

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 4878 - L2 Version 4
Chandra X-Ray Center

L2 Processing Date : Sep 25 2020

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1 Front

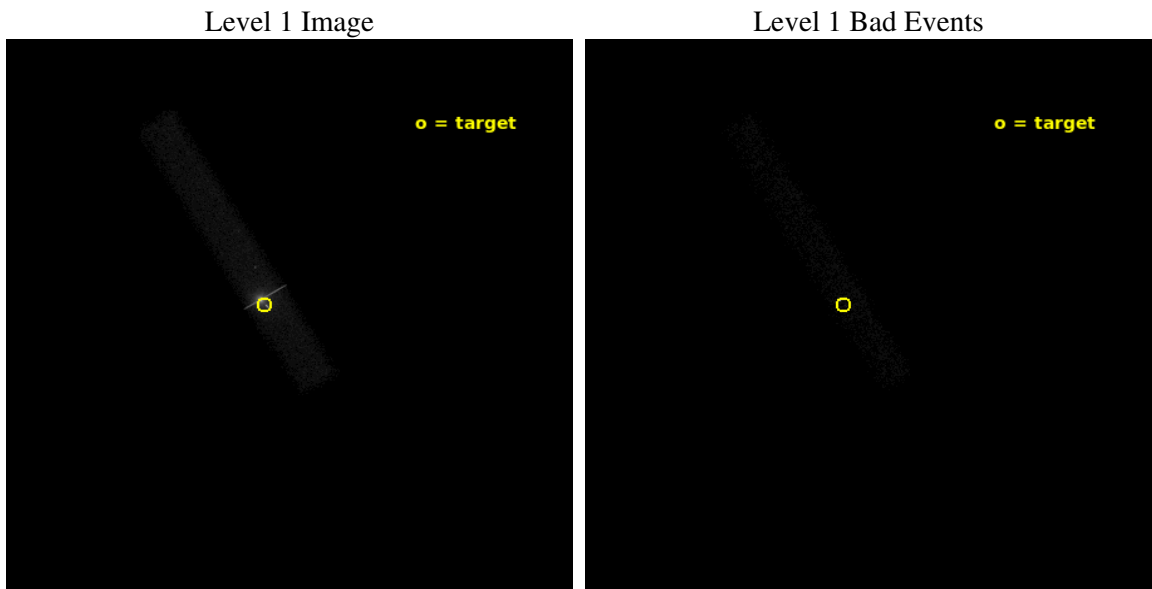
| | | |
|----------|---|---|
| seq_num | 700960 | Sequence number |
| obs_id | 4878 | Observation id |
| title | The X-ray emission mechanism in 3C273's jet | Proposal title |
| observer | Dr. Sebastian Jester | Principal investigator |
| object | 3C273-JET | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 187.275833 | Observer's specified target RA [deg] |
| dec_targ | 2.050111 | Observer's specified target Dec [deg] |
| ra_nom | 187.26542067477 | Nominal RA [deg] |
| dec_nom | 2.0413476242901 | Nominal Dec [deg] |
| roll_nom | 239.01830019286 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 37590.000560105 | Sum of GTIs [s] |
| livetime | 34092.146345098 | Livetime [s] |
| ontime7 | 37590.000560105 | Sum of GTIs [s] |
| l2events | 99880 | Number of level 2 events |



2 OBI

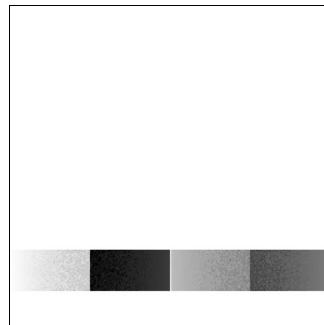
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 37406.786000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 37590.000560105 | Sum of GTIs [s] |
| caldbver | 4.9.2 | | ontime7 | 37590.000560105 | Sum of GTIs [s] |
| date | 2020-09-25T09:10:42 | Date and time of file creation | l1events | 202147 | Number of level 1 events |
| revision | 4 | Processing version of data | | | |

2.1.4 Events

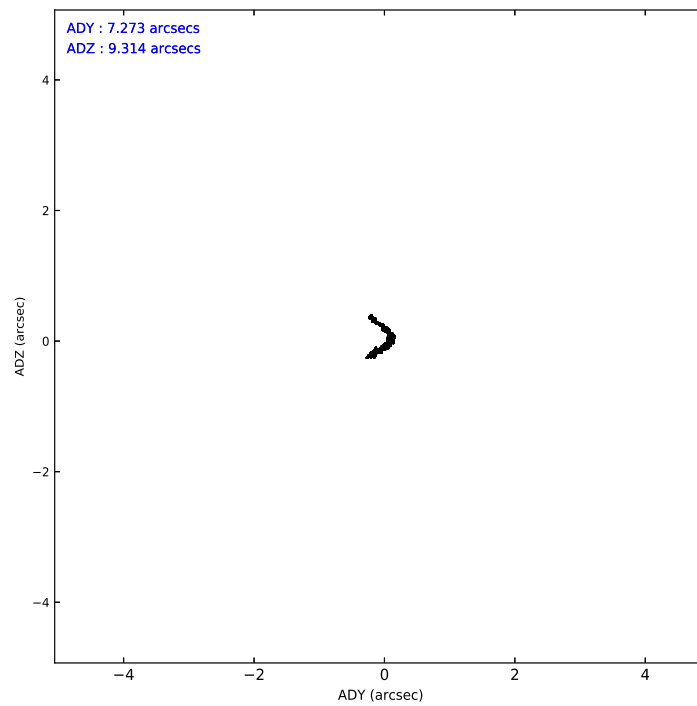
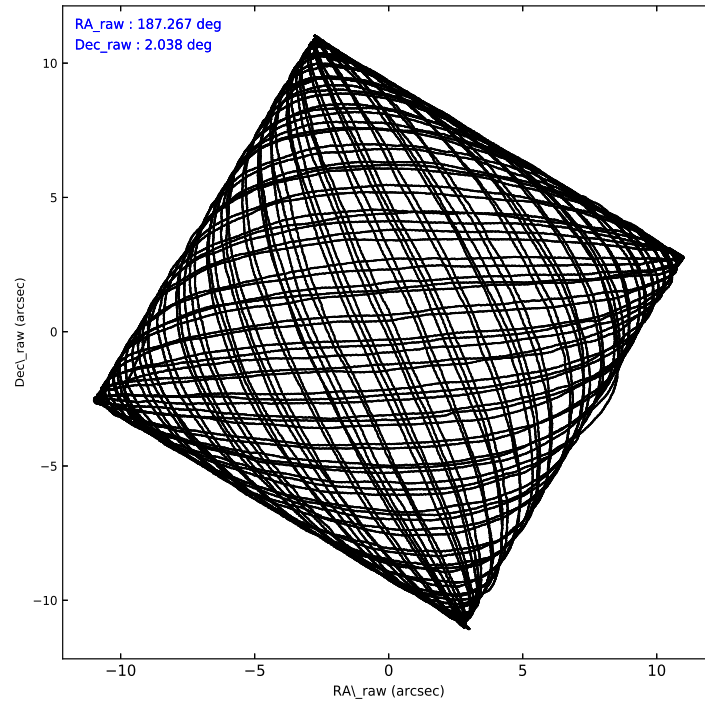
| | ccd 7 |
|-----------------|--------------|
| level 1 events | 202147 |
| rejected events | 101628 |
| rejected % | 50% |

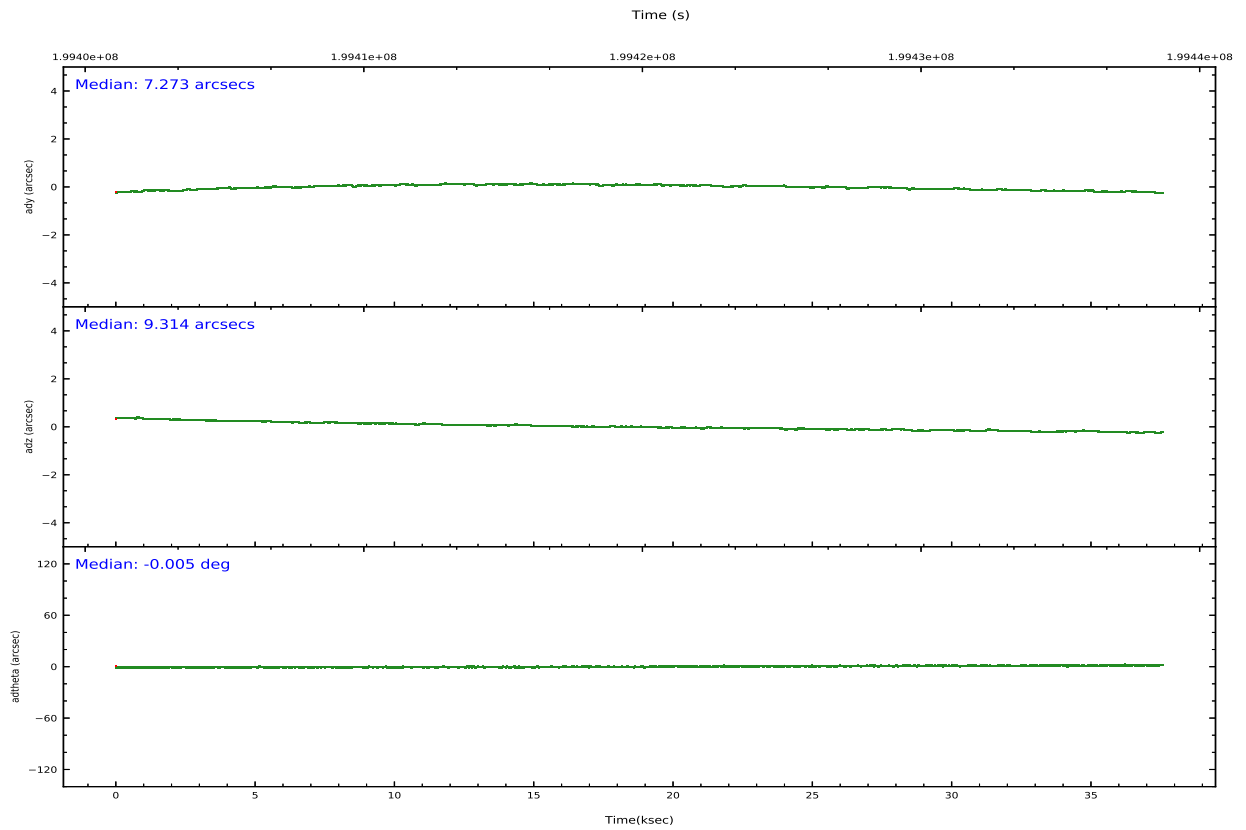
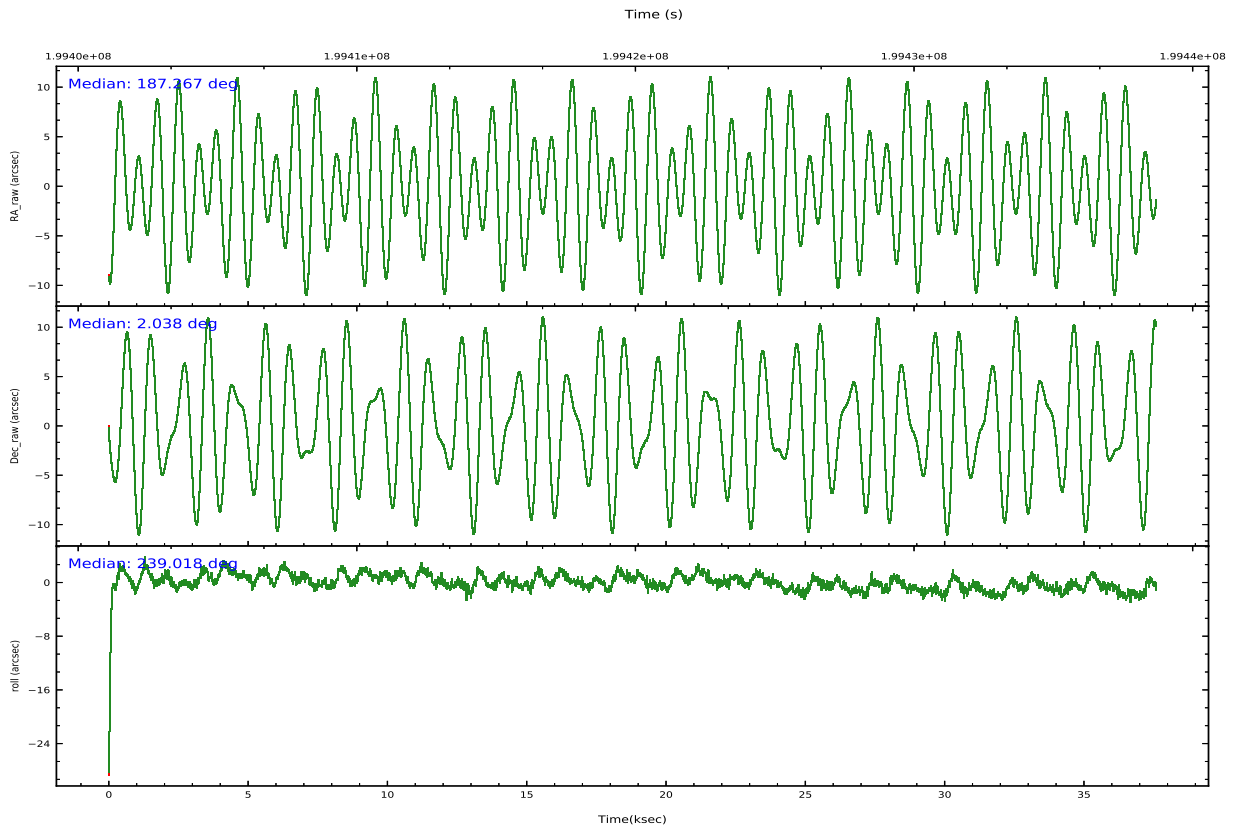
| | ccd 7 |
|----------------|--------------|
| grade 0 events | 20830 |
| | 10% |
| grade 1 events | 2018 |
| | 0% |
| grade 2 events | 20097 |
| | 9% |
| grade 3 events | 10223 |
| | 5% |
| grade 4 events | 9828 |
| | 4% |
| grade 5 events | 13782 |
| | 6% |
| grade 6 events | 40311 |
| | 19% |
| grade 7 events | 85058 |
| | 42% |

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 | 187.266728 | 187.26542067477 | Subarray requested | CUSTOM | 1/8 |
| [deg] Pointing Dec | 2.065347 | 2.0413476242901 | Subarray start row | 115 | 115 |
| [deg] Pointing Roll | 238.856947 | 239.01830019286 | 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 | -182.132523 | -182.1370004450064 | | | |
| [mm] SIM translation stage offset | -8 | -7.995522138001405 | | | |
| [s] Observation start time (MET) | 199401283.184000 | 199400179.92778 | | | |
| Observation start date | 2004-04-26T21:13:39 | 2004-04-26T20:56:19 | | | |
| [s] Observation end time (MET) | 199438690.184000 | 199439004.36699 | | | |
| Observation end date | 2004-04-27T07:37:06 | 2004-04-27T07:43:24 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect





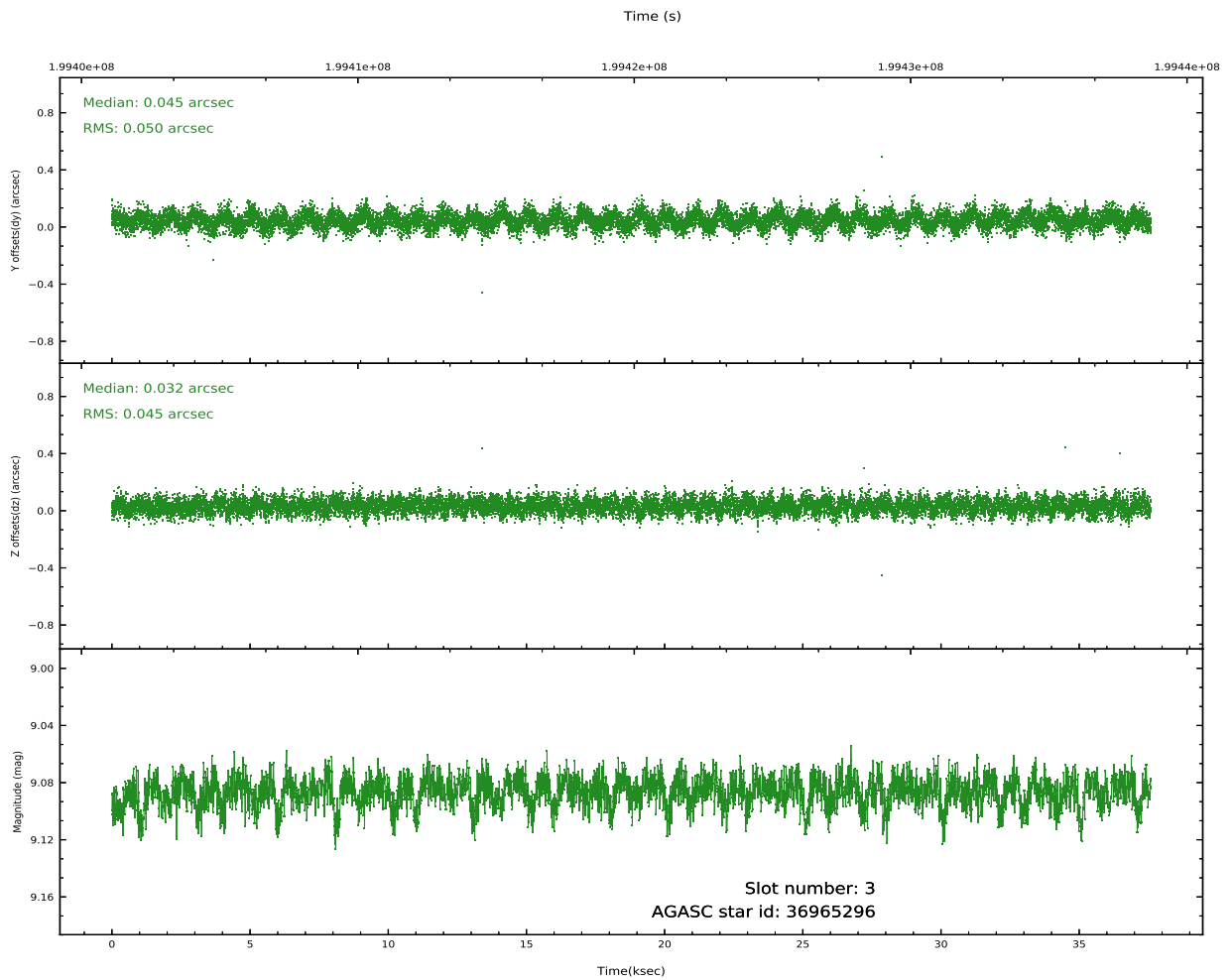
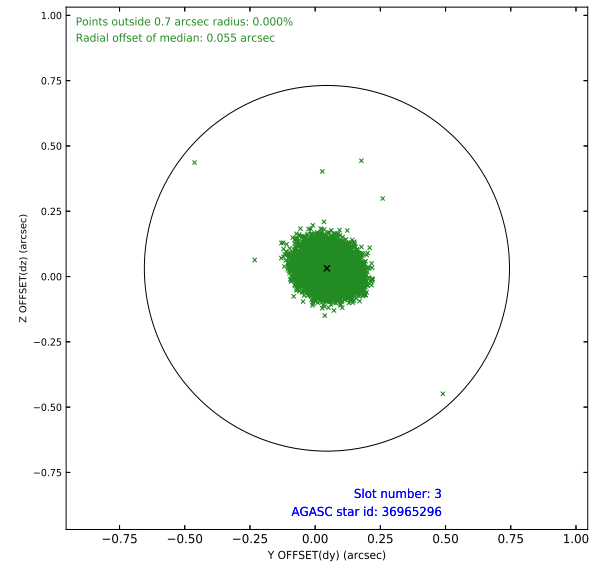
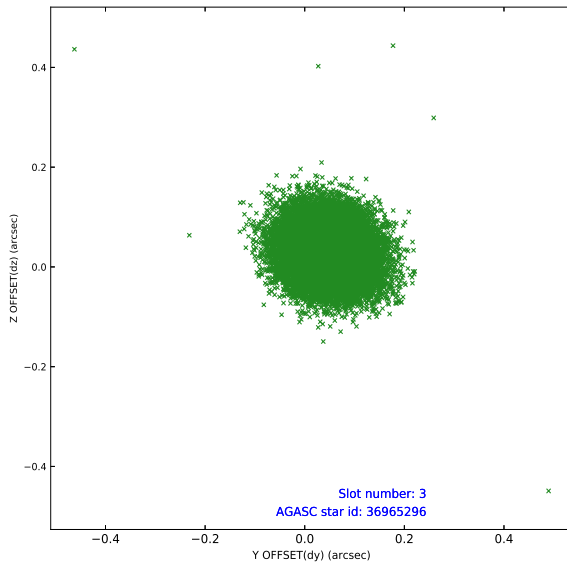
Slot Statistics

| slot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|------|--------|------|----------|------|-------|----------|--------|--------|-------|-------|------------|----------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.09 | 9169 | 1.000 | -0.096 | -0.136 | 0.010 | 0.020 | 0.000000 | 0.000000 | -759.52 | -1895 |
| 1 | FID | | ACIS-S-4 | 7.18 | 9169 | 1.000 | 0.163 | 0.083 | 0.007 | 0.012 | 0.000000 | 0.000000 | 2153.99 | 13 |
| 2 | FID | | ACIS-S-5 | 7.23 | 9168 | 1.000 | -0.098 | 0.062 | 0.010 | 0.018 | 0.000000 | 0.000000 | -1812.34 | 6 |
| 3 | GUIDE | used | 36965296 | 9.09 | 18329 | 1.000 | 0.045 | 0.032 | 0.071 | 0.114 | 186.926292 | 1.837429 | 1336.06 | -624 |
| 4 | GUIDE | used | 36965816 | 9.23 | 18326 | 1.000 | 0.041 | 0.083 | 0.082 | 0.133 | 186.823353 | 1.771455 | 1730.95 | -818 |
| 5 | GUIDE | used | 36965896 | 9.71 | 18317 | 1.000 | 0.082 | -0.057 | 0.109 | 0.181 | 187.153754 | 1.617178 | 1591.65 | 486 |
| 6 | GUIDE | used | 37356352 | 7.71 | 18335 | 1.000 | -0.242 | -0.036 | 0.056 | 0.085 | 187.433784 | 2.618460 | -2014.73 | -515 |
| 7 | GUIDE | used | 36963280 | 9.66 | 18323 | 1.000 | 0.070 | -0.021 | 0.107 | 0.181 | 186.985307 | 1.456816 | 2399.01 | 266 |

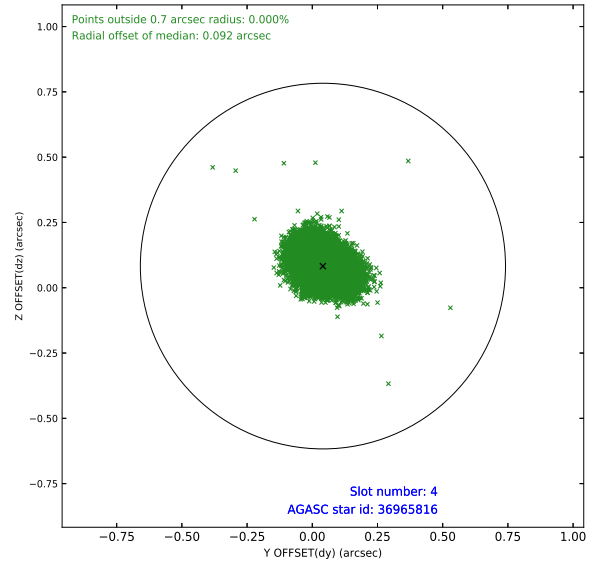
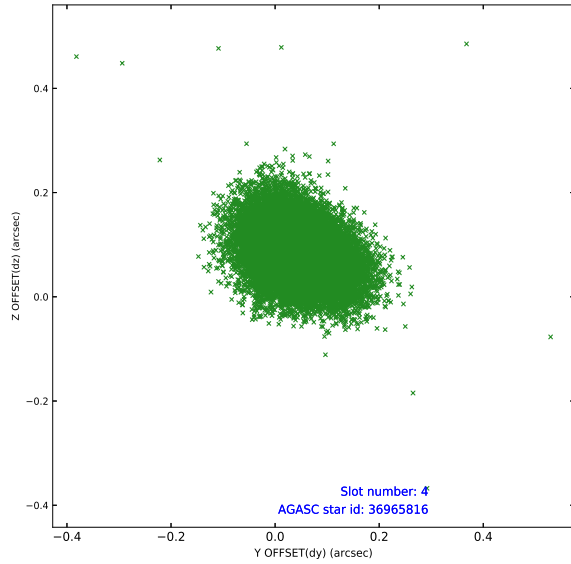
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2.4 Star Slots

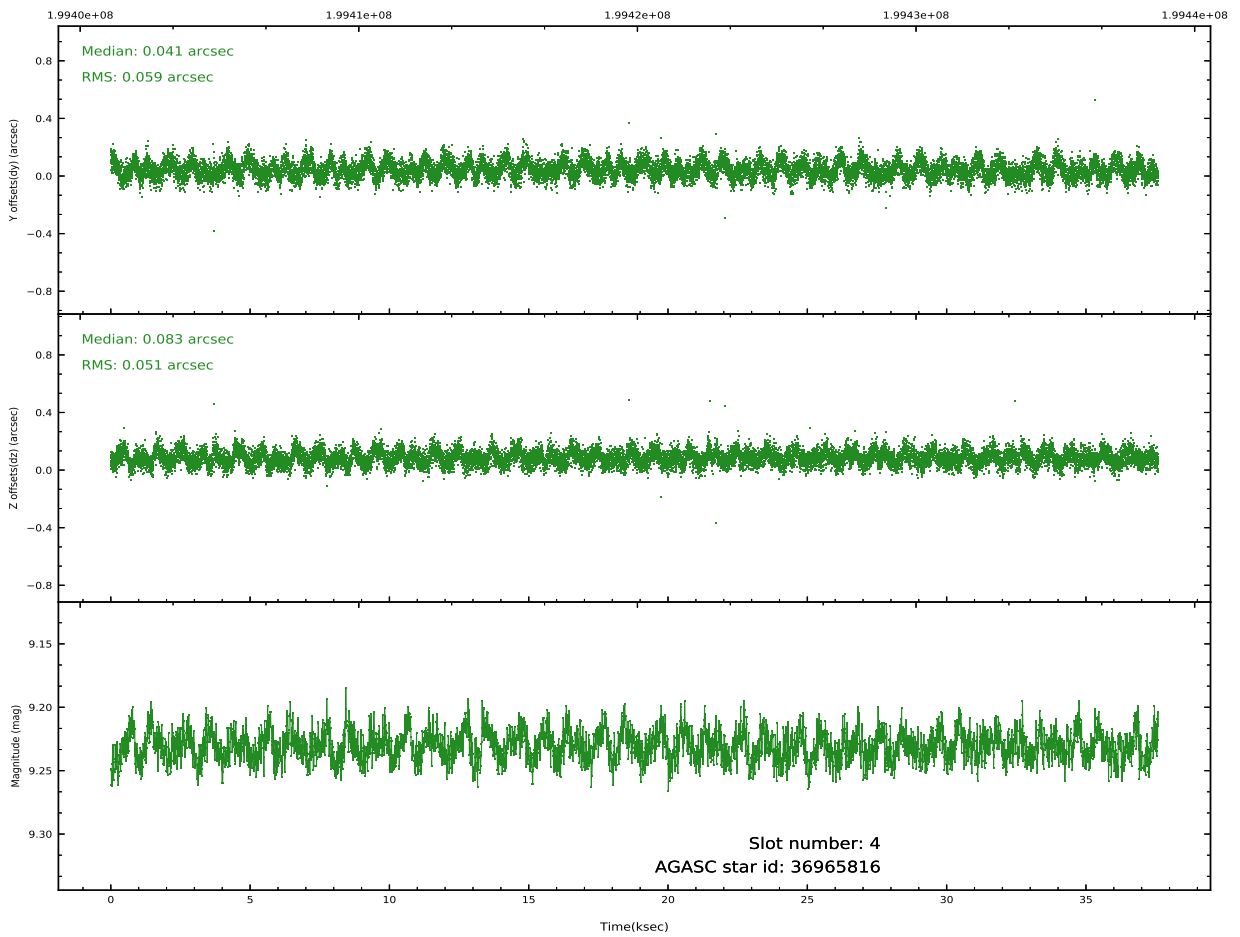
2.4.1 Slot 3



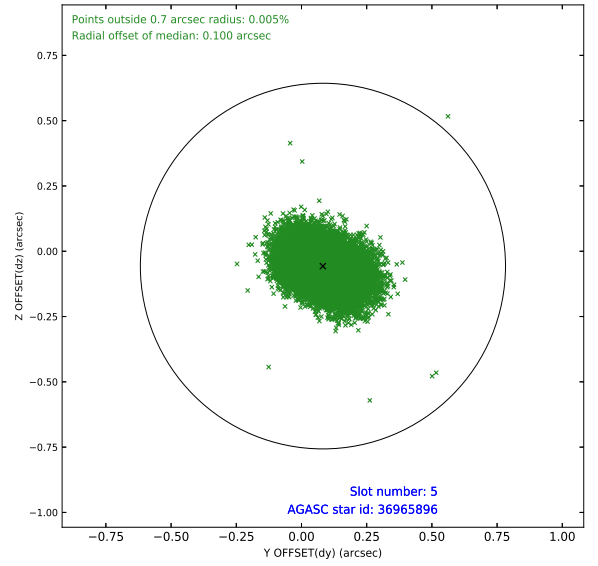
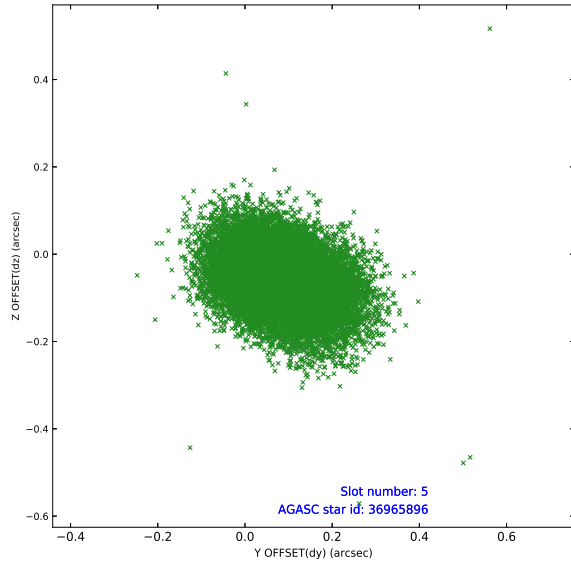
2.4.2 Slot 4



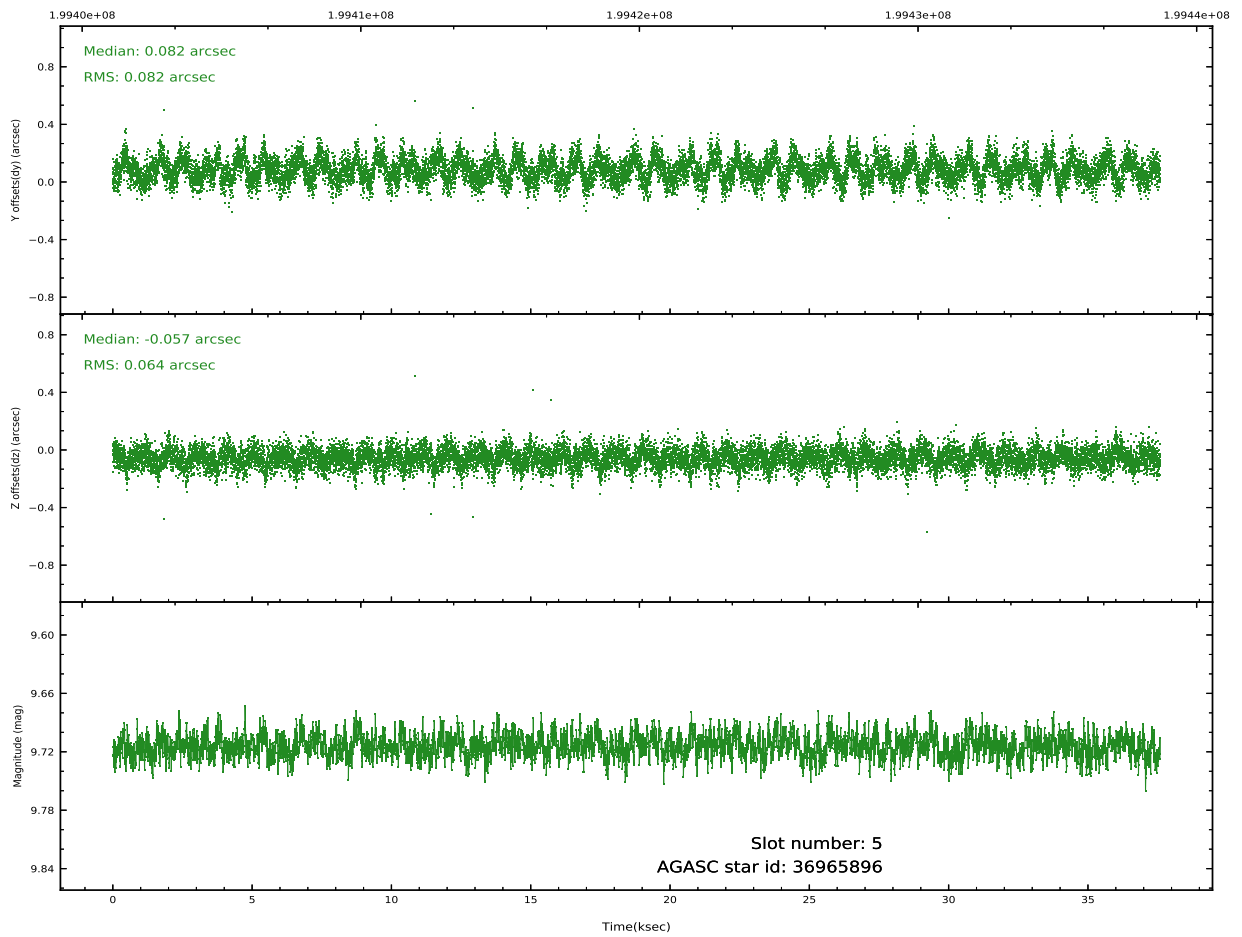
Time (s)



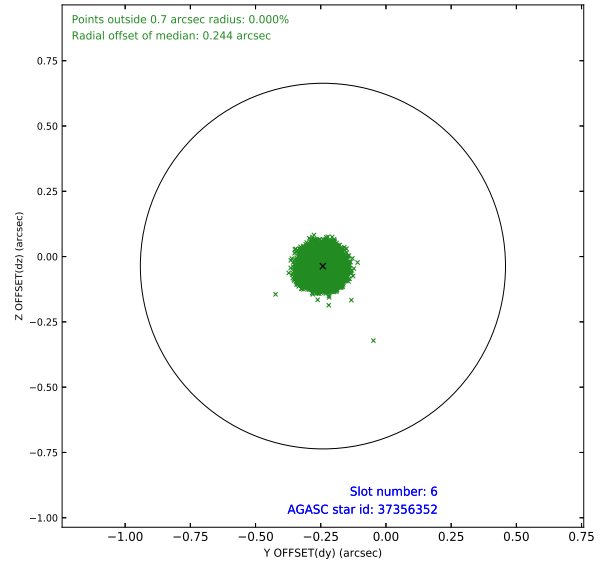
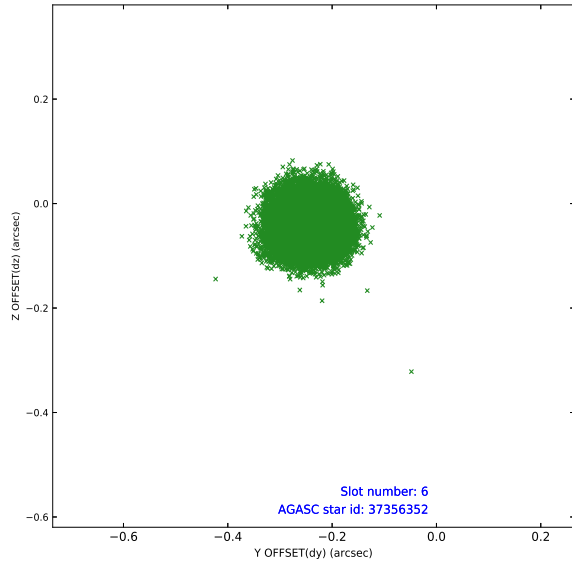
2.4.3 Slot 5



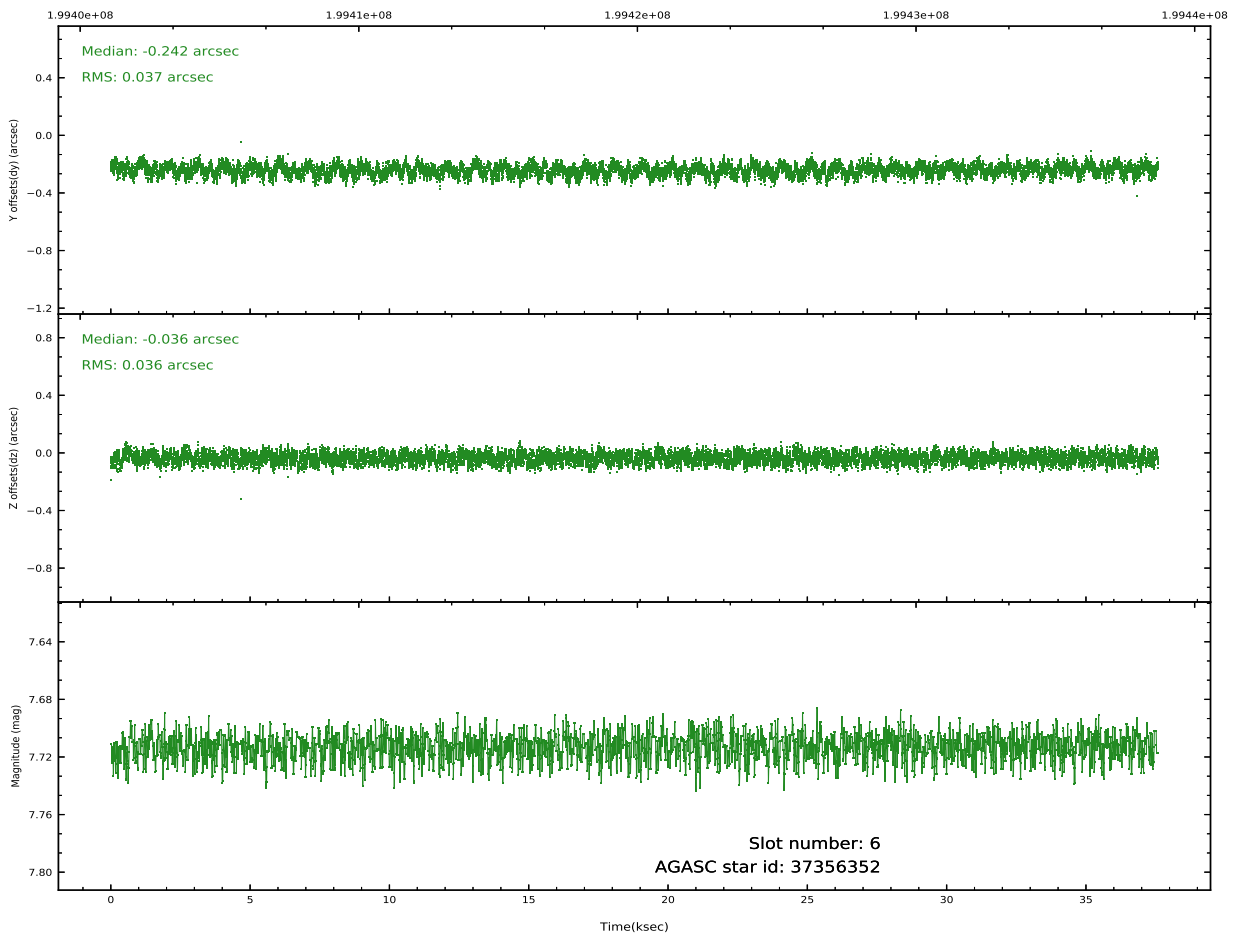
Time (s)



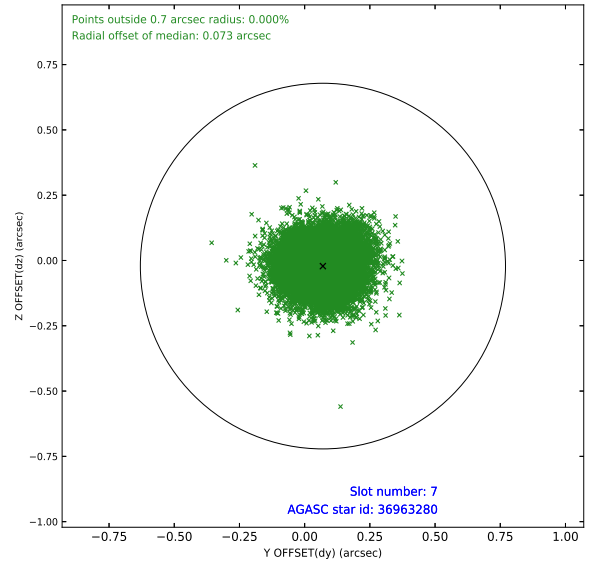
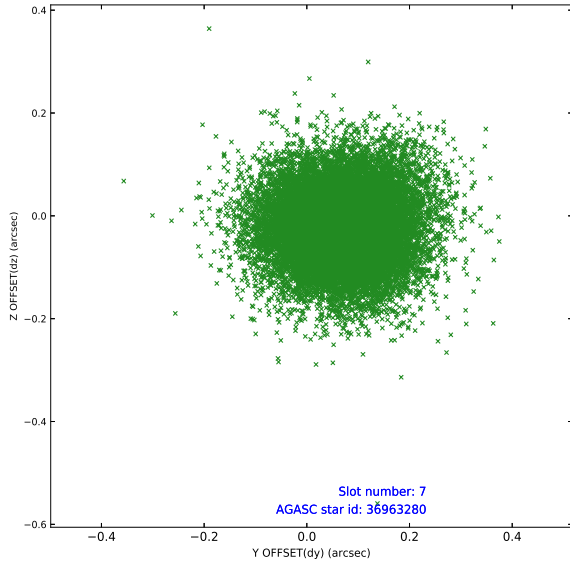
2.4.4 Slot 6



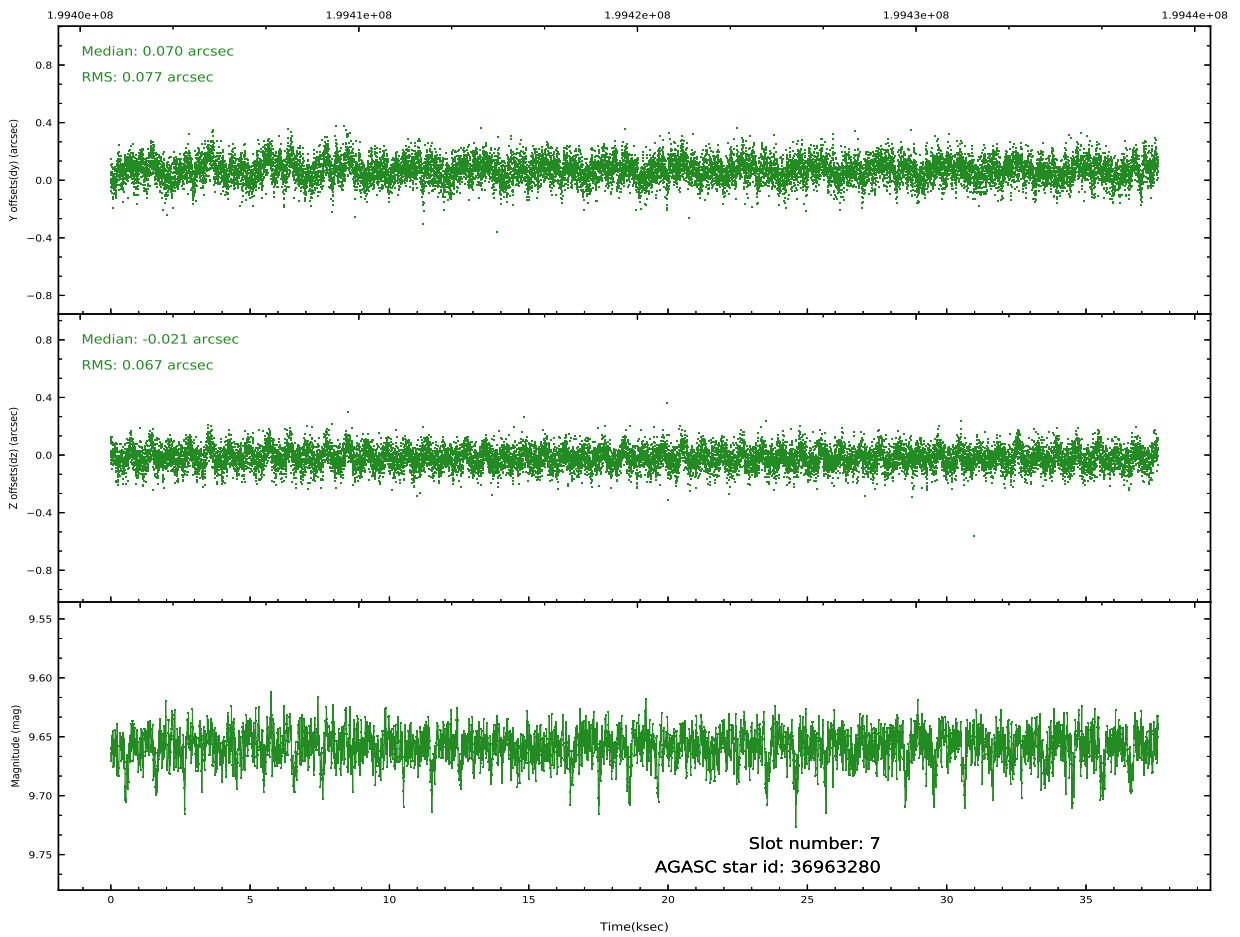
Time (s)



2.4.5 Slot 7

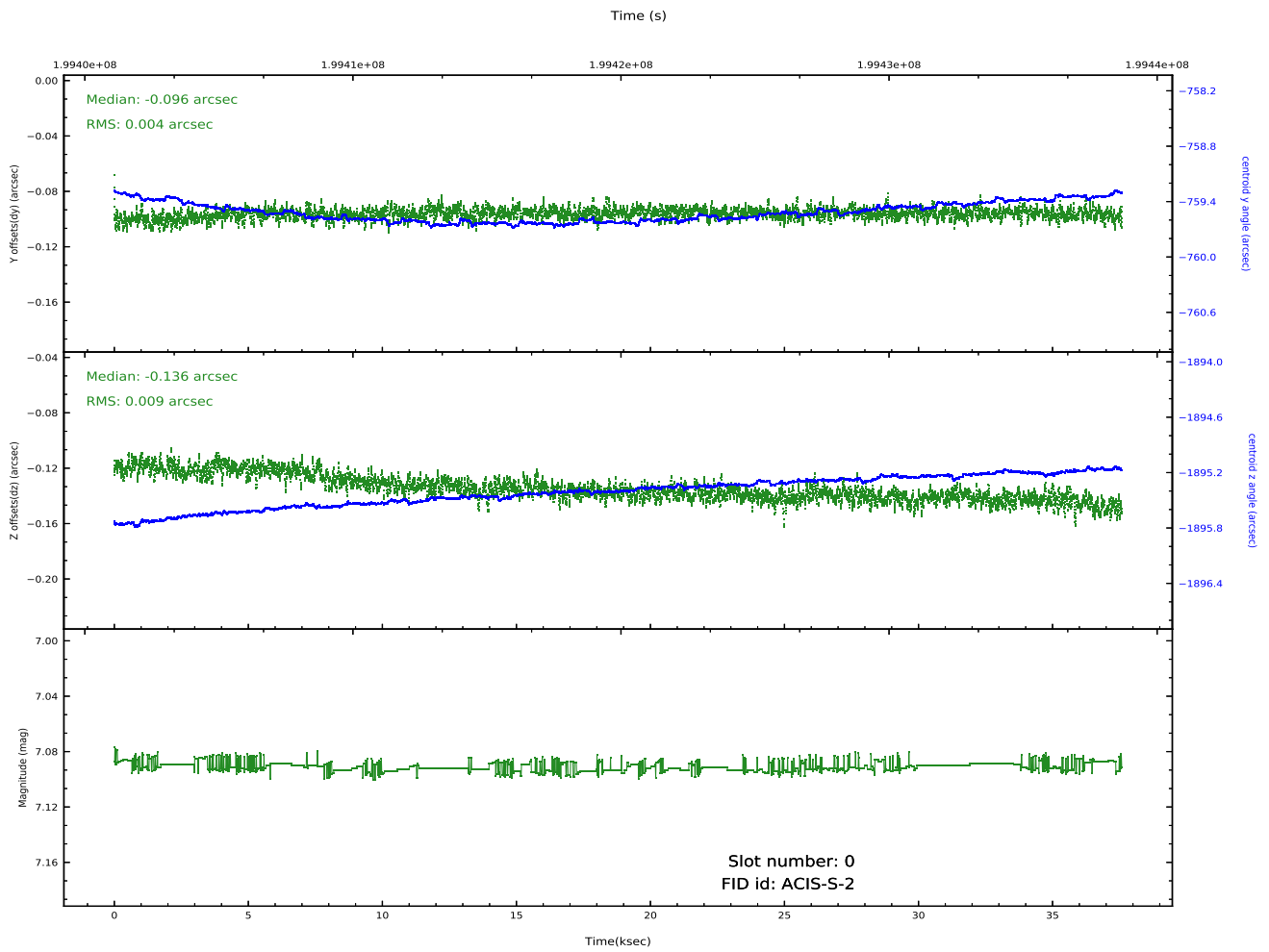
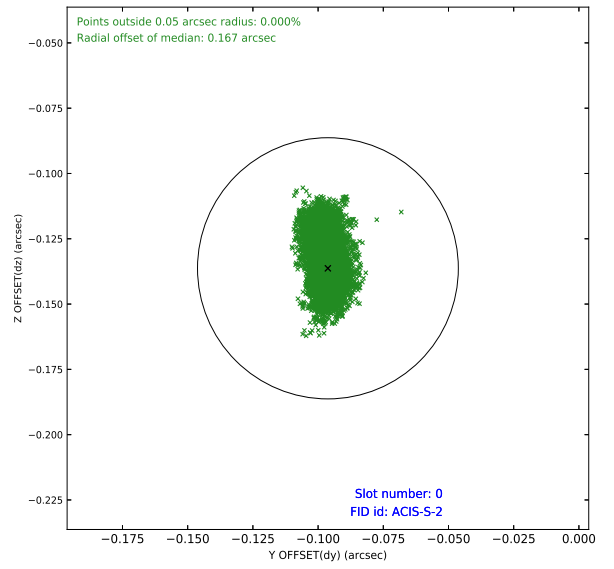
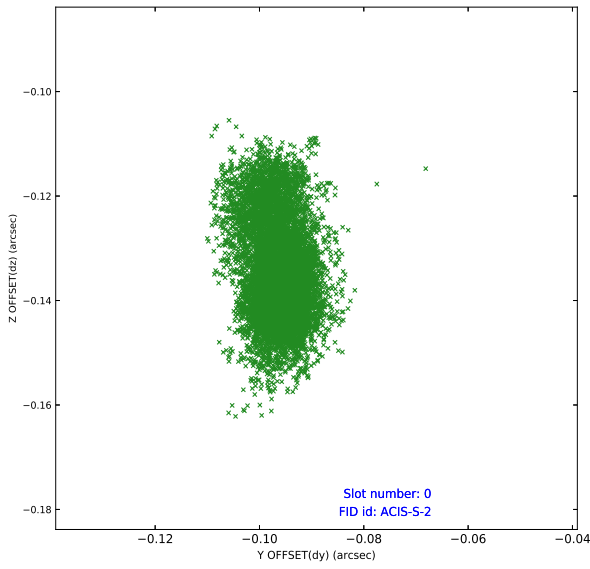


Time (s)

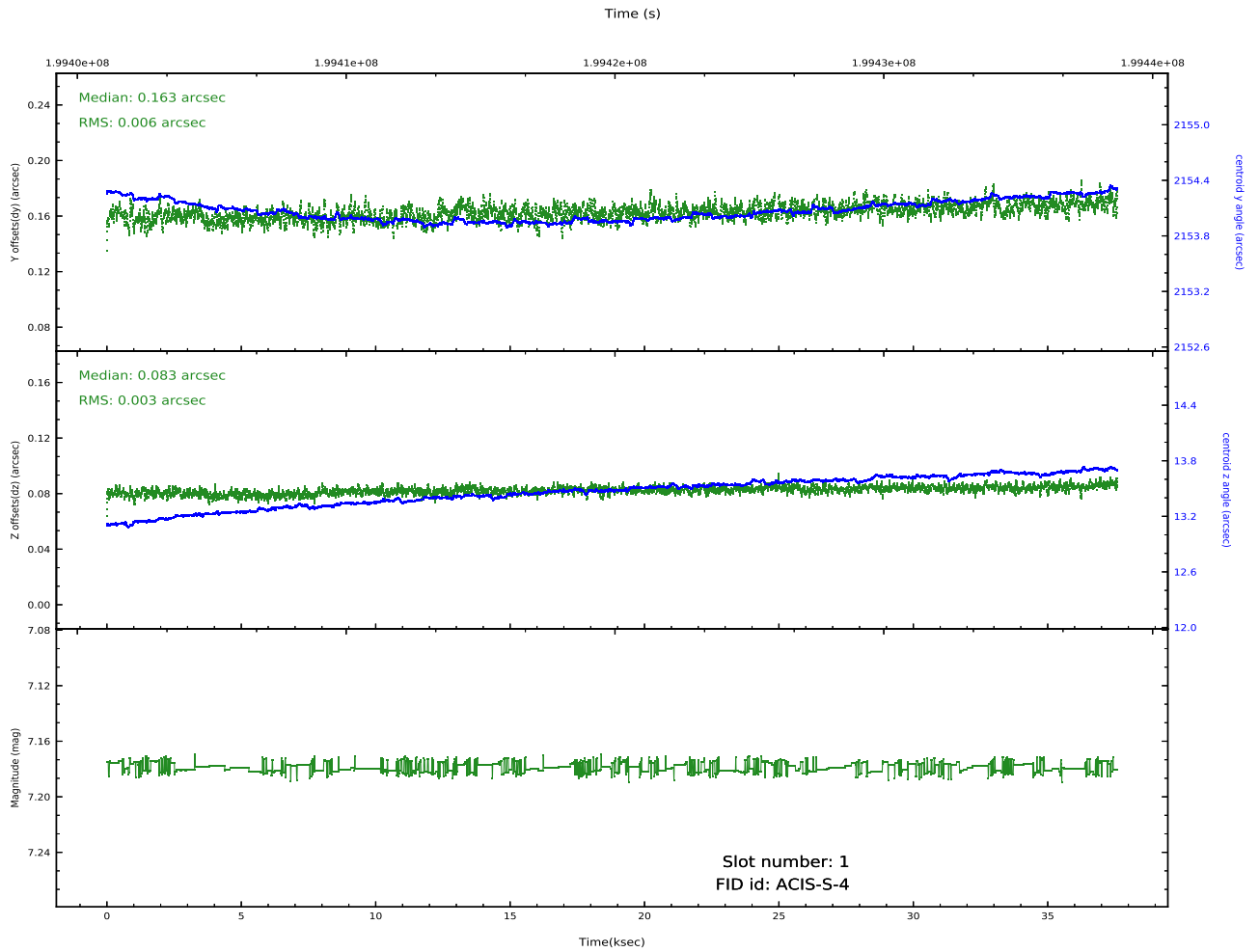
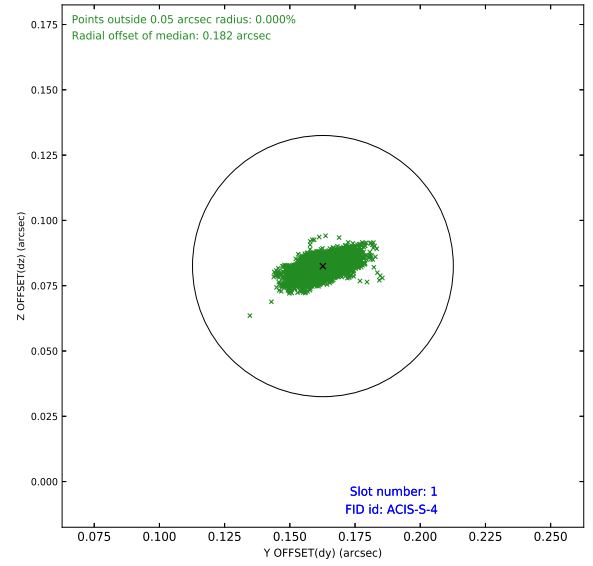
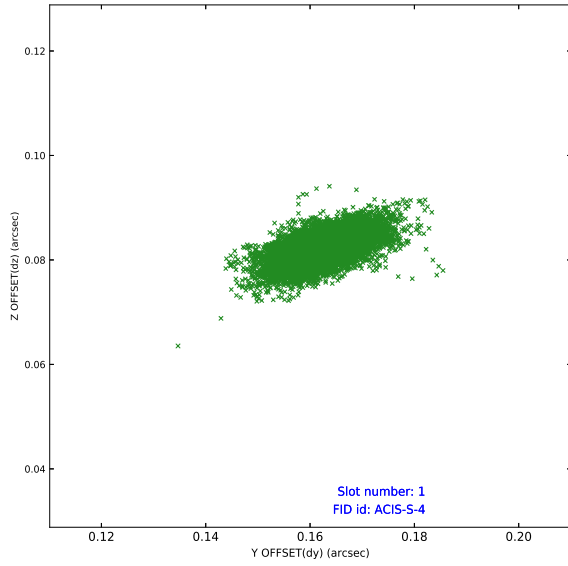


2.5 FID Slots

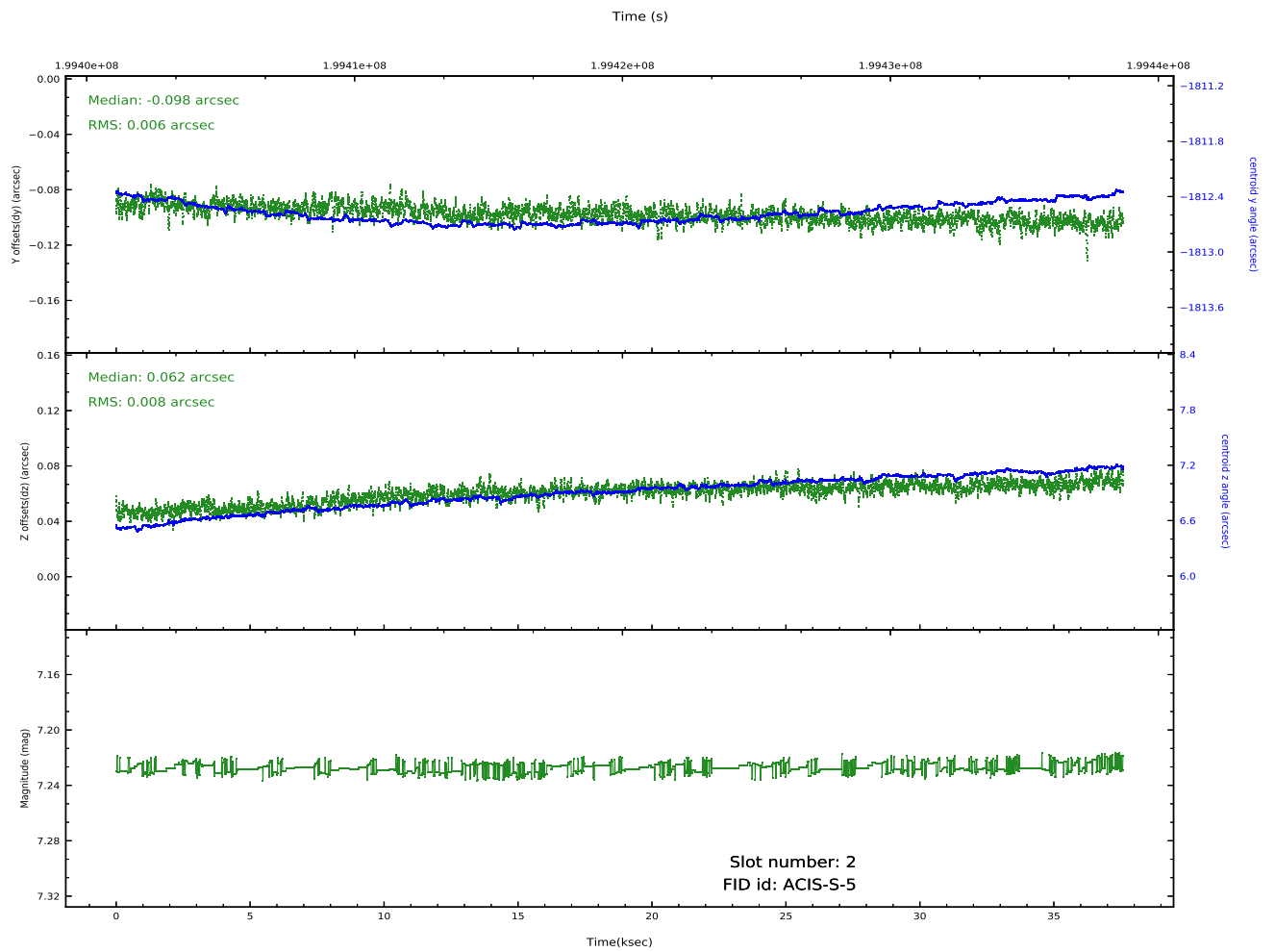
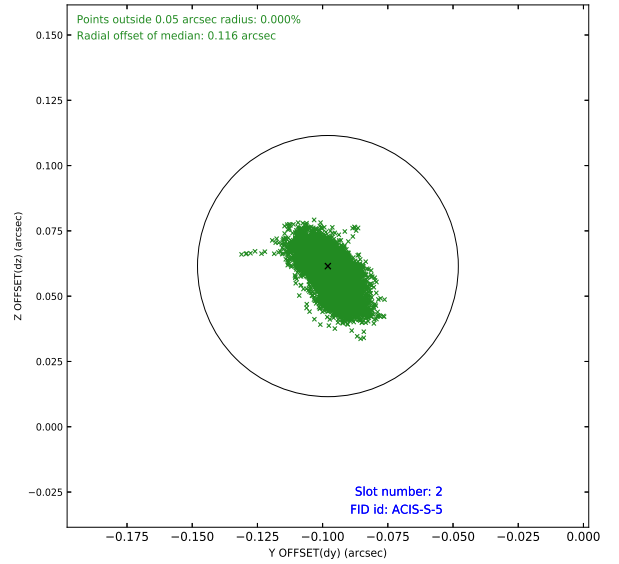
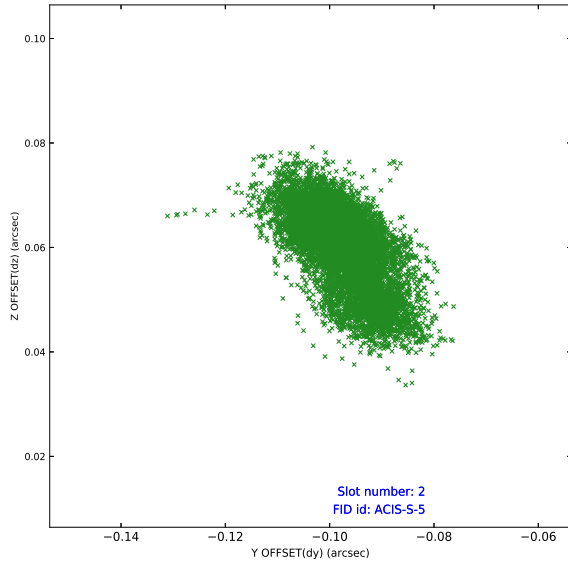
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2020.09.25 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 37.59 |

A.2 Comments