

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 21999 - L2 Version 1
Chandra X-Ray Center

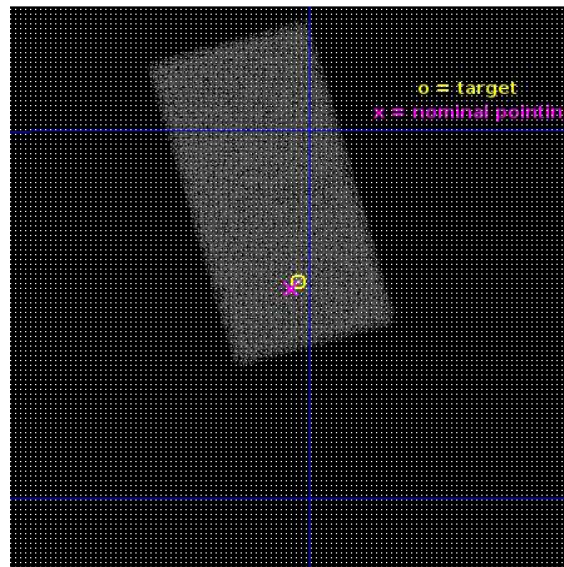
L2 Processing Date : Dec 13 2018

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1 Front

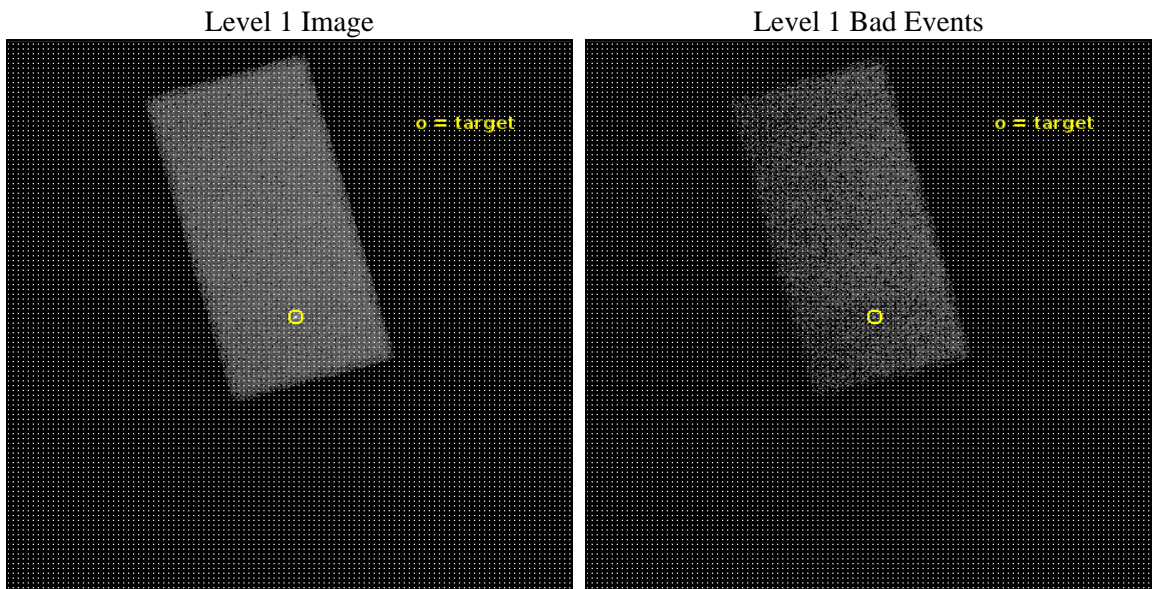
| | | |
|----------|---|---|
| seq_num | 703763 | Sequence number |
| obs_id | 21999 | Observation id |
| title | Feedback in the Molecular Disk of the Radio-Loud Seyfert Galaxy IC 5063 | Proposal title |
| observer | Giuseppina Fabbiano | Principal investigator |
| object | IC5063 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 313.009583 | Observer's specified target RA [deg] |
| dec_targ | -57.068889 | Observer's specified target Dec [deg] |
| ra_nom | 313.01497208114 | Nominal RA [deg] |
| dec_nom | -57.071979144672 | Nominal Dec [deg] |
| roll_nom | 254.1611346663 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 35065.5 | Sum of GTIs [s] |
| livetime | 34131.657841458 | Livetime [s] |
| ontime7 | 35065.5 | Sum of GTIs [s] |
| l2events | 80246 | Number of level 2 events |



2 OBI

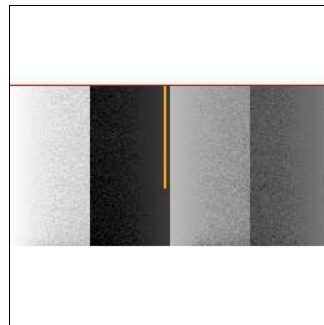
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|--------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 34996.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.7.1 | Processing system revision | ontime | 35065.5 | Sum of GTIs [s] |
| caldbver | 4.8.2 | | ontime7 | 35065.5 | Sum of GTIs [s] |
| date | 2018-12-14T01:04:15 | Date and time of file creation | l1events | 173600 | Number of level 1 events |
| revision | 1 | Processing version of data | | | |

2.1.4 Events

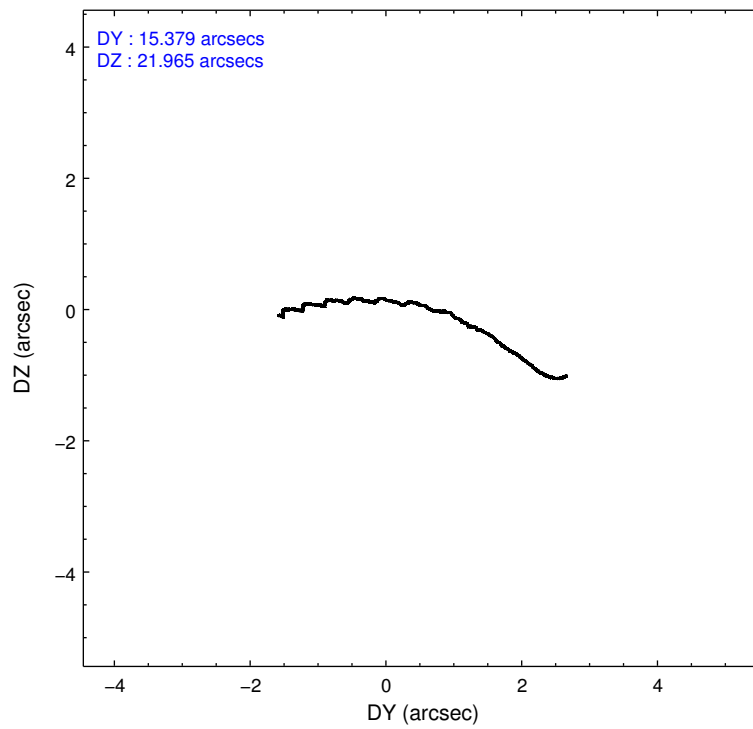
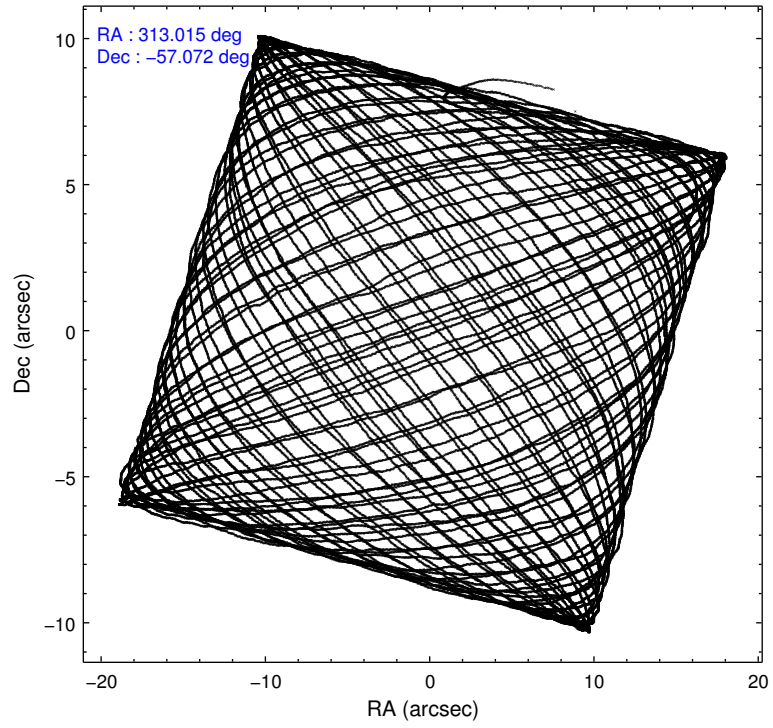
| | ccd 7 |
|-----------------|--------------|
| level 1 events | 173600 |
| rejected events | 91166 |
| rejected % | 52% |

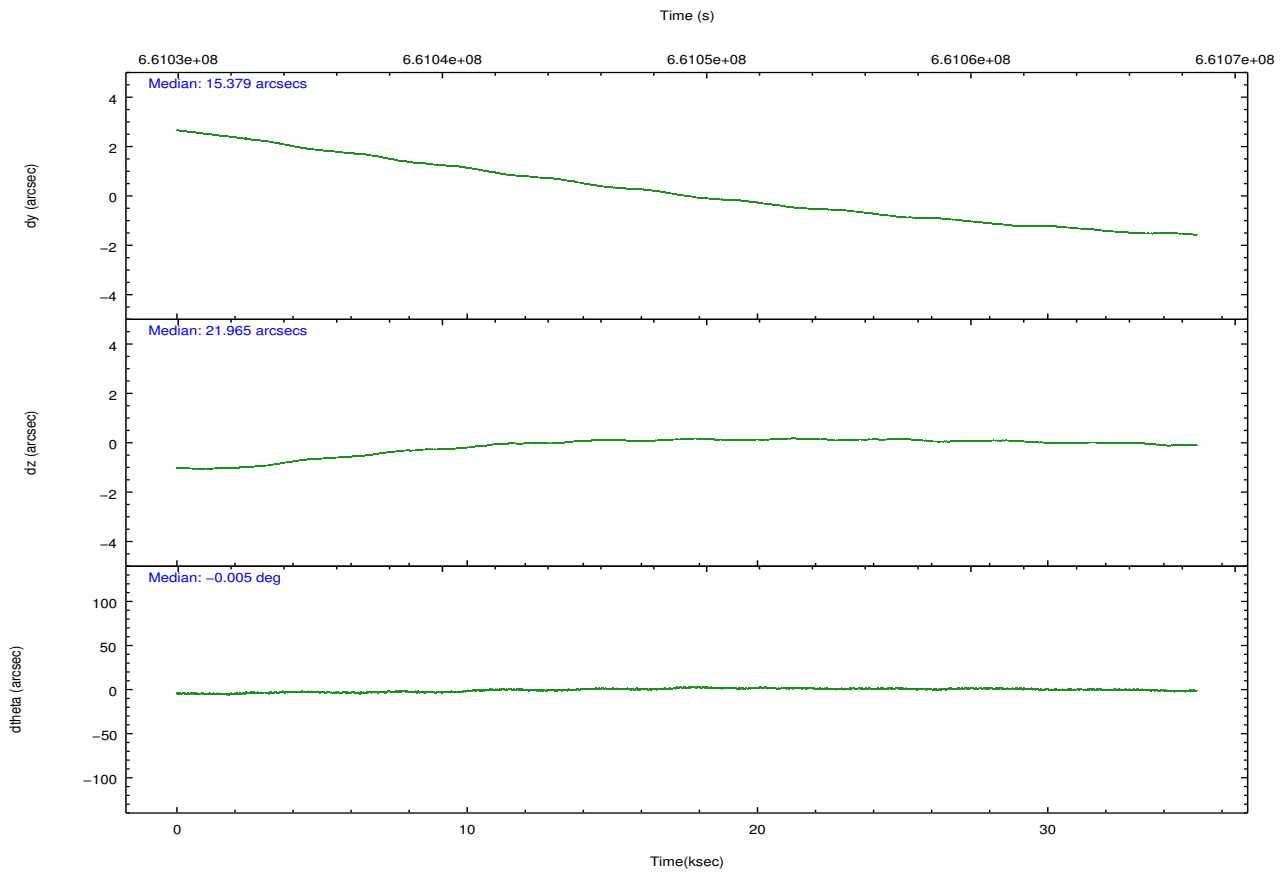
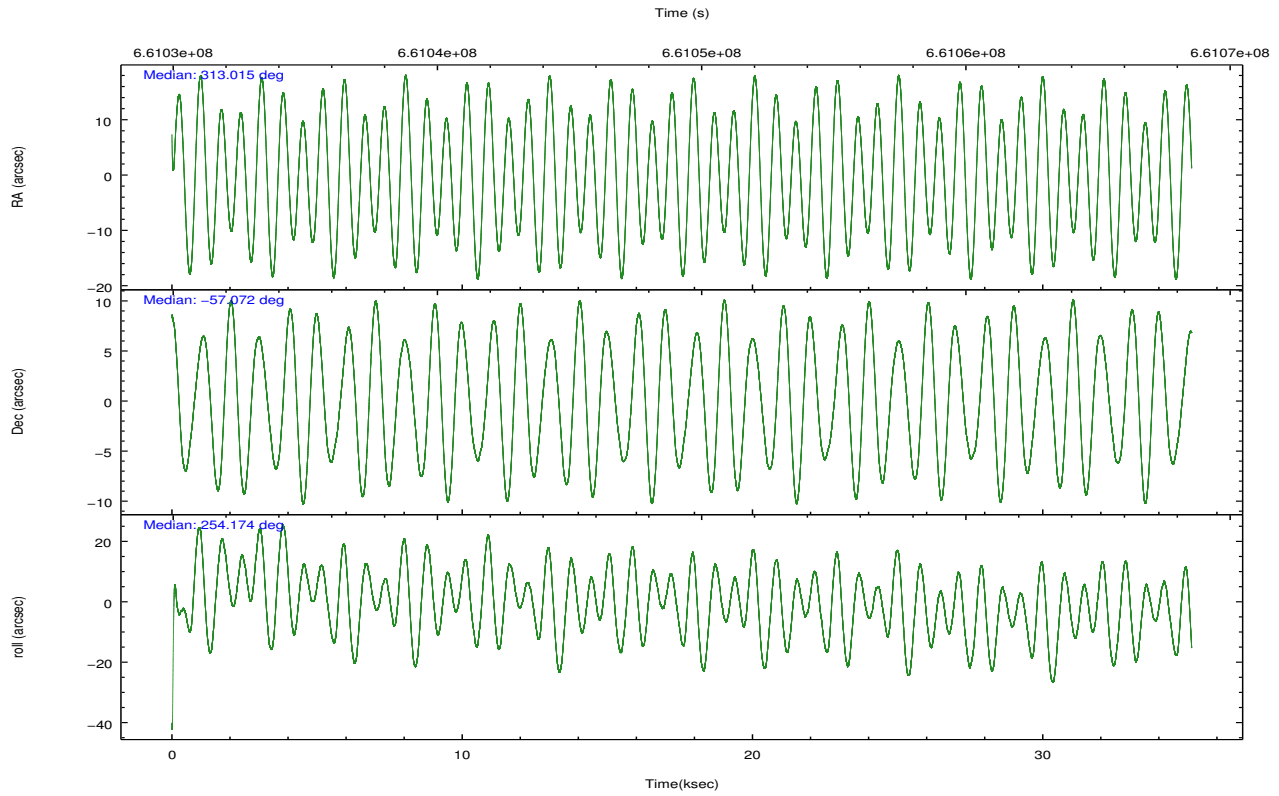
| | ccd 7 |
|----------------|--------------|
| grade 0 events | 8404 |
| | 4% |
| grade 1 events | 284 |
| | 0% |
| grade 2 events | 17441 |
| | 10% |
| grade 3 events | 7780 |
| | 4% |
| grade 4 events | 7902 |
| | 4% |
| grade 5 events | 17691 |
| | 10% |
| grade 6 events | 40912 |
| | 23% |
| grade 7 events | 73186 |
| | 42% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| 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 | 313.001964 | 313.0149720811435 | Subarray requested | CUSTOM | 1/2 |
| [deg] Pointing Dec | -57.045462 | -57.07197914467179 | Subarray start row | 257 | 257 |
| [deg] Pointing Roll | 253.993603 | 254.1611346662976 | Subarray row count | 512 | 512 |
| [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 | 1.5 |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 661031818.184000 | 661030441.61329 | | | |
| Observation start date | 2018-12-12T19:55:49 | 2018-12-12T19:34:01 | | | |
| [s] Observation end time (MET) | 661066814.184000 | 661067859.75302 | | | |
| Observation end date | 2018-12-13T05:39:05 | 2018-12-13T05:57:39 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



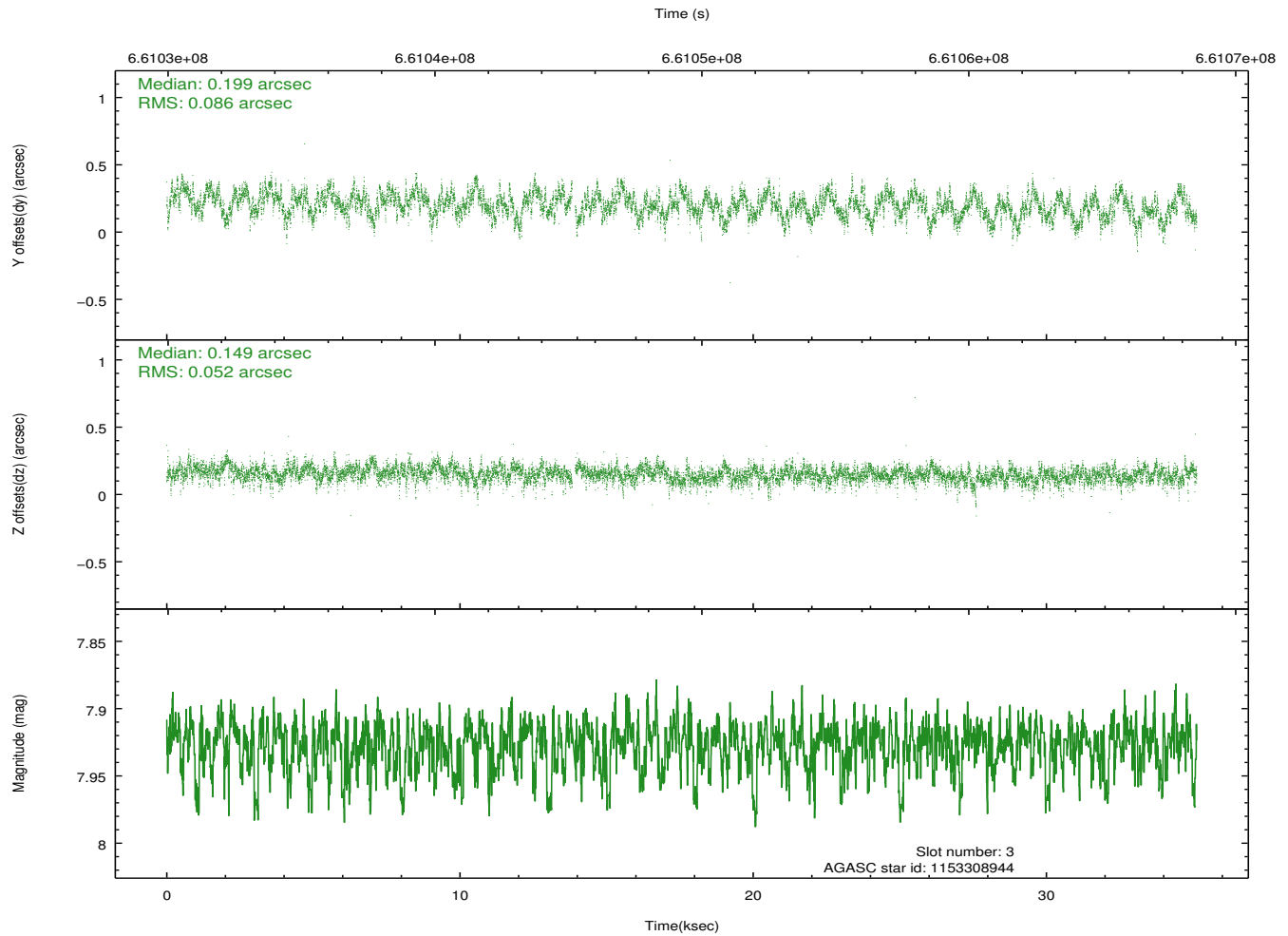
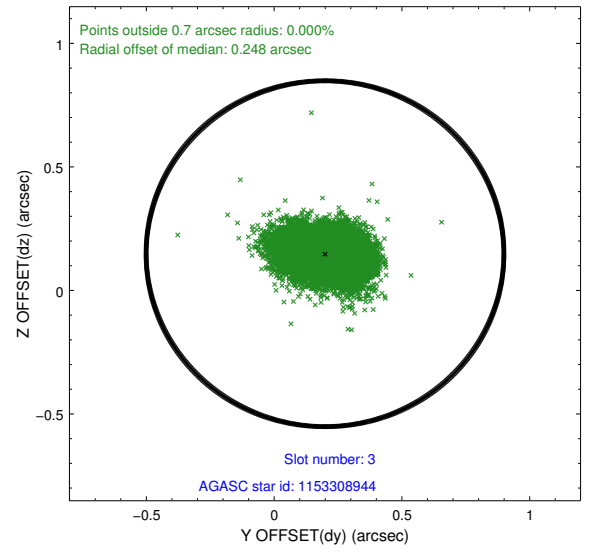
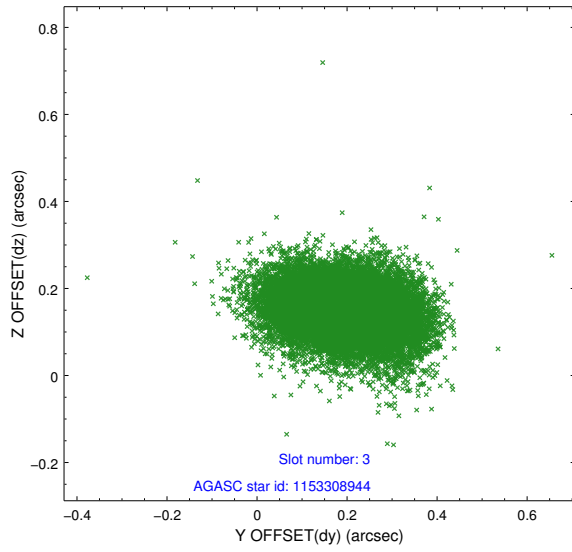


Slot Statistics

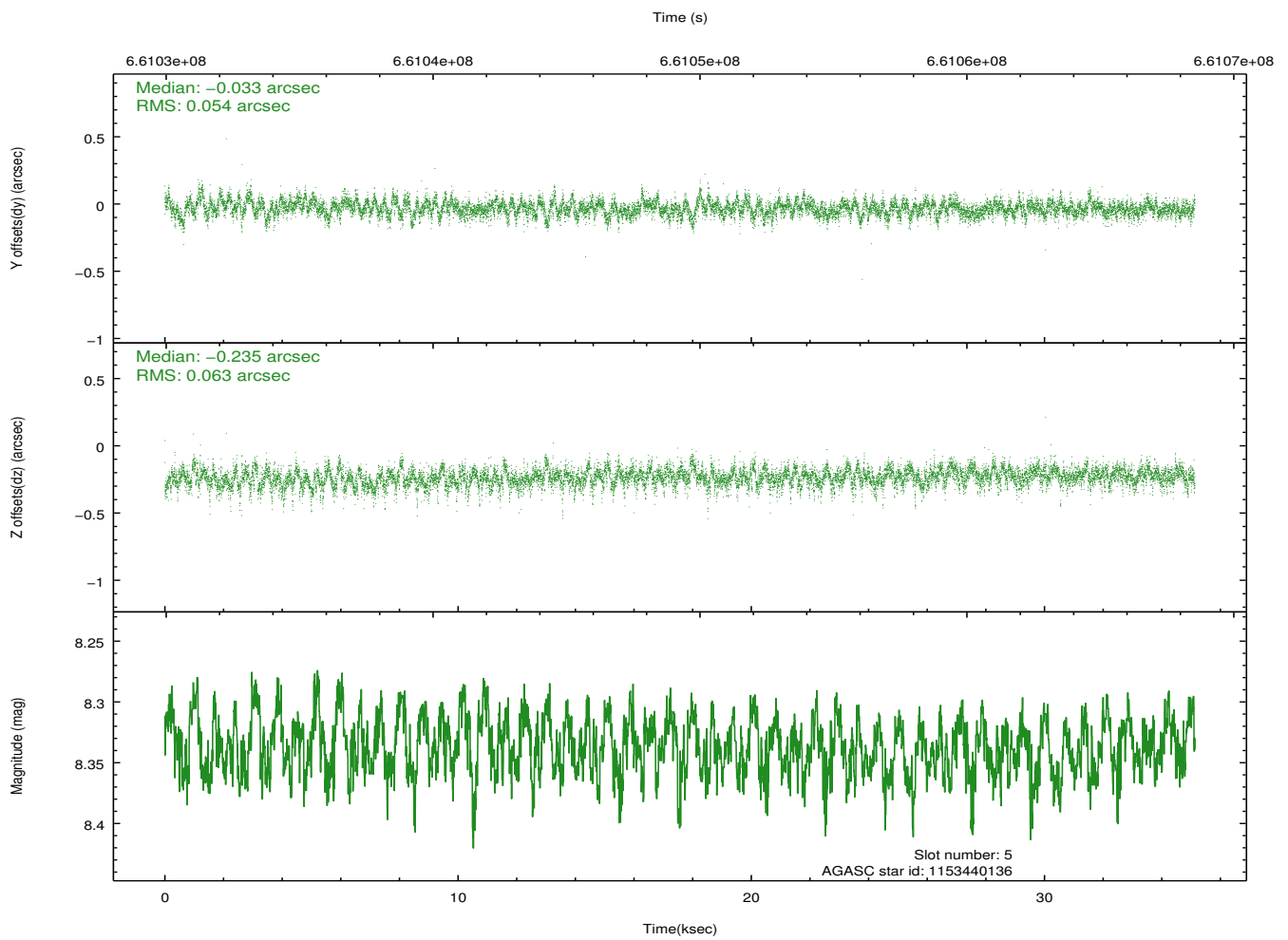
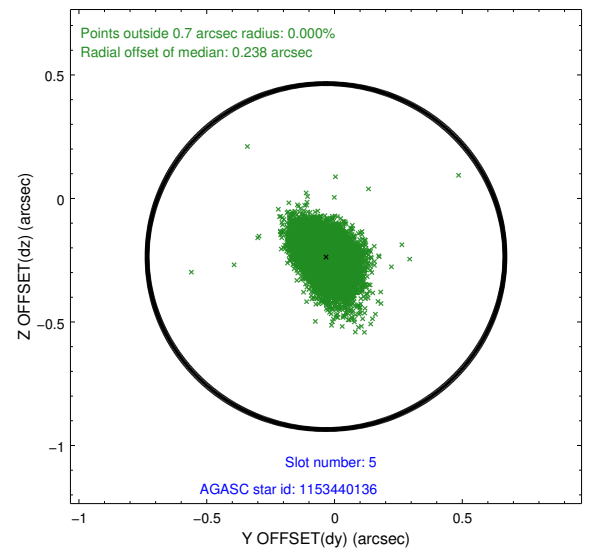
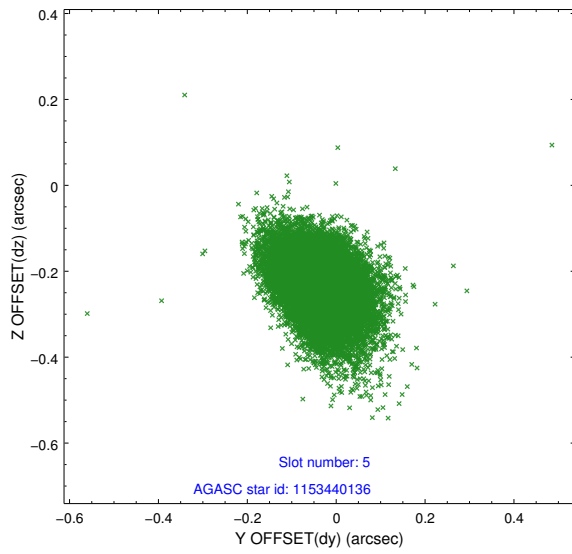
| slot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|------|---------|------|------------|------|-------|----------|--------|--------|-------|-------|------------|------------|----------|-------|
| 0 | FID | | ACIS-S-2 | 7.00 | 8569 | 1.000 | -0.341 | -0.216 | 0.036 | 0.058 | 0.000000 | 0.000000 | -768.86 | -1743 |
| 1 | FID | | ACIS-S-4 | 7.10 | 8566 | 1.000 | 0.750 | 0.223 | 0.032 | 0.069 | 0.000000 | 0.000000 | 2145.44 | 165 |
| 2 | FID | | ACIS-S-5 | 7.09 | 8567 | 1.000 | -0.449 | 0.003 | 0.018 | 0.040 | 0.000000 | 0.000000 | -1821.82 | 158 |
| 3 | GUIDE | used | 1153308944 | 7.93 | 17079 | 1.000 | 0.199 | 0.149 | 0.105 | 0.178 | 313.182696 | -56.719599 | -1225.32 | 19 |
| 4 | OMITTED | | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0 |
| 5 | GUIDE | used | 1153440136 | 8.34 | 17131 | 1.000 | -0.033 | -0.235 | 0.085 | 0.148 | 314.021553 | -57.000444 | -692.35 | 1880 |
| 6 | GUIDE | used | 1153442384 | 8.92 | 17102 | 1.000 | 0.010 | 0.158 | 0.110 | 0.187 | 314.026470 | -56.702902 | -1728.68 | 1610 |
| 7 | GUIDE | used | 1153439192 | 8.25 | 17123 | 1.000 | -0.181 | -0.067 | 0.130 | 0.203 | 313.849459 | -57.867725 | 2408.35 | 2378 |

2.4 Star Slots

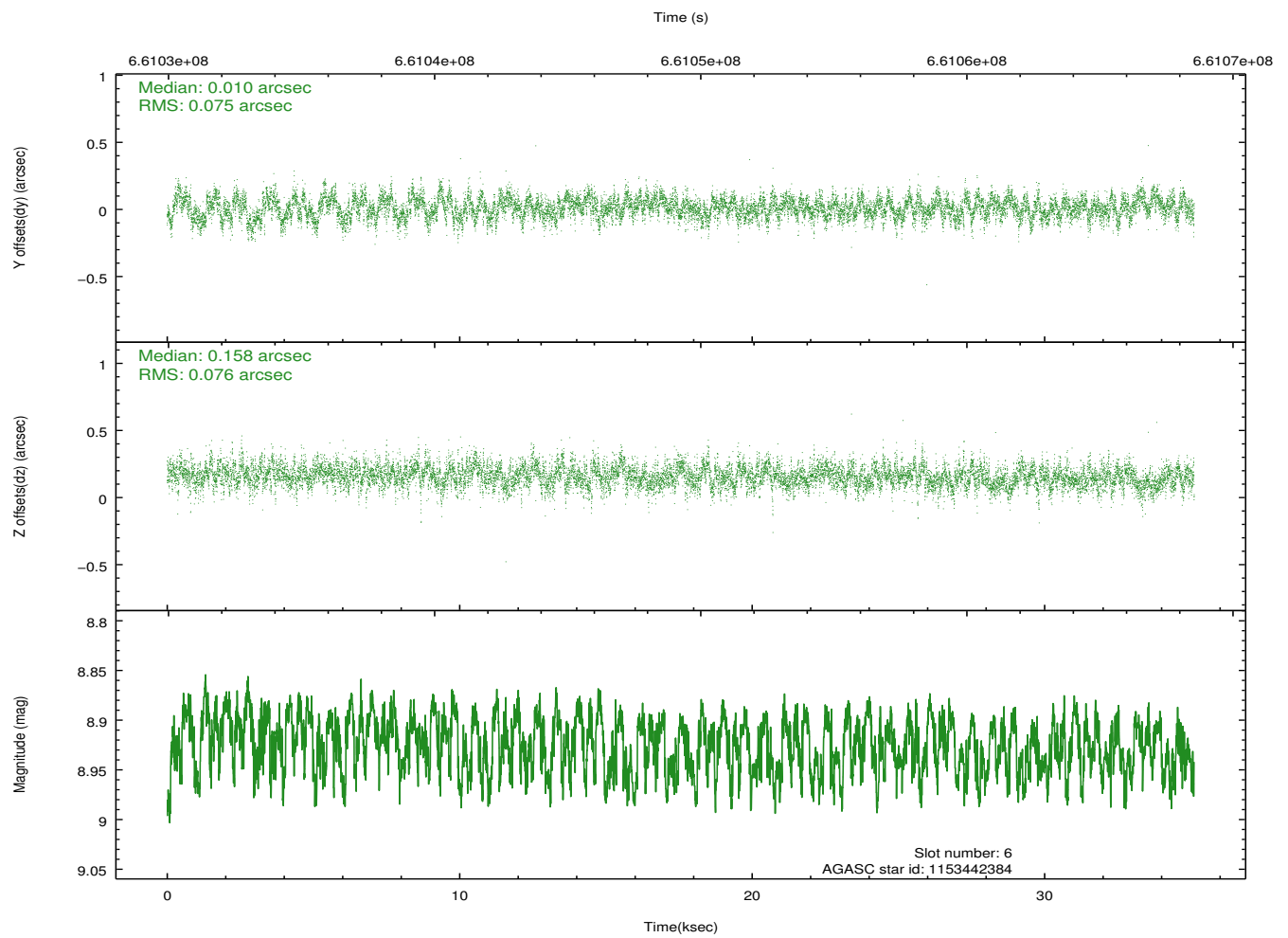
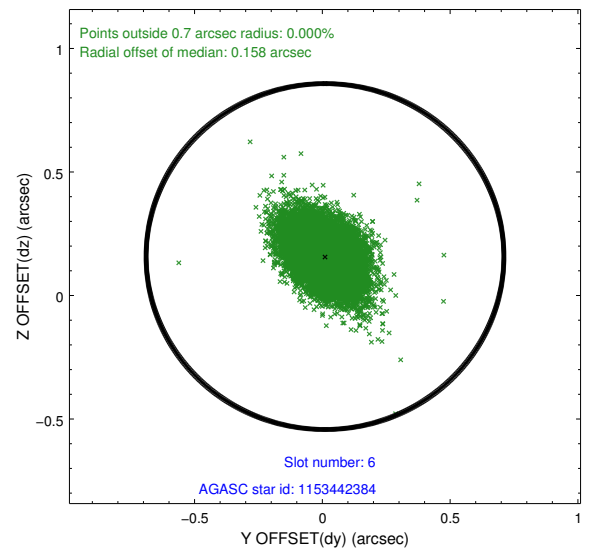
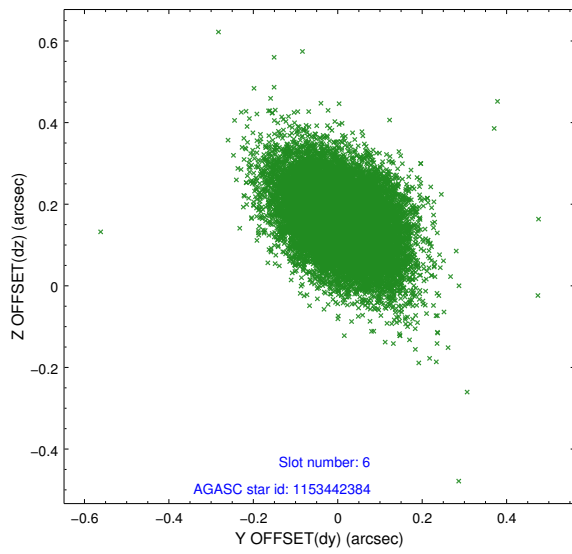
2.4.1 Slot 3



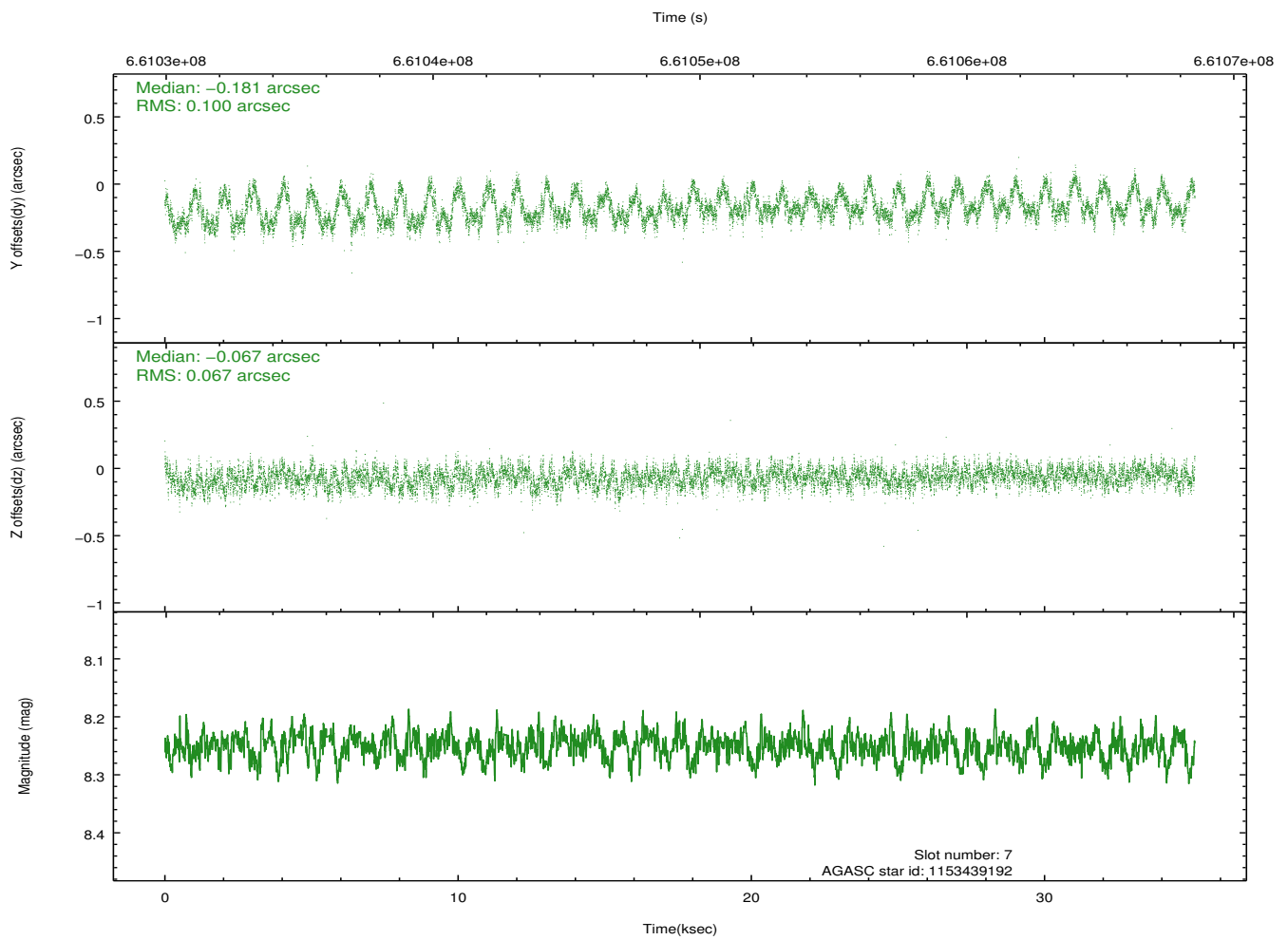
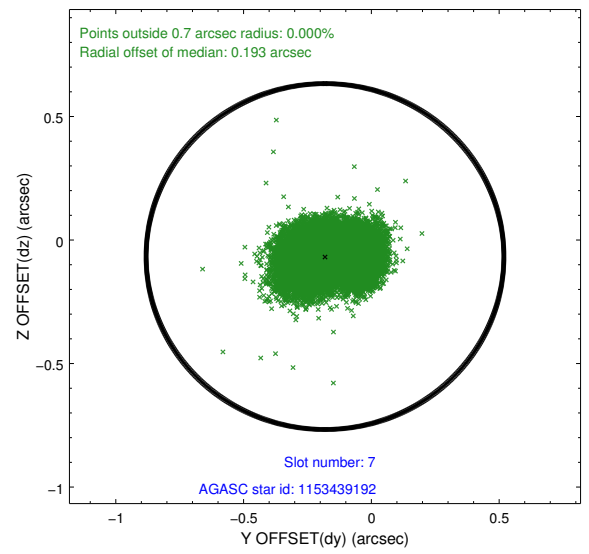
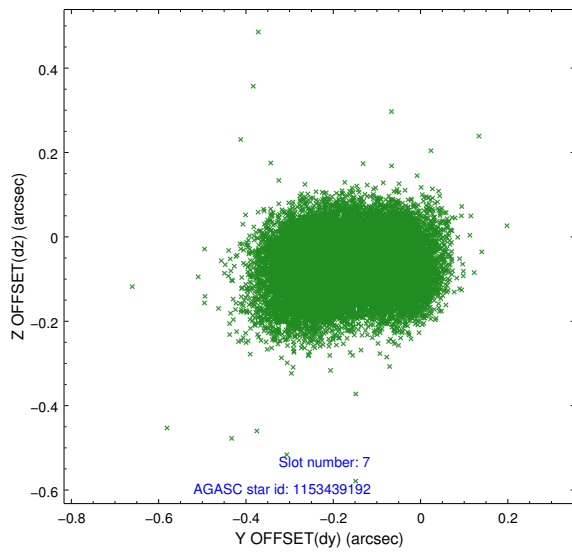
2.4.2 Slot 5



2.4.3 Slot 6

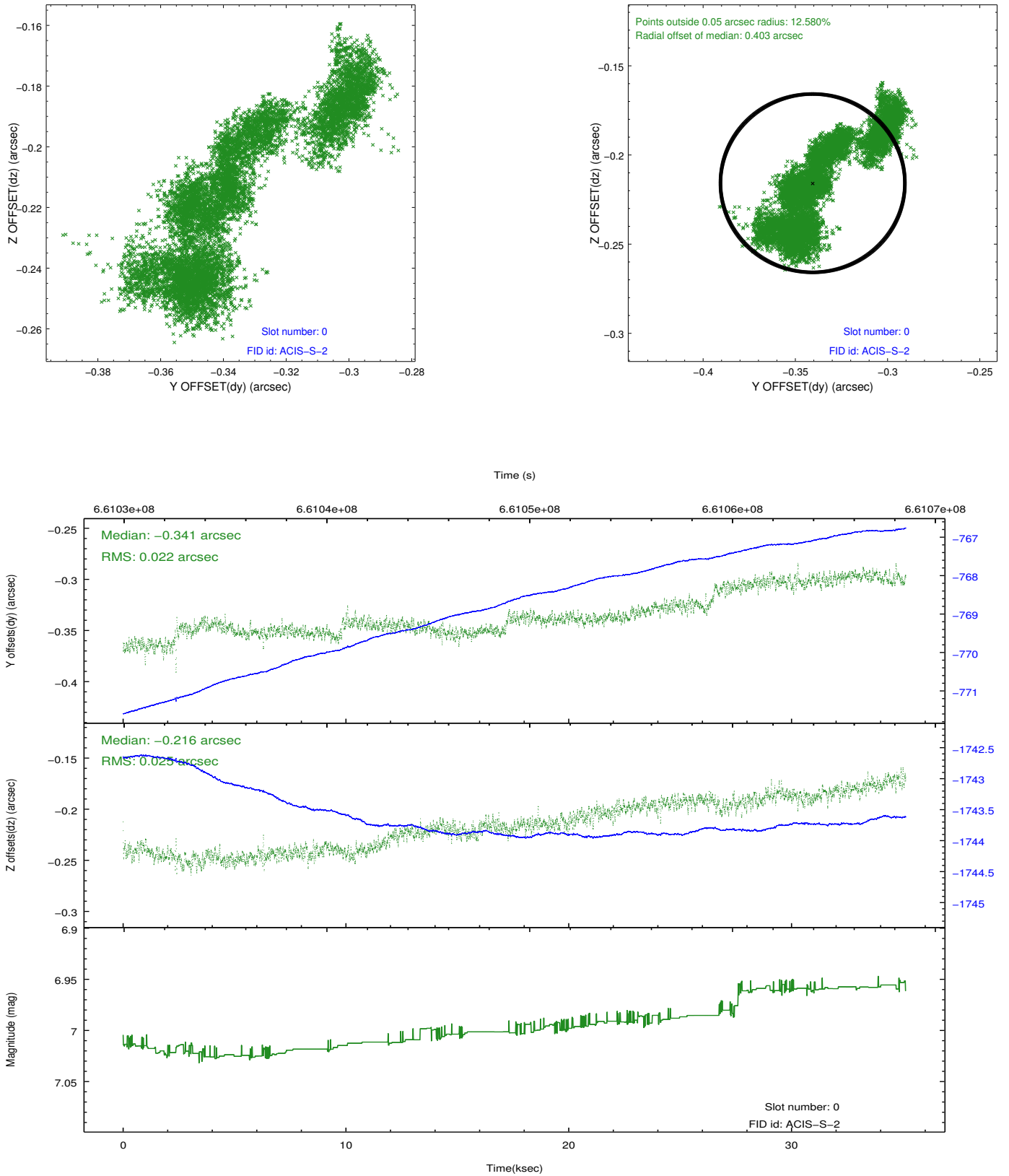


2.4.4 Slot 7

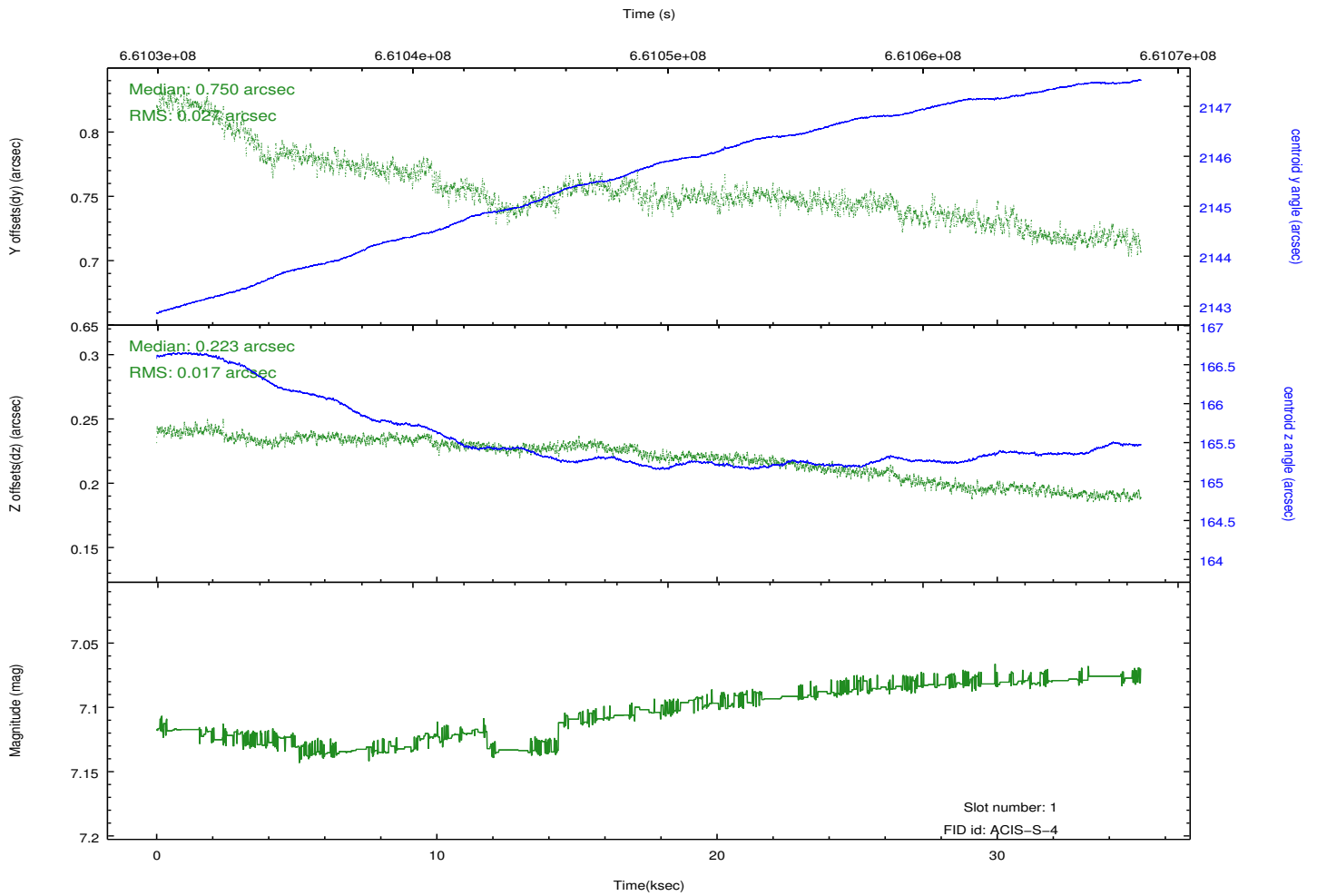
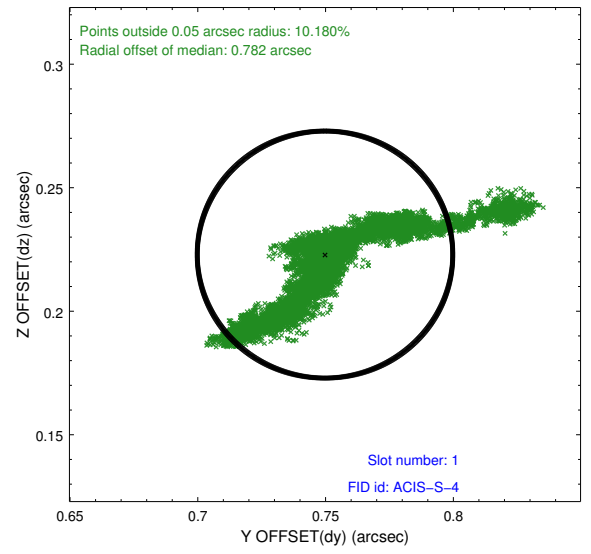
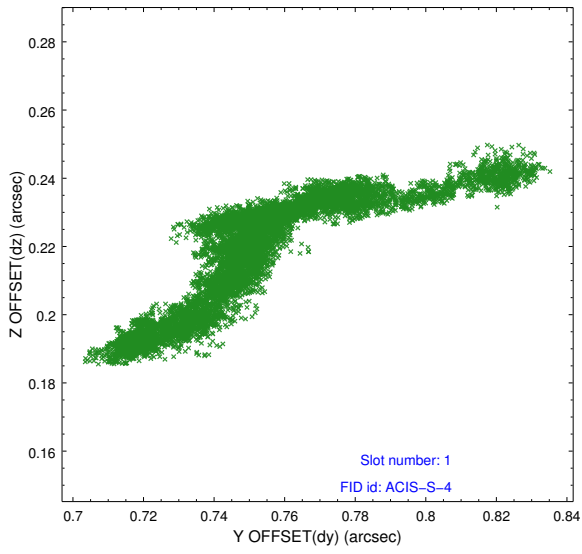


2.5 FID Slots

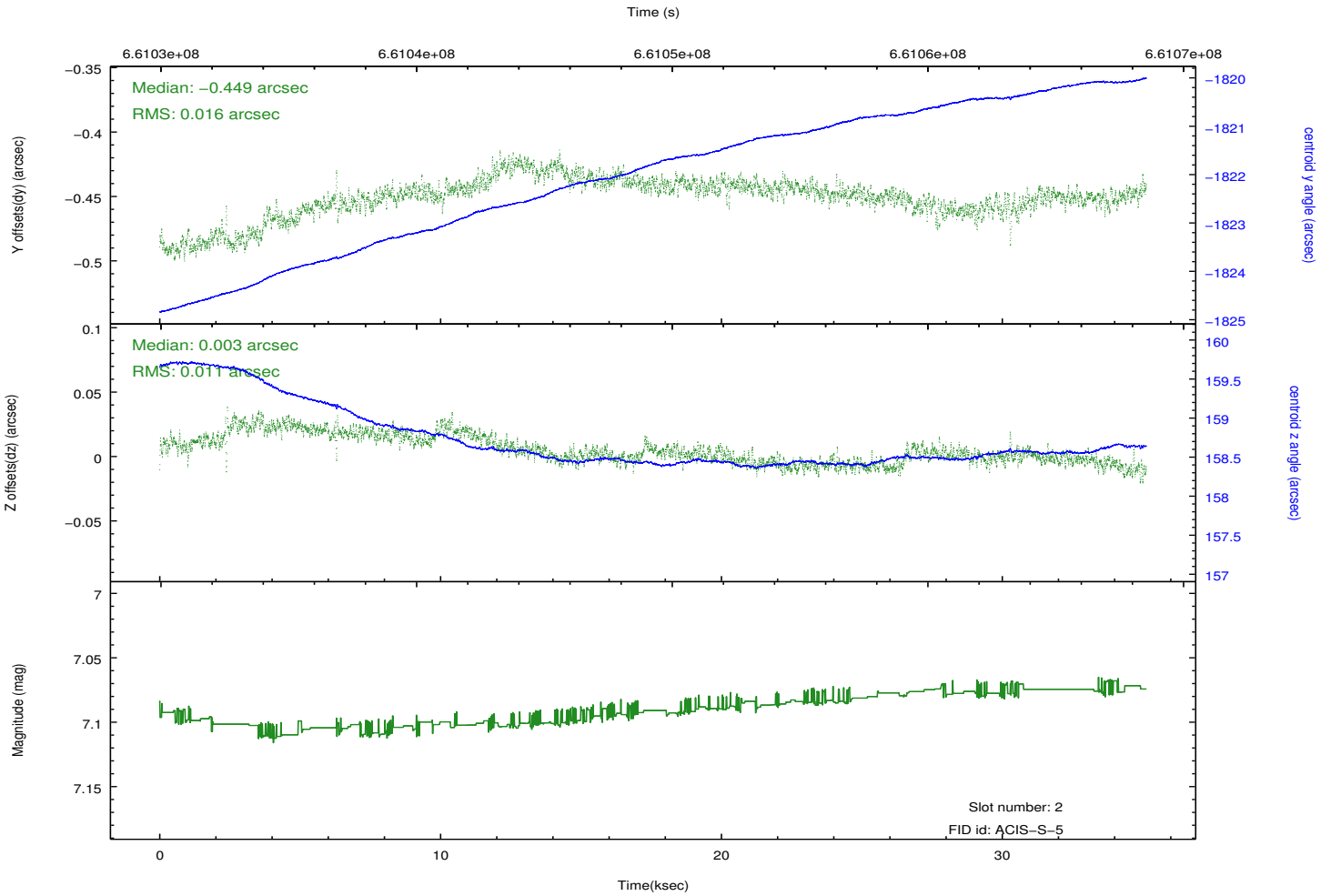
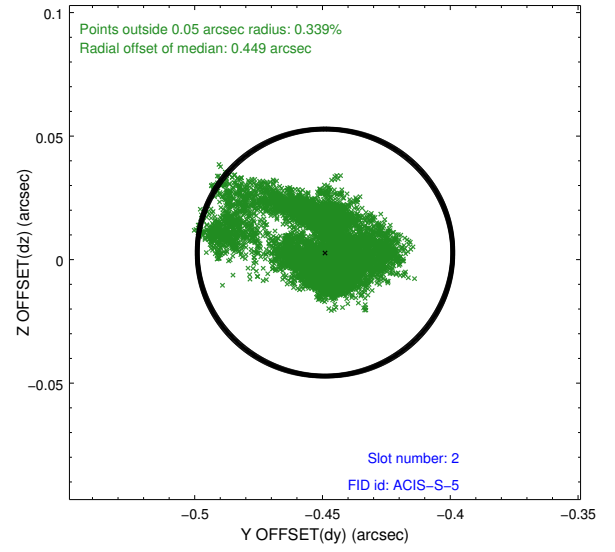
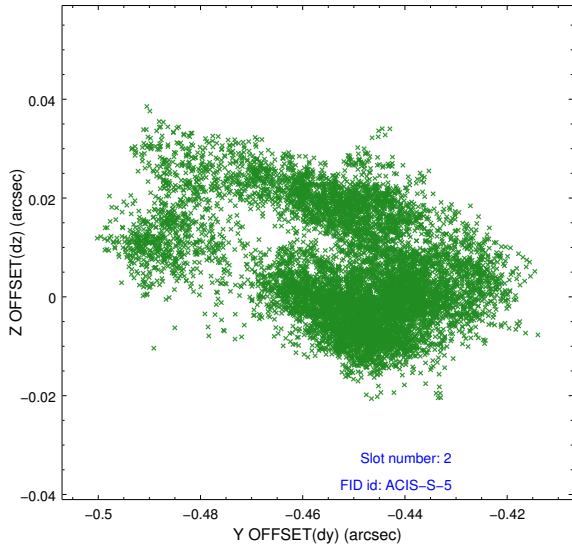
2.5.1 Slot 0



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) | 2018.12.13 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 35.0655 |

A.2 Comments

Joint proposal with HST.

The guide star in slot 4 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.