

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5731 - L2 Version 4
Chandra X-Ray Center

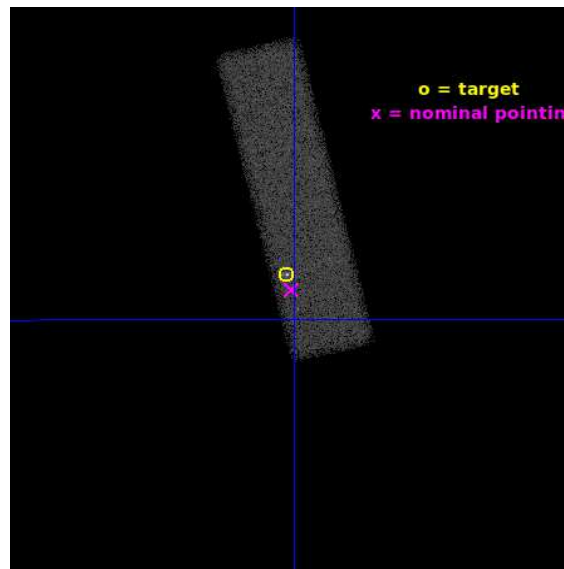
L2 Processing Date : Oct 5 2020

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1 Front

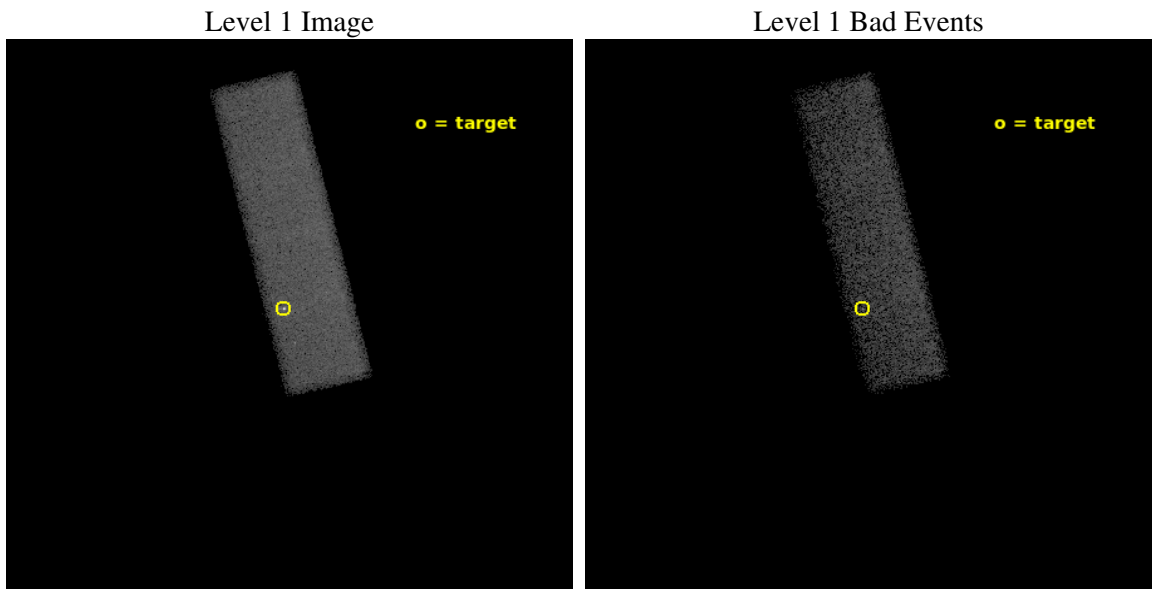
| | | |
|----------|--|---|
| seq_num | 701153 | Sequence number |
| obs_id | 5731 | Observation id |
| title | A Study of the Physics of Extended Relativistic X-ray Jets, Discovered in our Chandra Survey | Proposal title |
| observer | Dr. Jonathan Gelbord | Principal investigator |
| object | PKS 2101-490 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 316.255 | Observer's specified target RA [deg] |
| dec_targ | -48.812917 | Observer's specified target Dec [deg] |
| ra_nom | 316.25141090245 | Nominal RA [deg] |
| dec_nom | -48.819873388025 | Nominal Dec [deg] |
| roll_nom | 256.40735171281 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 44164.800658107 | Sum of GTIs [s] |
| livetime | 42009.702899369 | Livetime [s] |
| ontime7 | 44164.800658107 | Sum of GTIs [s] |
| l2events | 52826 | Number of level 2 events |



2 OBI

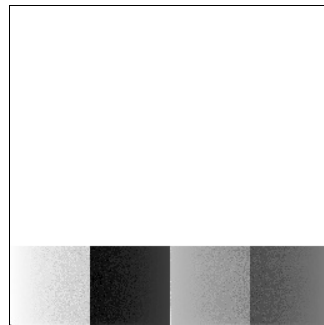
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 44000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 44164.800658107 | Sum of GTIs [s] |
| caldbver | 4.9.2 | | ontime7 | 44164.800658107 | Sum of GTIs [s] |
| date | 2020-10-05T18:20:46 | Date and time of file creation | l1events | 120538 | Number of level 1 events |
| revision | 4 | Processing version of data | | | |

2.1.4 Events

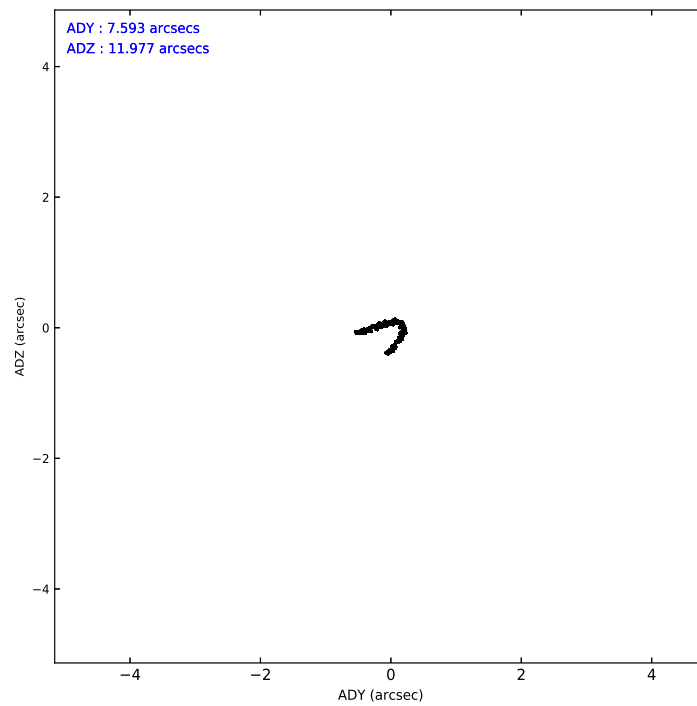
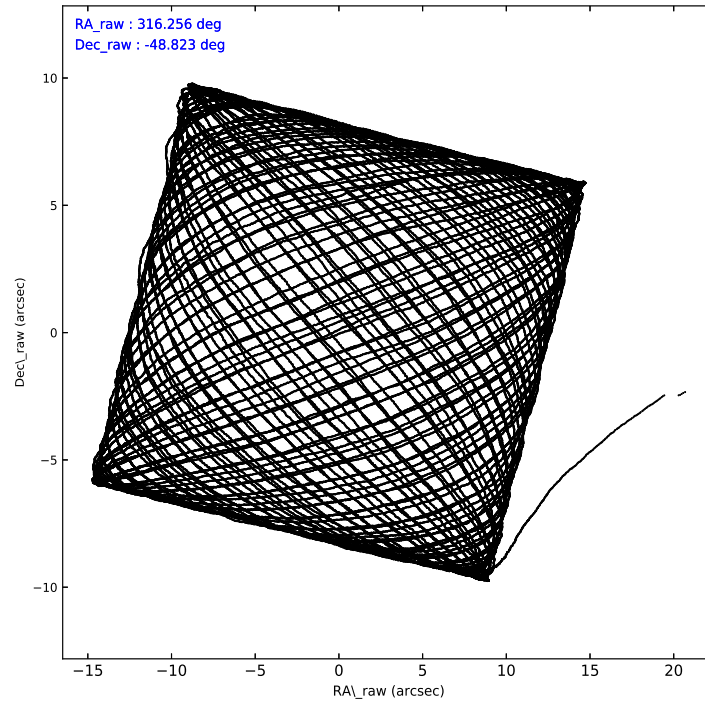
| | ccd 7 |
|-----------------|--------------|
| level 1 events | 120538 |
| rejected events | 64985 |
| rejected % | 53% |

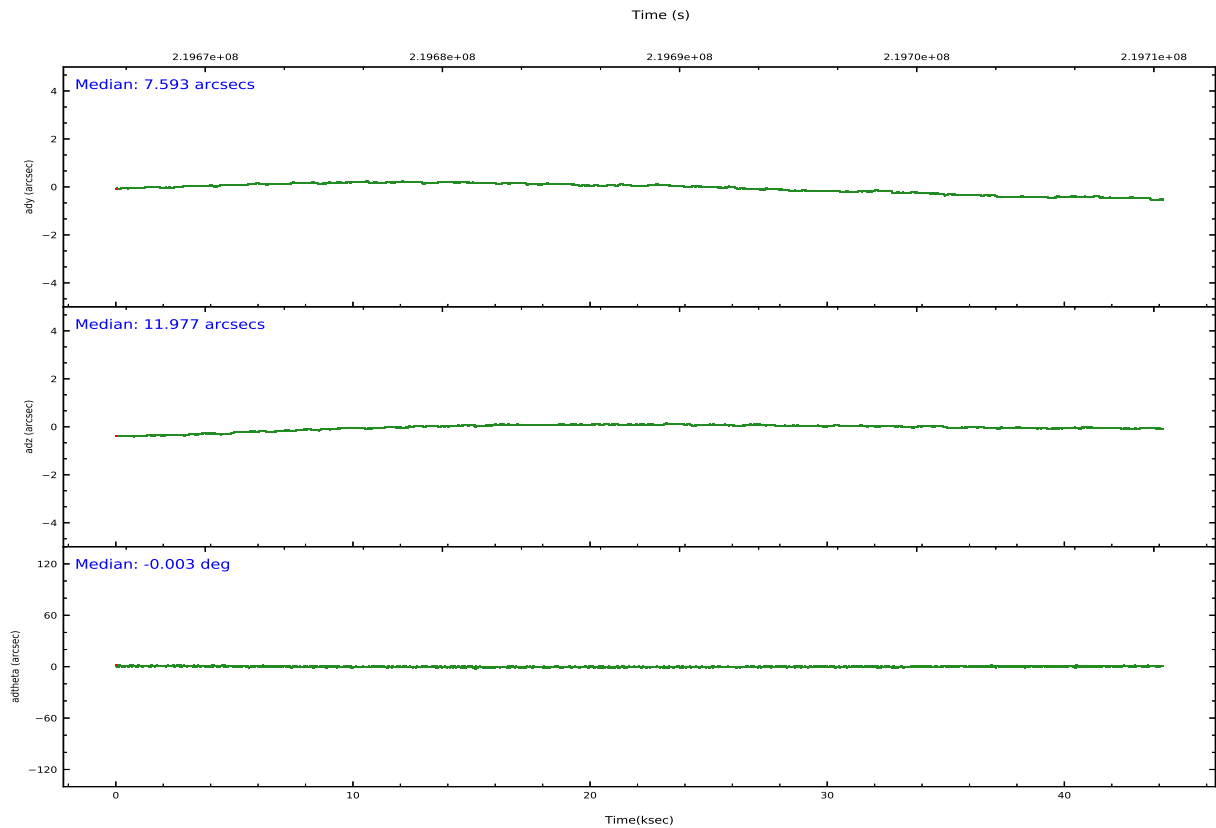
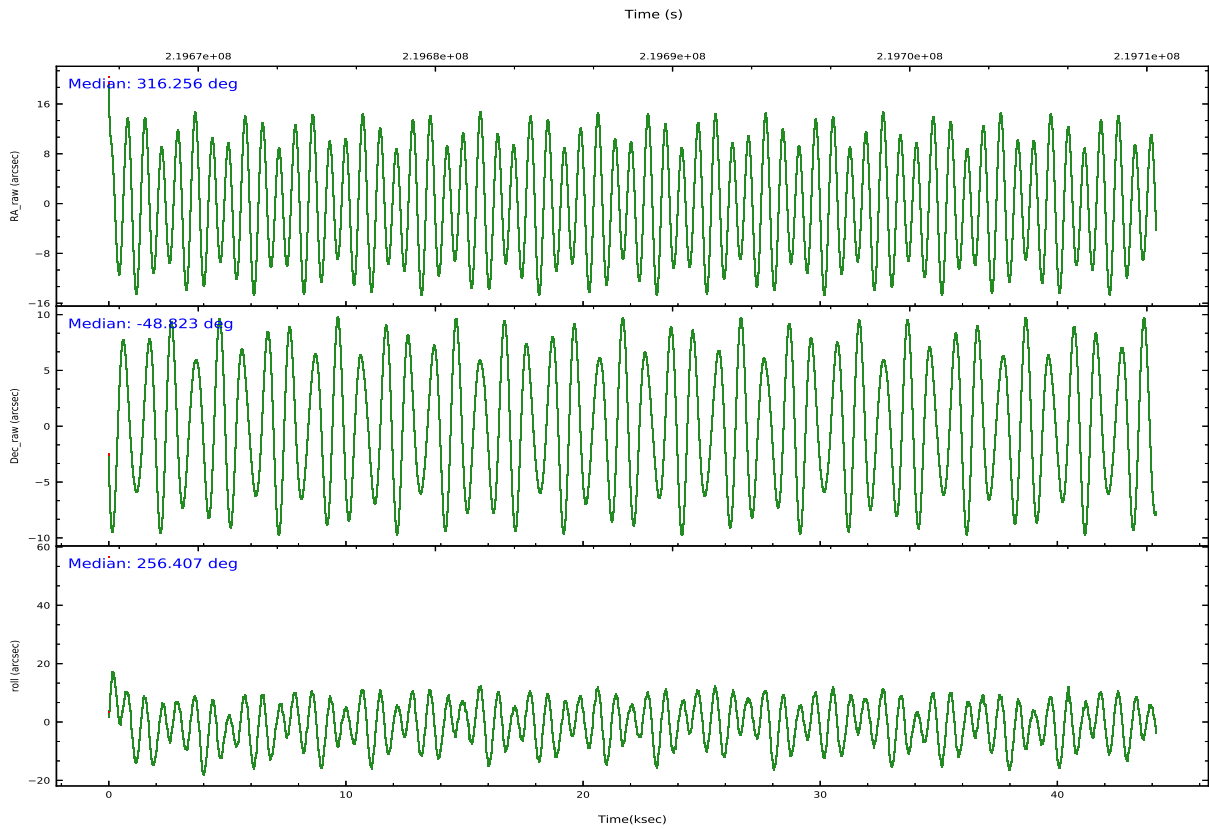
| | ccd 7 |
|----------------|--------------|
| grade 0 events | 5765 |
| | 4% |
| grade 1 events | 129 |
| | 0% |
| grade 2 events | 11082 |
| | 9% |
| grade 3 events | 6101 |
| | 5% |
| grade 4 events | 5862 |
| | 4% |
| grade 5 events | 10548 |
| | 8% |
| grade 6 events | 27182 |
| | 22% |
| grade 7 events | 53869 |
| | 44% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| 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 | 316.243443 | 316.25141090245 | Subarray requested | CUSTOM | 1/4 |
| [deg] Pointing Dec | -48.796812 | -48.819873388025 | Subarray start row | 1 | 1 |
| [deg] Pointing Roll | 256.250173 | 256.40735171281 | Subarray row count | 256 | 256 |
| [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 | 0.8 |
| [mm] SIM translation stage pos | -178.632523 | -178.6370735452349 | | | |
| [mm] SIM translation stage offset | -11.5 | -11.49544903777291 | | | |
| [s] Observation start time (MET) | 219666393.184000 | 219665557.30527 | | | |
| Observation start date | 2004-12-17T10:25:29 | 2004-12-17T10:12:37 | | | |
| [s] Observation end time (MET) | 219710393.184000 | 219710986.84482 | | | |
| Observation end date | 2004-12-17T22:38:49 | 2004-12-17T22:49:46 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



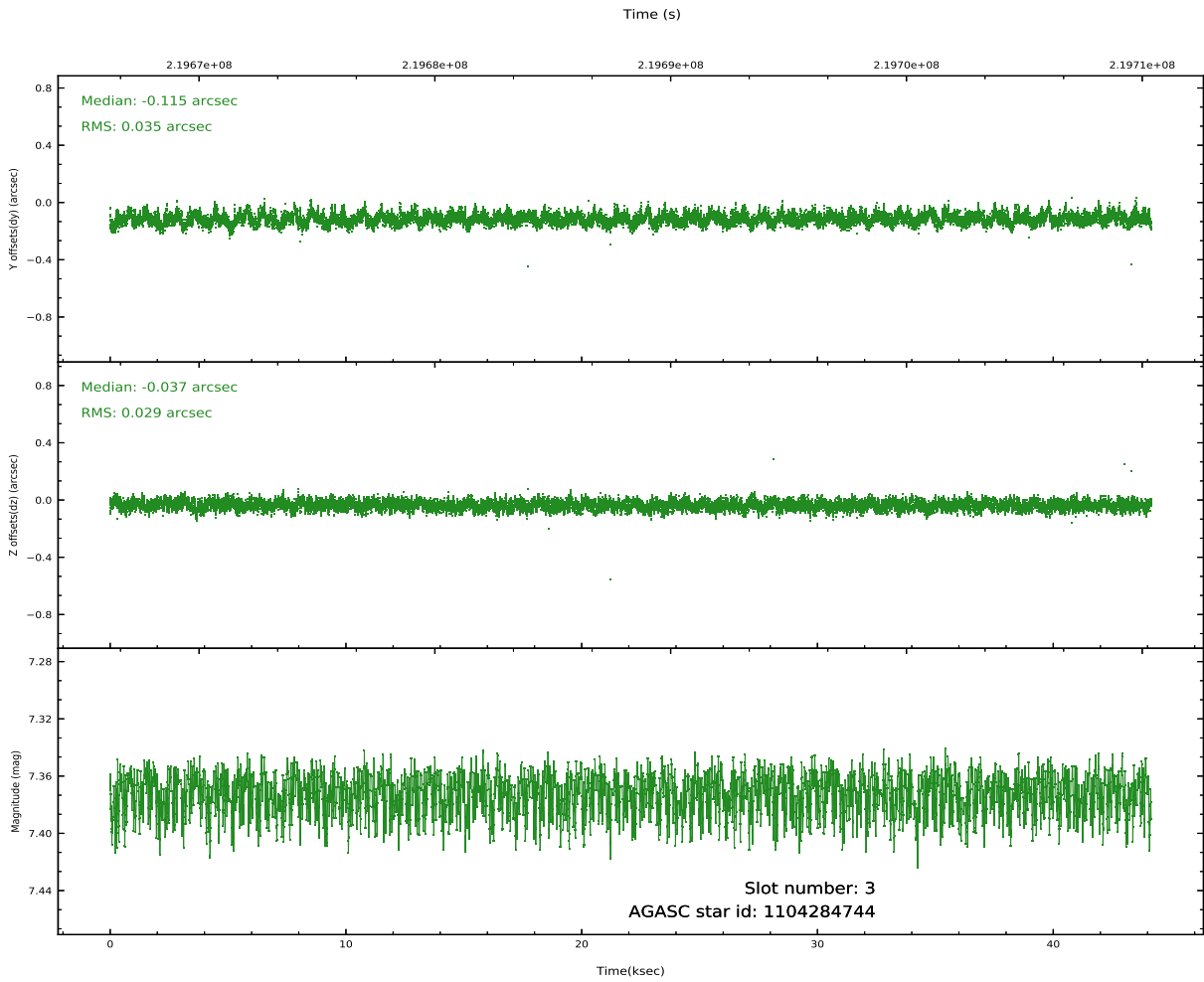
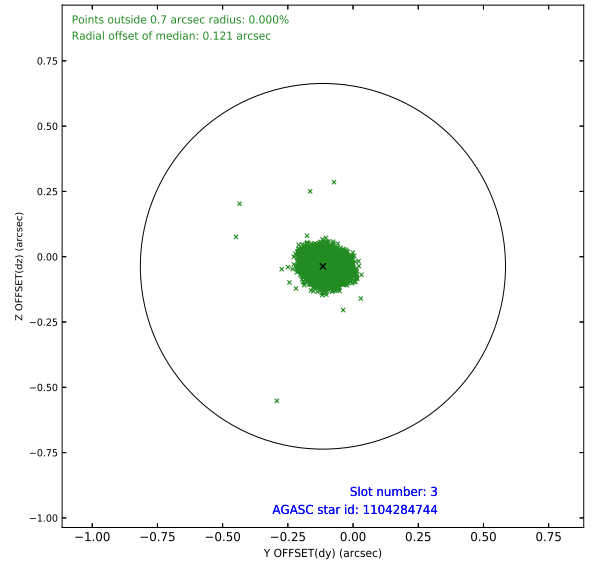
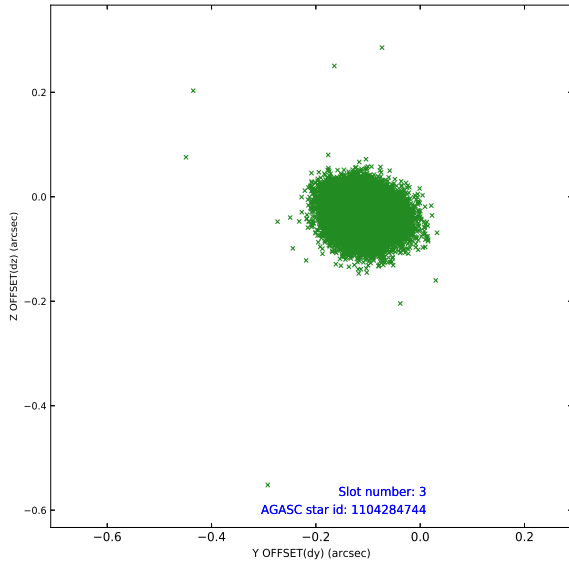


Slot Statistics

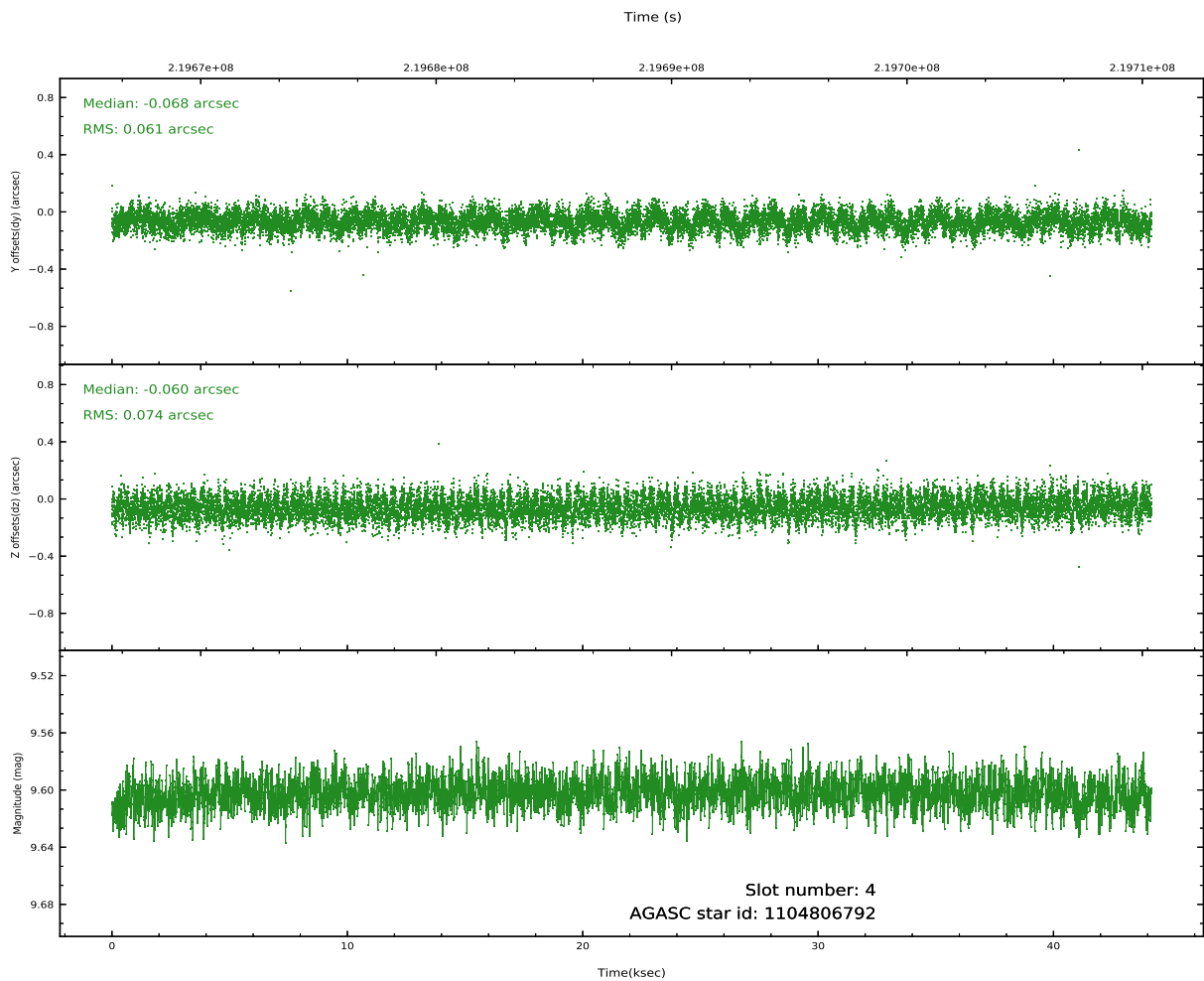
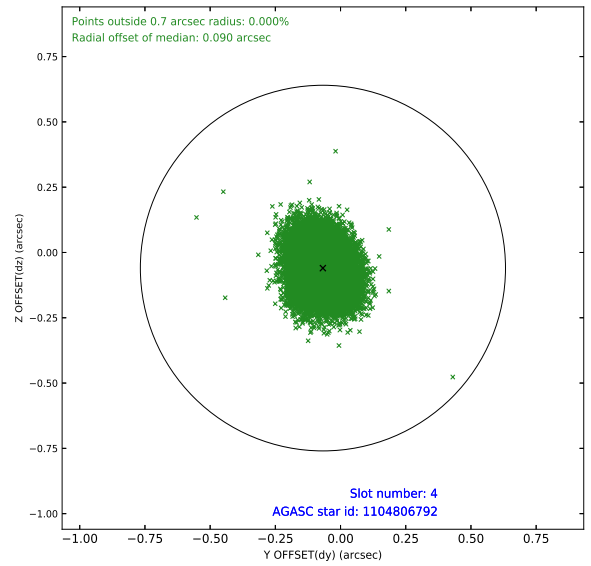
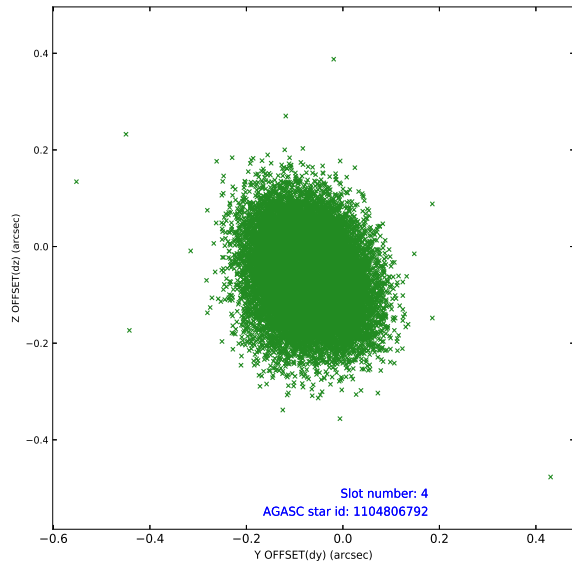
| slot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_x |
|------|--------|------|------------|------|-------|----------|--------|--------|-------|-------|------------|------------|----------|--------|
| 0 | FID | | ACIS-S-1 | 7.18 | 10773 | 1.000 | 0.095 | 0.081 | 0.008 | 0.014 | 0.000000 | 0.000000 | 936.62 | -1965 |
| 1 | FID | | ACIS-S-5 | 7.23 | 10772 | 1.000 | -0.110 | 0.109 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1812.51 | -67 |
| 2 | FID | | ACIS-S-6 | 7.42 | 10772 | 1.000 | -0.007 | -0.180 | 0.009 | 0.015 | 0.000000 | 0.000000 | 402.17 | 575 |
| 3 | GUIDE | used | 1104284744 | 7.37 | 21542 | 1.000 | -0.115 | -0.037 | 0.047 | 0.078 | 316.571361 | -48.526307 | -1129.85 | 528 |
| 4 | GUIDE | used | 1104806792 | 9.60 | 21518 | 1.000 | -0.068 | -0.060 | 0.102 | 0.167 | 315.583247 | -48.831884 | 501.59 | -1487 |
| 5 | GUIDE | used | 1104810032 | 9.77 | 21520 | 1.000 | 0.125 | -0.109 | 0.121 | 0.207 | 315.296883 | -49.246406 | 2115.17 | -1772 |
| 6 | GUIDE | used | 1104811800 | 7.19 | 21542 | 1.000 | -0.037 | 0.076 | 0.064 | 0.099 | 316.974422 | -48.940124 | 98.55 | 1803 |
| 7 | GUIDE | used | 1104815064 | 8.77 | 21505 | 1.000 | 0.095 | 0.133 | 0.067 | 0.110 | 316.816074 | -49.156642 | 943.06 | 1619 |

2.4 Star Slots

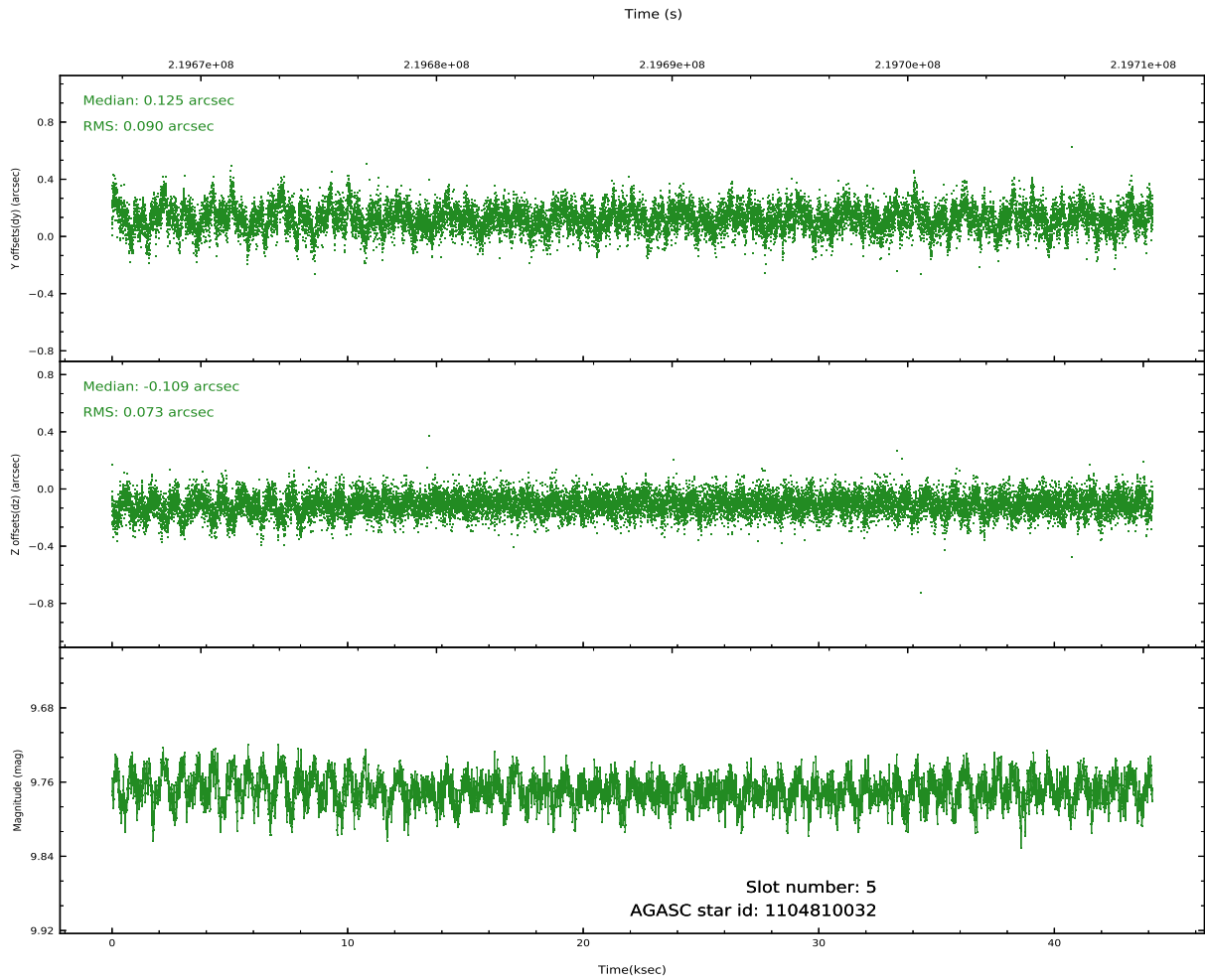
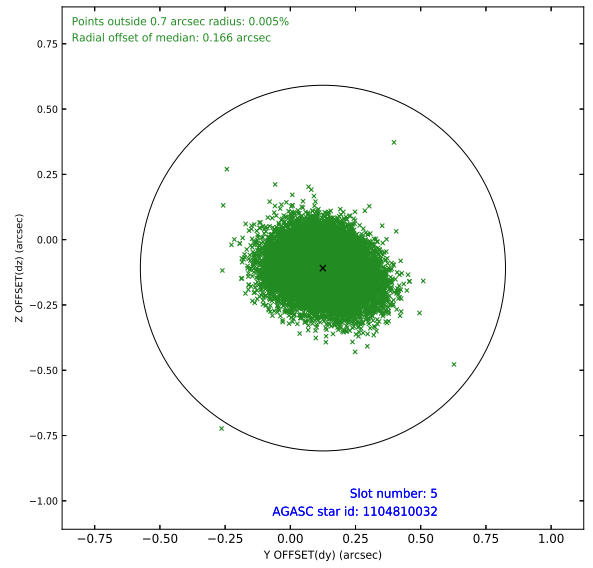
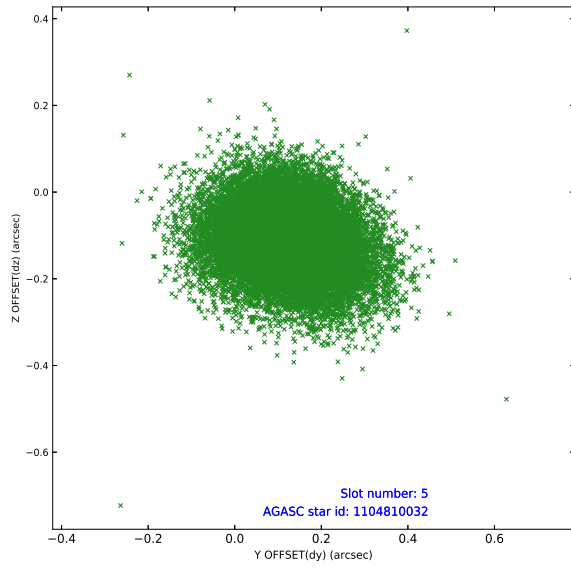
2.4.1 Slot 3



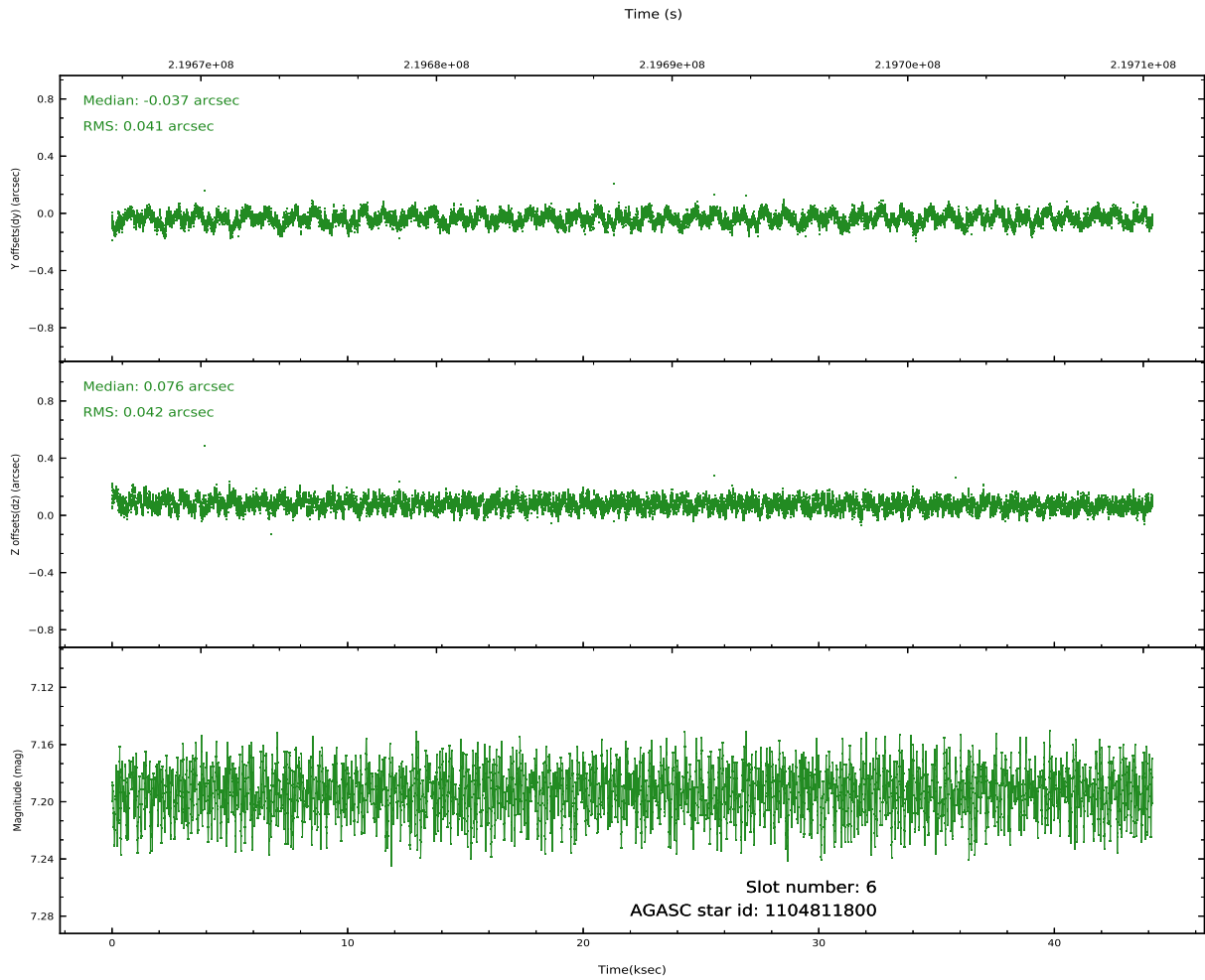
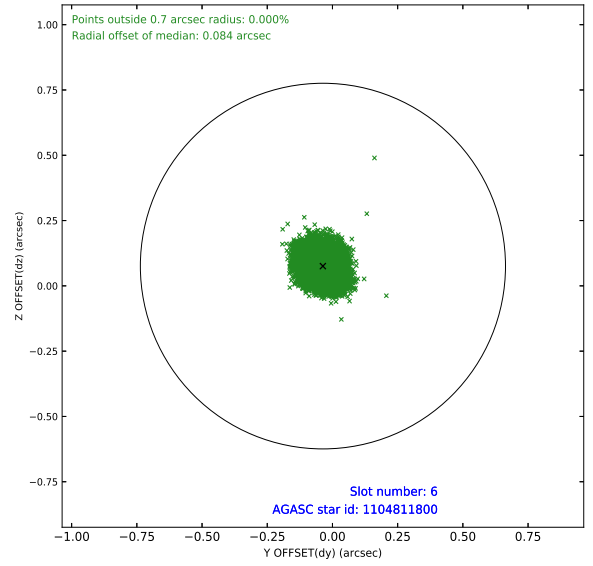
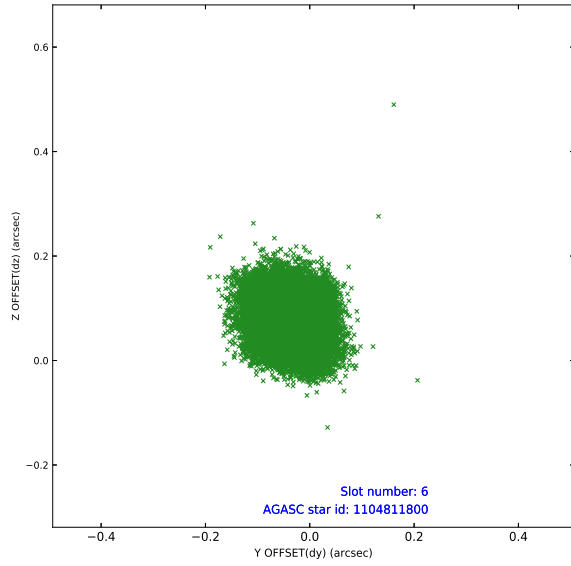
2.4.2 Slot 4



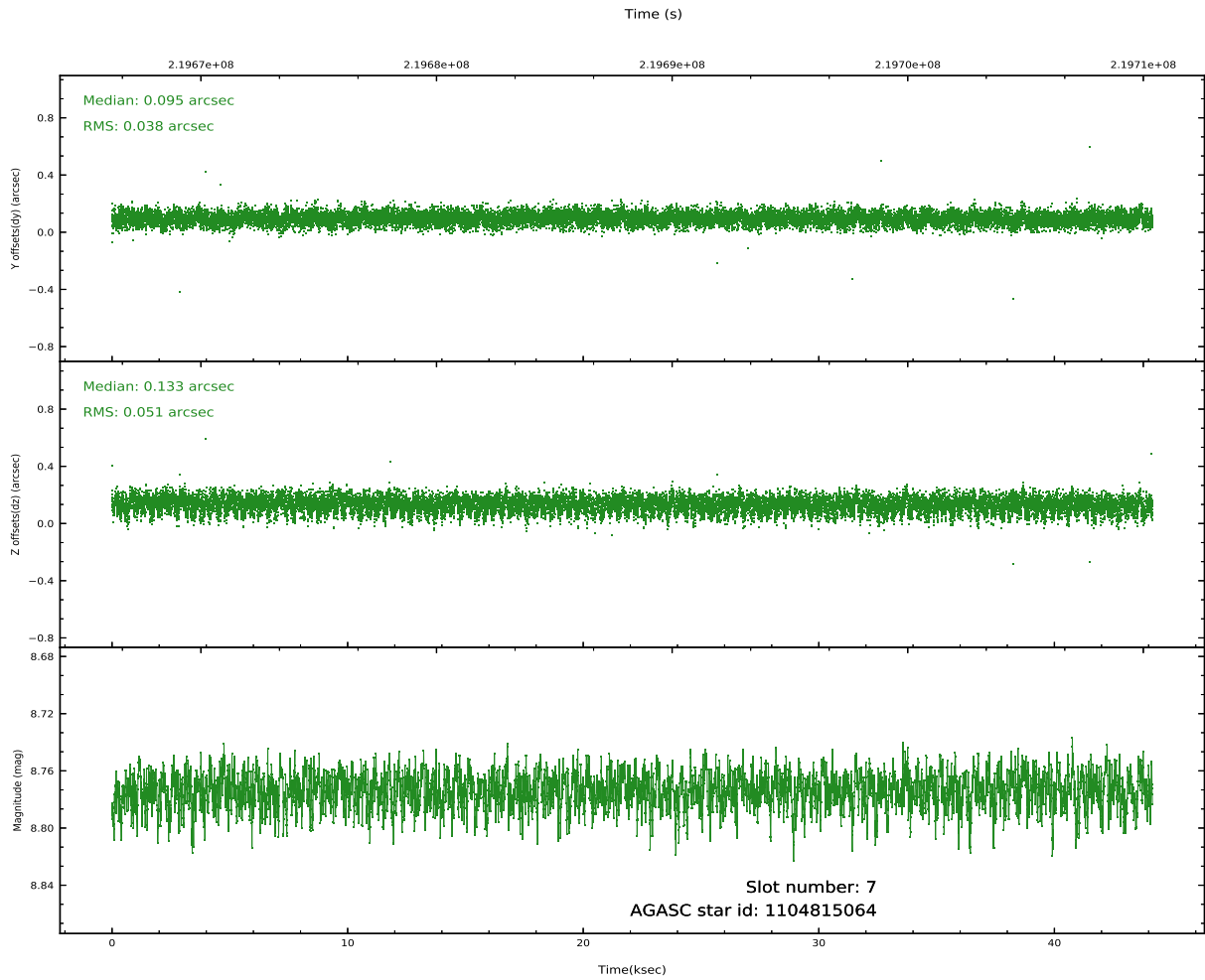
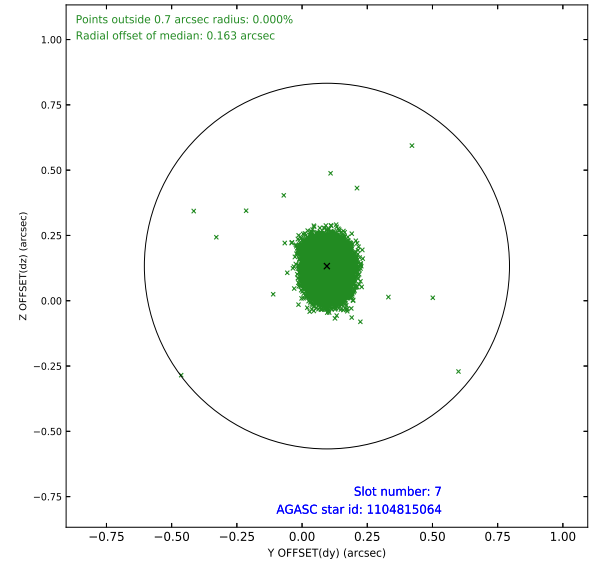
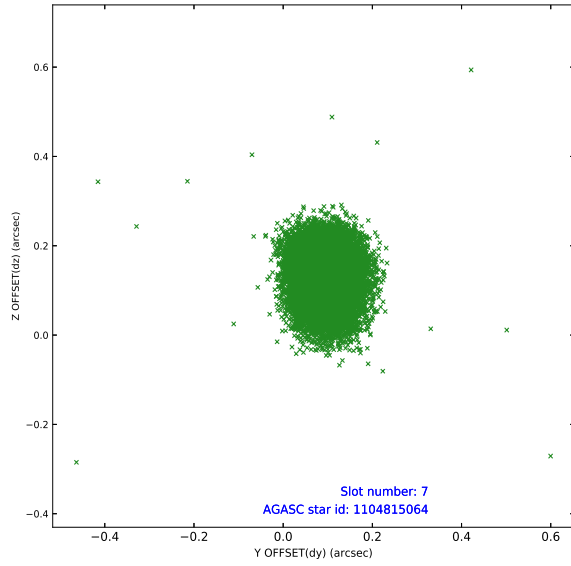
2.4.3 Slot 5



2.4.4 Slot 6

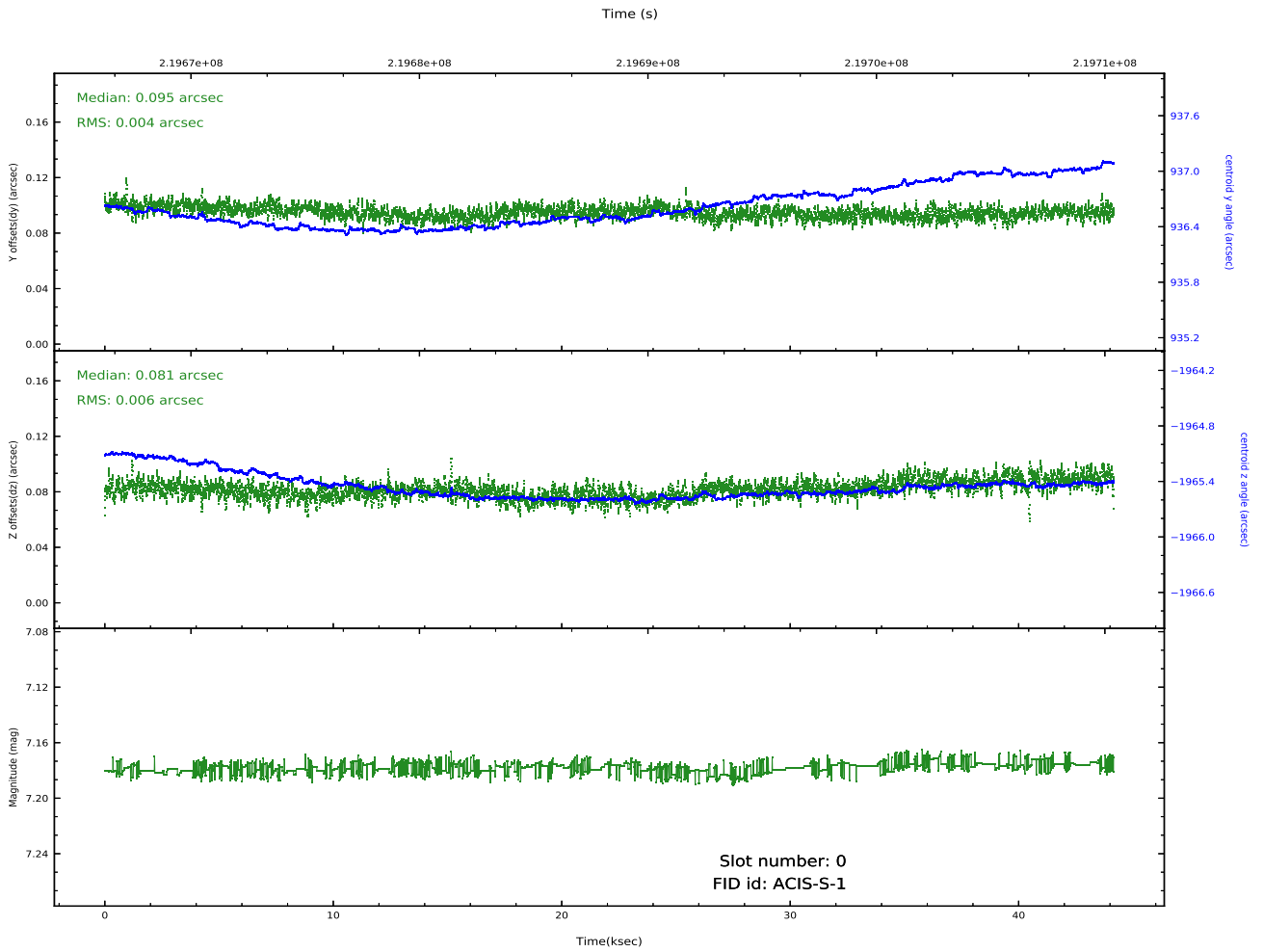
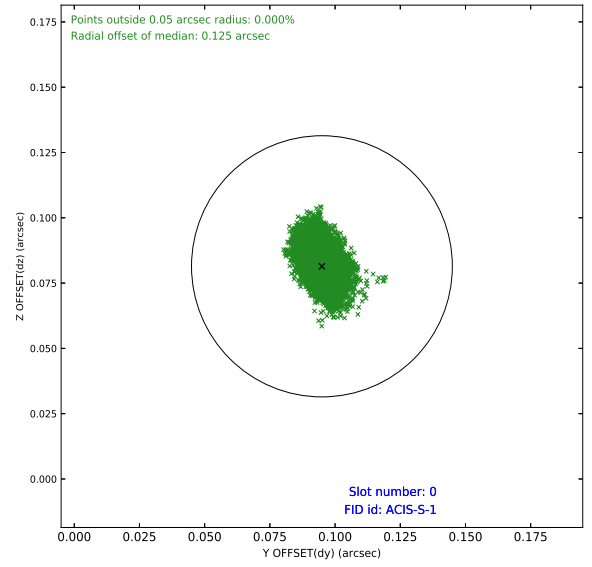
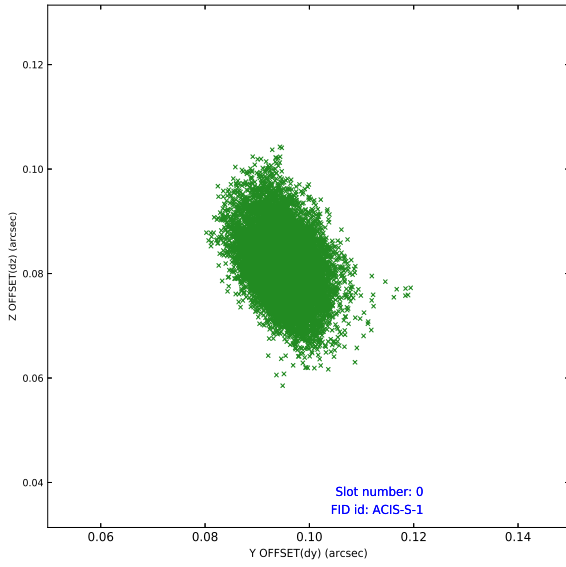


2.4.5 Slot 7

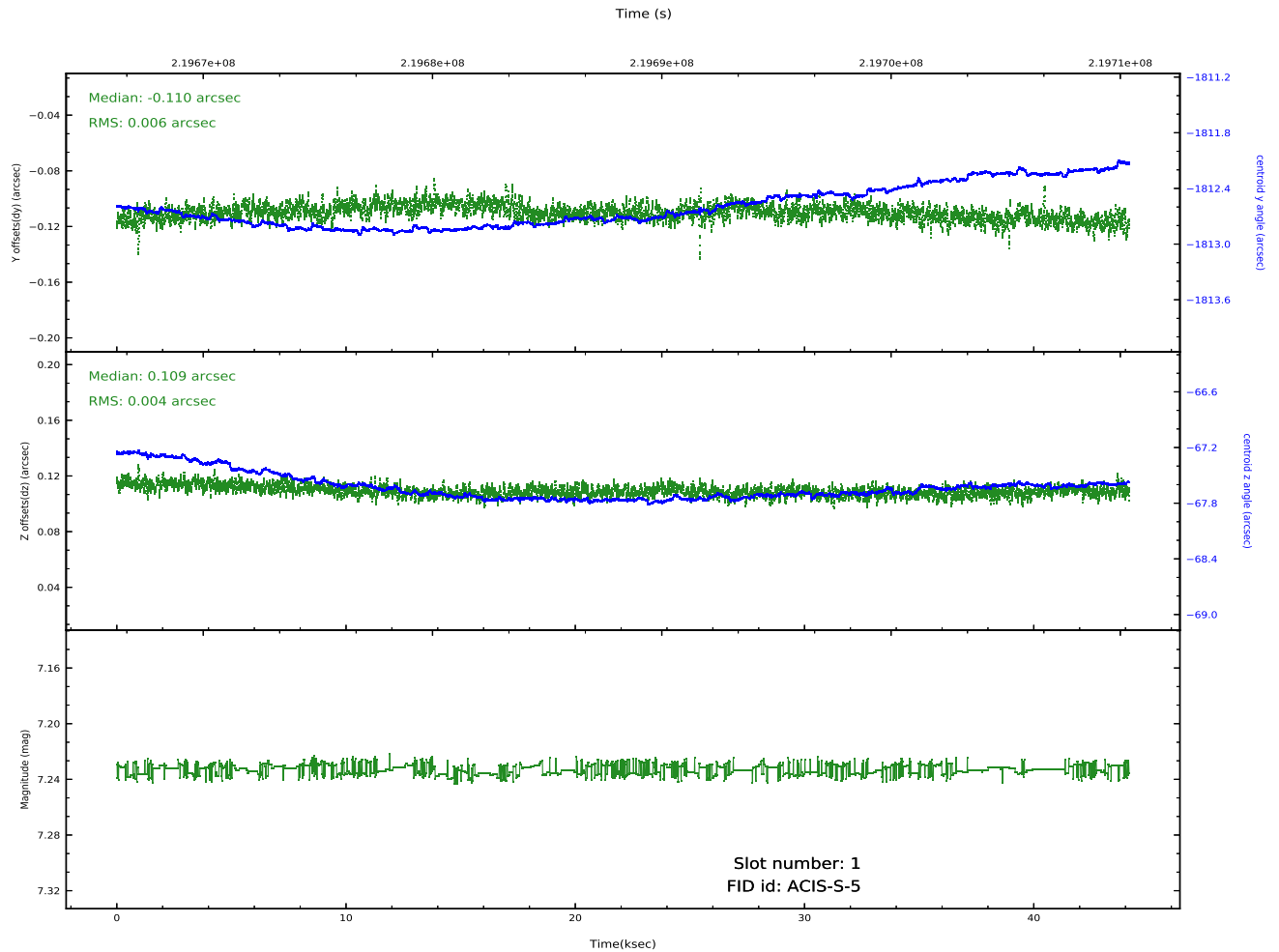
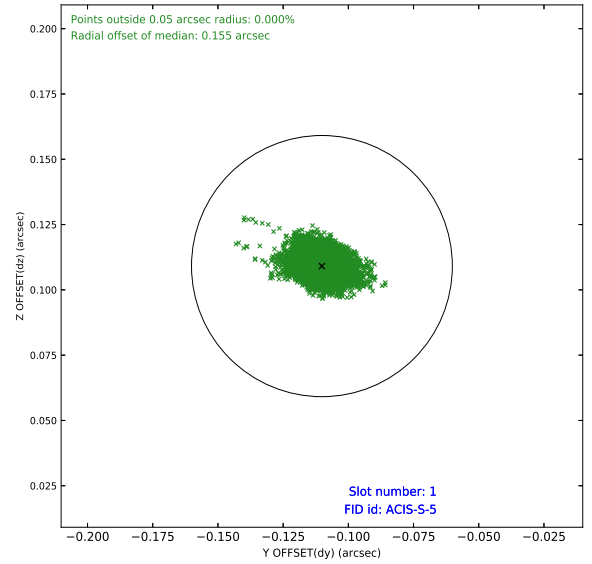
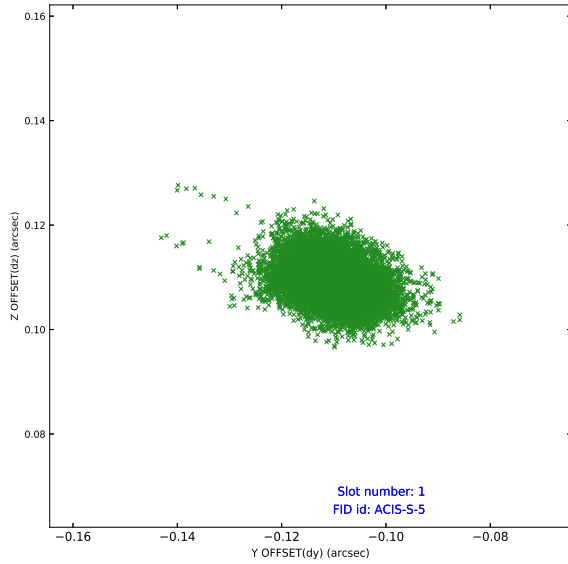


2.5 FID Slots

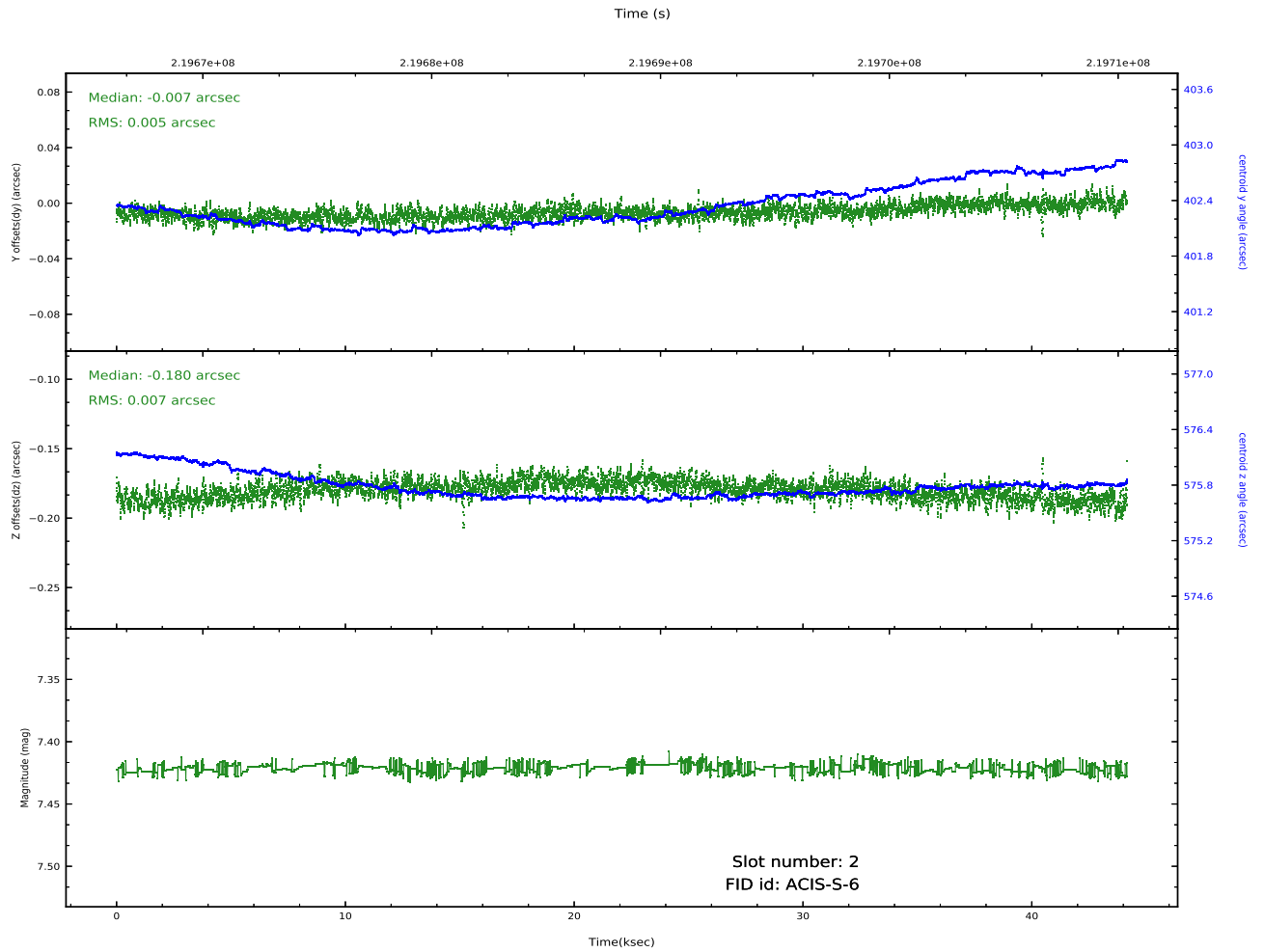
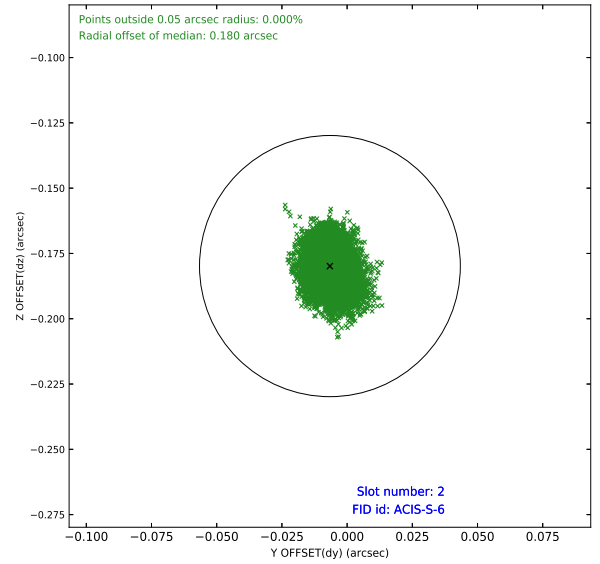
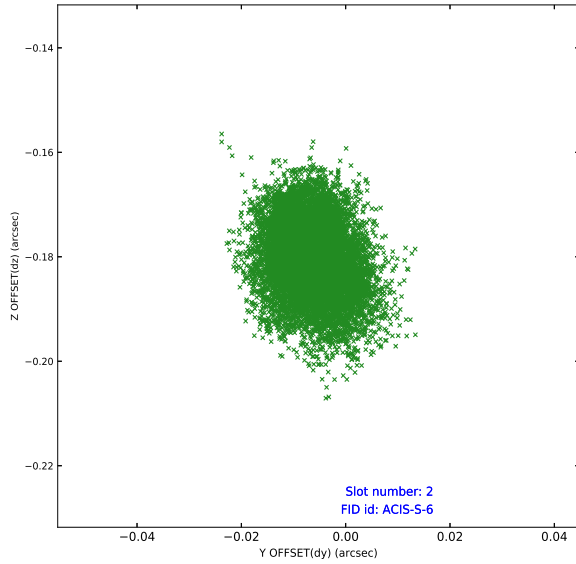
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2020.10.06 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 44.1648 |

A.2 Comments

Joint proposal with HST.