

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 4477 - L2 Version 4
Chandra X-Ray Center

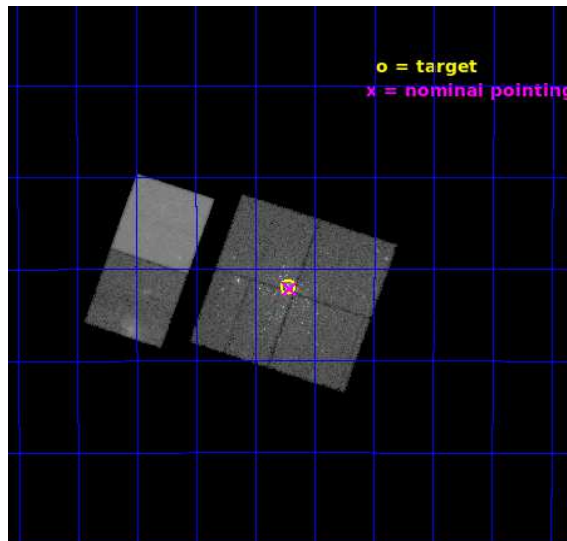
L2 Processing Date : Sep 27 2020

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Bias | 3 |
| 2.1.3 | Parameters | 4 |
| 2.1.4 | Events | 4 |
| 2.2 | Compared Parameters | 5 |
| 2.3 | Aspect | 6 |
| 2.4 | Star Slots | 9 |
| 2.4.1 | Slot 3 | 9 |
| 2.4.2 | Slot 4 | 10 |
| 2.4.3 | Slot 5 | 11 |
| 2.4.4 | Slot 6 | 12 |
| 2.4.5 | Slot 7 | 13 |
| 2.5 | FID Slots | 14 |
| 2.5.1 | Slot 0 | 14 |
| 2.5.2 | Slot 1 | 15 |
| 2.5.3 | Slot 2 | 16 |
| A | Summary | 17 |
| A.1 | Status | 17 |
| A.2 | Comments | 17 |

1 Front

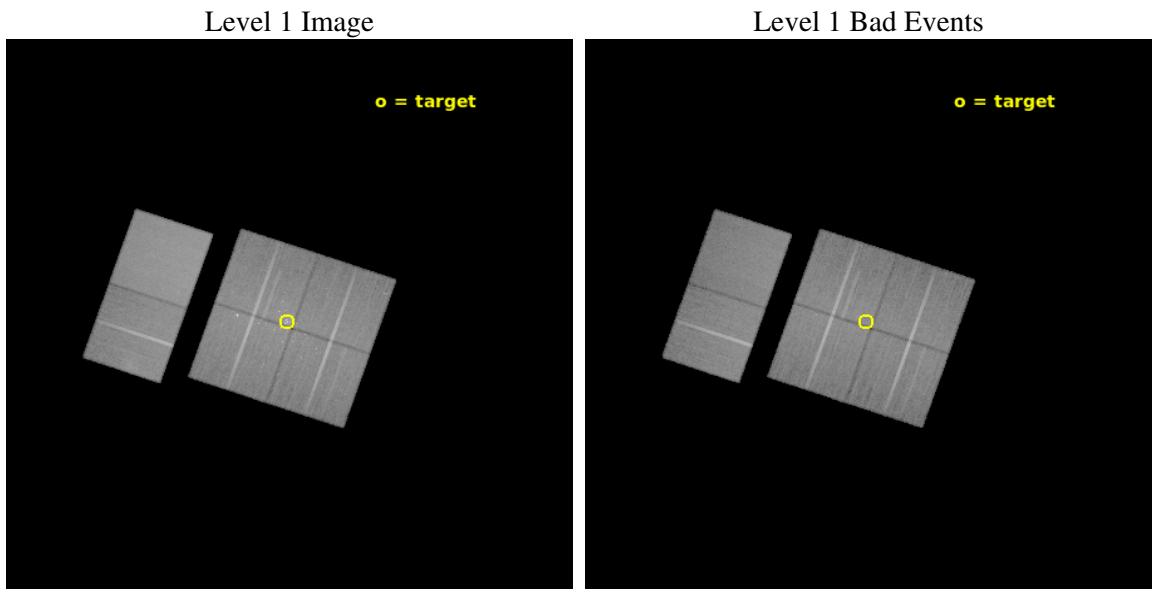
| | | |
|----------|--|---|
| seq_num | 200246 | Sequence number |
| obs_id | 4477 | Observation id |
| title | ACIS Observations of the Massive Star-Forming Complex NGC 6357 | Pro |
| observer | Gordon Garmire | Principal investigator |
| object | NGC 6357 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 261.180833 | Observer's specified target RA [deg] |
| dec_targ | -34.198889 | Observer's specified target Dec [deg] |
| ra_nom | 261.17696136891 | Nominal RA [deg] |
| dec_nom | -34.202848092792 | Nominal Dec [deg] |
| roll_nom | 288.91064257897 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 38172.676886976 | Sum of GTIs [s] |
| livetime | 37689.311467406 | Livetime [s] |
| ontime0 | 38179.15884757 | Sum of GTIs [s] |
| ontime1 | 38166.194816917 | Sum of GTIs [s] |
| ontime2 | 38169.4359366 | Sum of GTIs [s] |
| ontime3 | 38172.676886976 | Sum of GTIs [s] |
| ontime6 | 38159.713065386 | Sum of GTIs [s] |
| ontime7 | 38172.6768969 | Sum of GTIs [s] |
| l2events | 355227 | Number of level 2 events |



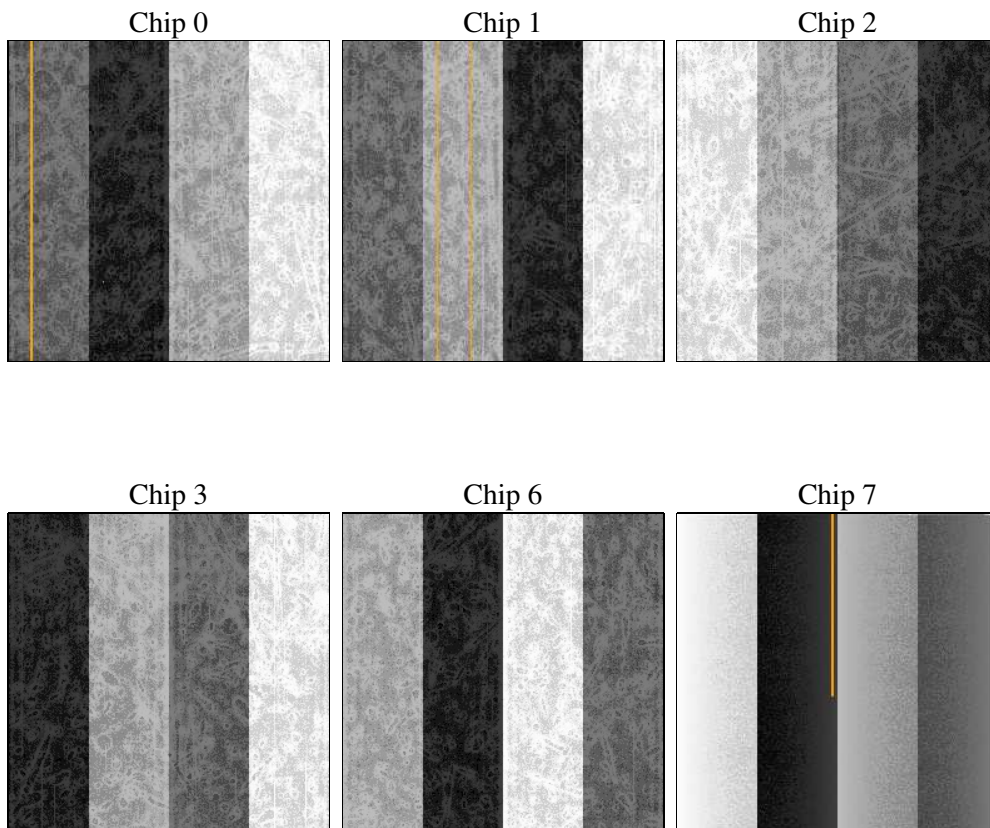
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 38000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 38172.676886976 | Sum of GTIs [s] |
| caldbver | 4.9.2 | | ontime0 | 38179.15884757 | Sum of GTIs [s] |
| date | 2020-09-27T03:42:28 | Date and time of file creation | ontime1 | 38166.194816917 | Sum of GTIs [s] |
| revision | 4 | Processing version of data | ontime2 | 38169.4359366 | Sum of GTIs [s] |
| | | | ontime3 | 38172.676886976 | Sum of GTIs [s] |
| | | | ontime6 | 38159.713065386 | Sum of GTIs [s] |
| | | | ontime7 | 38172.6768969 | Sum of GTIs [s] |
| | | | l1events | 1877523 | Number of level 1 events |

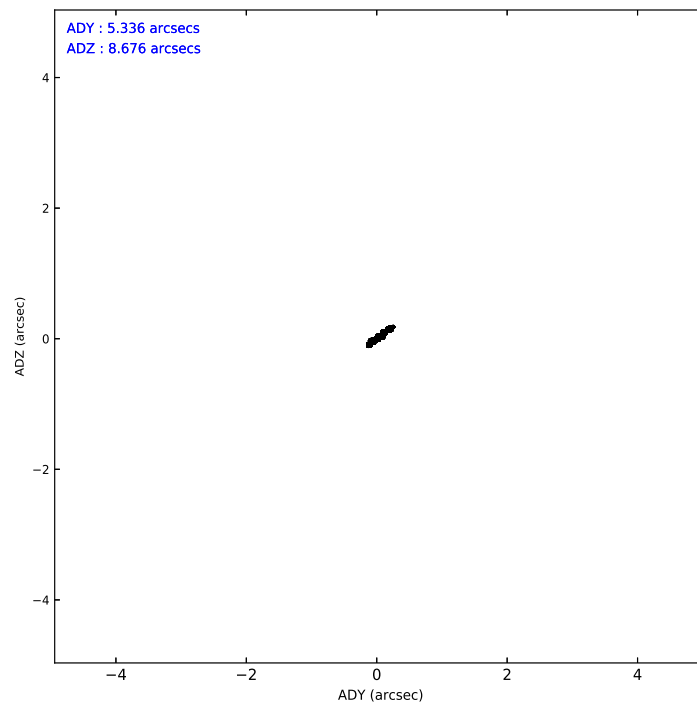
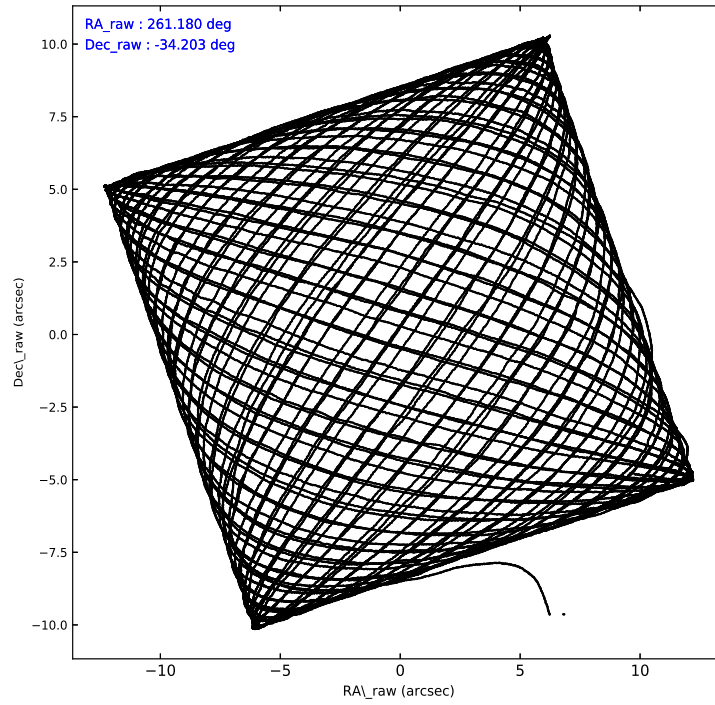
2.1.4 Events

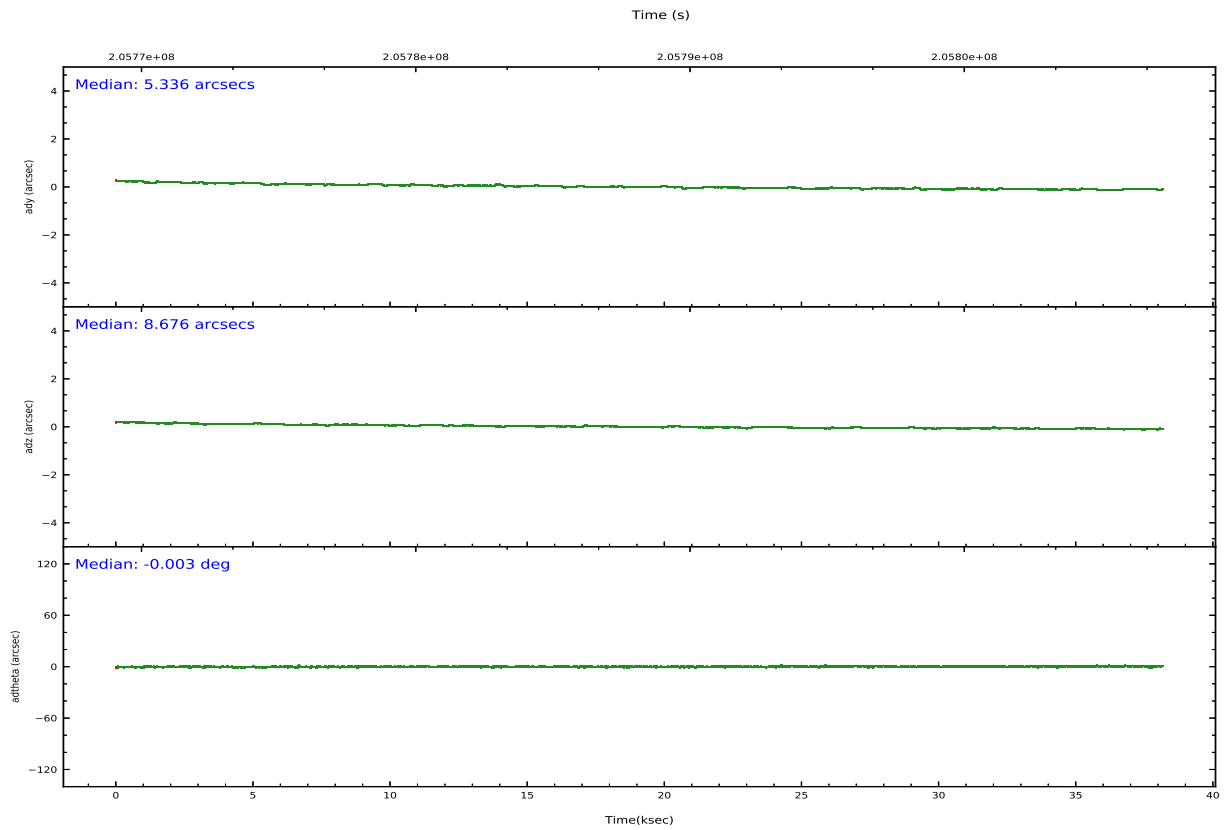
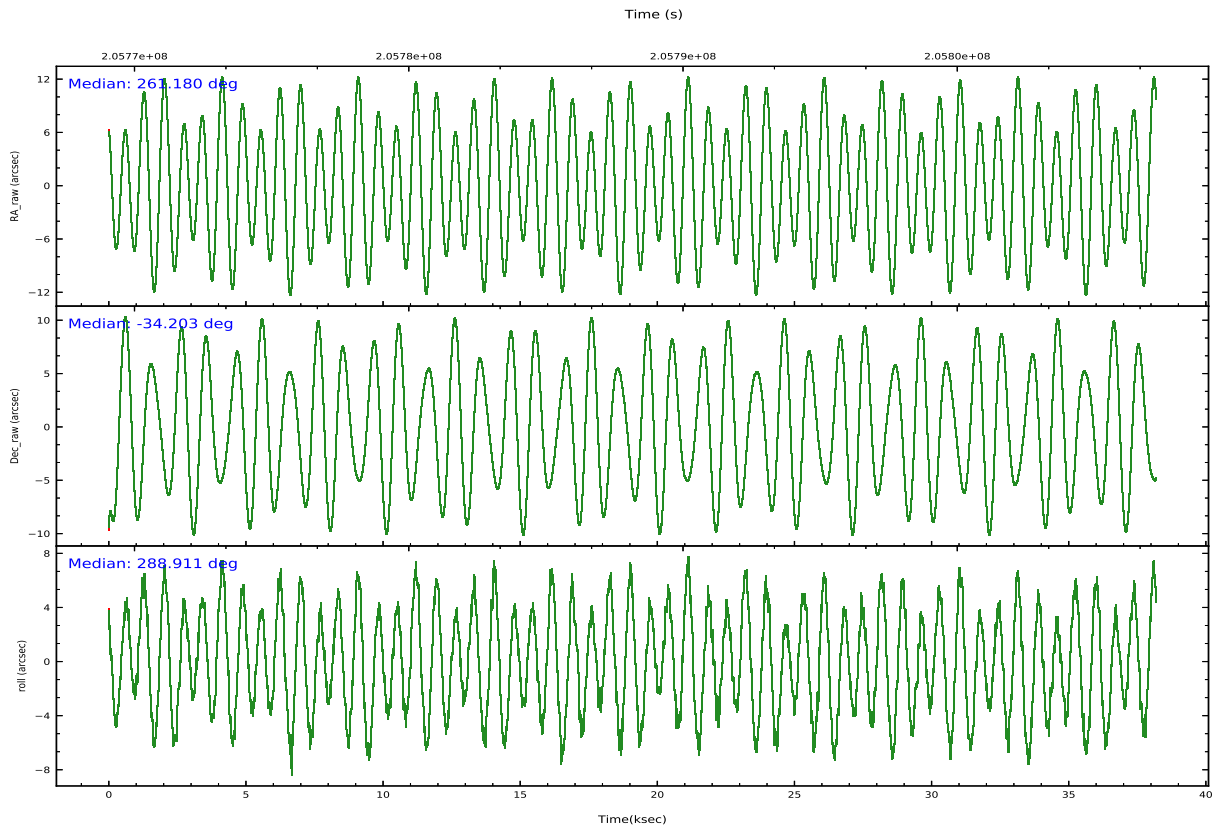
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 280113 | 278984 | 310186 | 302624 | 307677 | 397939 | grade 0 events | 21722 | 18695 | 28167 | 24864 | 20164 | 15107 |
| rejected events | 237166 | 237454 | 260650 | 256614 | 264817 | 233795 | | 7% | 6% | 9% | 8% | 6% | 3% |
| rejected % | 84% | 85% | 84% | 84% | 86% | 58% | grade 1 events | 214 | 138 | 327 | 294 | 169 | 350 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 8217 | 8498 | 8444 | 7830 | 8175 | 33176 |
| | | | | | | | | 2% | 3% | 2% | 2% | 2% | 8% |
| | | | | | | | grade 3 events | 3683 | 3731 | 3809 | 3740 | 3706 | 14901 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 4 events | 3483 | 3792 | 3680 | 3738 | 3748 | 14670 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 5 events | 11718 | 12404 | 11601 | 13165 | 13528 | 37987 |
| | | | | | | | | 4% | 4% | 3% | 4% | 4% | 9% |
| | | | | | | | grade 6 events | 6228 | 7196 | 5815 | 6275 | 7442 | 87822 |
| | | | | | | | | 2% | 2% | 1% | 2% | 2% | 22% |
| | | | | | | | grade 7 events | 224848 | 224530 | 248343 | 242718 | 250745 | 193926 |
| | | | | | | | | 80% | 80% | 80% | 80% | 81% | 48% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar version number | 8 | 8 |
| Detector | ACIS-012367 | ACIS-012367 | 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 | 261.155396 | 261.17696136891 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -34.185601 | -34.202848092792 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 288.688324 | 288.91064257897 | [s] Primary exposure time | 0.000000 | 3.2 |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | | | |
| [mm] SIM defocus | 0 | 0.001439871863259334 | | | |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | | | |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | | | |
| [s] Observation start time (MET) | 205769250.184000 | 205767997.83429 | | | |
| Observation start date | 2004-07-09T14:06:26 | 2004-07-09T13:46:37 | | | |
| [s] Observation end time (MET) | 205807250.184000 | 205808048.17356 | | | |
| Observation end date | 2004-07-10T00:39:46 | 2004-07-10T00:54:08 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect





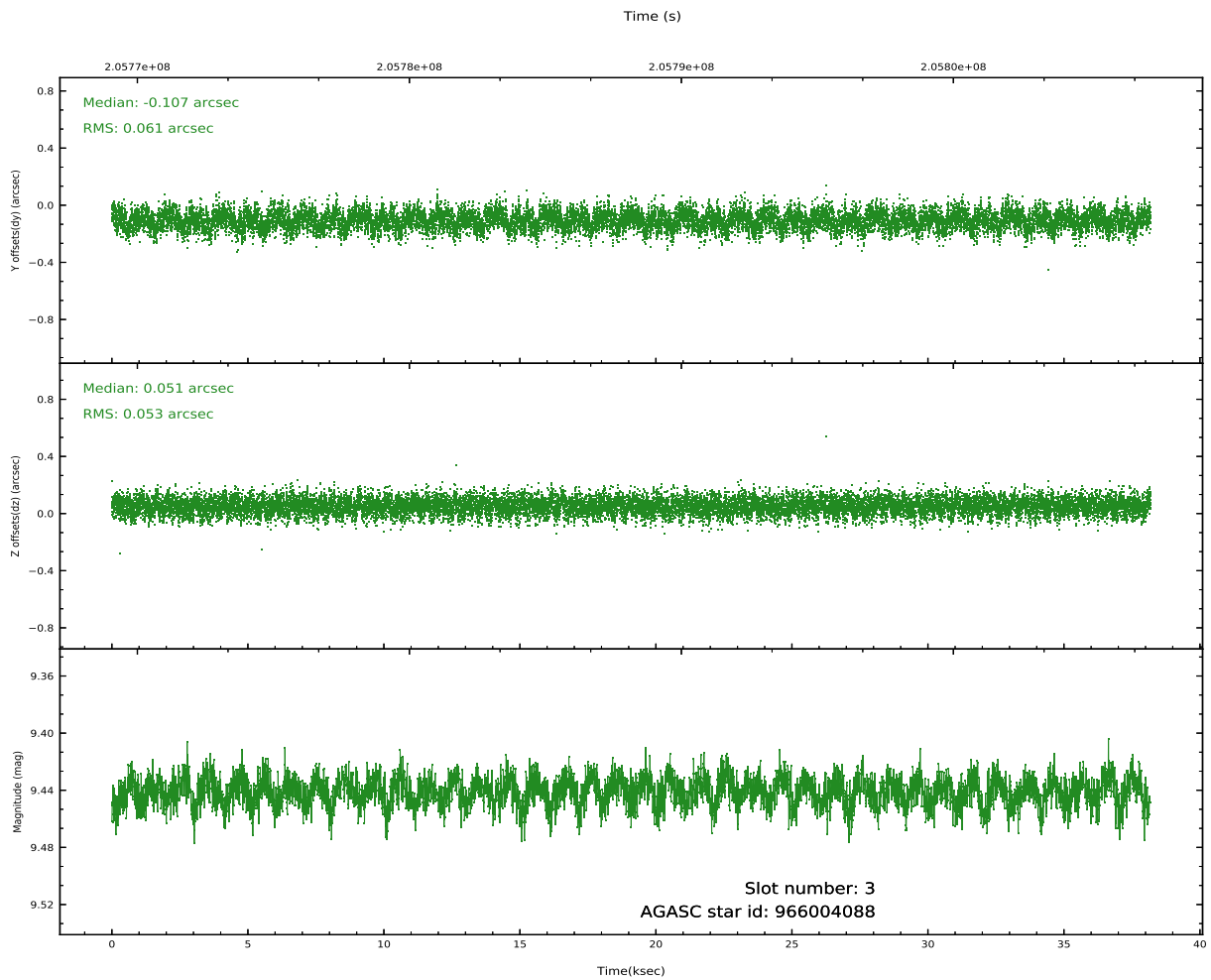
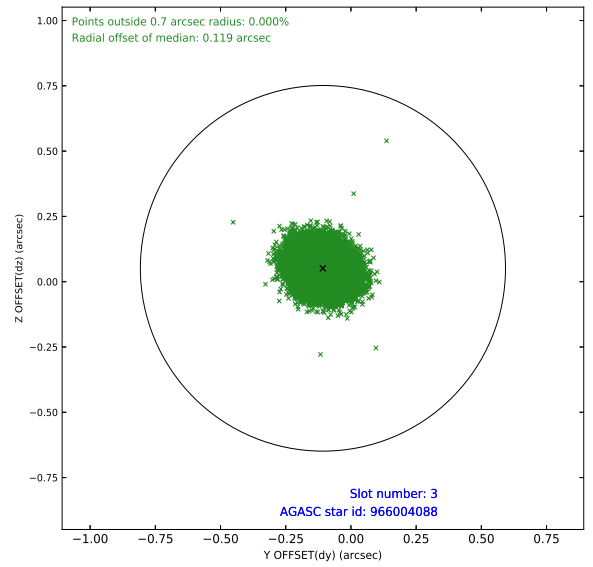
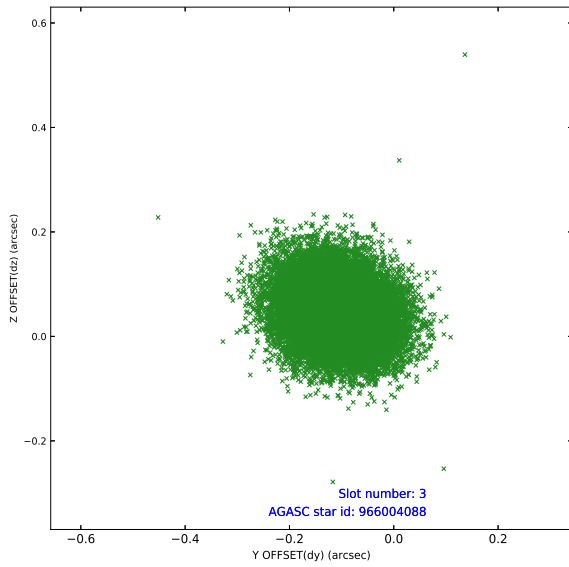
Slot Statistics

| slot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|------|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|------------|----------|-------|
| 0 | FID | | ACIS-I-1 | 7.24 | 9309 | 1.000 | 0.018 | 0.020 | 0.007 | 0.012 | 0.000000 | 0.000000 | 934.41 | -832 |
| 1 | FID | | ACIS-I-5 | 7.22 | 9305 | 1.000 | -0.190 | 0.033 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1813.92 | 1065 |
| 2 | FID | | ACIS-I-6 | 7.26 | 9307 | 1.000 | 0.080 | 0.018 | 0.007 | 0.012 | 0.000000 | 0.000000 | 399.95 | 1709 |
| 3 | GUIDE | used | 966004088 | 9.44 | 18599 | 1.000 | -0.107 | 0.051 | 0.086 | 0.137 | 260.740677 | -33.763530 | -1834.42 | -689 |
| 4 | GUIDE | used | 966004224 | 8.02 | 18613 | 1.000 | -0.120 | -0.078 | 0.053 | 0.085 | 260.824329 | -33.819793 | -1563.21 | -516 |
| 5 | GUIDE | used | 967704600 | 8.51 | 18613 | 1.000 | 0.117 | 0.125 | 0.058 | 0.093 | 262.063091 | -34.610970 | 2323.95 | 2053 |
| 6 | GUIDE | used | 967708760 | 7.42 | 18621 | 1.000 | 0.077 | -0.152 | 0.057 | 0.088 | 261.328301 | -34.249213 | 382.64 | 413 |
| 7 | GUIDE | used | 967711376 | 7.07 | 18620 | 1.000 | 0.034 | 0.056 | 0.055 | 0.087 | 261.036431 | -34.798453 | 1978.58 | -1040 |

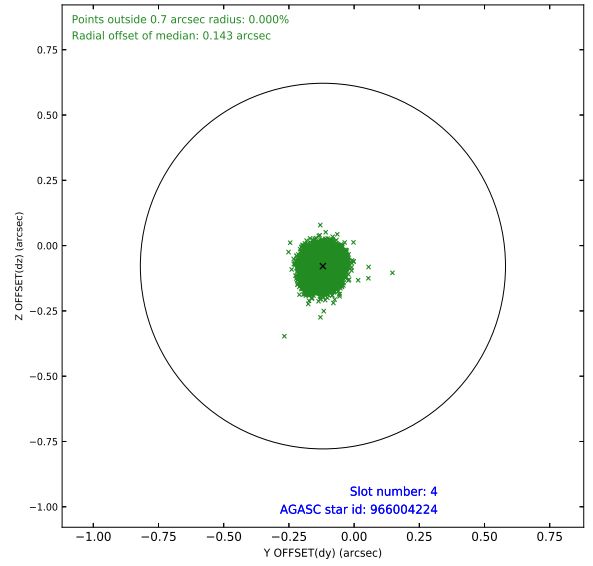
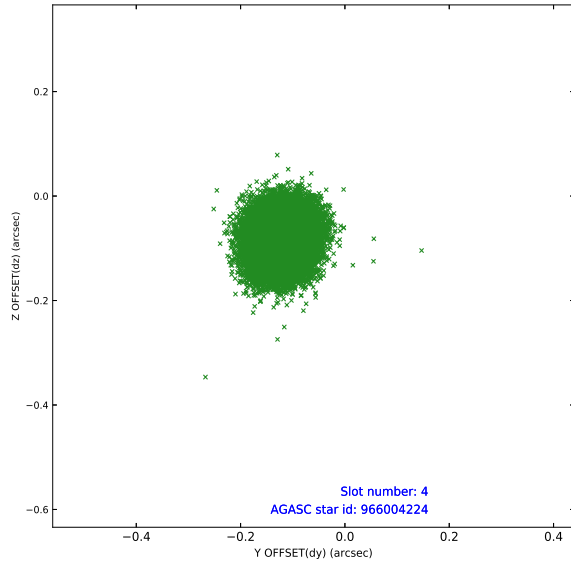
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2.4 Star Slots

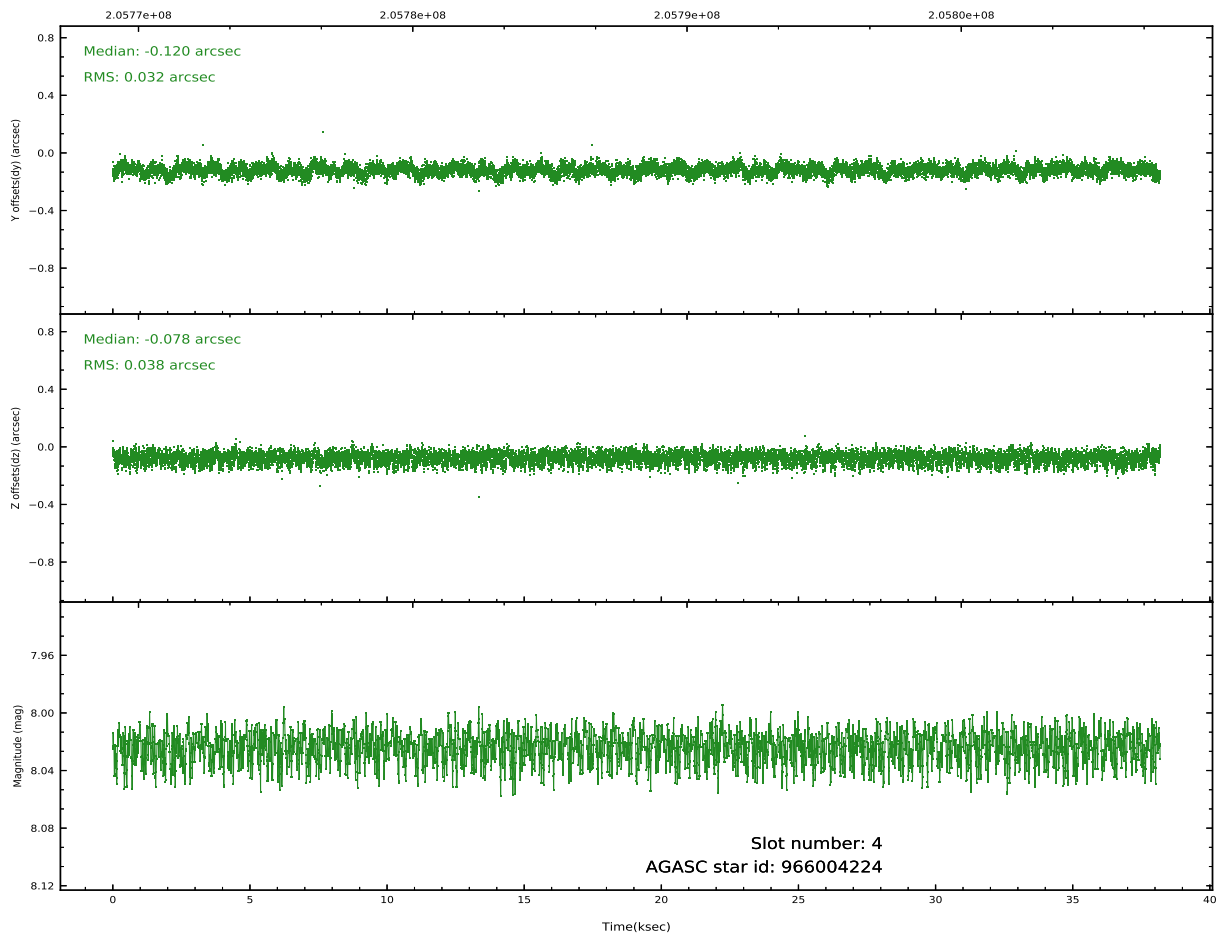
2.4.1 Slot 3



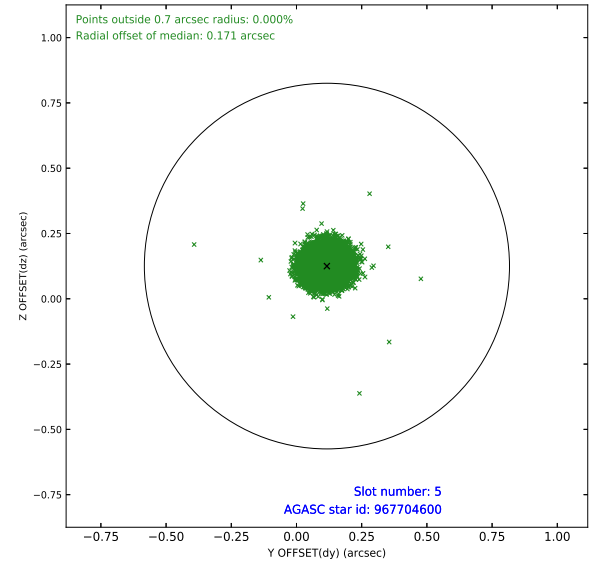
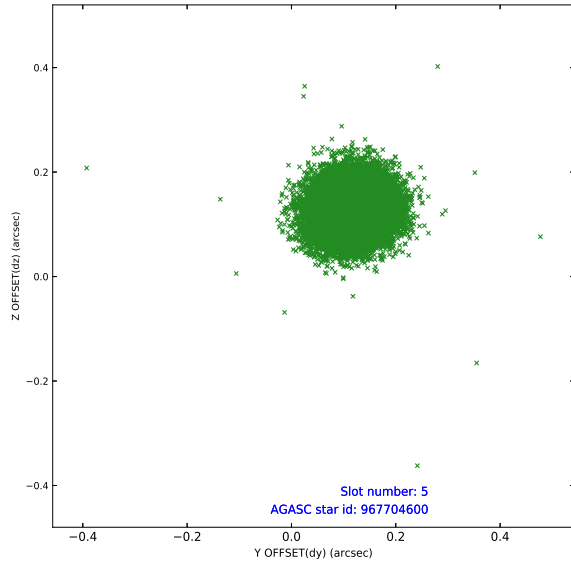
2.4.2 Slot 4



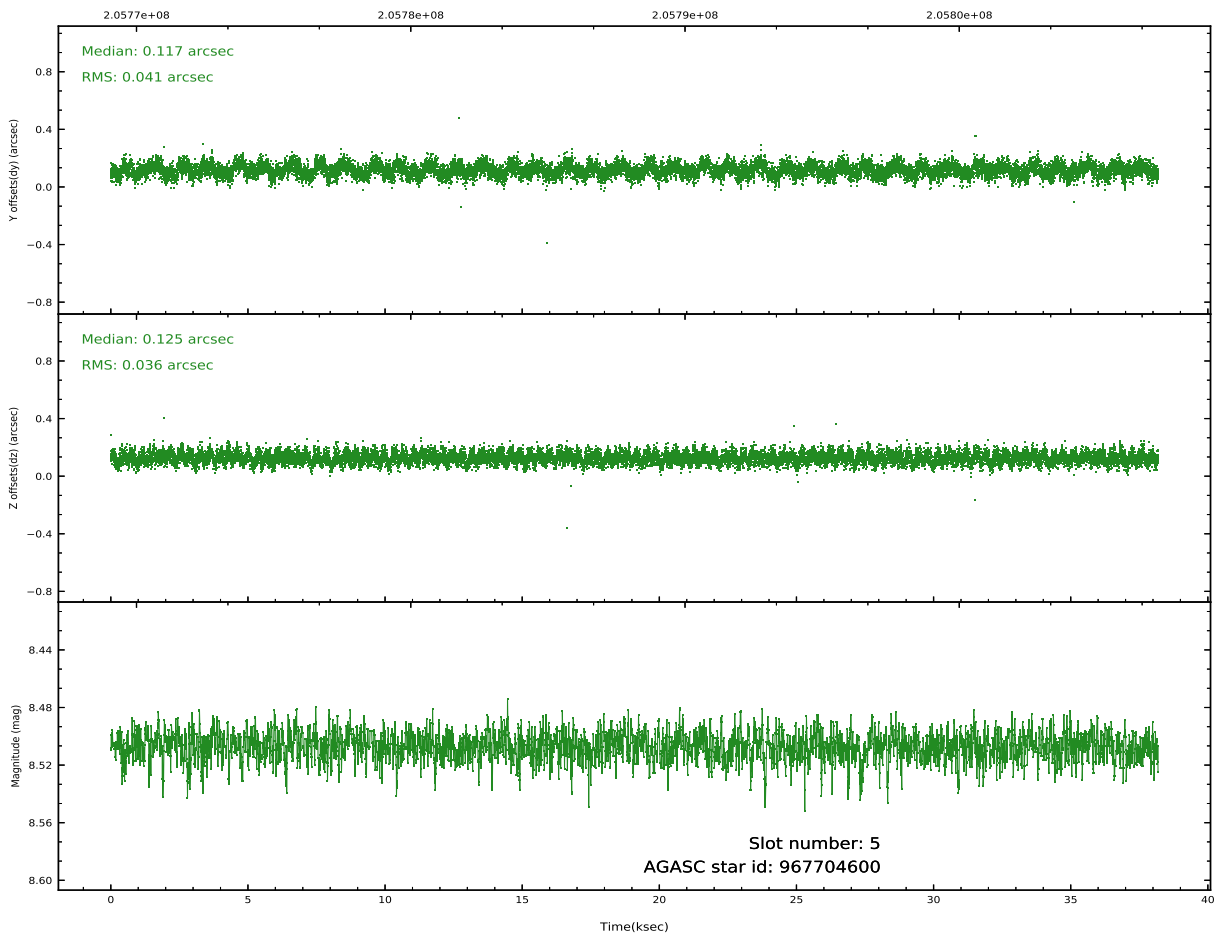
Time (s)



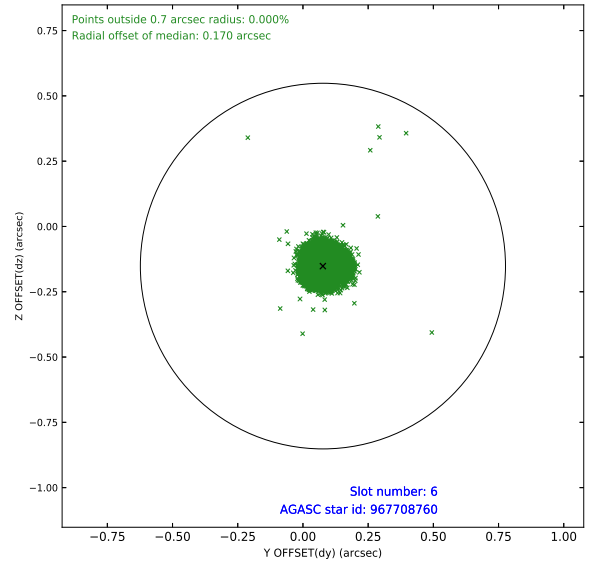
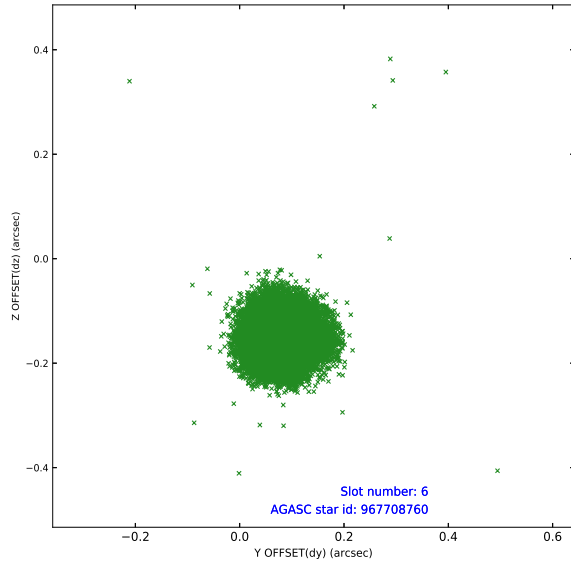
2.4.3 Slot 5



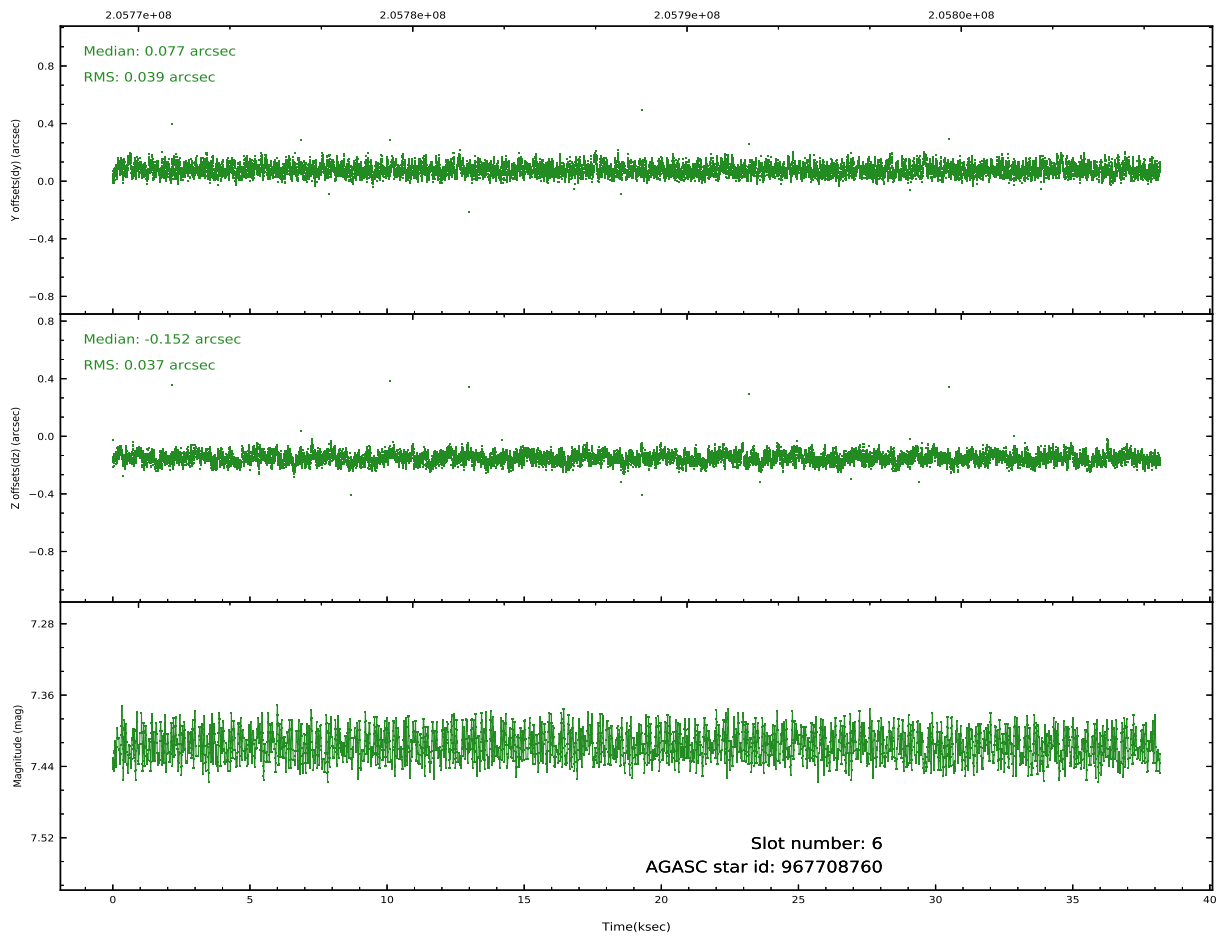
Time (s)



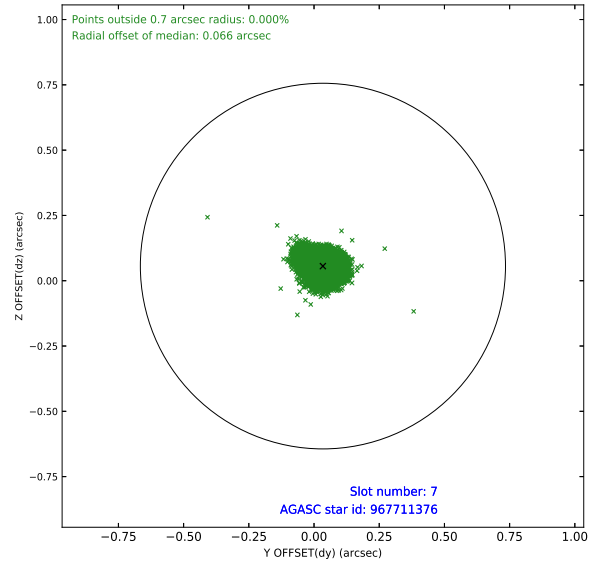
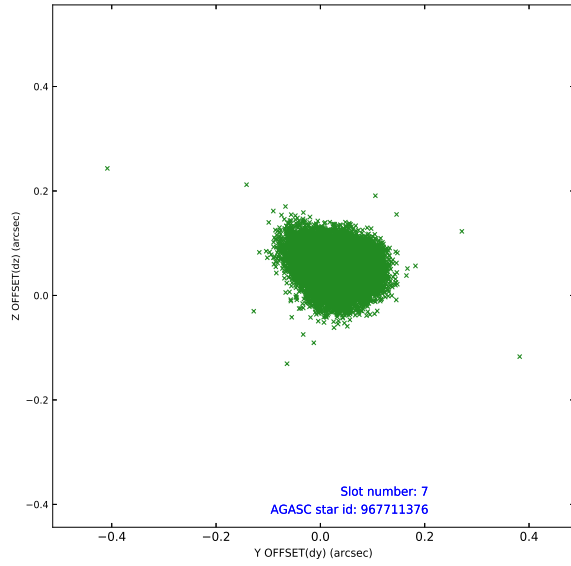
2.4.4 Slot 6



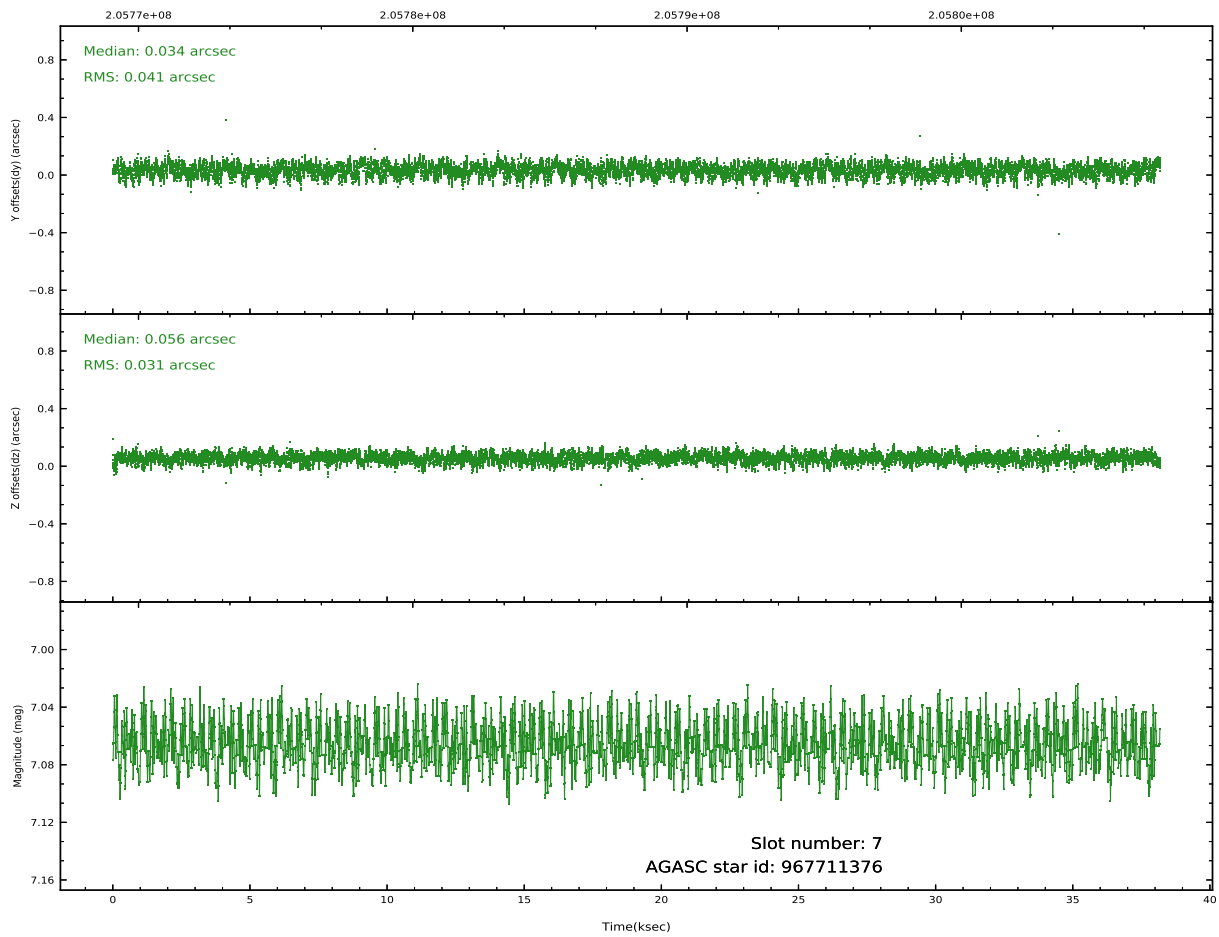
Time (s)



2.4.5 Slot 7

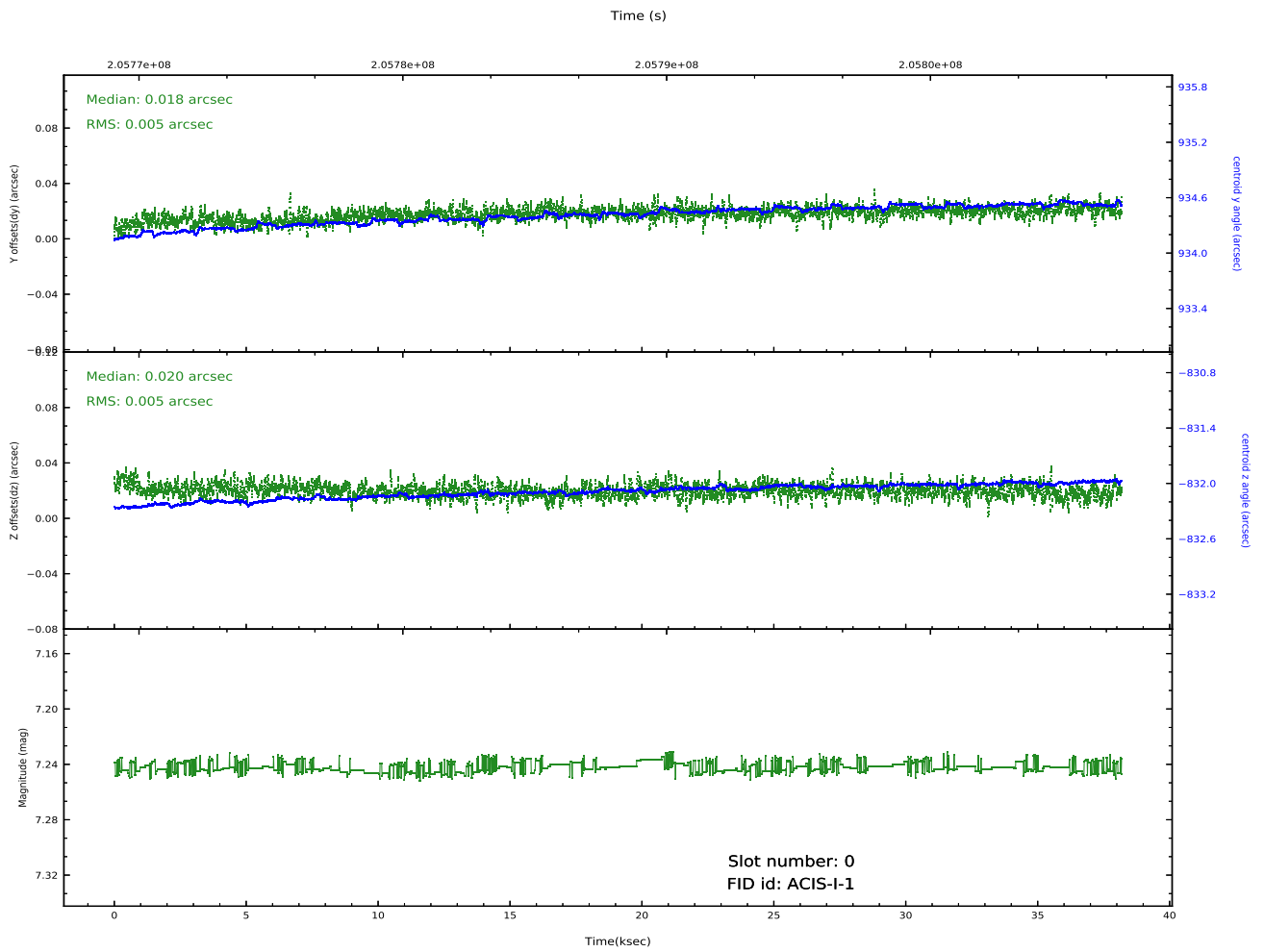
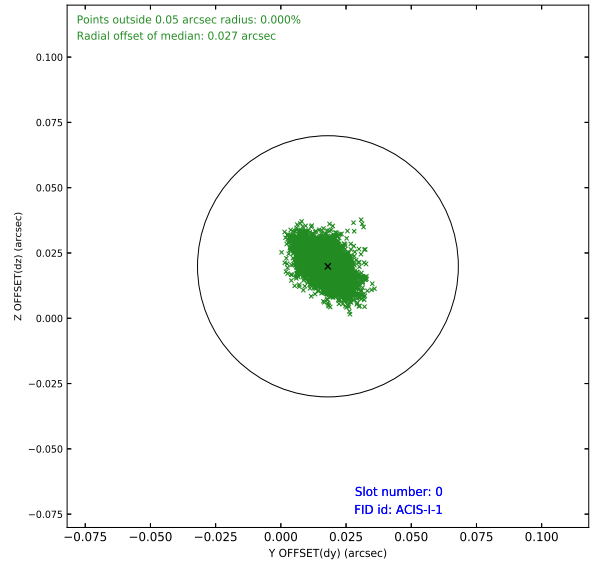
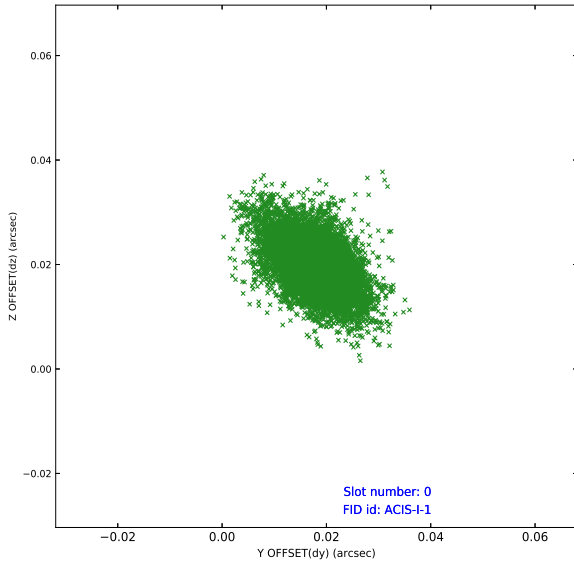


Time (s)

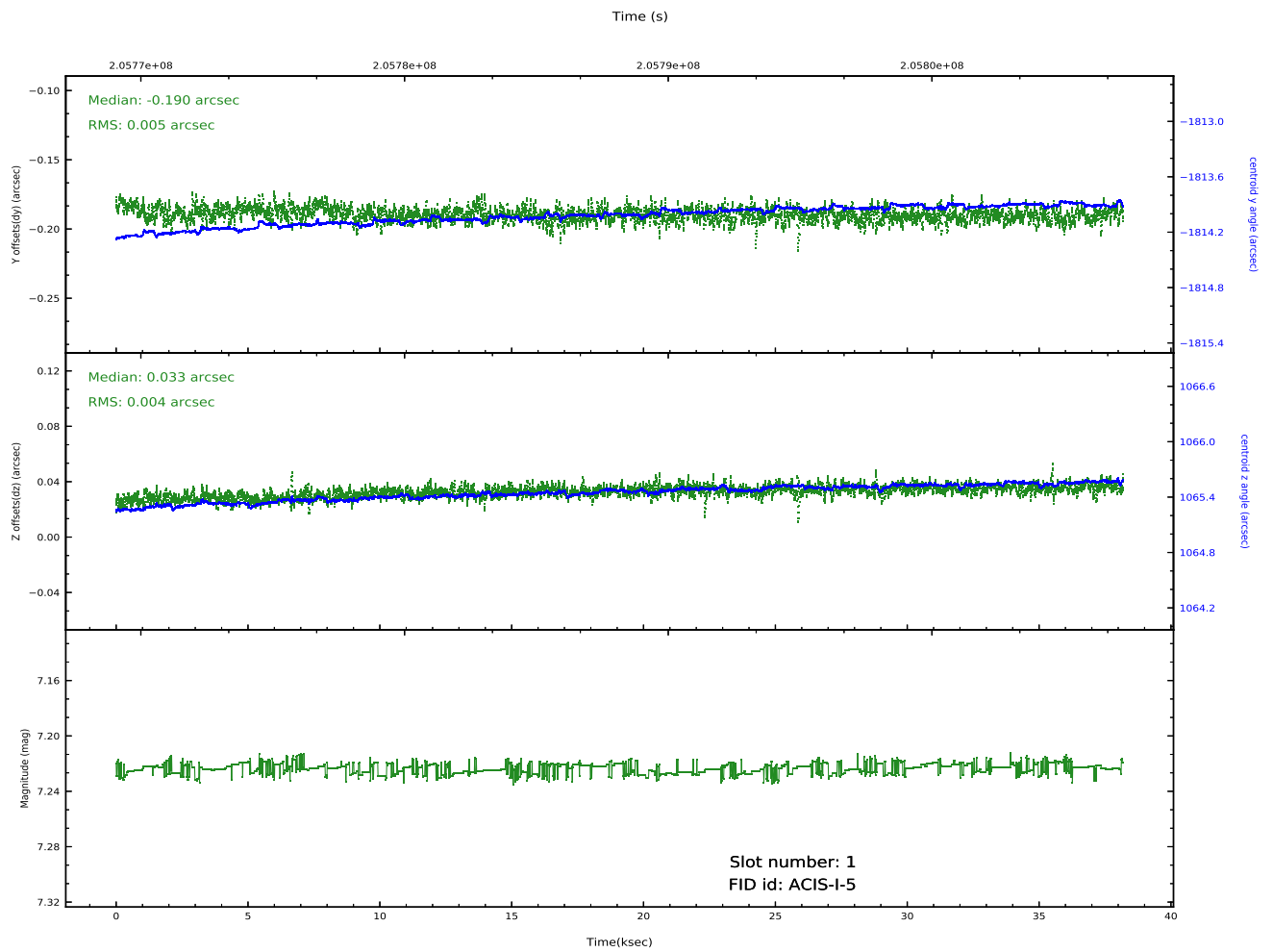
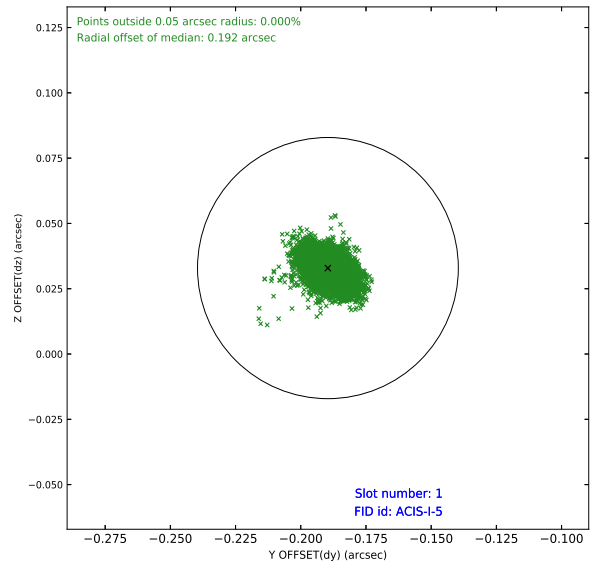
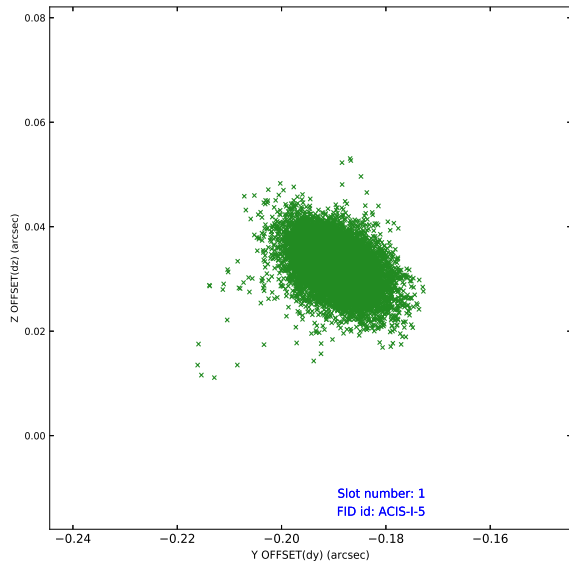


2.5 FID Slots

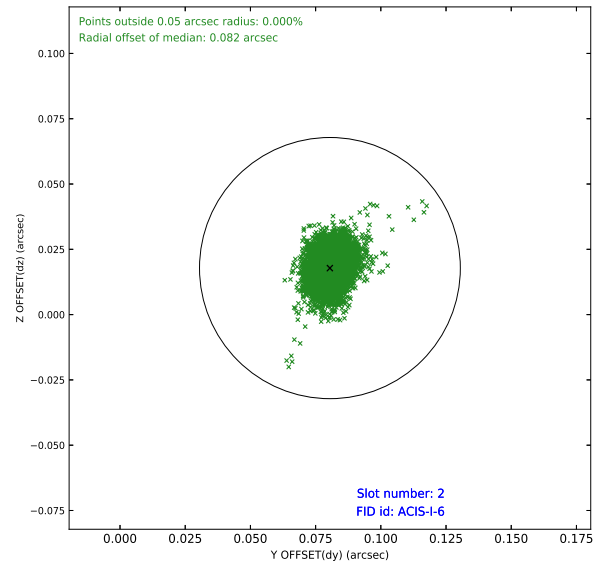
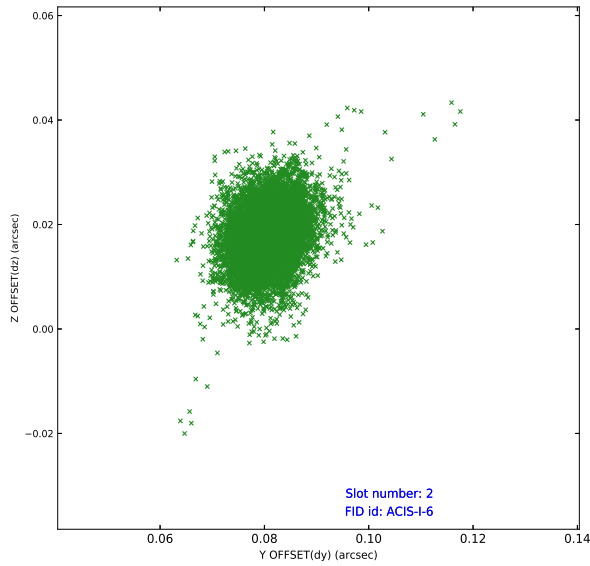
2.5.1 Slot 0



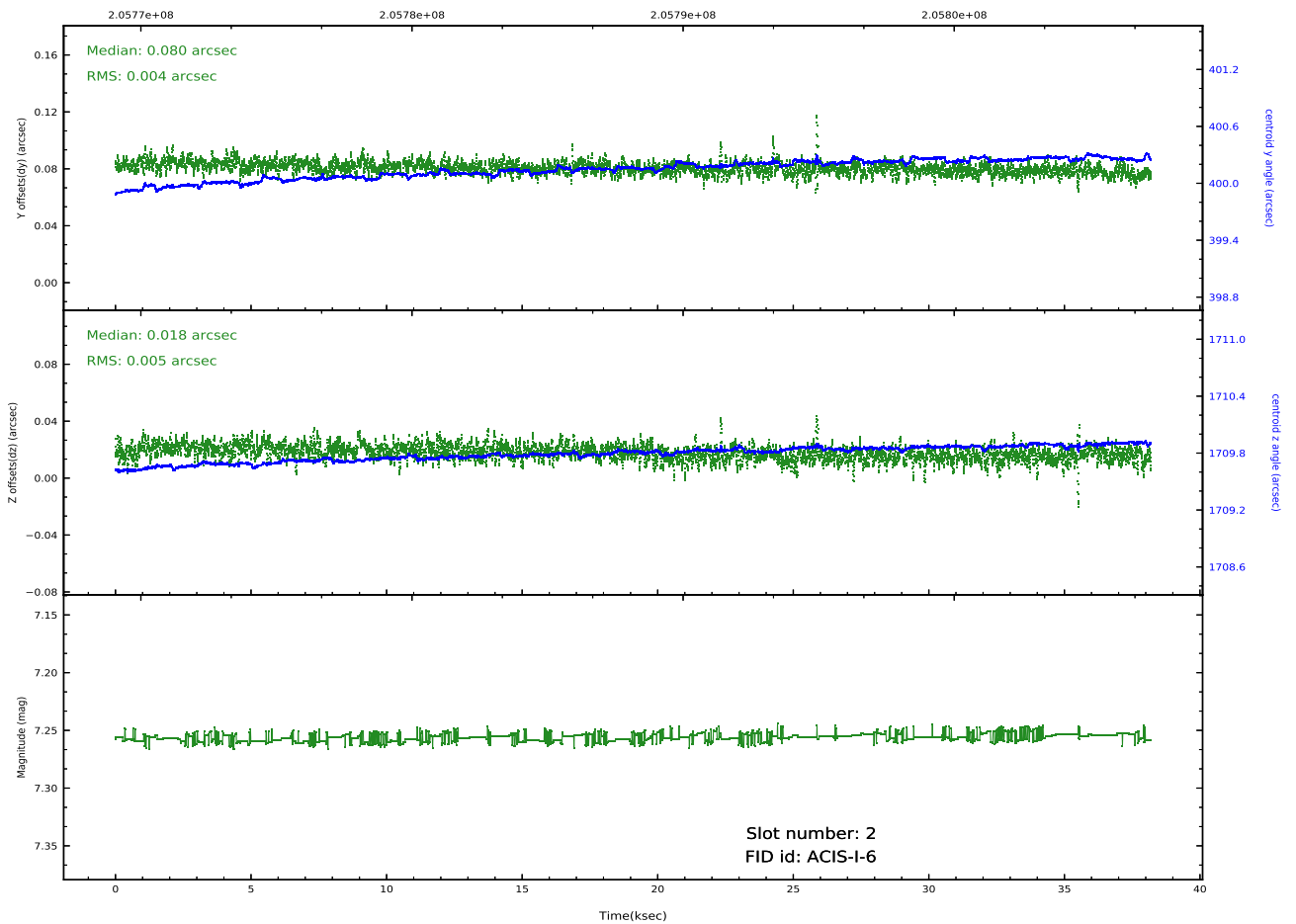
2.5.2 Slot 1



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

| | |
|----------------------------|------------------|
| V&V Scientist | Francesca Civano |
| V&V Date (YYYY-MM-DD) | 2020.09.28 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 38.172 |

A.2 Comments