

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 6317 - L2 Version 4
Chandra X-Ray Center

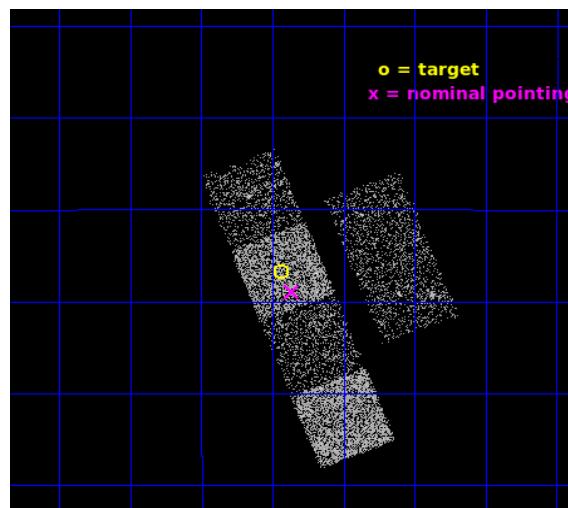
L2 Processing Date : Oct 9 2020

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1 Front

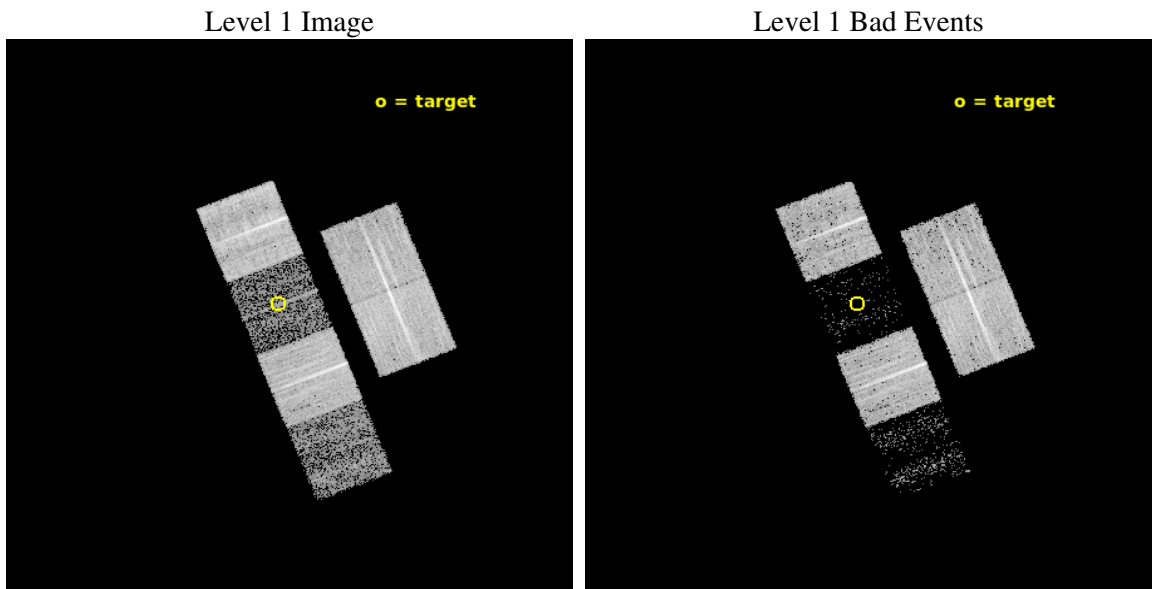
| | | |
|----------|--|---|
| seq_num | 100054 | Sequence number |
| obs_id | 6317 | Observation id |
| title | Comet 9P/Tempel 1 During the Deep Impact Encounter | Proposal title |
| observer | Carey Lisse | Principal investigator |
| object | Comet 9P/Tempel 1 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 202.985336 | Observer's specified target RA [deg] |
| dec_targ | -8.279387 | Observer's specified target Dec [deg] |
| ra_nom | 202.96578146313 | Nominal RA [deg] |
| dec_nom | -8.3155027867263 | Nominal Dec [deg] |
| roll_nom | 248.36875265529 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 10182.399962068 | Sum of GTIs [s] |
| livetime | 10053.464282643 | Livetime [s] |
| ontime2 | 10179.158991784 | Sum of GTIs [s] |
| ontime3 | 10182.399962068 | Sum of GTIs [s] |
| ontime5 | 10182.399962068 | Sum of GTIs [s] |
| ontime6 | 10182.399962068 | Sum of GTIs [s] |
| ontime7 | 10182.399962068 | Sum of GTIs [s] |
| ontime8 | 10182.399962068 | Sum of GTIs [s] |
| l2events | 13726 | Number of level 2 events |



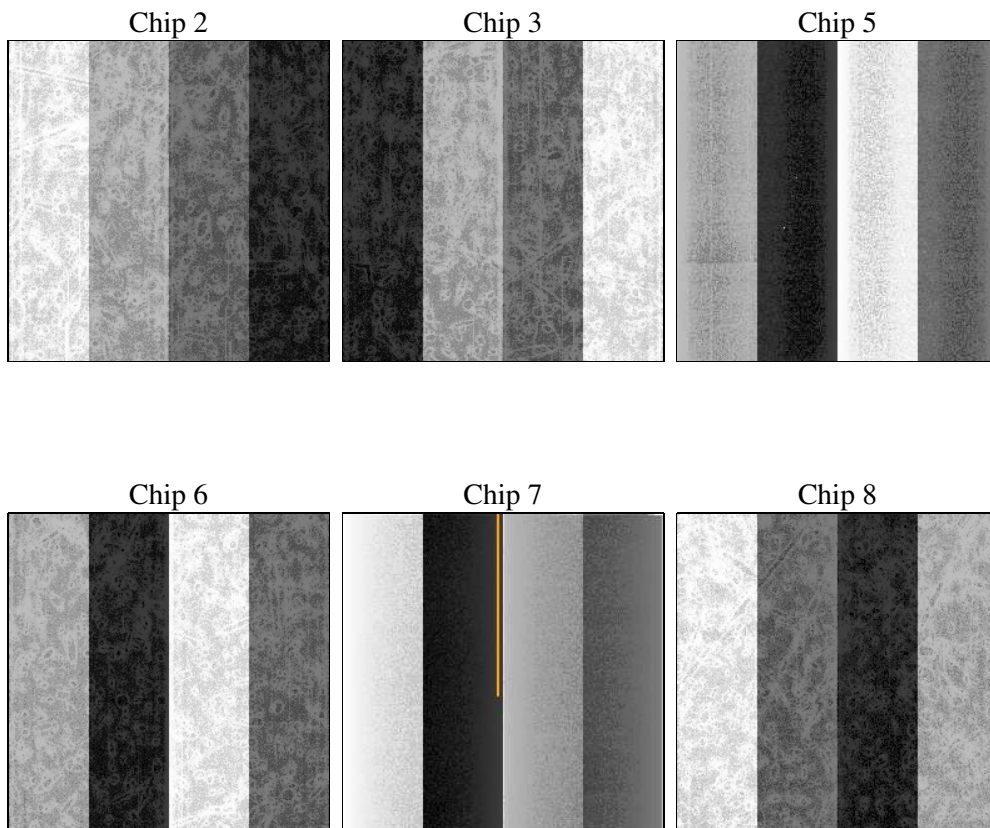
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 10000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 10182.399962068 | Sum of GTIs [s] |
| caldsver | 4.9.2 | | ontime2 | 10179.158991784 | Sum of GTIs [s] |
| date | 2020-10-09T07:18:34 | Date and time of file creation | ontime3 | 10182.399962068 | Sum of GTIs [s] |
| revision | 4 | Processing version of data | ontime5 | 10182.399962068 | Sum of GTIs [s] |
| | | | ontime6 | 10182.399962068 | Sum of GTIs [s] |
| | | | ontime7 | 10182.399962068 | Sum of GTIs [s] |
| | | | ontime8 | 10182.399962068 | Sum of GTIs [s] |
| | | | l1events | 208240 | Number of level 1 events |

2.1.4 Events

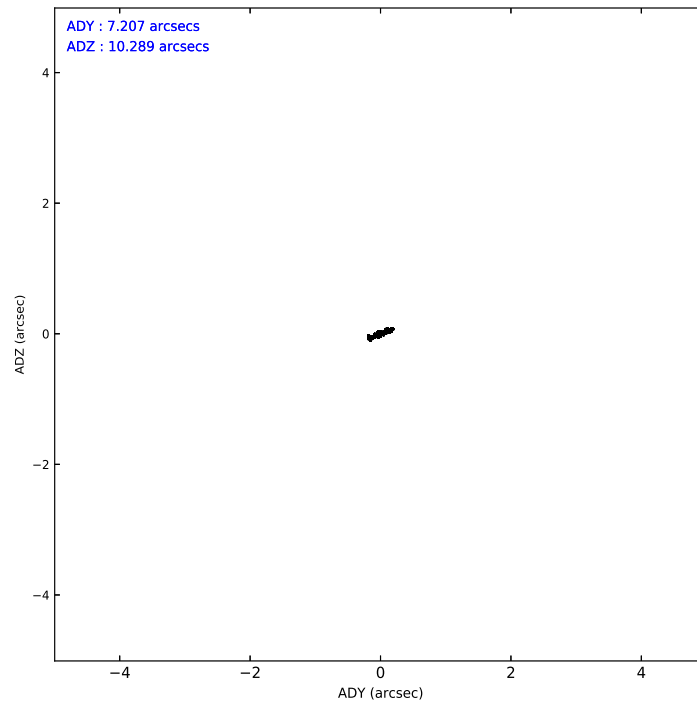
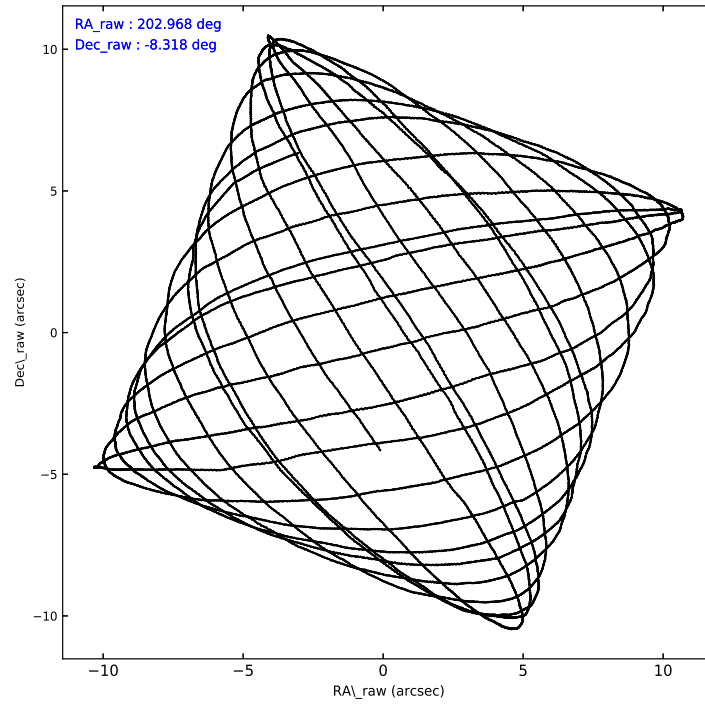
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 53200 | 42162 | 7909 | 45826 | 6190 | 52953 |
| rejected events | 51007 | 40683 | 2781 | 43946 | 1408 | 39986 |
| rejected % | 95% | 96% | 35% | 95% | 22% | 75% |

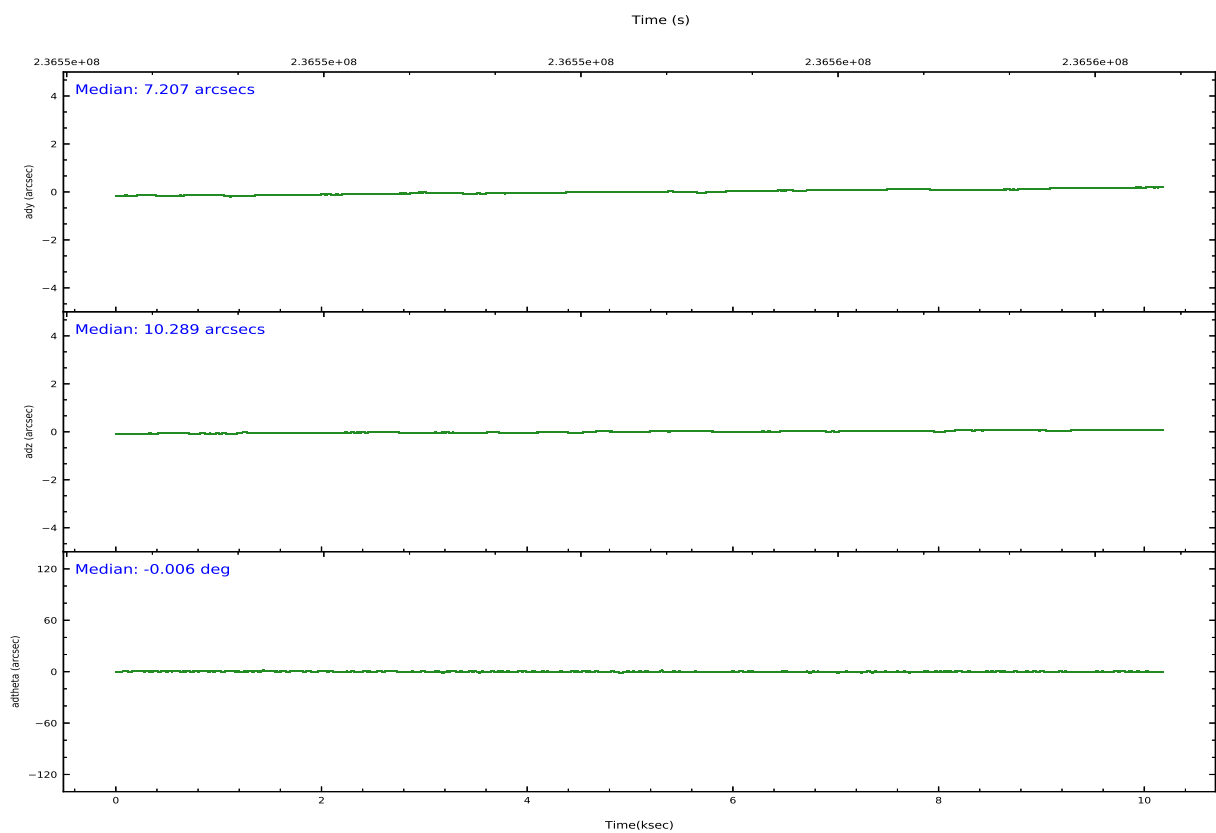
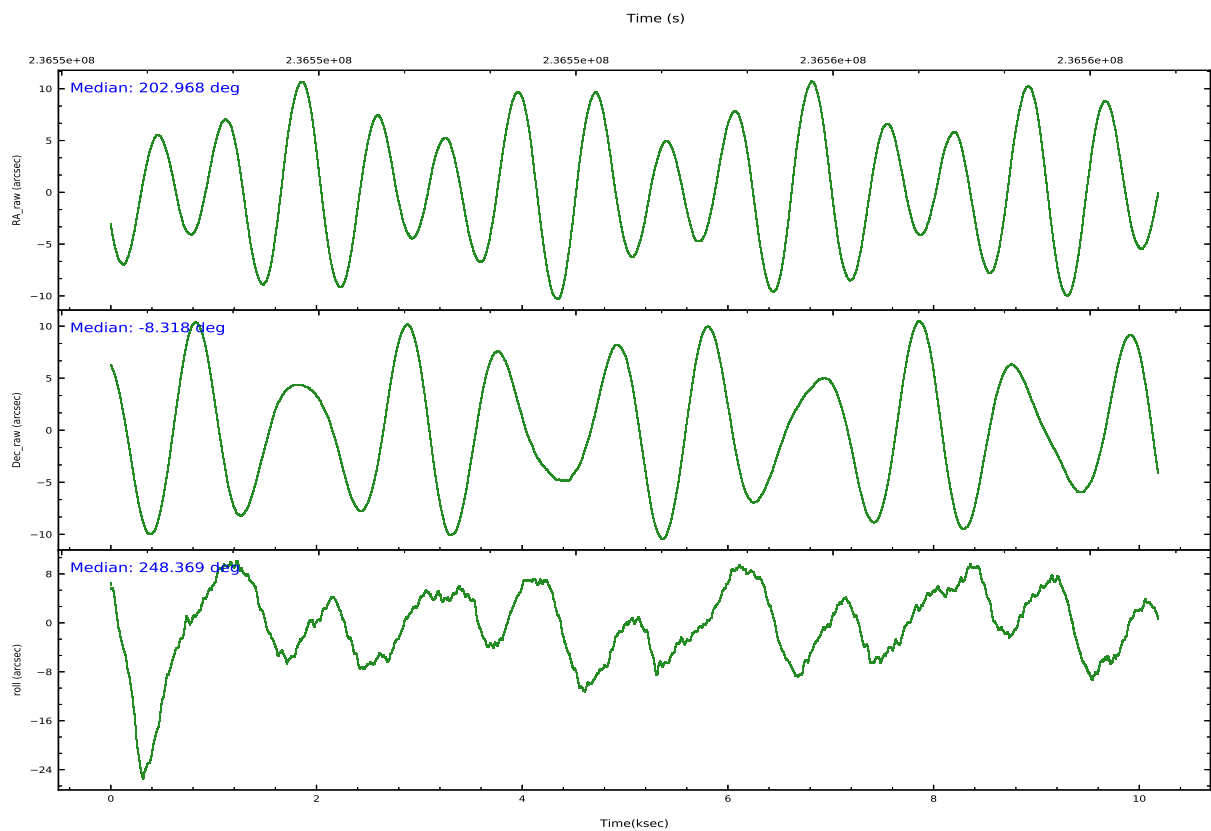
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 953 | 711 | 1327 | 879 | 1304 | 3699 |
| | 1% | 1% | 16% | 1% | 21% | 6% |
| grade 1 events | 7 | 15 | 52 | 19 | 38 | 41 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 482 | 187 | 2054 | 338 | 1629 | 2956 |
| | 0% | 0% | 25% | 0% | 26% | 5% |
| grade 3 events | 284 | 264 | 630 | 290 | 694 | 1595 |
| | 0% | 0% | 7% | 0% | 11% | 3% |
| grade 4 events | 306 | 233 | 668 | 277 | 730 | 1428 |
| | 0% | 0% | 8% | 0% | 11% | 2% |
| grade 5 events | 49 | 45 | 442 | 46 | 158 | 272 |
| | 0% | 0% | 5% | 0% | 2% | 0% |
| grade 6 events | 234 | 136 | 644 | 152 | 594 | 3624 |
| | 0% | 0% | 8% | 0% | 9% | 6% |
| grade 7 events | 50885 | 40571 | 2092 | 43825 | 1043 | 39338 |
| | 95% | 96% | 26% | 95% | 16% | 74% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| Detector | ACIS-235678 | ACIS-235678 | 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 | 202.963352 | 202.96578146313 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -8.291693 | -8.3155027867263 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 248.215543 | 248.36875265529 | [s] Primary exposure time | 0.000000 | 3.2 |
| [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) | 236548160.184000 | 236547784.18375 | | | |
| Observation start date | 2005-06-30T19:48:16 | 2005-06-30T19:43:04 | | | |
| [s] Observation end time (MET) | 236558160.184000 | 236558294.53424 | | | |
| Observation end date | 2005-06-30T22:34:56 | 2005-06-30T22:38:14 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



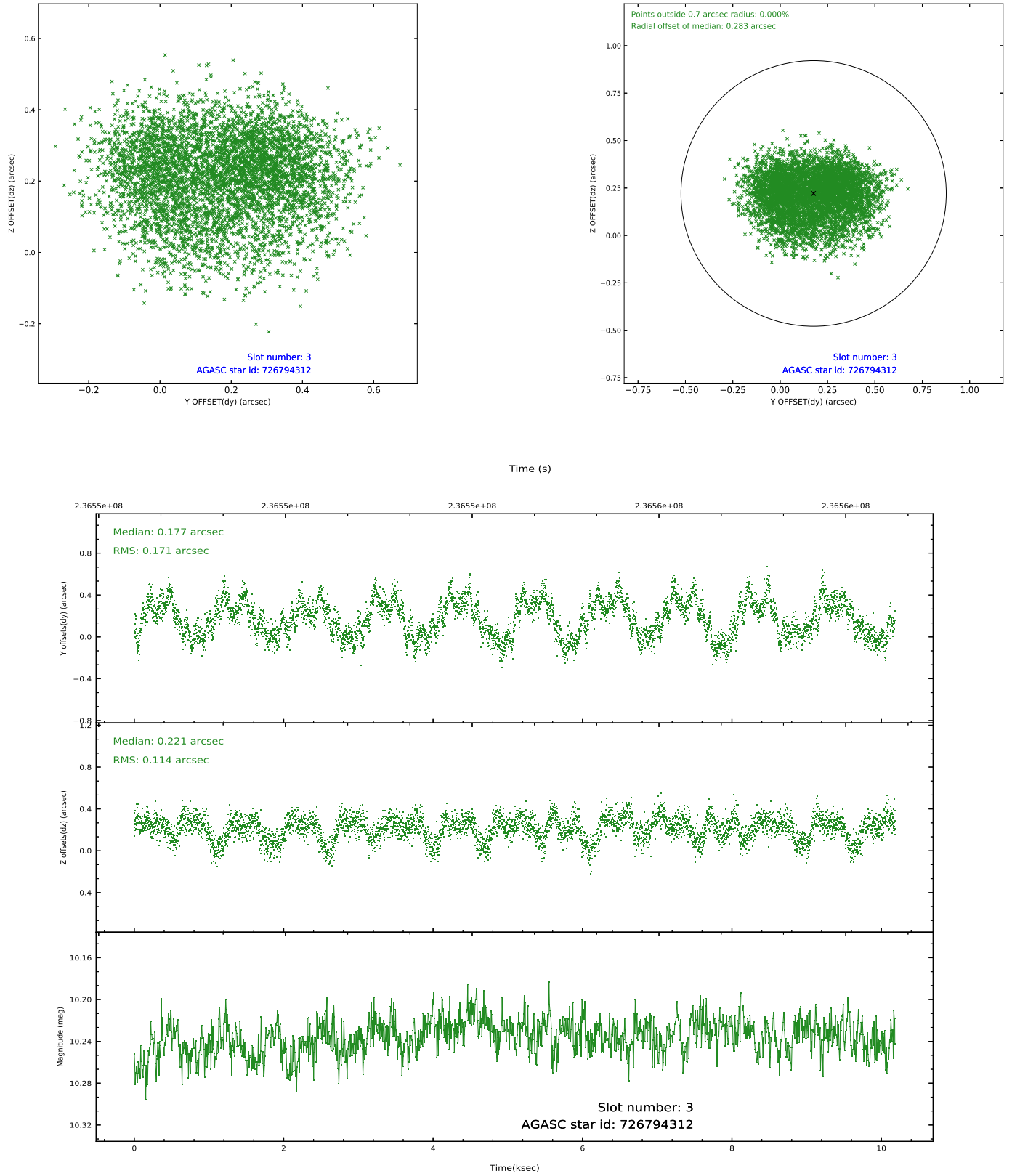


Slot Statistics

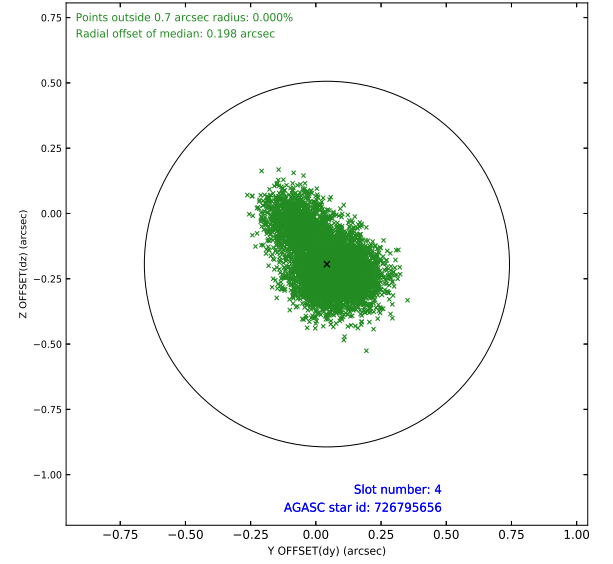
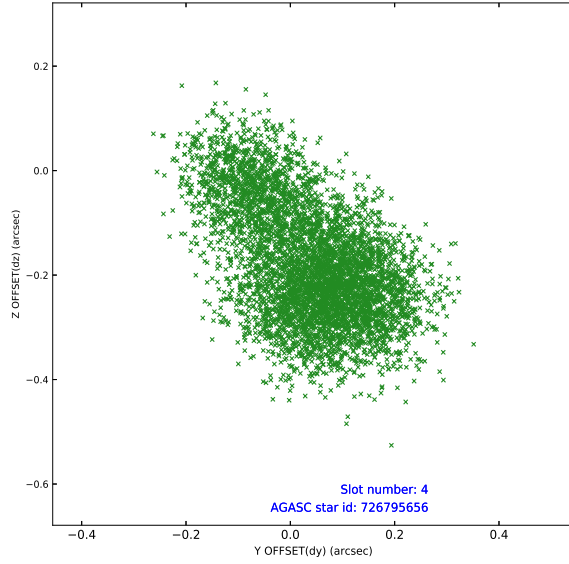
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|-----------|-------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.10 | 2484 | 1.000 | -0.086 | -0.060 | 0.008 | 0.012 | 0.000000 | 0.000000 | -759.98 | -1731 |
| 1 | FID | | ACIS-S-4 | 7.21 | 2484 | 1.000 | 0.162 | 0.057 | 0.007 | 0.013 | 0.000000 | 0.000000 | 2153.23 | 176 |
| 2 | FID | | ACIS-S-5 | 7.23 | 2485 | 1.000 | -0.108 | 0.011 | 0.007 | 0.013 | 0.000000 | 0.000000 | -1812.25 | 170 |
| 3 | GUIDE | used | 726794312 | 10.24 | 4963 | 1.000 | 0.177 | 0.221 | 0.226 | 0.337 | 203.365400 | -8.963648 | 1716.69 | 2226 |
| 4 | GUIDE | used | 726795656 | 9.70 | 4961 | 1.000 | 0.042 | -0.194 | 0.162 | 0.270 | 202.576235 | -8.591995 | 1516.91 | -877 |
| 5 | GUIDE | used | 726796160 | 10.26 | 4941 | 1.000 | -0.138 | 0.101 | 0.181 | 0.306 | 203.337231 | -8.169596 | -901.62 | 1073 |
| 6 | GUIDE | used | 726796976 | 9.92 | 4969 | 1.000 | -0.120 | -0.151 | 0.145 | 0.229 | 203.076886 | -8.047529 | -966.35 | 49 |
| 7 | GUIDE | used | 726797168 | 9.21 | 4959 | 1.000 | 0.047 | 0.018 | 0.085 | 0.138 | 202.692279 | -8.774007 | 1970.83 | -250 |

2.4 Star Slots

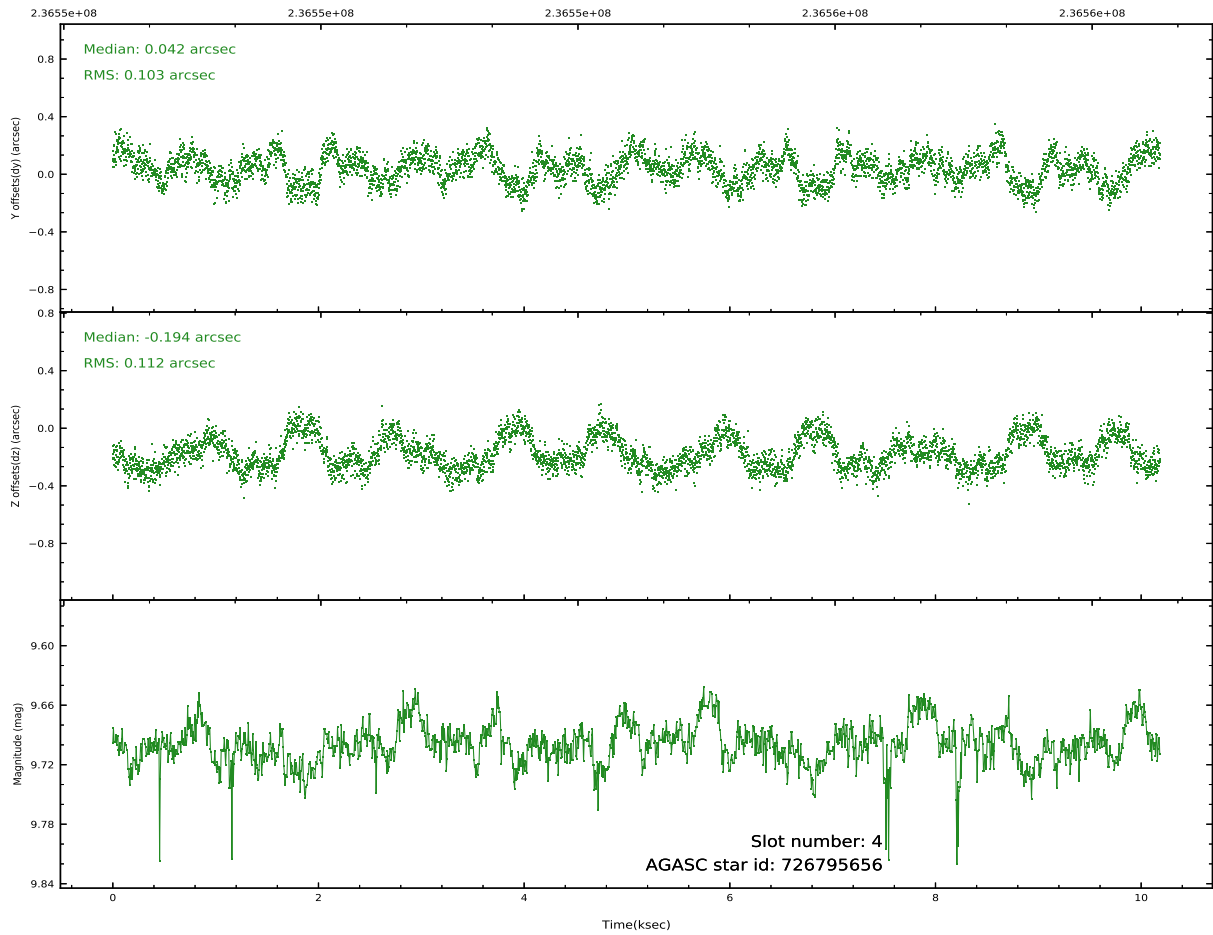
2.4.1 Slot 3



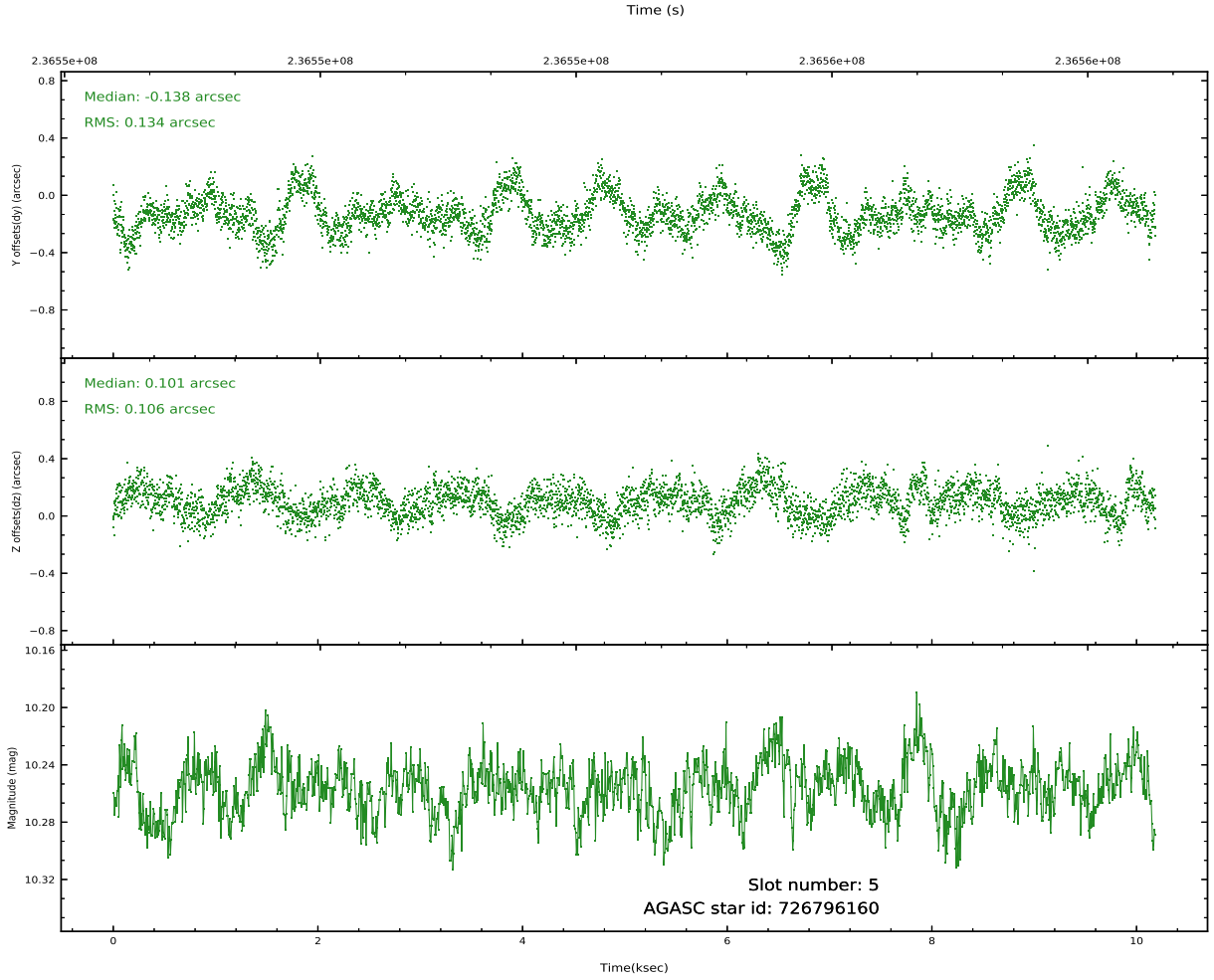
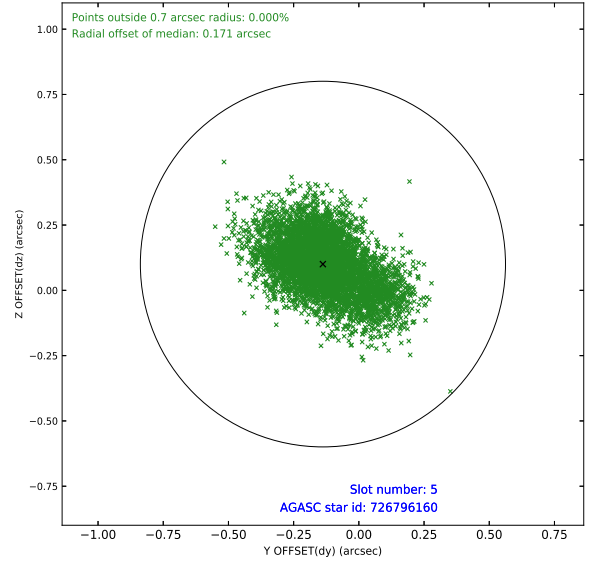
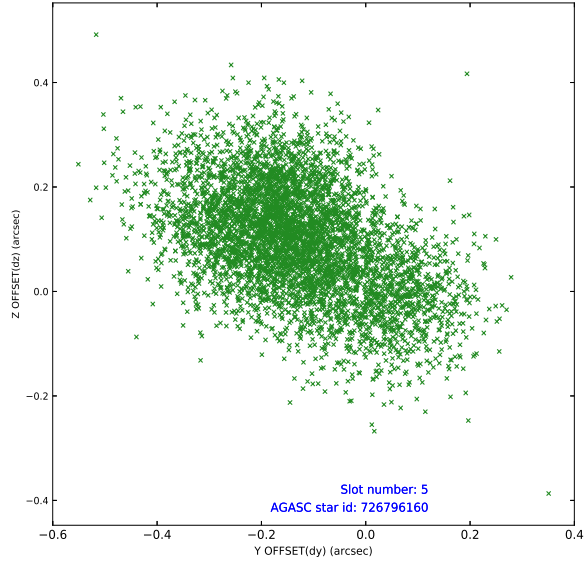
2.4.2 Slot 4



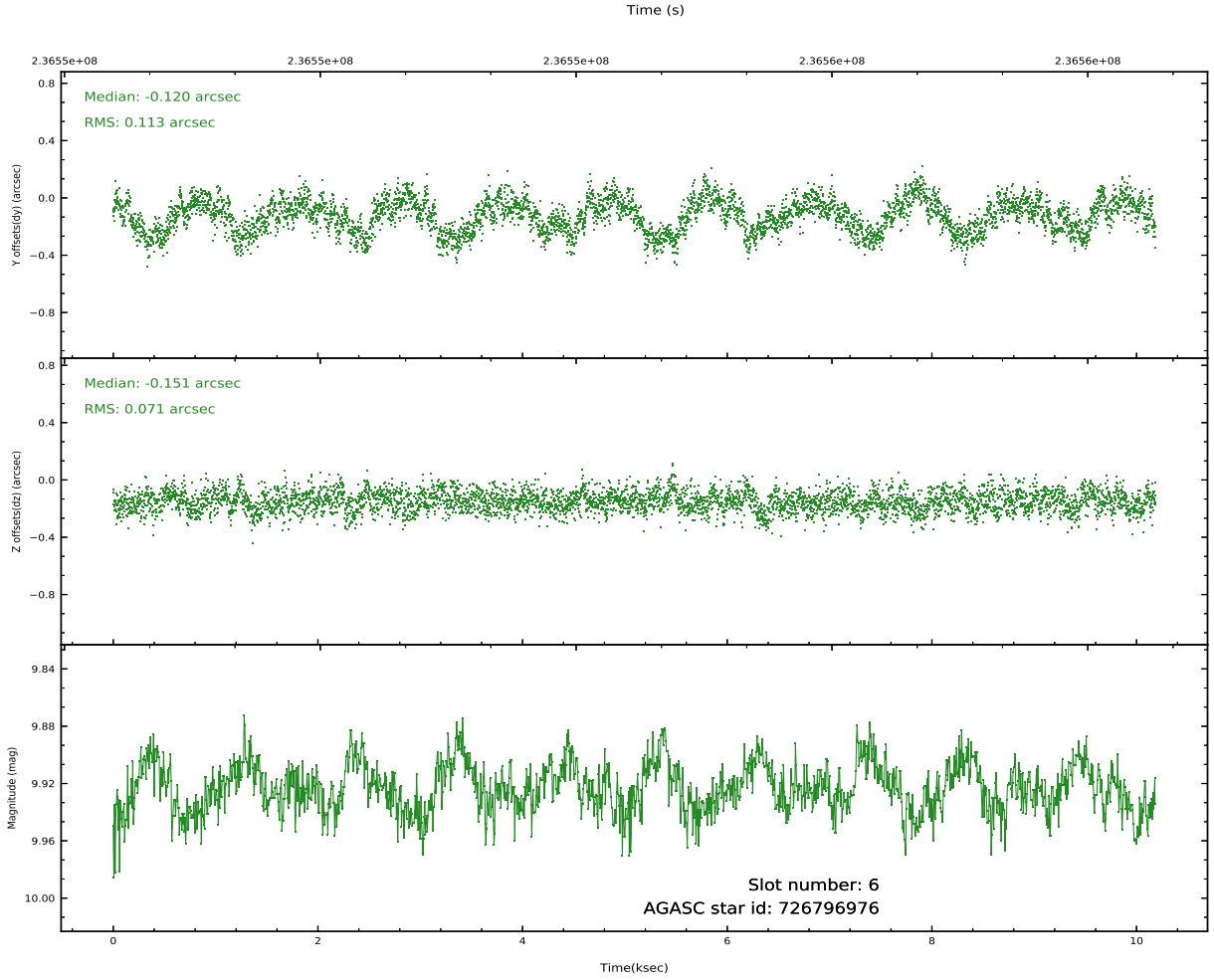
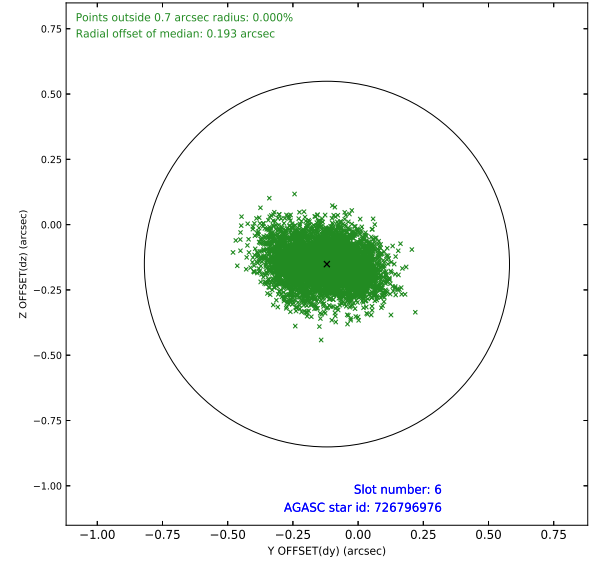
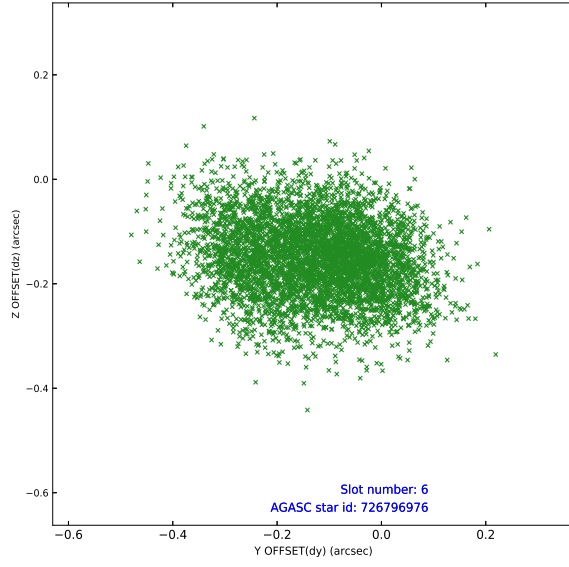
Time (s)



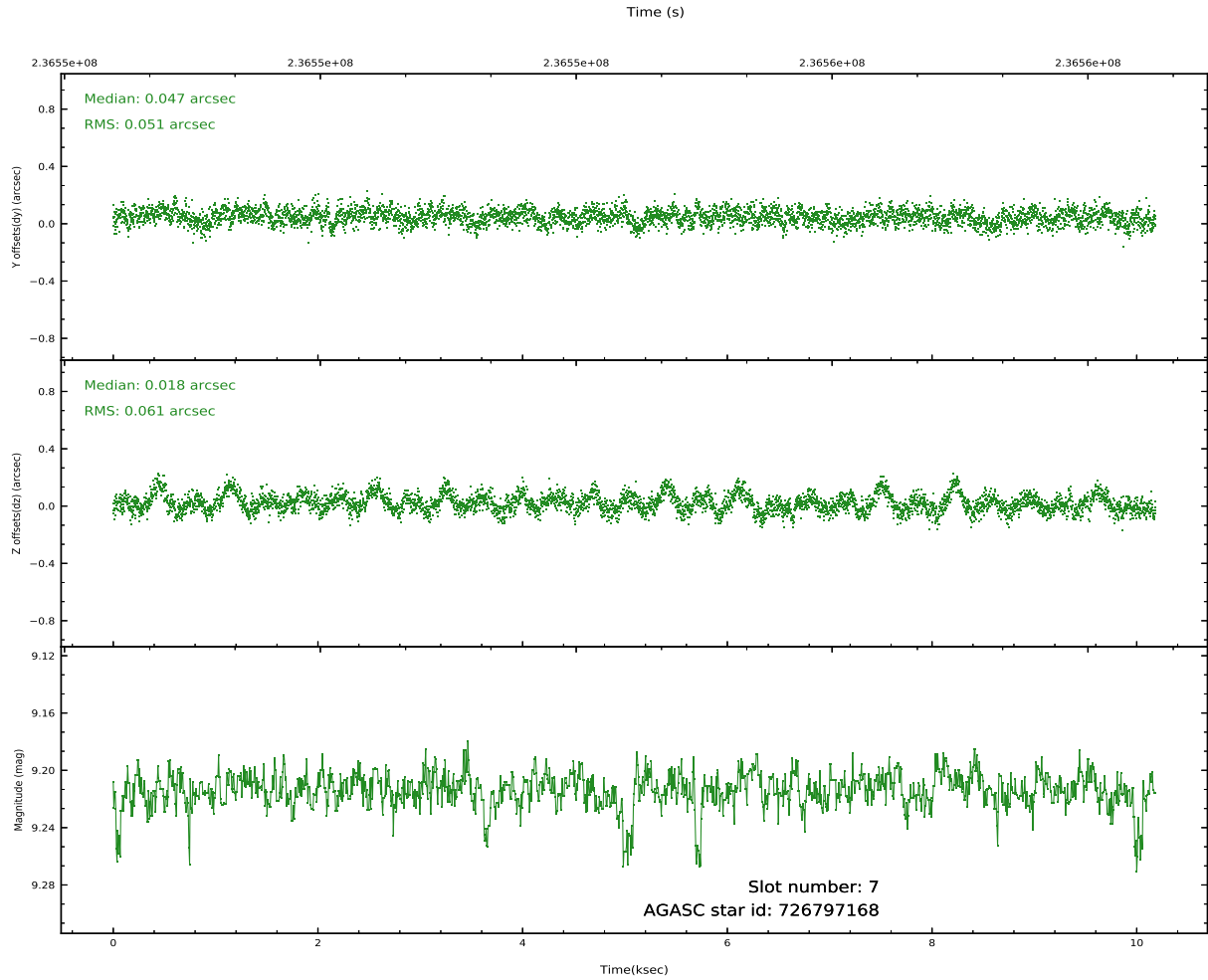
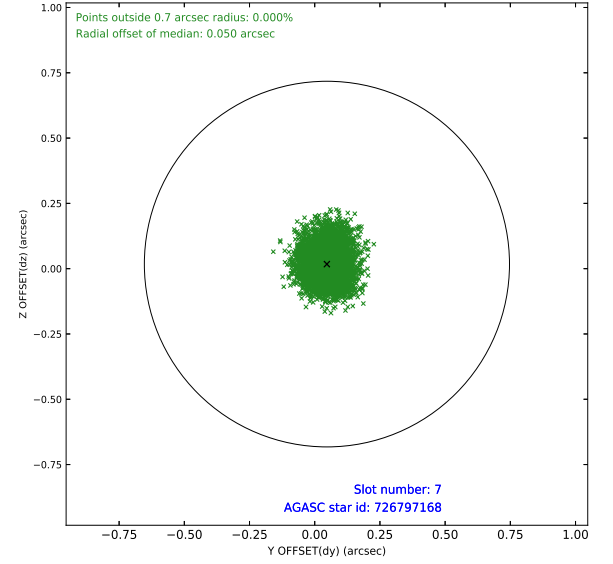
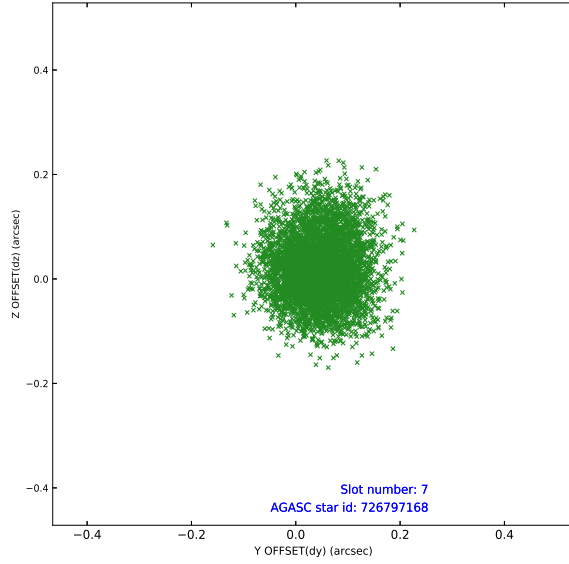
2.4.3 Slot 5



2.4.4 Slot 6

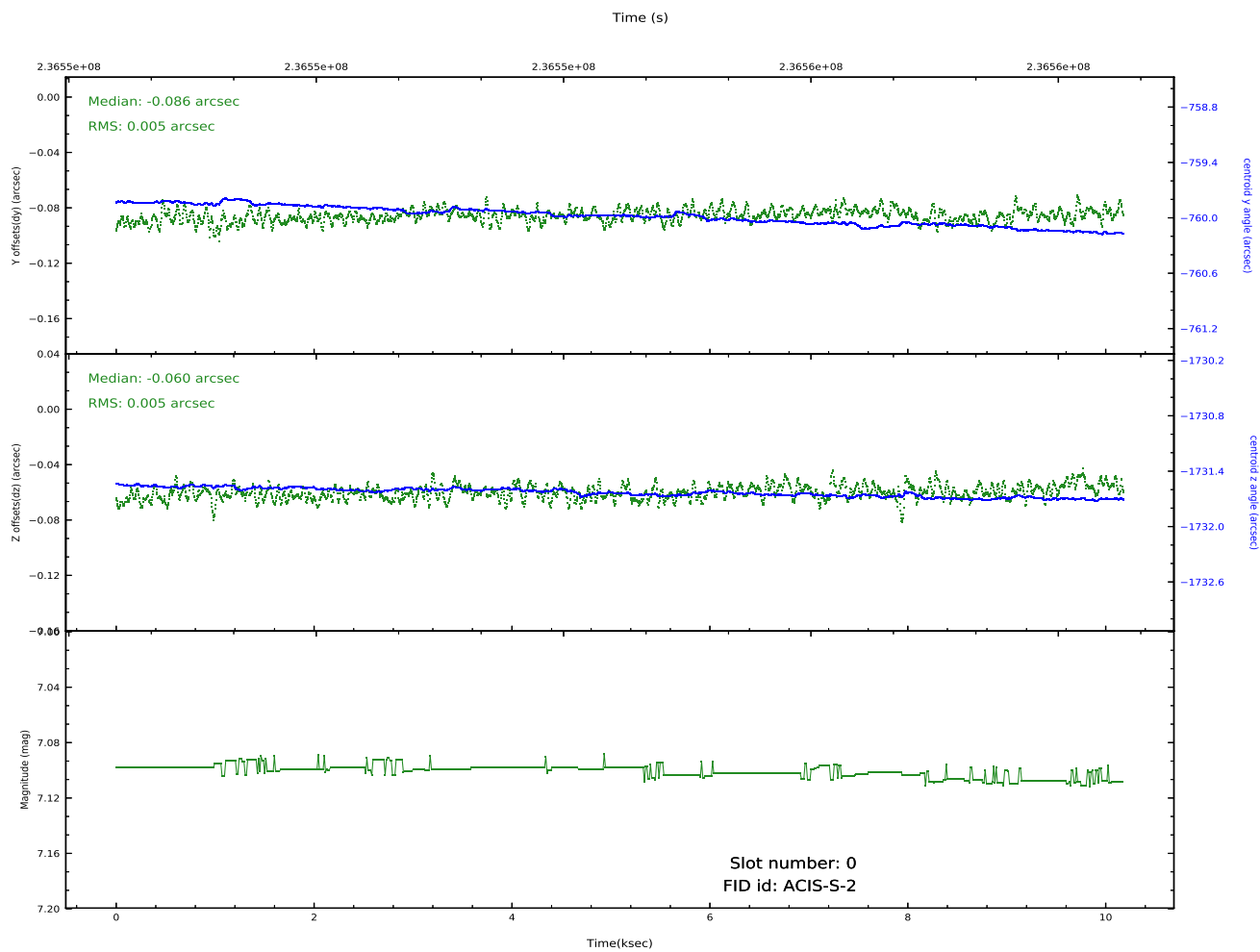
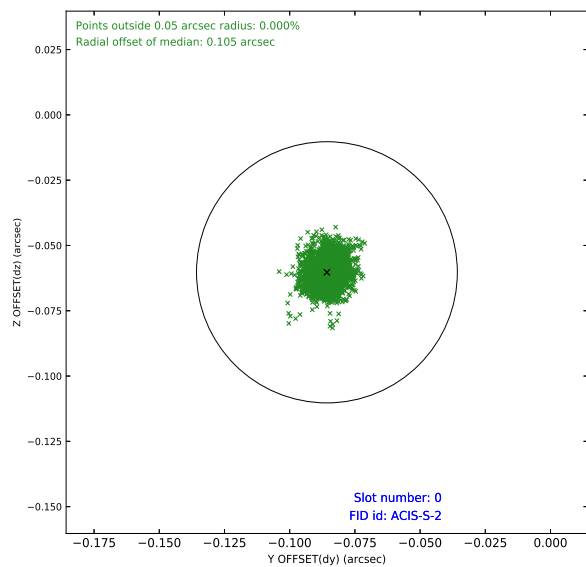
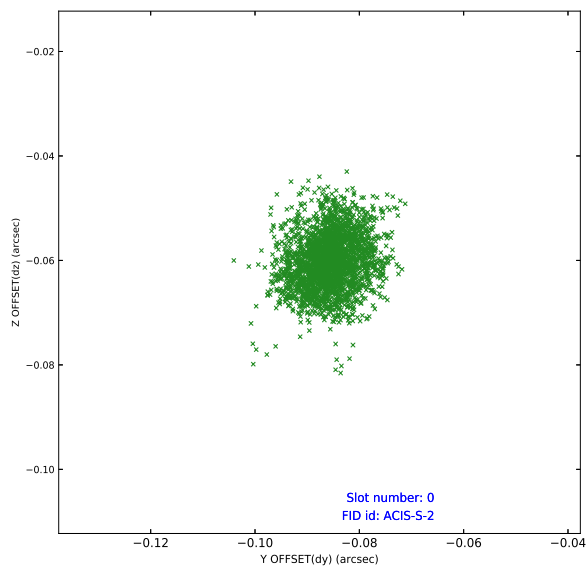


2.4.5 Slot 7

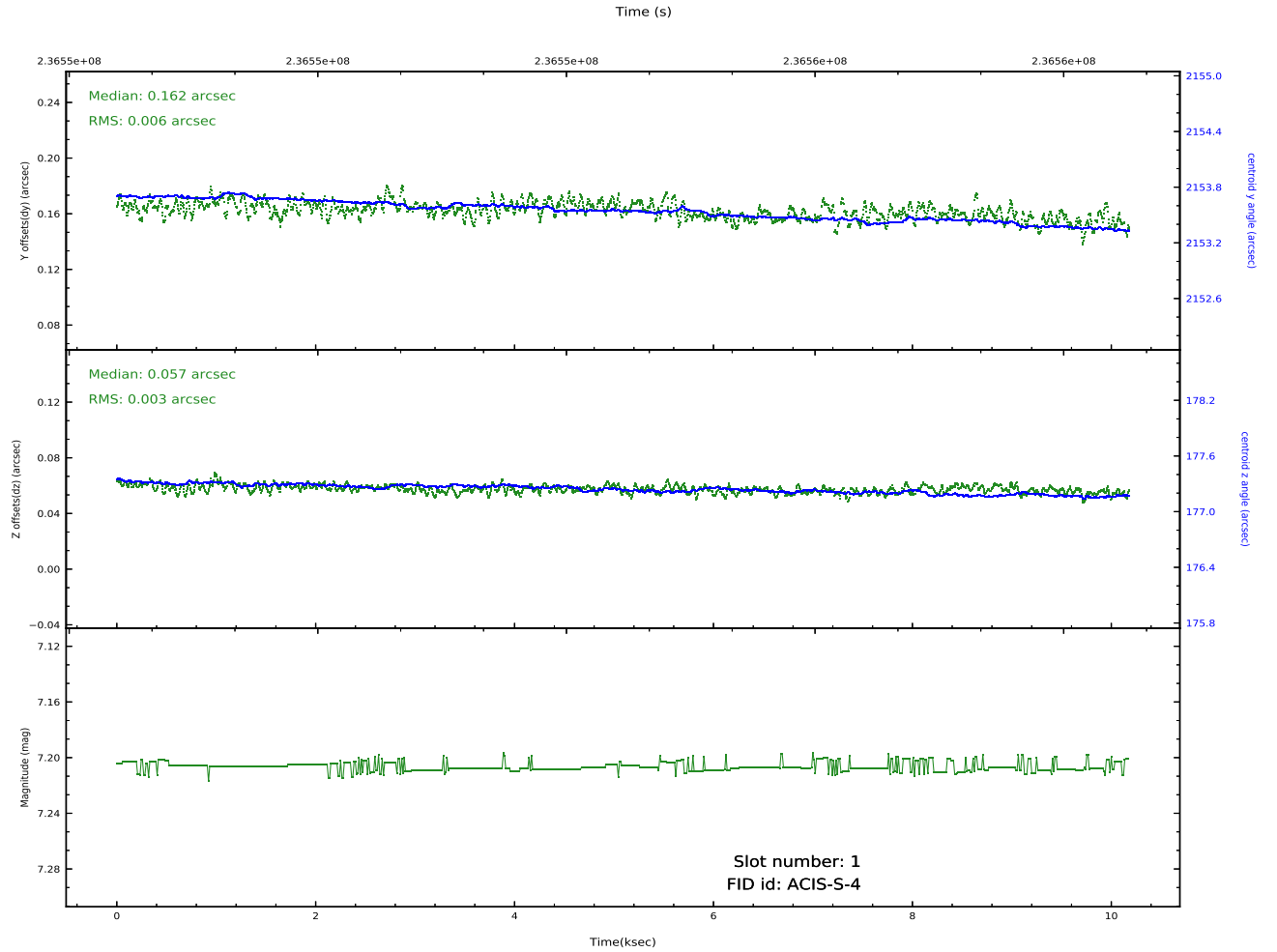
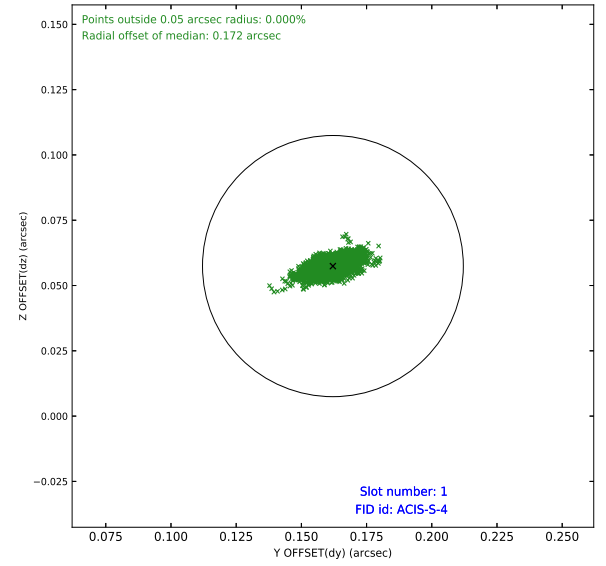
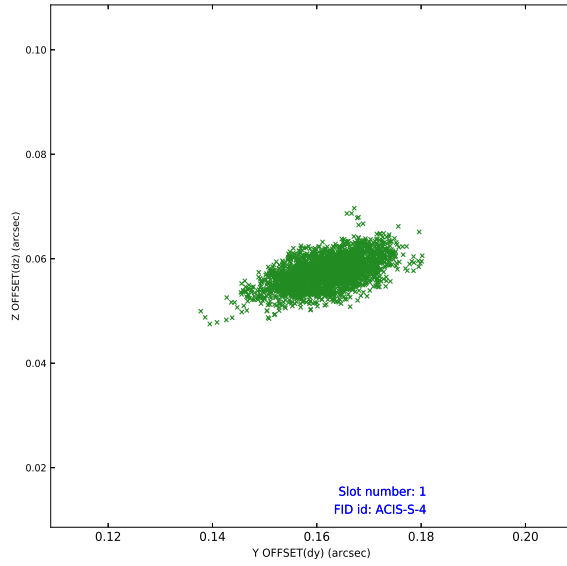


2.5 FID Slots

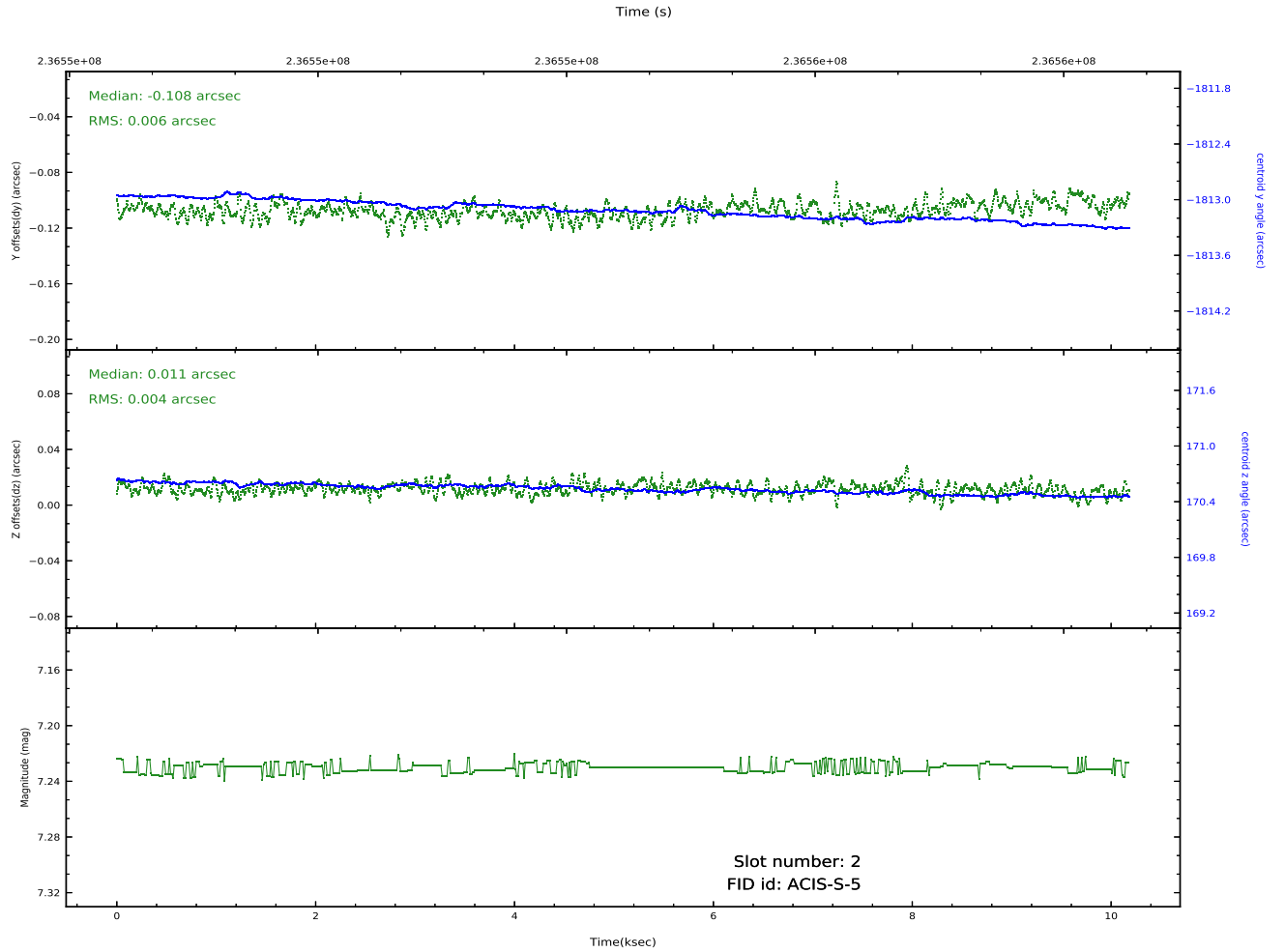
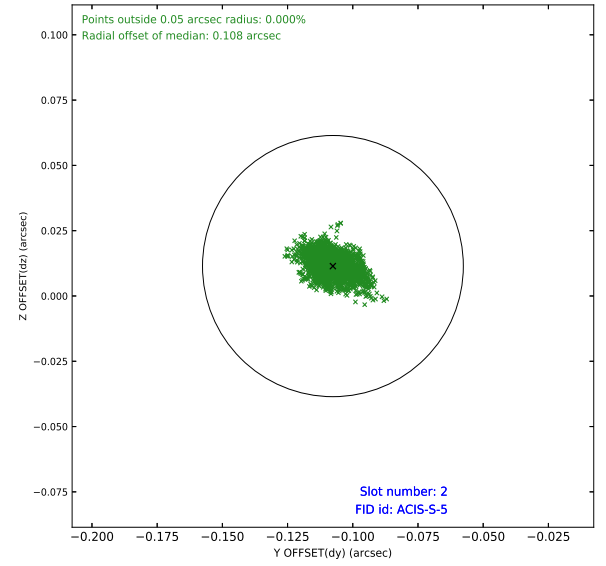
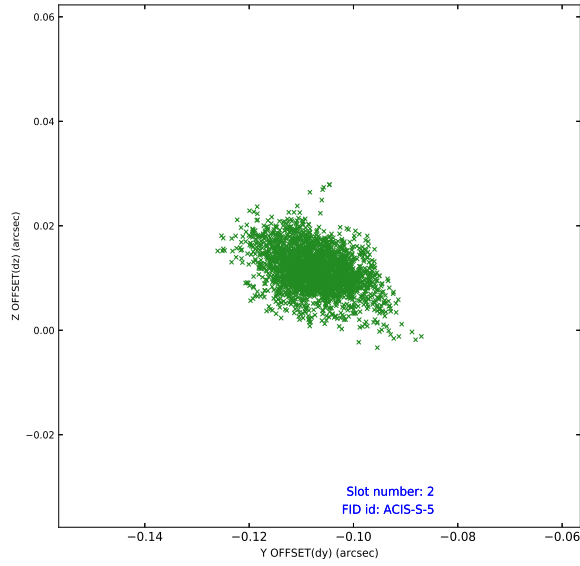
2.5.1 Slot 0



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) | 2020.10.14 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 10.18239 |

A.2 Comments

This is a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.