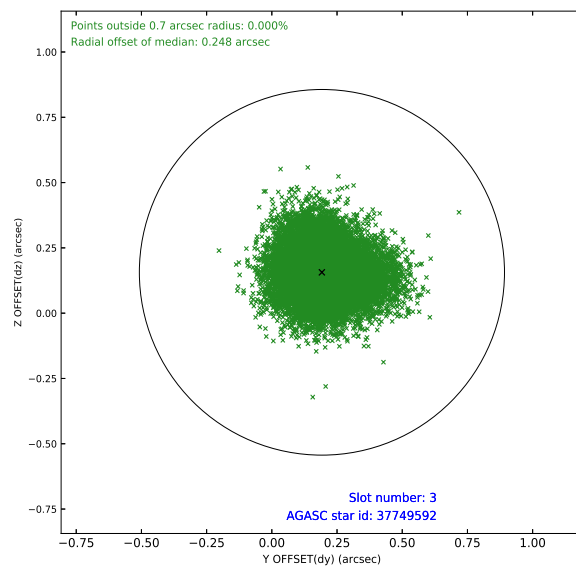
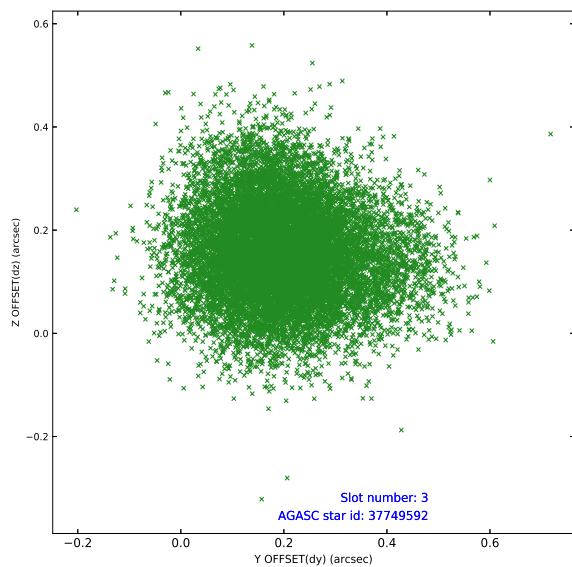
Slot Statistics

| slot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_x |
|------|--------|------|-----------|-------|-------|----------|--------|--------|-------|-------|------------|----------|----------|--------|
| 0 | FID | | ACIS-S-2 | 7.10 | 6618 | 1.000 | -0.097 | -0.082 | 0.009 | 0.024 | 0.000000 | 0.000000 | -760.06 | -1732 |
| 1 | FID | | ACIS-S-4 | 7.20 | 6618 | 1.000 | 0.099 | 0.039 | 0.009 | 0.019 | 0.000000 | 0.000000 | 2153.34 | 175 |
| 2 | FID | | ACIS-S-6 | 7.35 | 6618 | 1.000 | -0.029 | 0.050 | 0.009 | 0.015 | 0.000000 | 0.000000 | 402.07 | 813 |
| 3 | GUIDE | used | 37749592 | 10.24 | 13220 | 1.000 | 0.192 | 0.156 | 0.150 | 0.246 | 186.177253 | 6.631115 | -2056.32 | -1315 |
| 4 | GUIDE | used | 37751880 | 9.64 | 13223 | 1.000 | 0.285 | -0.155 | 0.088 | 0.144 | 185.771871 | 6.844190 | -2079.01 | 322 |
| 5 | GUIDE | used | 37753024 | 8.01 | 13232 | 1.000 | -0.285 | 0.326 | 0.082 | 0.127 | 186.830113 | 7.241612 | 992.65 | -2304 |
| 6 | GUIDE | used | 114565080 | 10.20 | 13213 | 1.000 | -0.184 | 0.066 | 0.142 | 0.227 | 186.537681 | 7.759404 | 2124.22 | -492 |
| 7 | GUIDE | used | 114434008 | 8.78 | 13231 | 1.000 | -0.013 | -0.397 | 0.085 | 0.138 | 185.534773 | 7.569663 | -193.11 | 2317 |

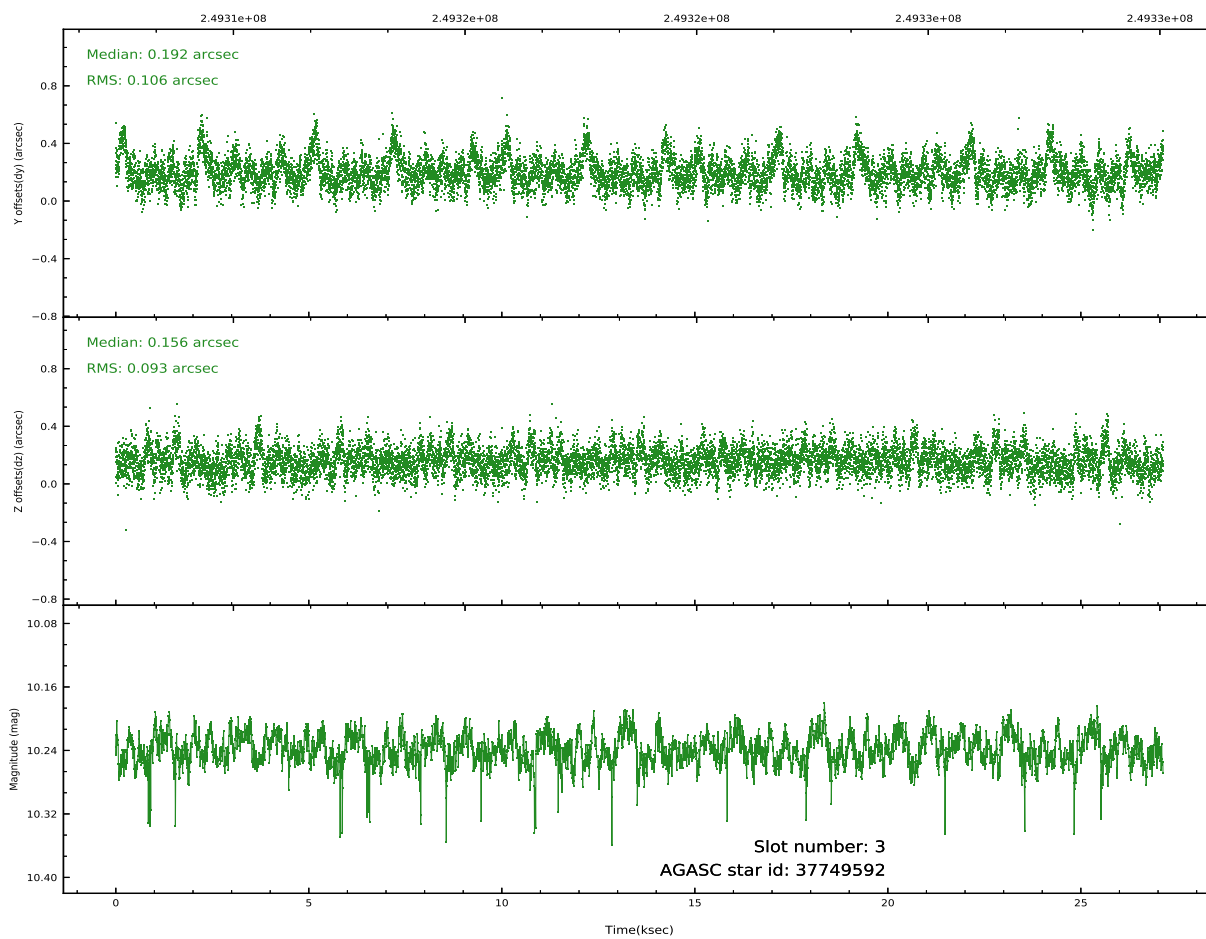
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2.4 Star Slots

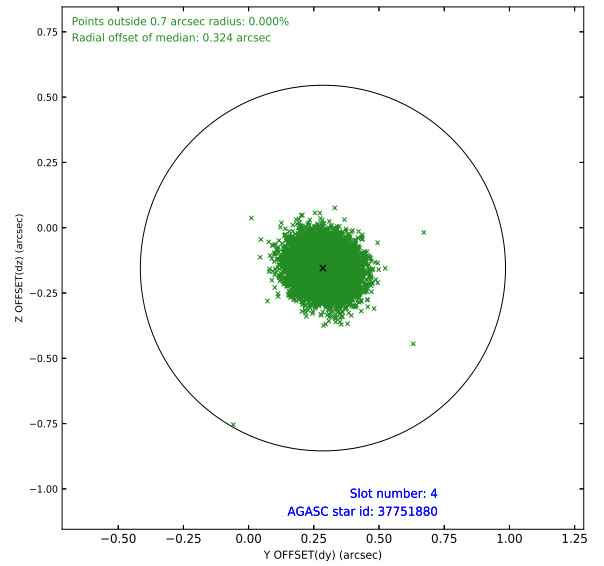
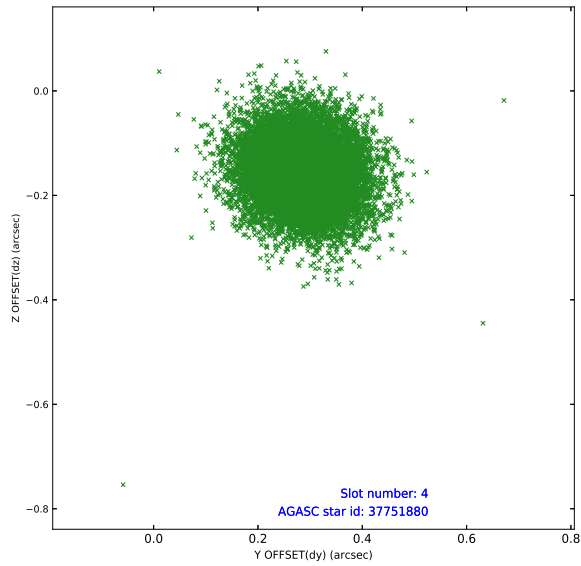
2.4.1 Slot 3



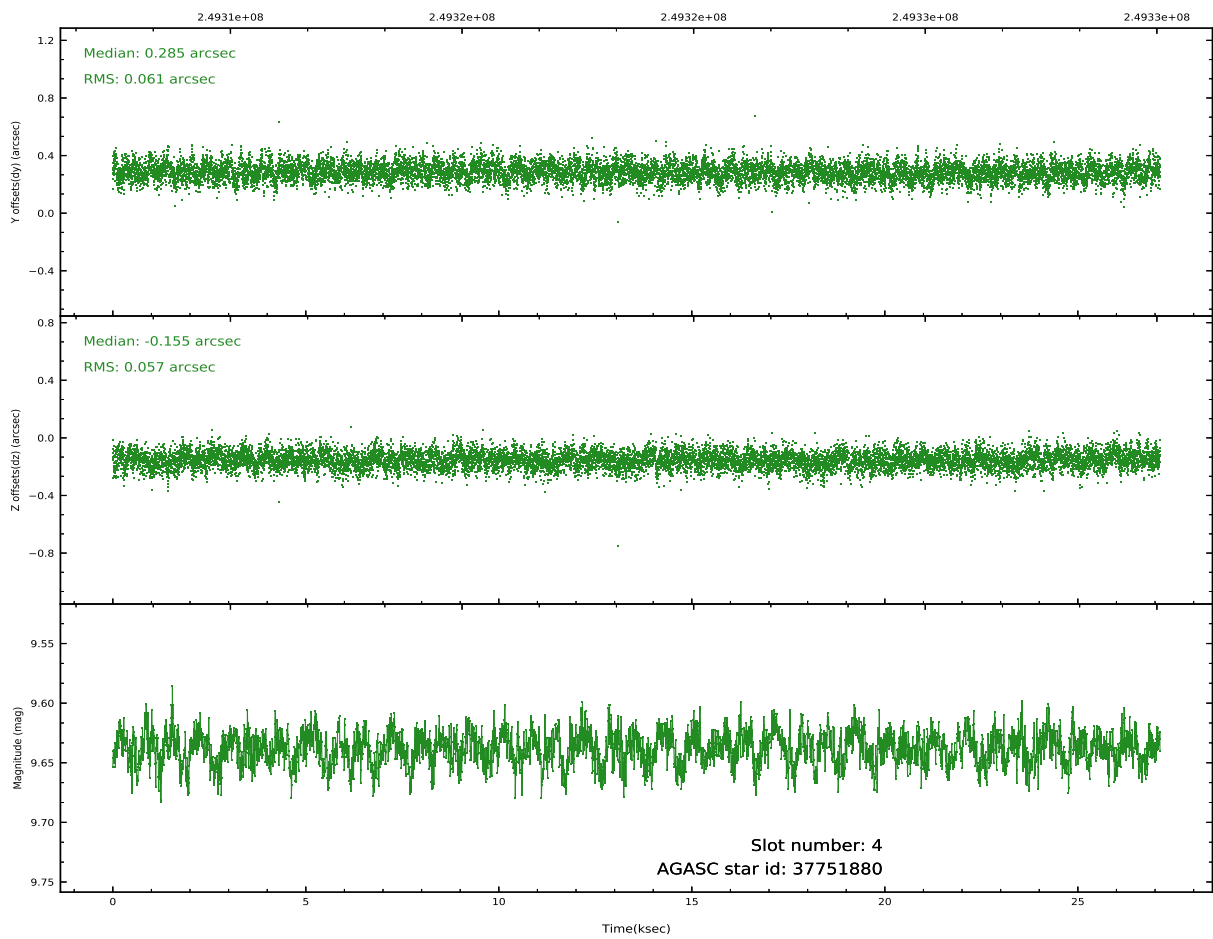
Time (s)



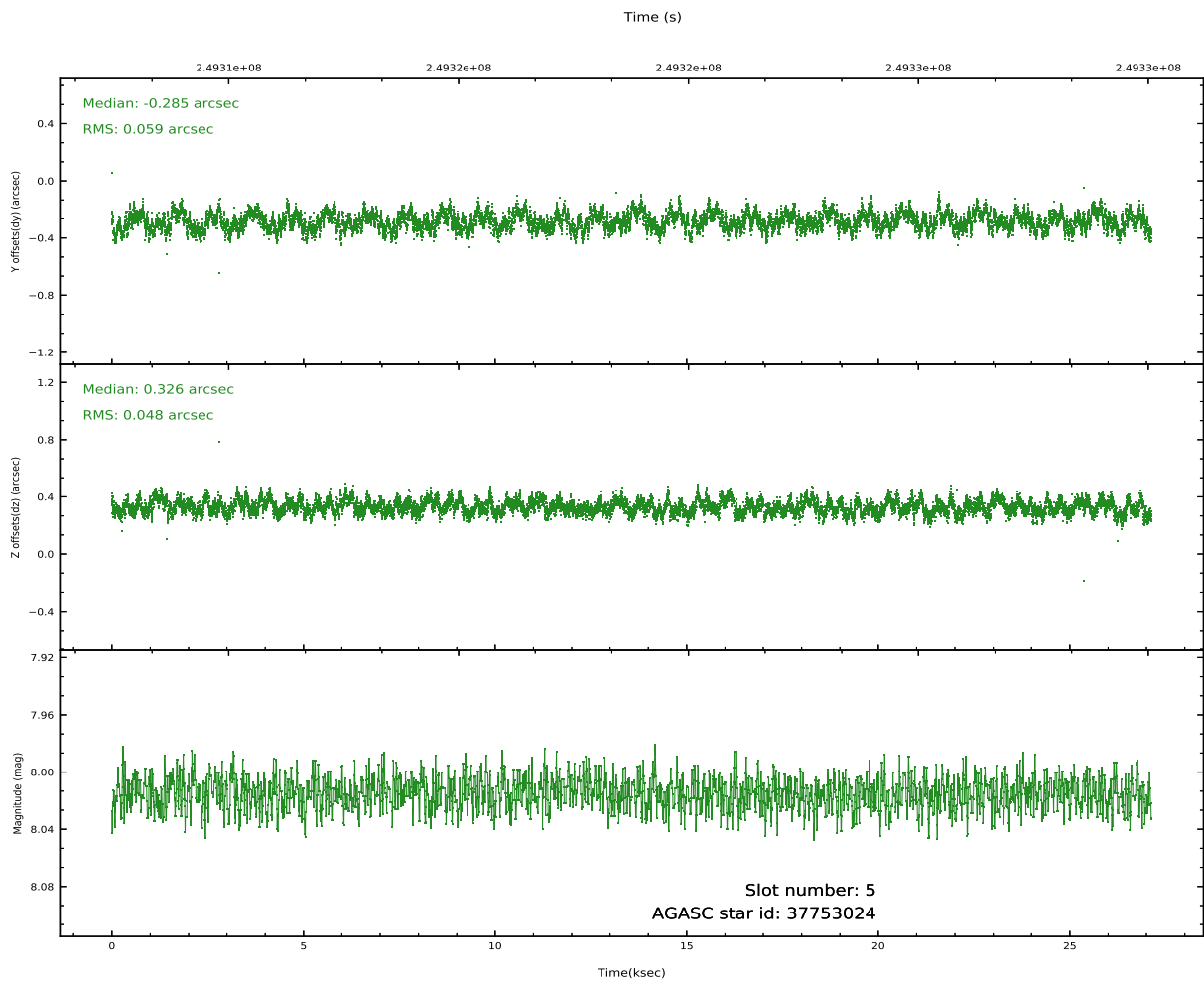
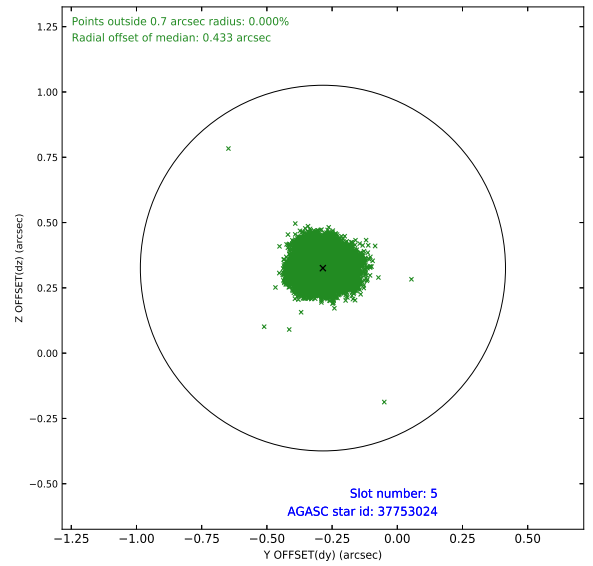
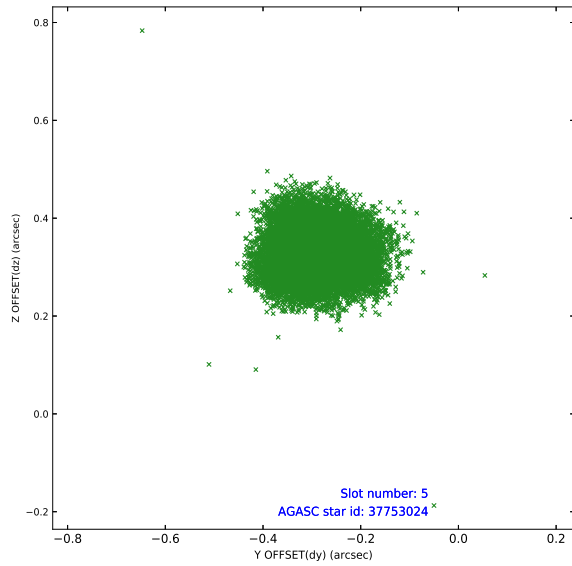
2.4.2 Slot 4



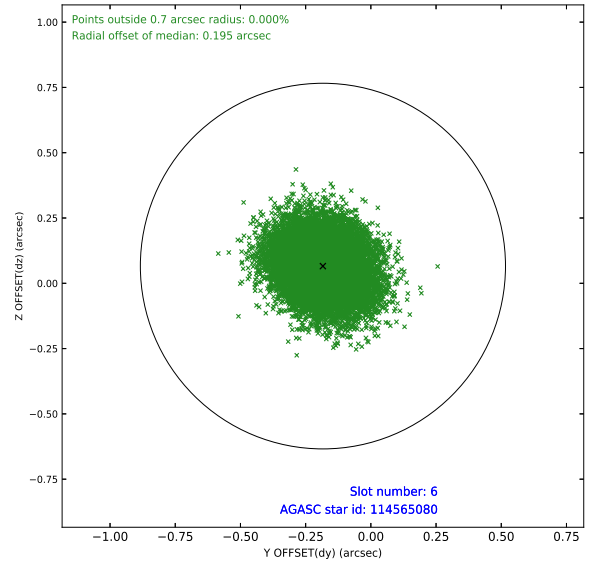
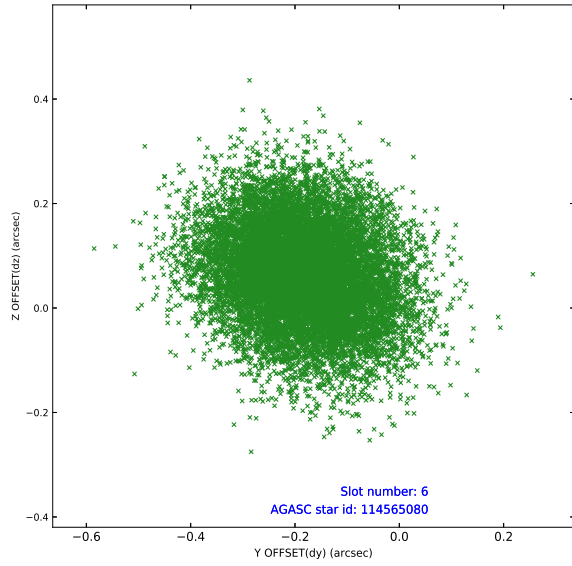
Time (s)



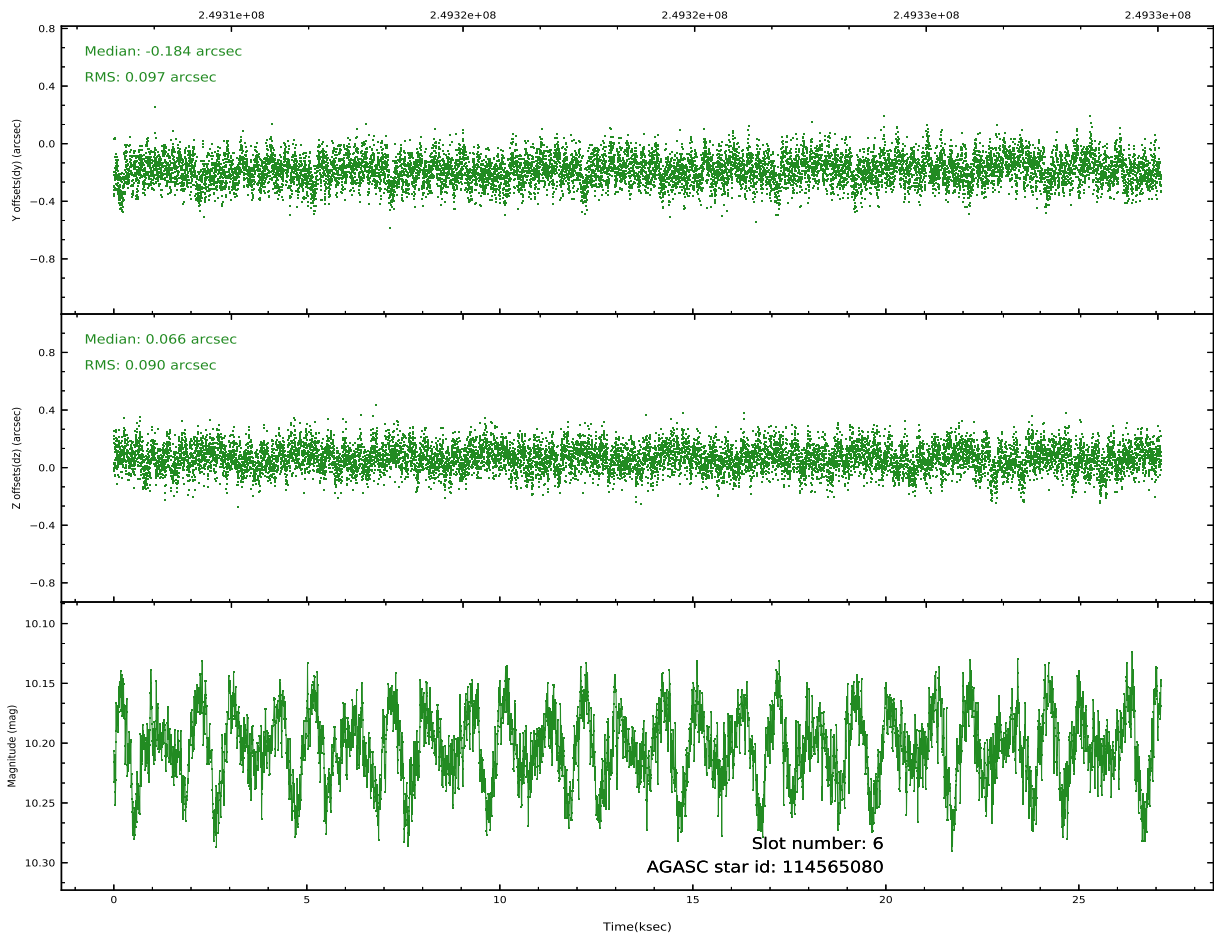
2.4.3 Slot 5



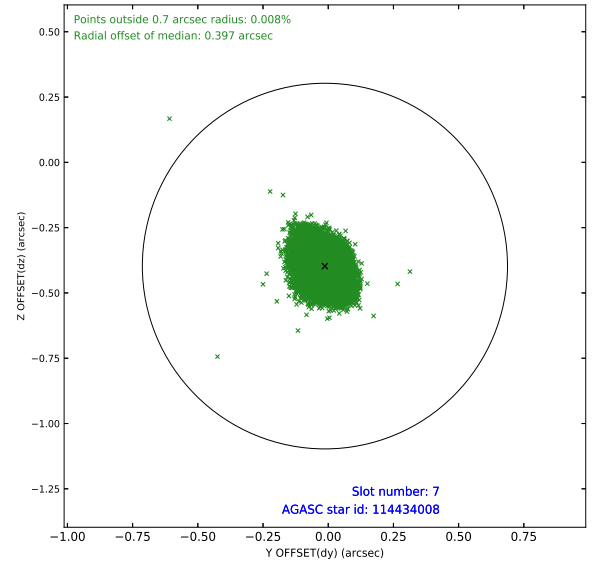
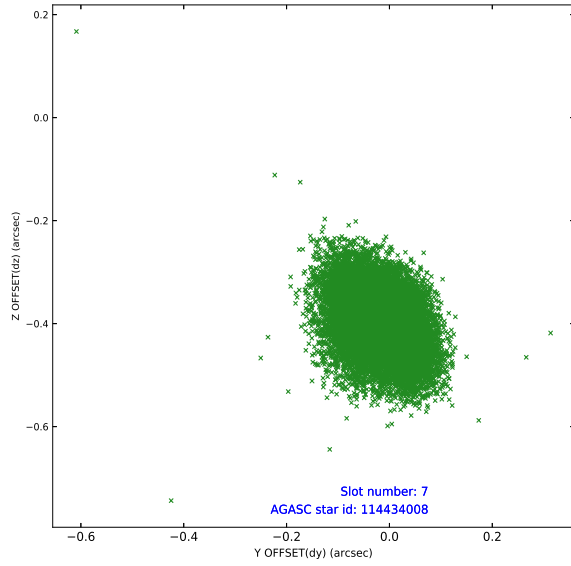
2.4.4 Slot 6



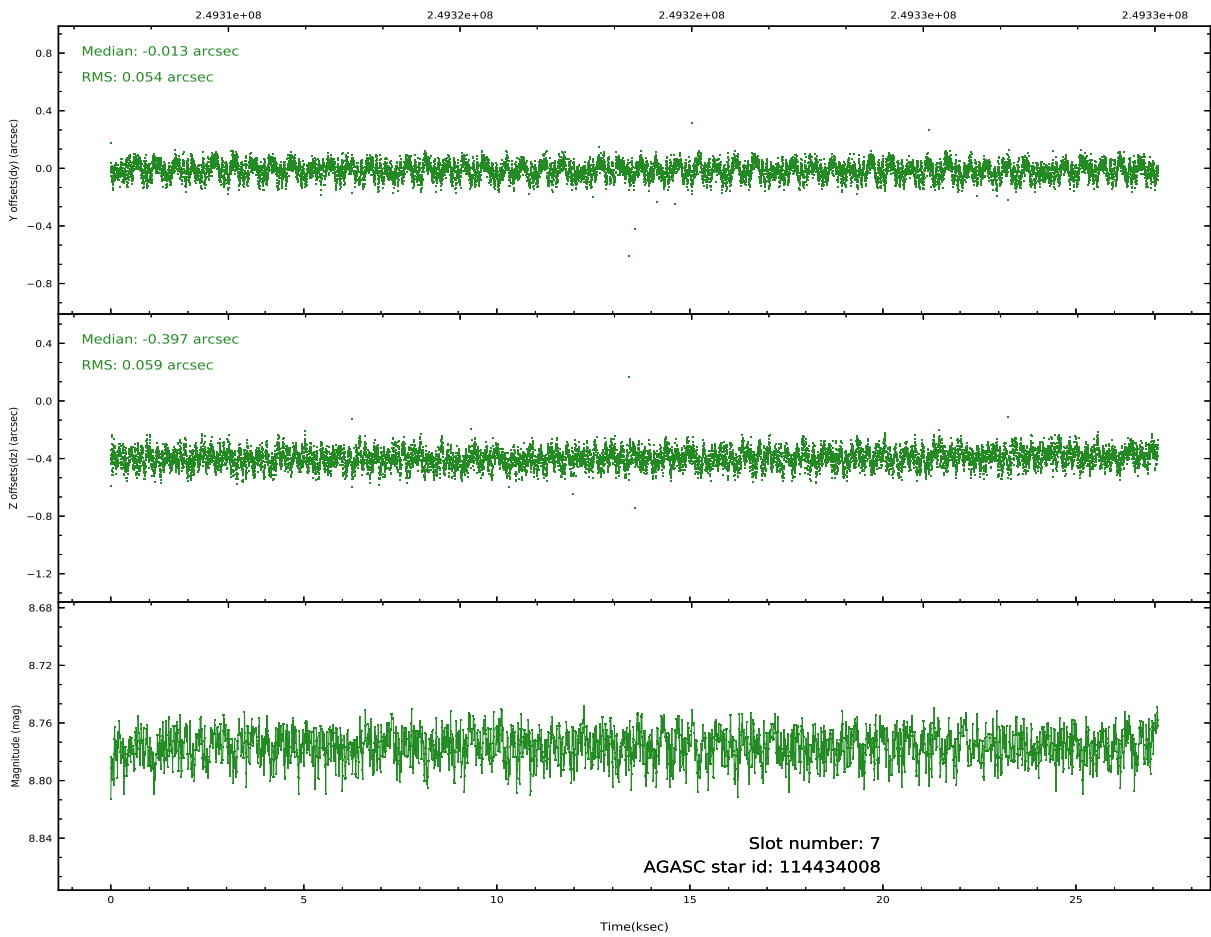
Time (s)



2.4.5 Slot 7

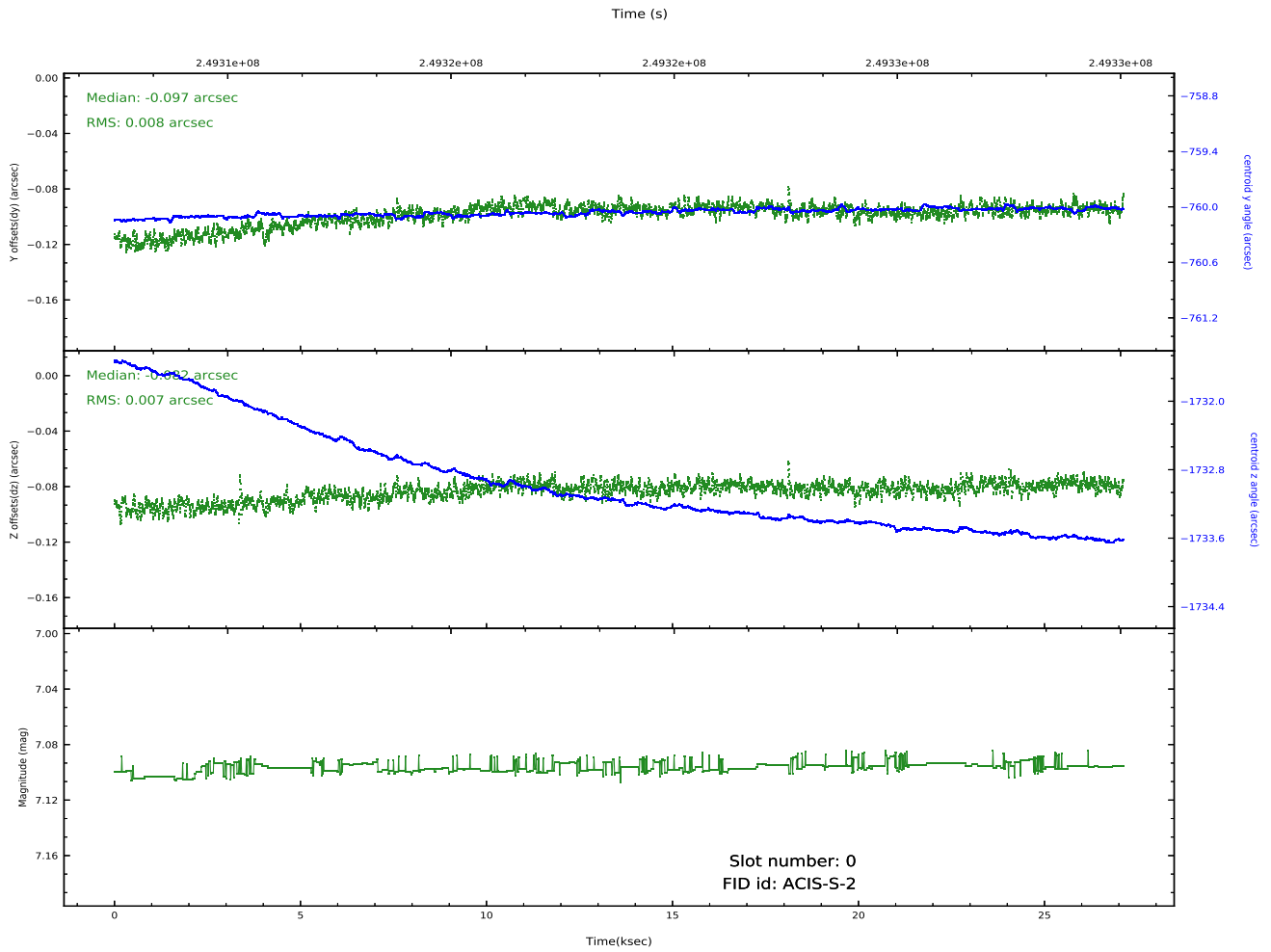
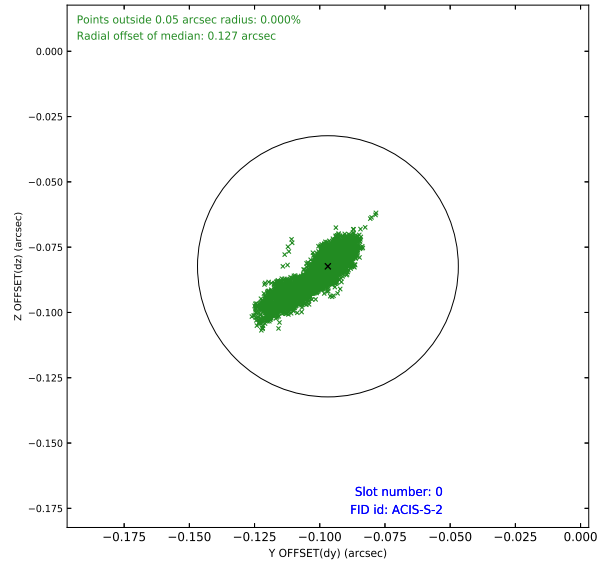
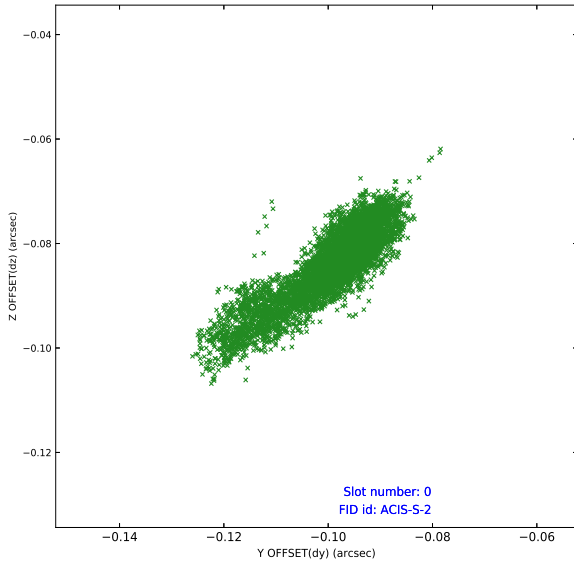


Time (s)

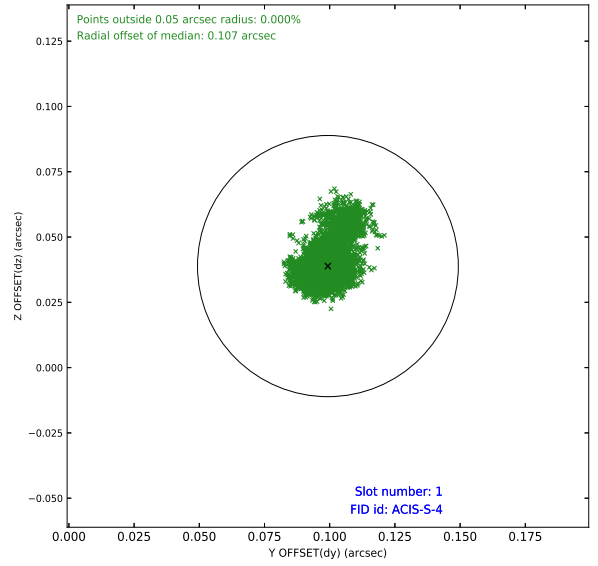
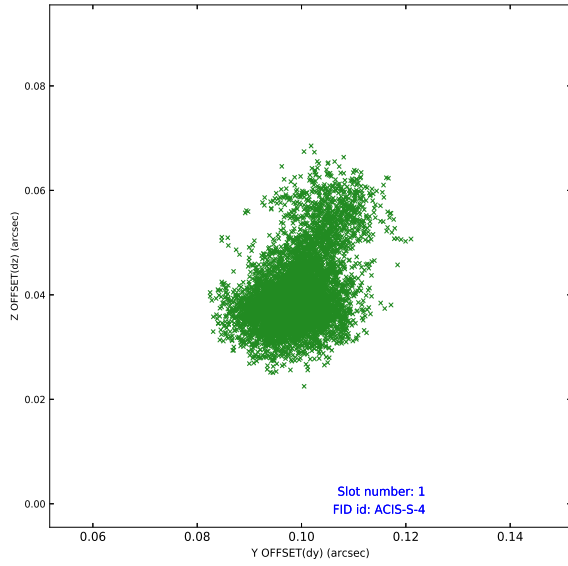


2.5 FID Slots

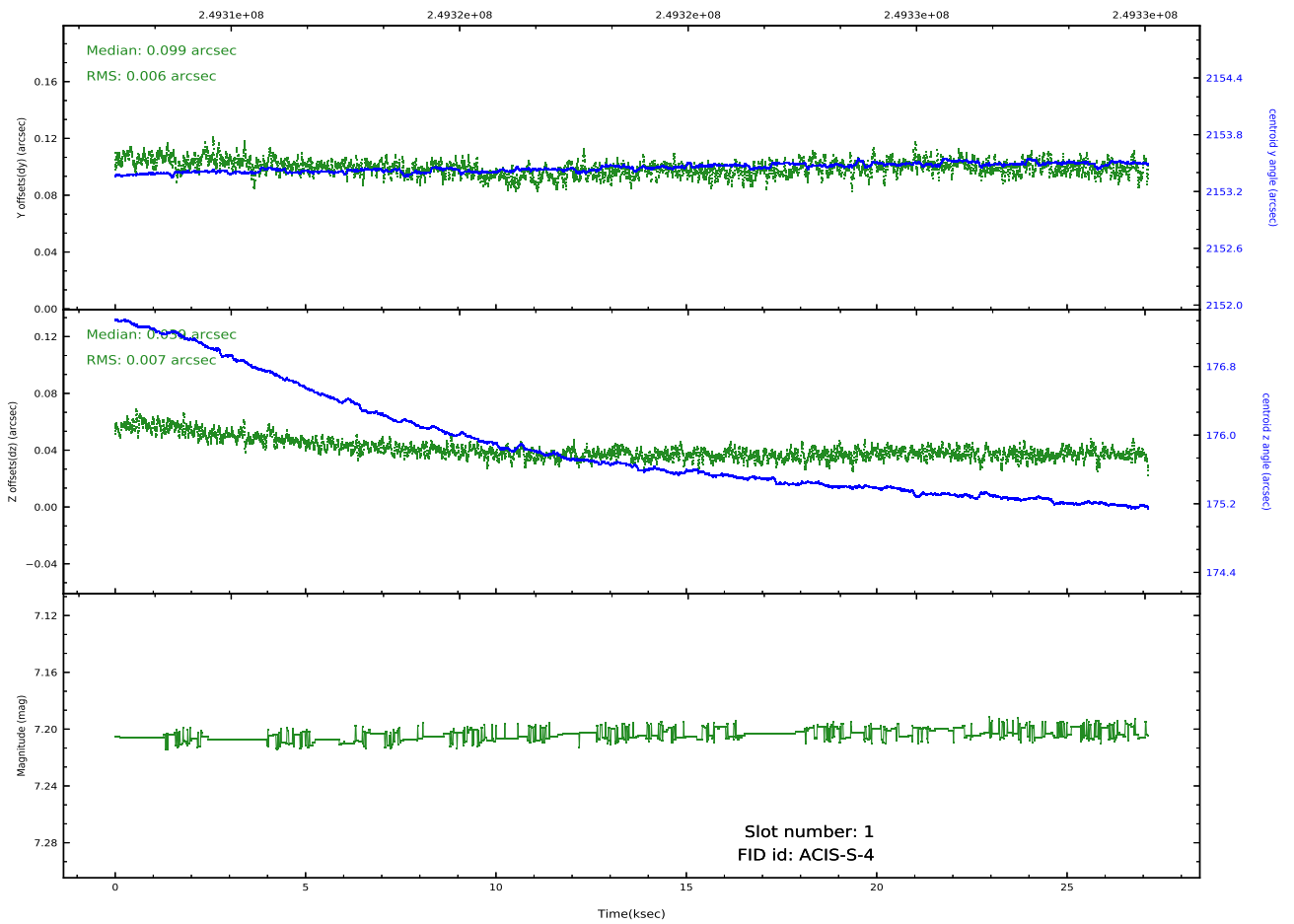
2.5.1 Slot 0



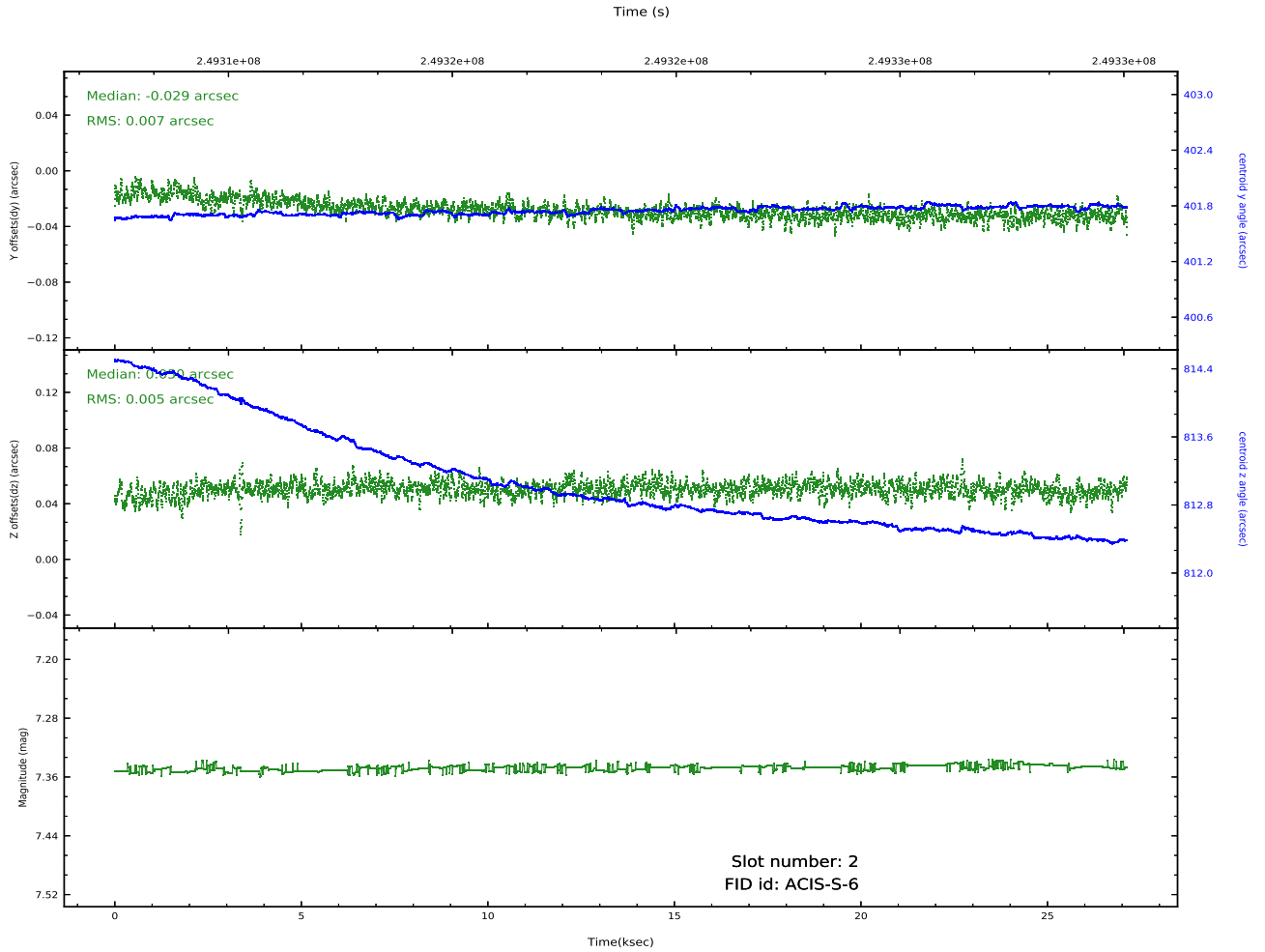
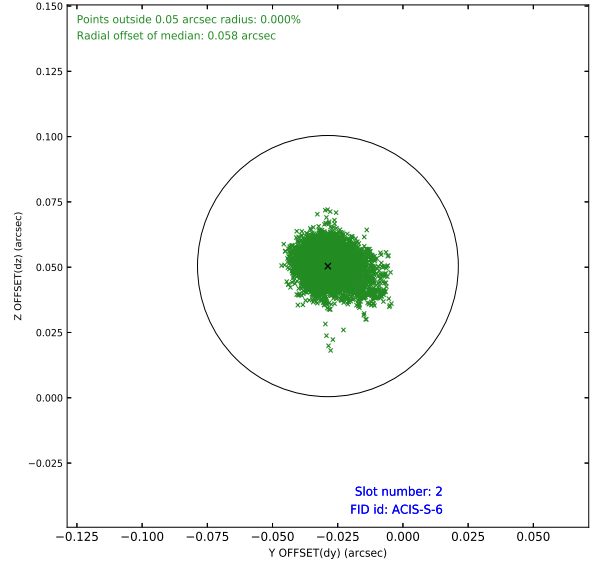
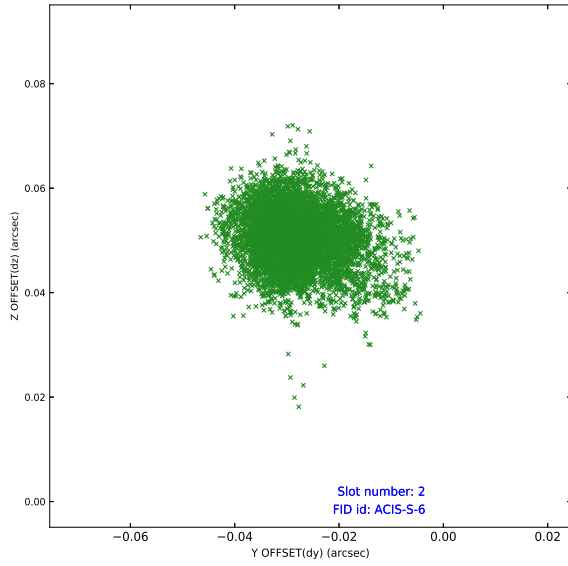
2.5.2 Slot 1



Time (s)



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2020.10.15 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 27.12499 |

A.2 Comments