

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12523 - L2 Version 3
Chandra X-Ray Center

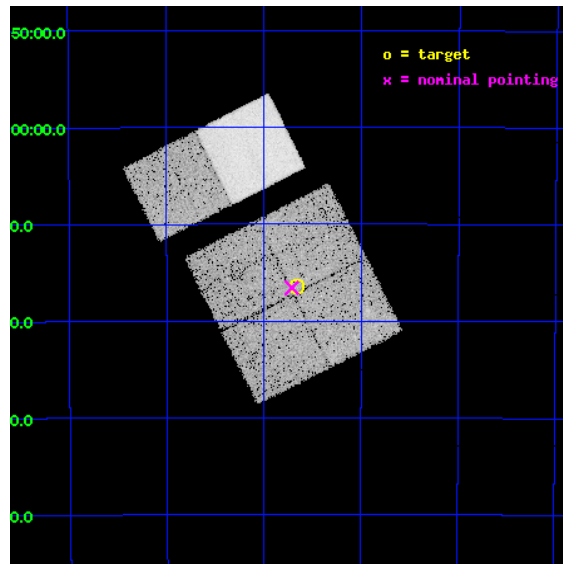
L2 Processing Date : Feb 12 2012

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1 Front

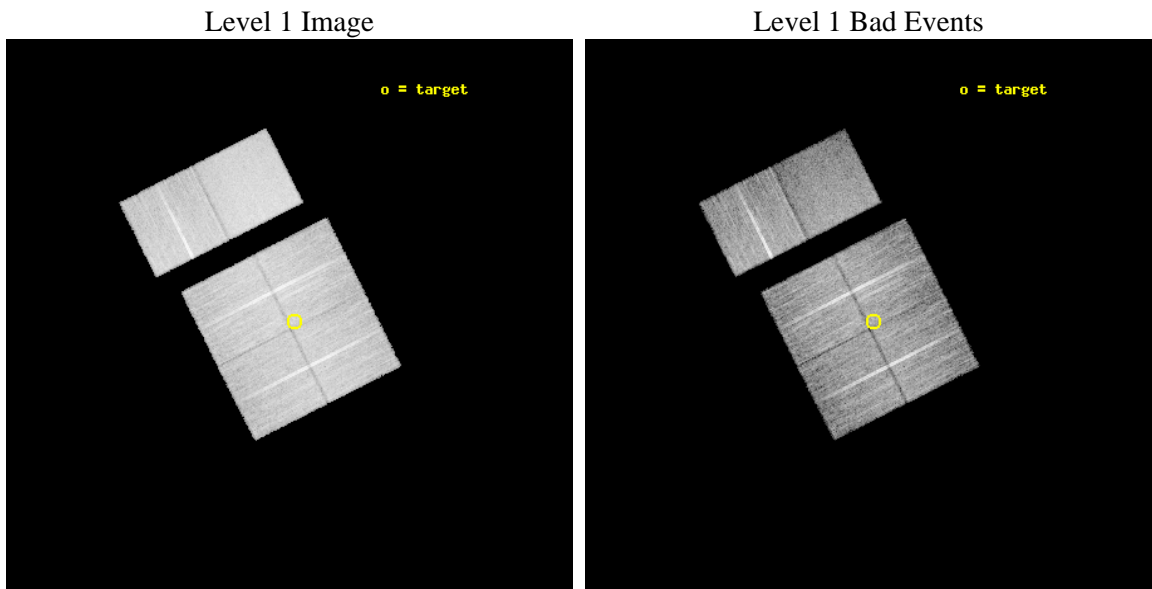
| | | |
|----------|--|---|
| seq_num | 401264 | Sequence number |
| obs_id | 12523 | Observation id |
| title | Census of the Normal Spiral Arm Region | Proposal title |
| observer | Dr. John Tomsick | Principal investigator |
| object | Norma Region | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 249.166346 | Observer's specified target RA [deg] |
| dec_targ | -47.275215 | Observer's specified target Dec [deg] |
| ra_nom | 249.17806089053 | Nominal RA [deg] |
| dec_nom | -47.276528794313 | Nominal Dec [deg] |
| roll_nom | 333.21729343368 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 19251.117777228 | Sum of GTIs [s] |
| livetime | 19007.348532302 | Livetime [s] |
| ontime0 | 19257.599928319 | Sum of GTIs [s] |
| ontime1 | 19257.599928319 | Sum of GTIs [s] |
| ontime2 | 19257.599928319 | Sum of GTIs [s] |
| ontime3 | 19251.117777228 | Sum of GTIs [s] |
| ontime6 | 19257.599928319 | Sum of GTIs [s] |
| ontime7 | 19257.599928319 | Sum of GTIs [s] |
| l2events | 132060 | Number of level 2 events |



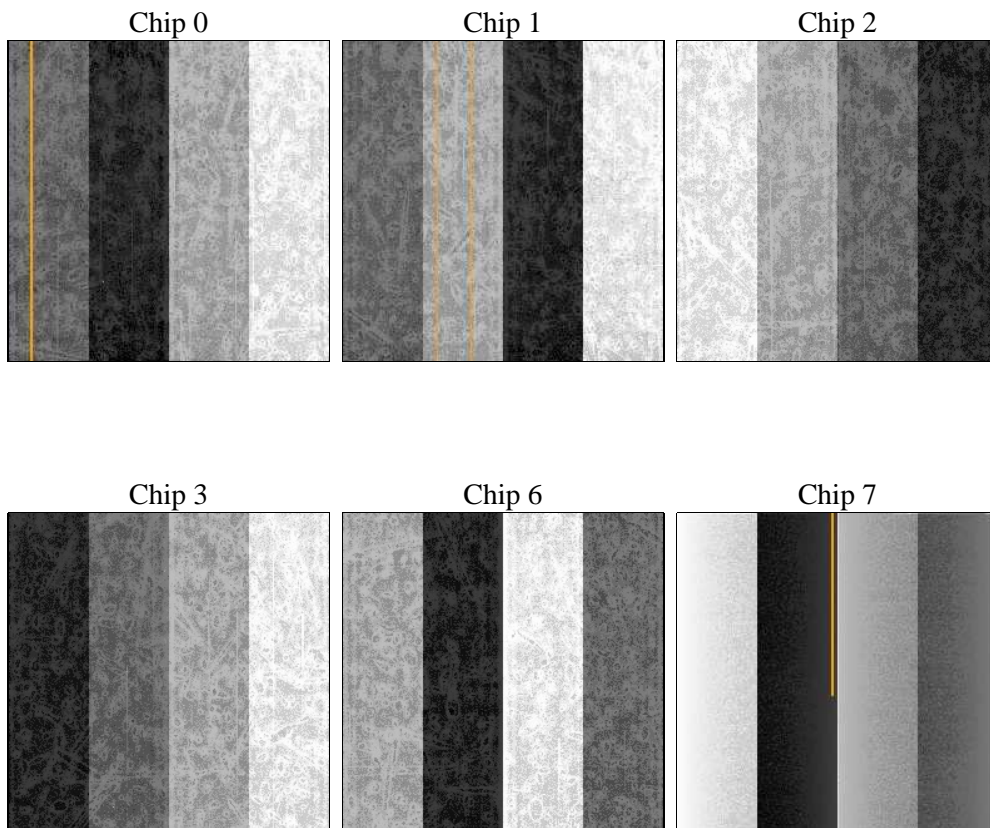
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 19500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3 | Processing system revision | ontime | 19251.117777228 | Sum of GTIs [s] |
| caldbver | 4.4.7 | | ontime0 | 19257.599928319 | Sum of GTIs [s] |
| date | 2012-02-12T11:21:27 | Date and time of file creation | ontime1 | 19257.599928319 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 19257.599928319 | Sum of GTIs [s] |
| | | | ontime3 | 19251.117777228 | Sum of GTIs [s] |
| | | | ontime6 | 19257.599928319 | Sum of GTIs [s] |
| | | | ontime7 | 19257.599928319 | Sum of GTIs [s] |
| | | | l1events | 749040 | Number of level 1 events |

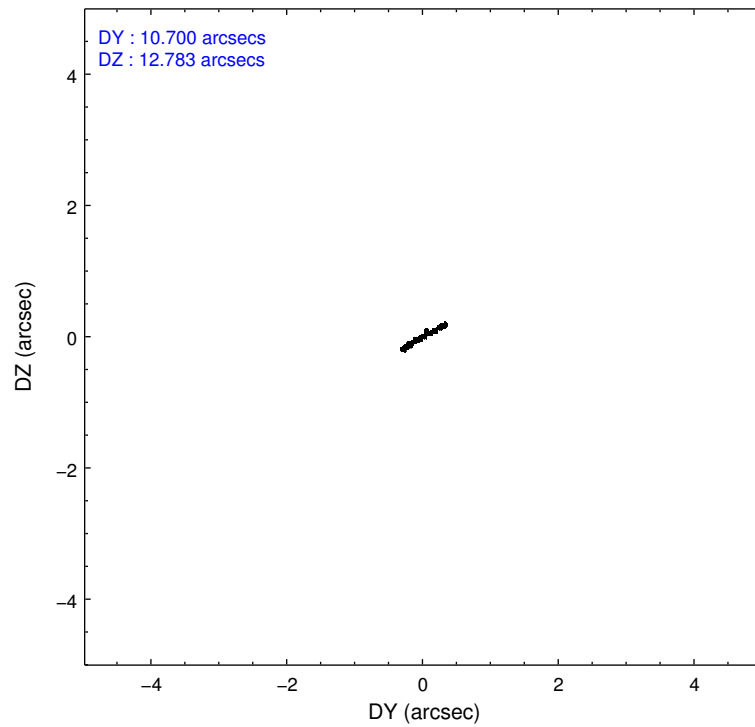
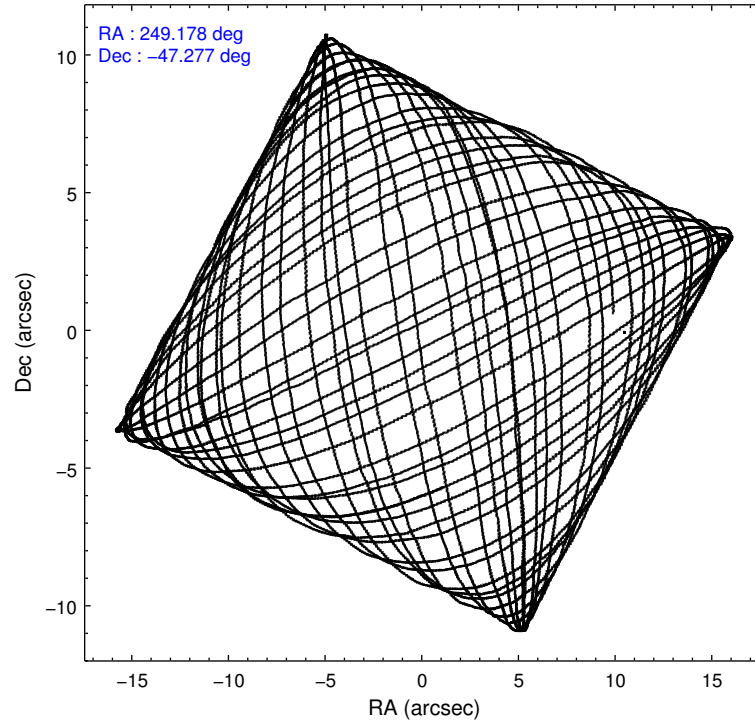
2.1.4 Events

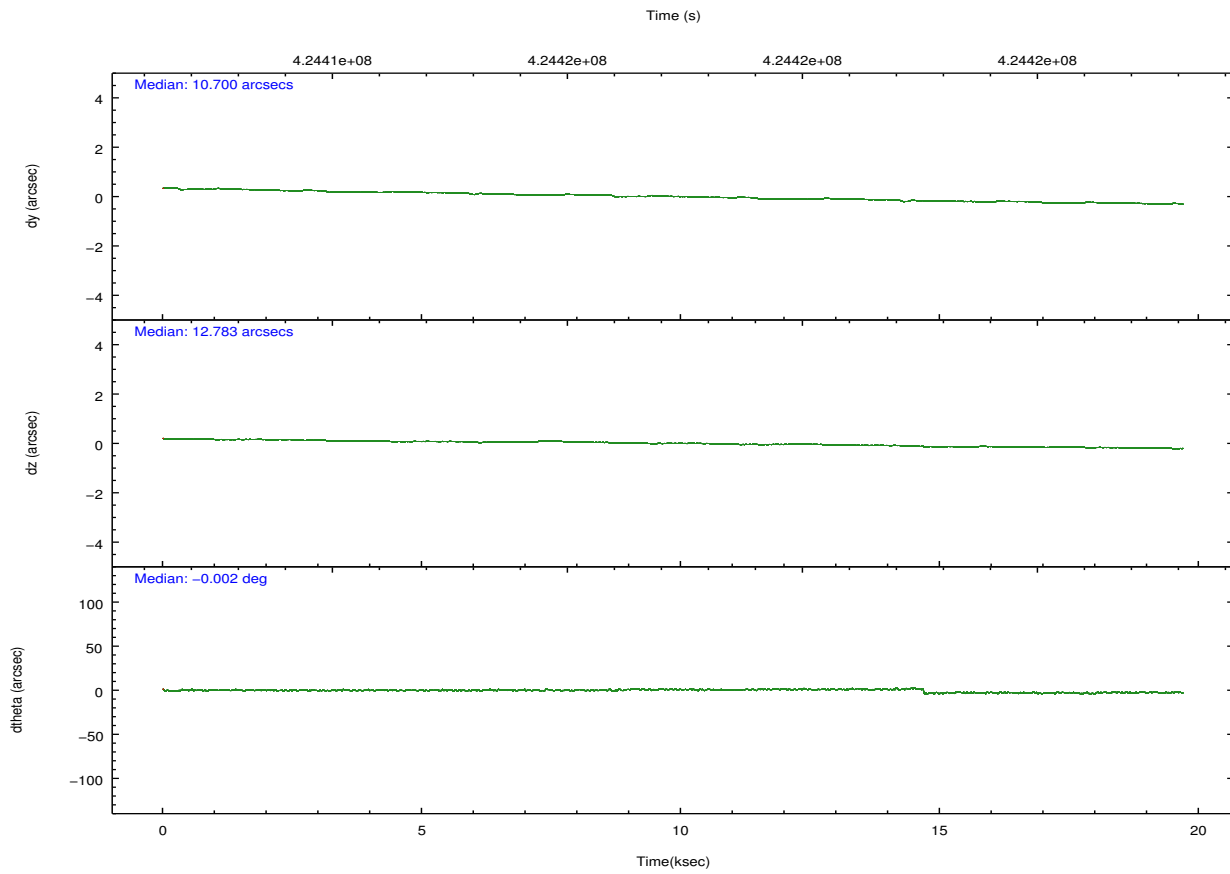
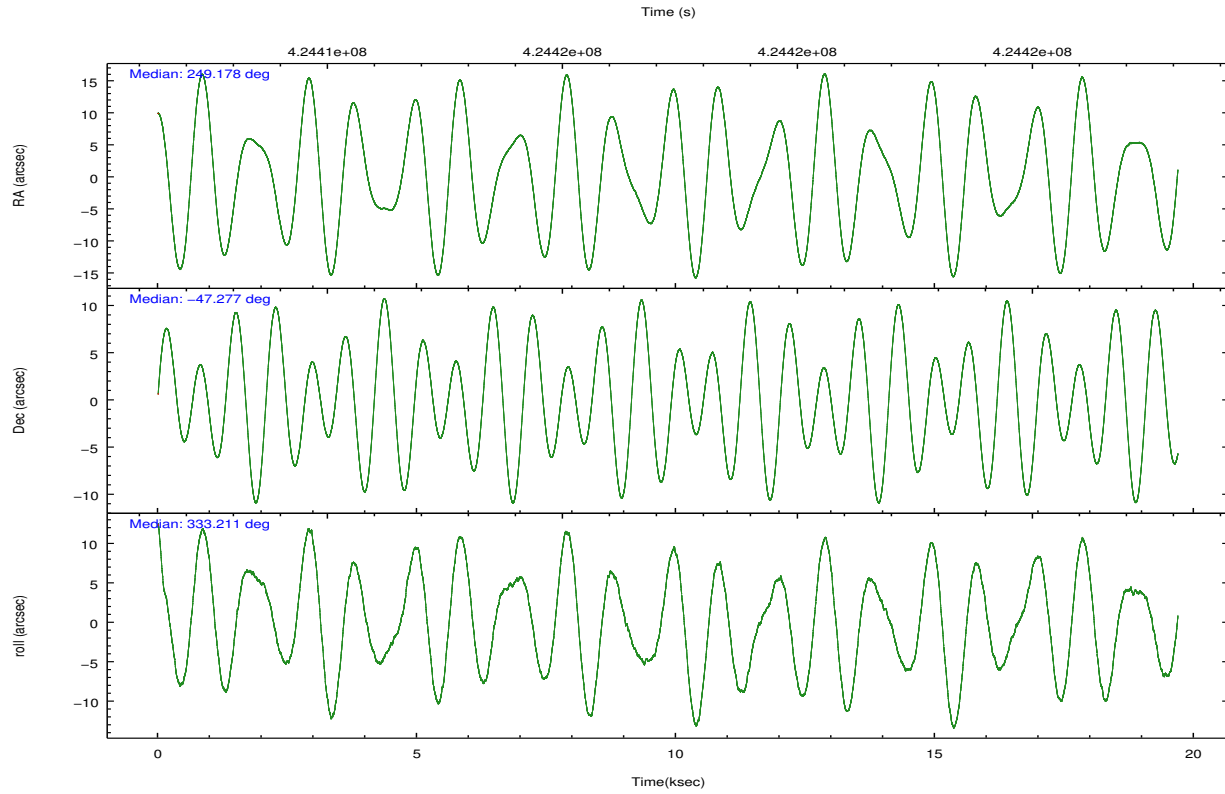
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|-------|-------|--------|-------|--------|-------|
| level 1 events | 108308 | 115158 | 125598 | 118897 | 125743 | 155336 | grade 0 events | 5656 | 6527 | 5570 | 5477 | 5502 | 6164 |
| rejected events | 93585 | 98387 | 111296 | 104881 | 110652 | 85363 | | 5% | 5% | 4% | 4% | 4% | 3% |
| rejected % | 86% | 85% | 88% | 88% | 87% | 54% | grade 1 events | 64 | 72 | 56 | 84 | 83 | 189 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 3387 | 3578 | 3157 | 2886 | 3407 | 14429 |
| | | | | | | | | 3% | 3% | 2% | 2% | 2% | 9% |
| | | | | | | | grade 3 events | 1490 | 1614 | 1455 | 1391 | 1468 | 6085 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 4 events | 1366 | 1544 | 1472 | 1443 | 1455 | 5893 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 5 events | 4926 | 5313 | 4592 | 5717 | 5920 | 15766 |
| | | | | | | | | 4% | 4% | 3% | 4% | 4% | 10% |
| | | | | | | | grade 6 events | 2827 | 3513 | 2651 | 2823 | 3263 | 37414 |
| | | | | | | | | 2% | 3% | 2% | 2% | 2% | 24% |
| | | | | | | | grade 7 events | 88592 | 92997 | 106645 | 99076 | 104645 | 69396 |
| | | | | | | | | 81% | 80% | 84% | 83% | 83% | 44% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-012367 | ACIS-012367 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | CCD I0 on | Y | Y |
| Observation mode | POINTING | POINTING | CCD I1 on | Y | Y |
| [deg] Pointing RA | 249.137641 | 249.1780608905304 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | -47.278199 | -47.27652879431258 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 332.978914 | 333.2172934336754 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | CCD S1 on | N | N |
| [mm] SIM defocus | 0 | 0.001439871863259334 | CCD S2 on | O2 | Y |
| [mm] SIM translation stage pos | -233.592463 | -233.5899487761303 | CCD S3 on | O1 | Y |
| [mm] SIM translation stage offset | 0 | -0.002504226799430853 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 424407595.184000 | 424407218.85756 | CCD S5 on | N | N |
| Observation start date | 2011-06-14T02:58:49 | 2011-06-14T02:53:38 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 424427095.184000 | 424427228.9086 | On-chip summing requested | N | N |
| Observation end date | 2011-06-14T08:23:49 | 2011-06-14T08:27:08 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



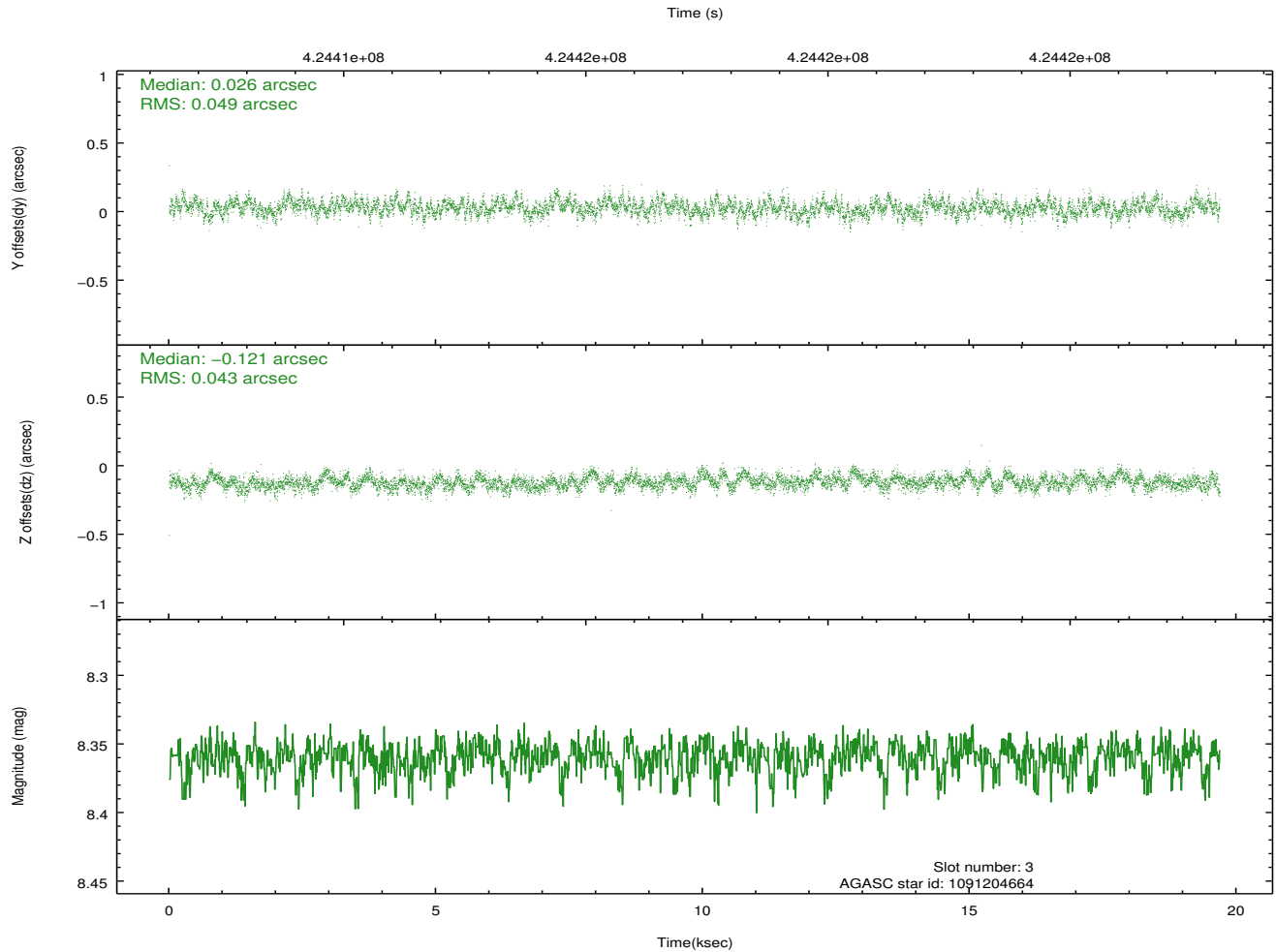
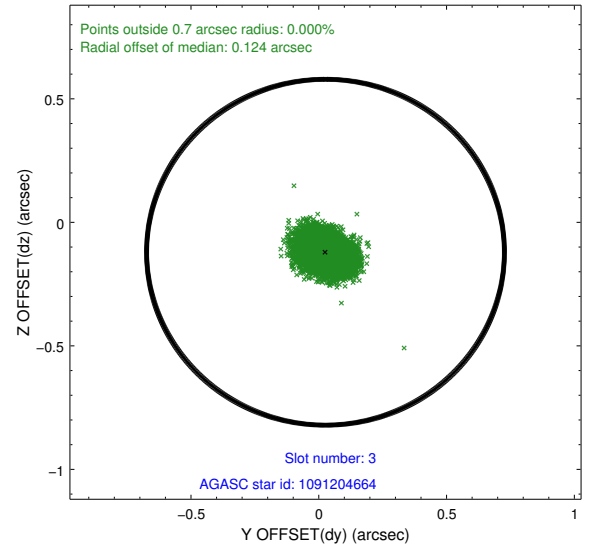
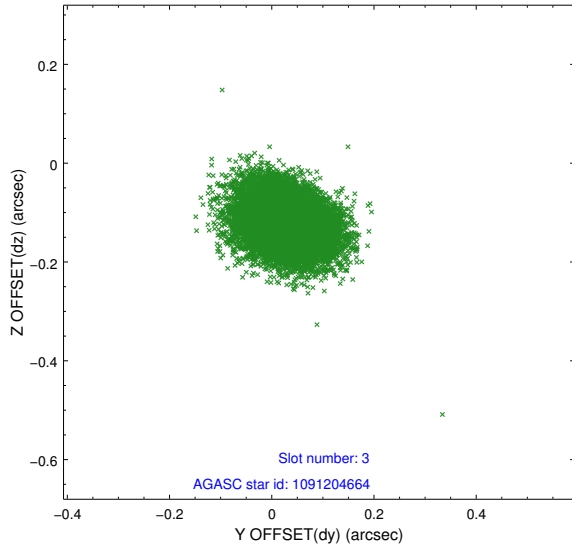


Slot Statistics

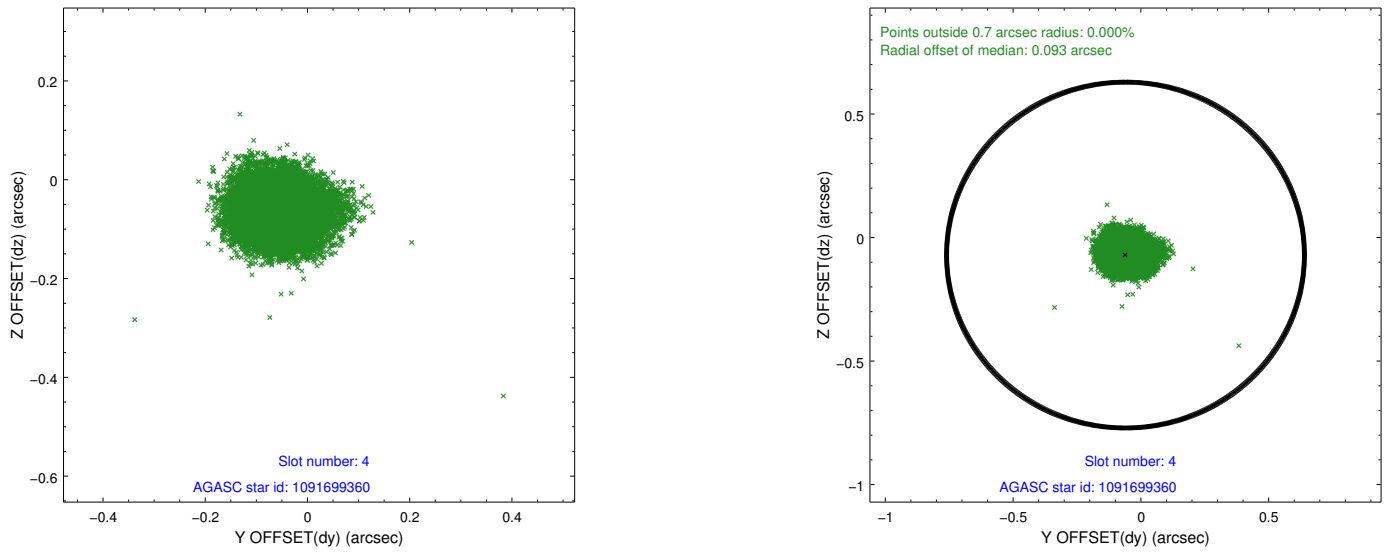
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.16 | 4802 | 0.028 | -0.006 | 0.018 | 0.062 | 0.000000 | 0.000000 | 928.91 | -836.28 |
| 1 | FID | ACIS-I-4 | 7.09 | 4803 | 0.146 | 0.014 | 0.014 | 0.043 | 0.000000 | 0.000000 | 2149.18 | 1063.46 |
| 2 | FID | ACIS-I-5 | 7.14 | 4803 | -0.271 | 0.064 | 0.017 | 0.024 | 0.000000 | 0.000000 | -1819.14 | 1061.59 |
| 3 | GUIDE | 1091204664 | 8.36 | 9600 | 0.026 | -0.121 | 0.070 | 0.113 | 248.658352 | -46.526357 | -2285.43 | 1868.51 |
| 4 | GUIDE | 1091699360 | 7.44 | 9605 | -0.060 | -0.071 | 0.072 | 0.112 | 248.660725 | -47.004364 | -1489.20 | 343.26 |
| 5 | GUIDE | 1091702440 | 8.72 | 9602 | 0.038 | 0.244 | 0.099 | 0.161 | 248.295809 | -47.683380 | -1149.39 | -2236.11 |
| 6 | GUIDE | 1091709768 | 7.70 | 9606 | -0.039 | 0.073 | 0.054 | 0.088 | 249.435228 | -47.706899 | 1344.55 | -1048.62 |
| 7 | GUIDE | 1091709800 | 9.16 | 9593 | 0.037 | -0.123 | 0.111 | 0.170 | 249.801955 | -47.310212 | 1501.33 | 626.82 |

2.4 Star Slots

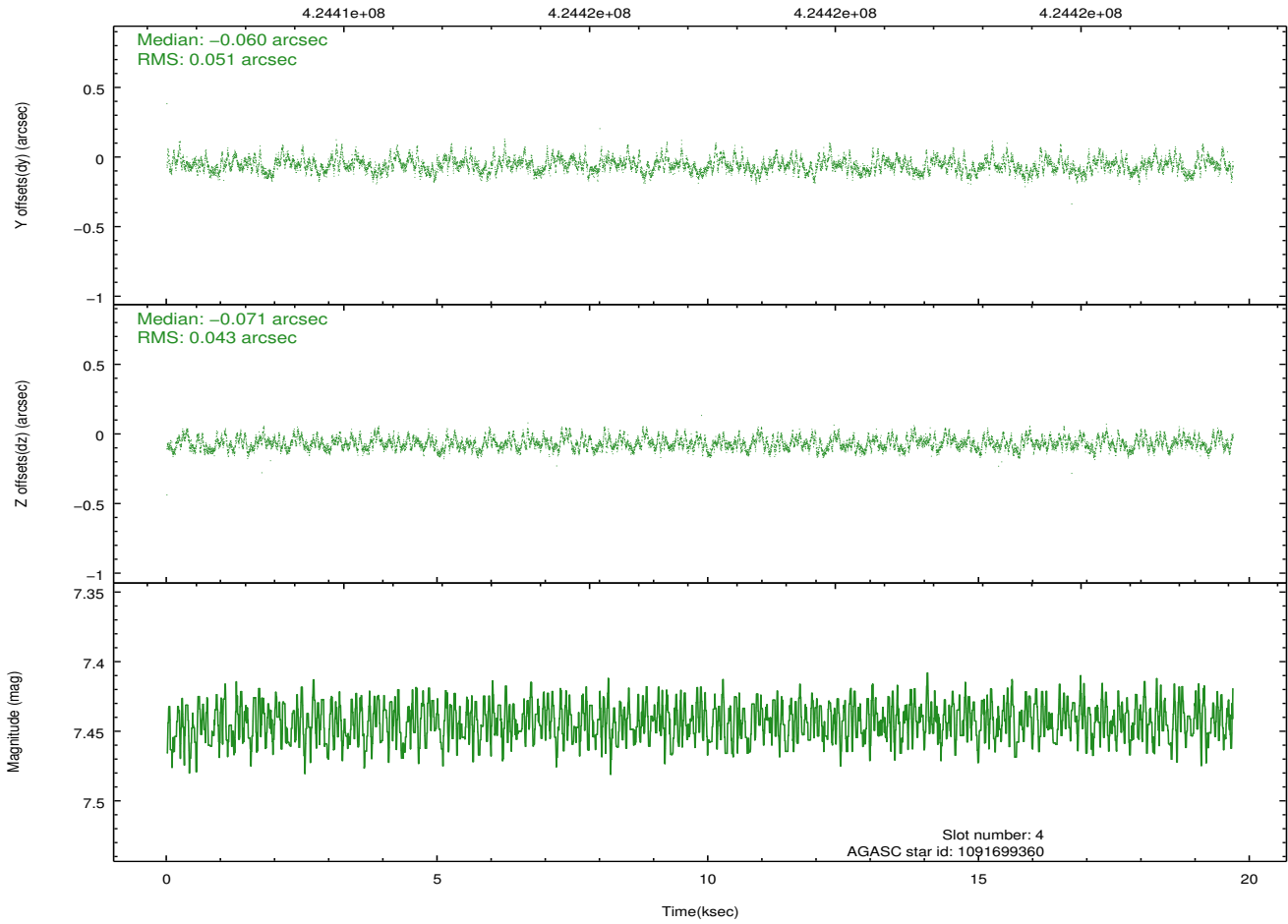
2.4.1 Slot 3



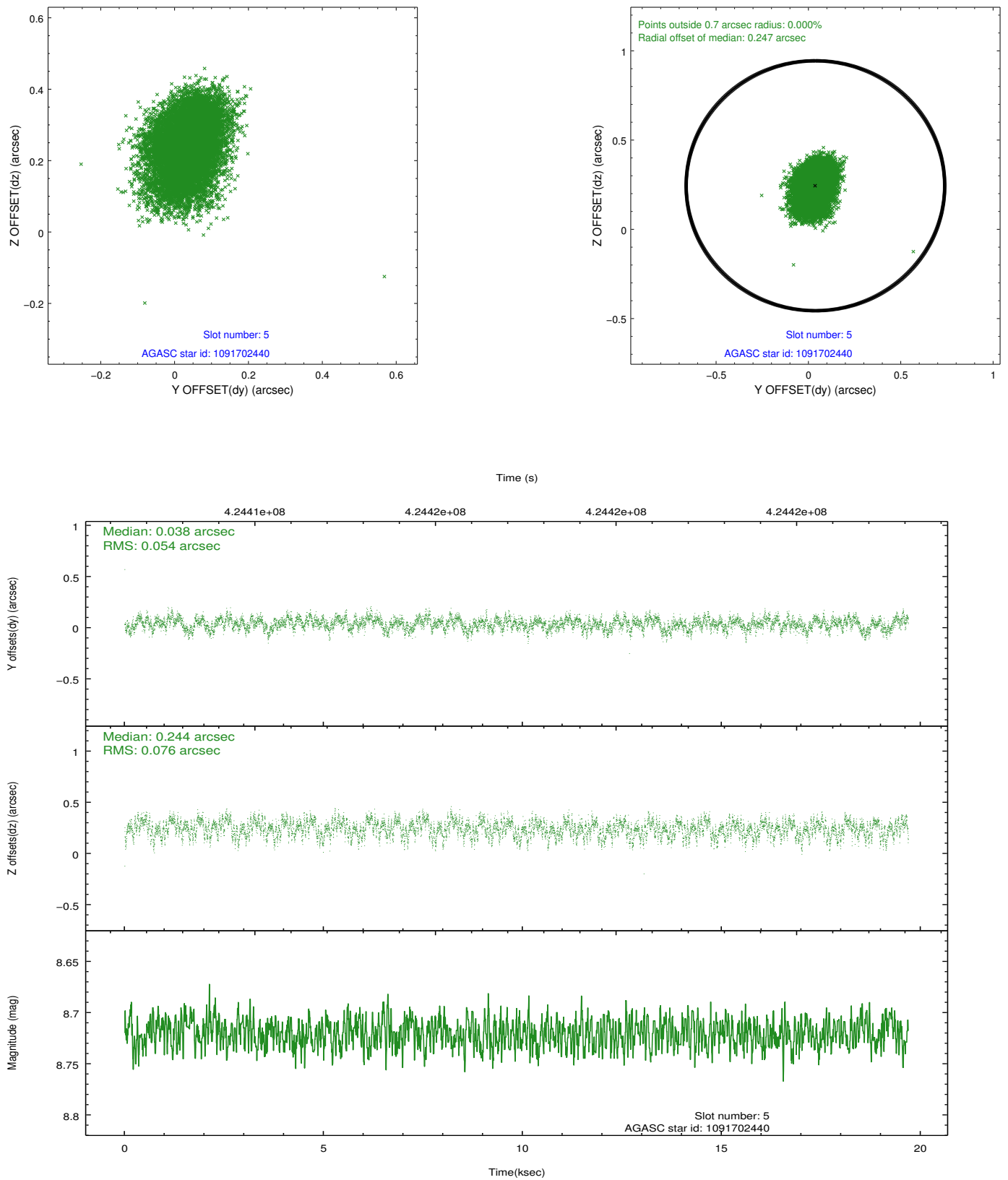
2.4.2 Slot 4



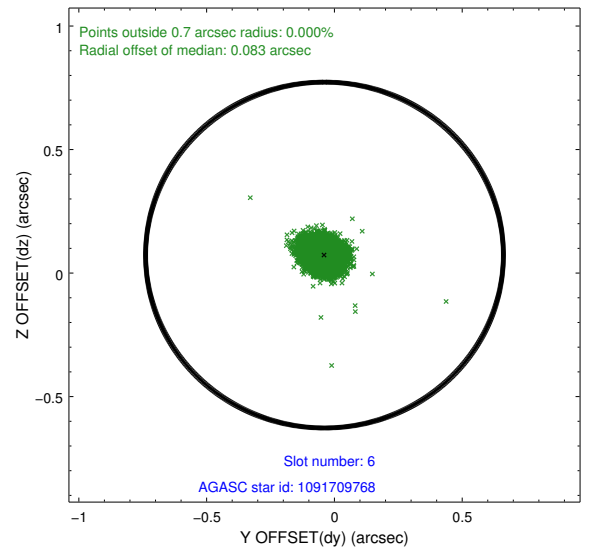
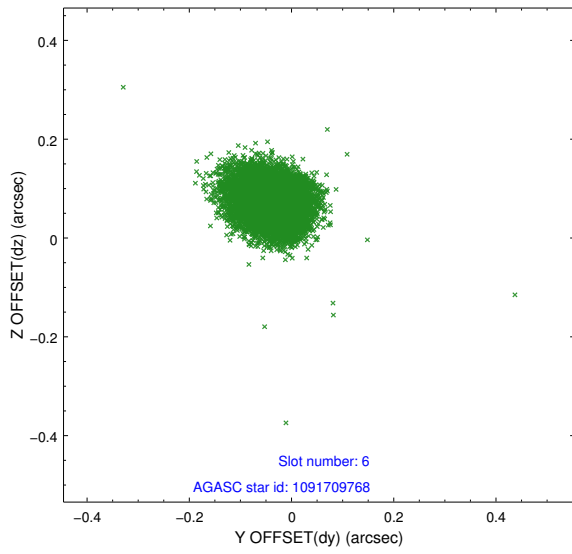
Time (s)



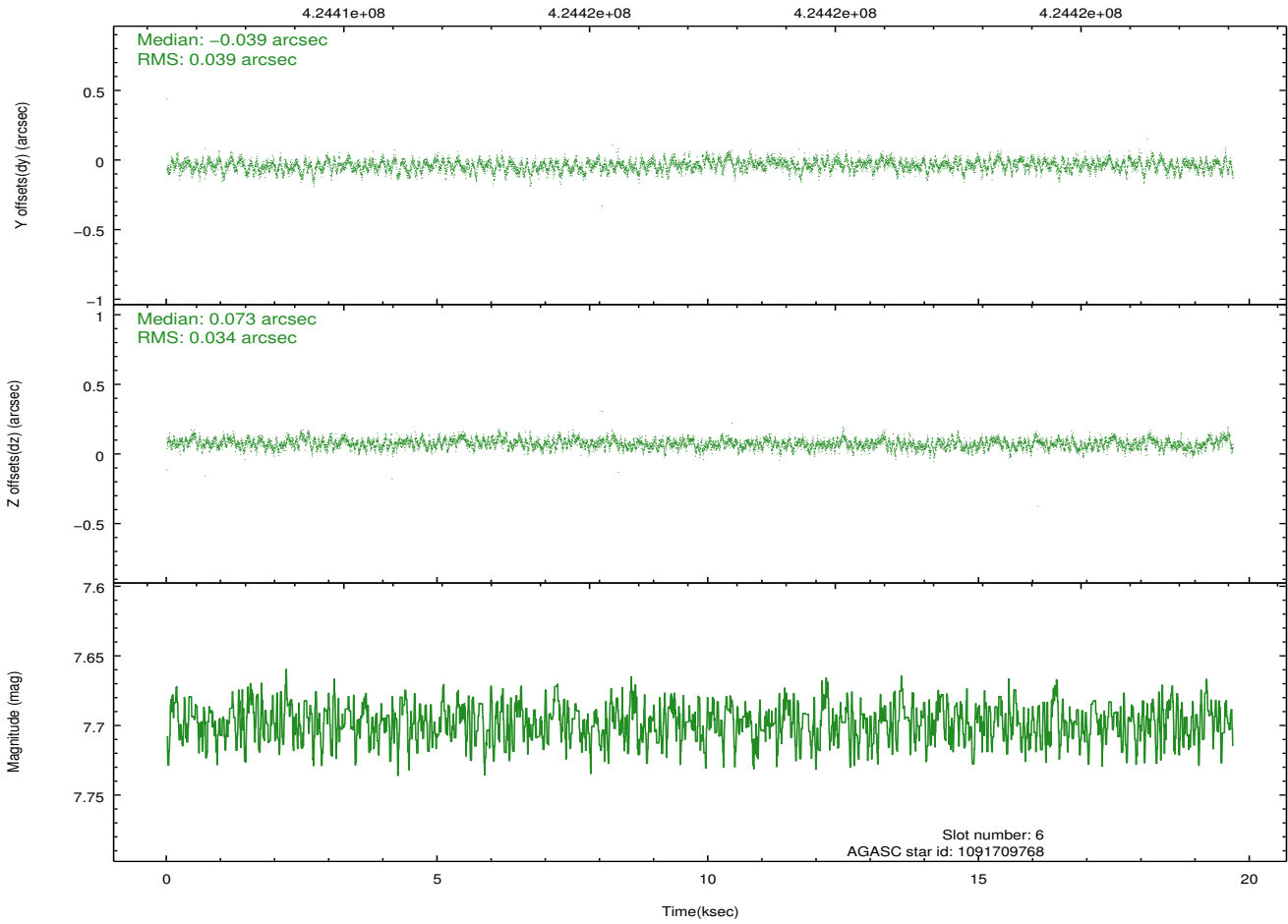
2.4.3 Slot 5



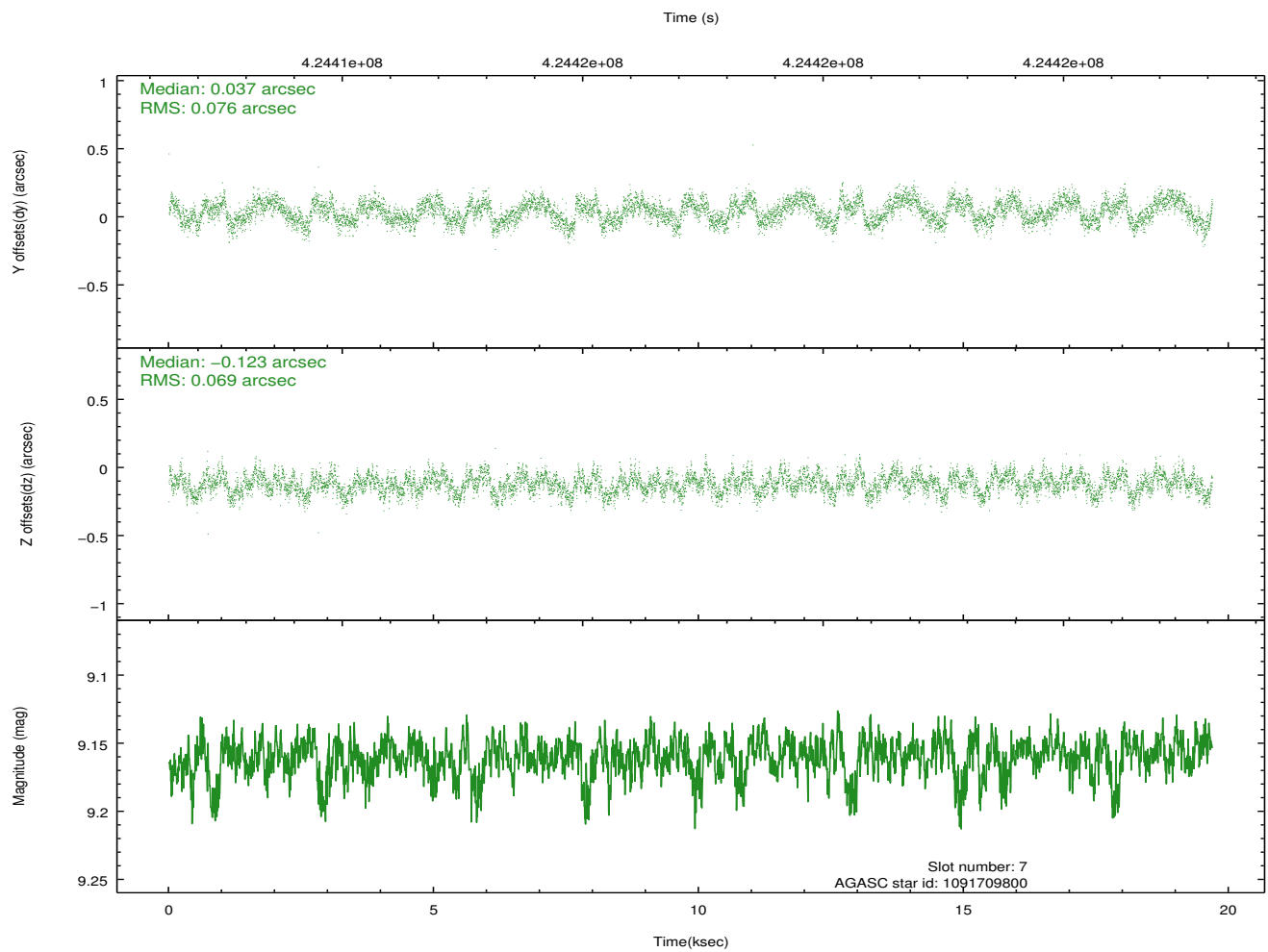
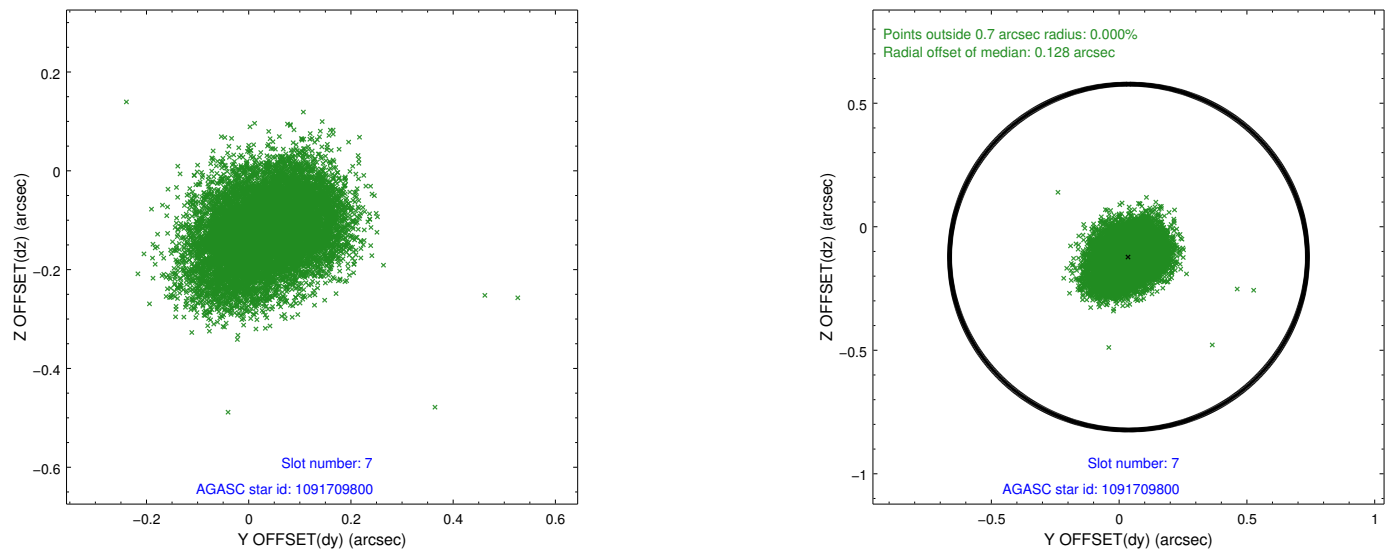
2.4.4 Slot 6



Time (s)

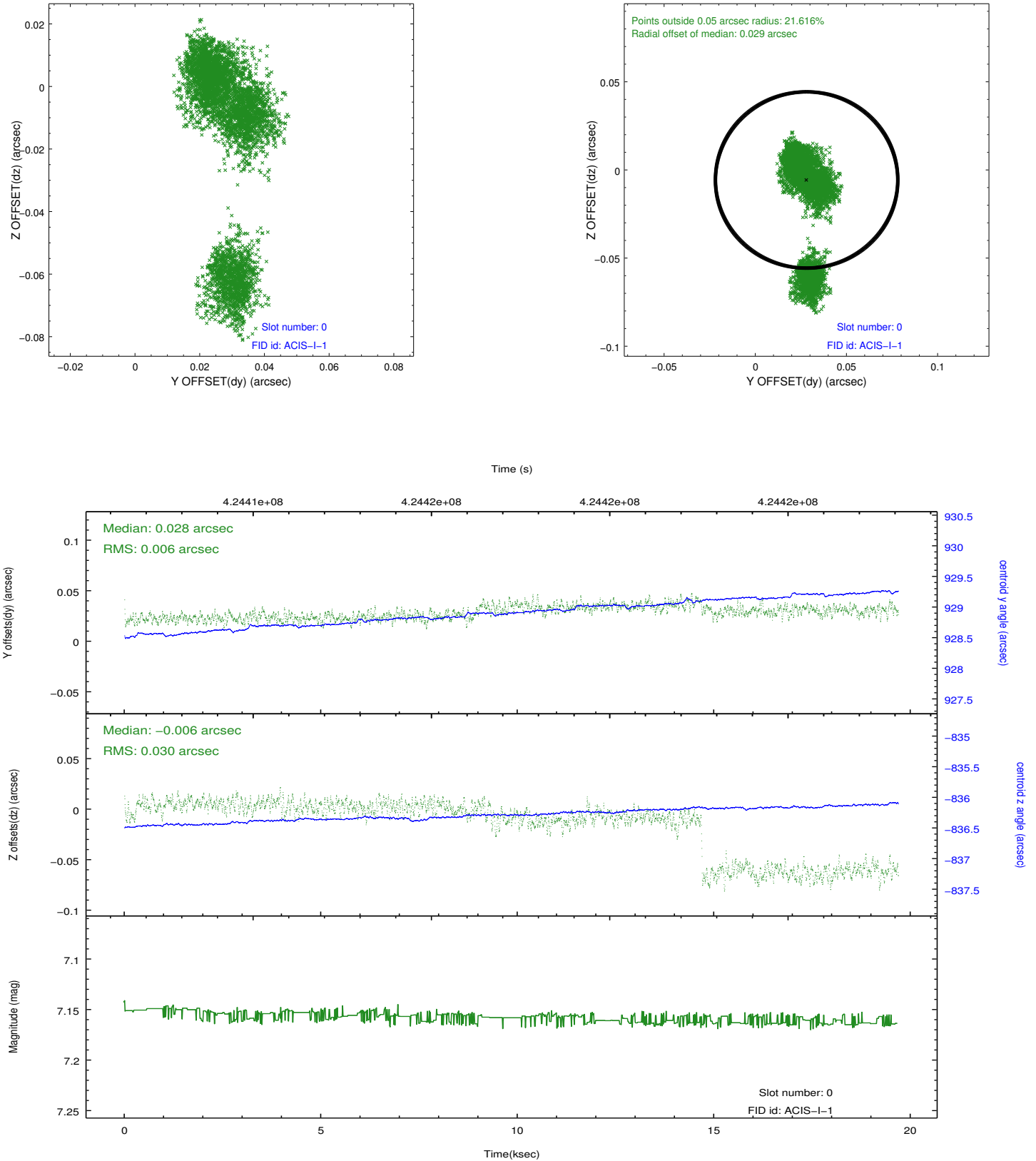


2.4.5 Slot 7

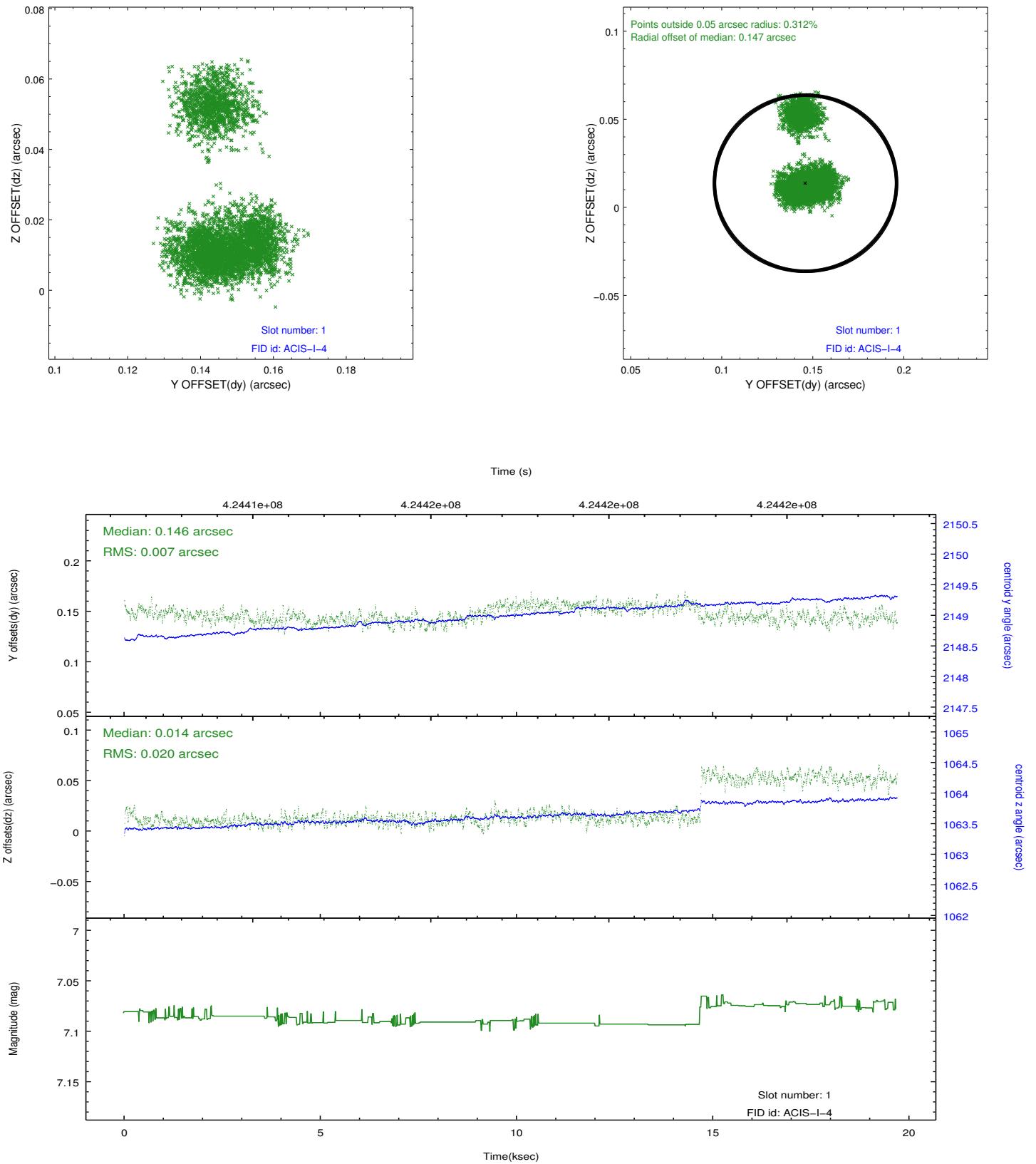


2.5 FID Slots

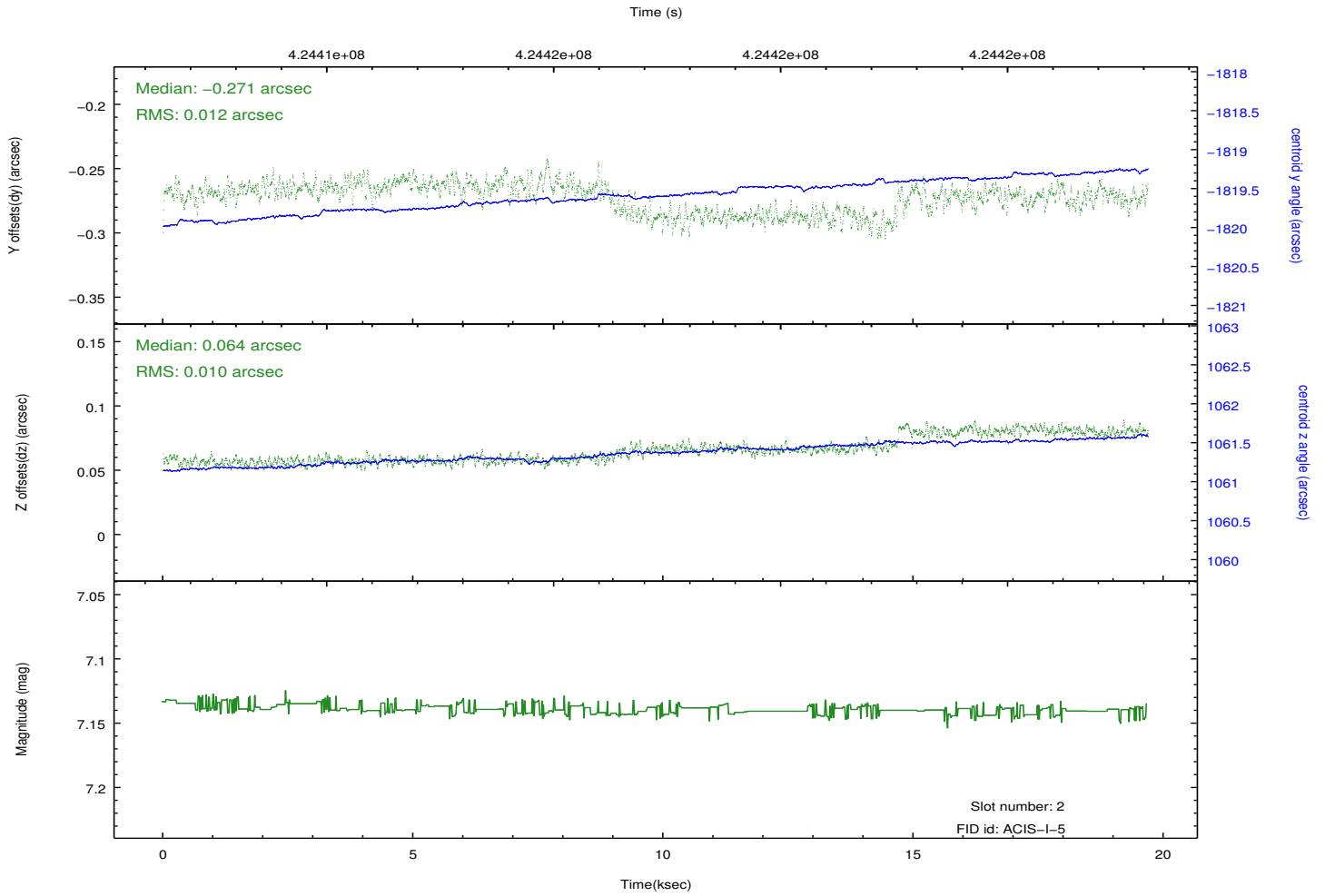
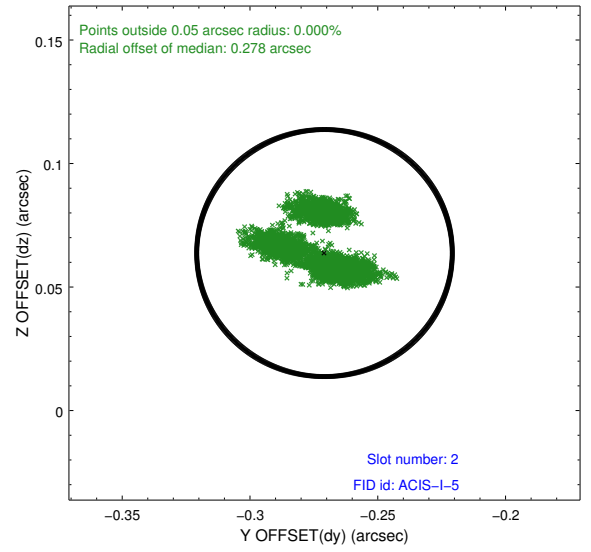
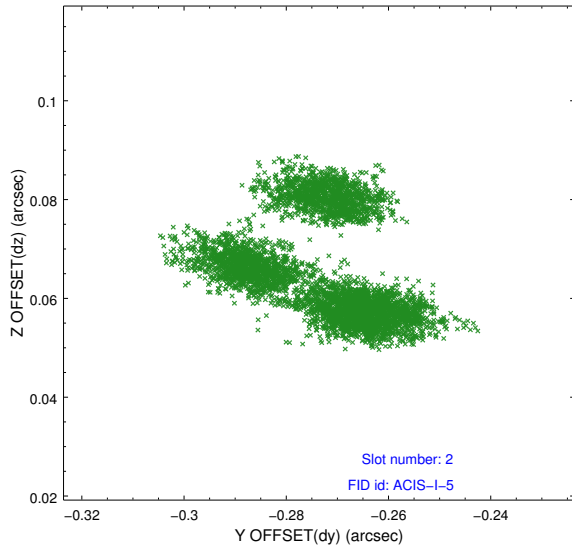
2.5.1 Slot 0



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) | 2012.02.14 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 19.251117777228 |

A.2 Comments

Joint Proposal: NOAO