

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 5424 - L2 Version 3
Chandra X-Ray Center

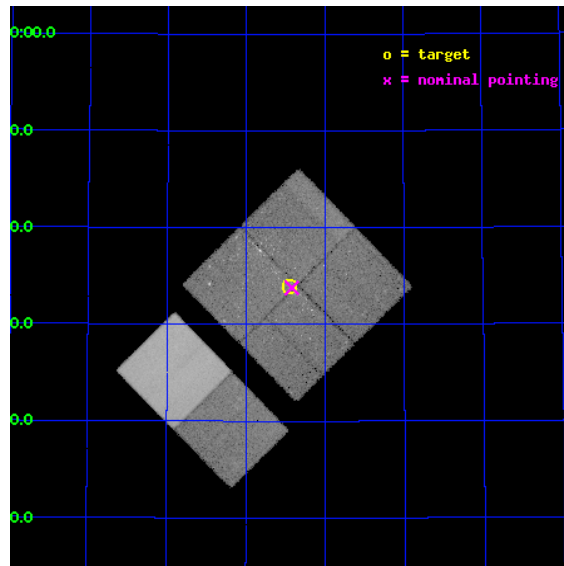
L2 Processing Date : Dec 31 2012

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

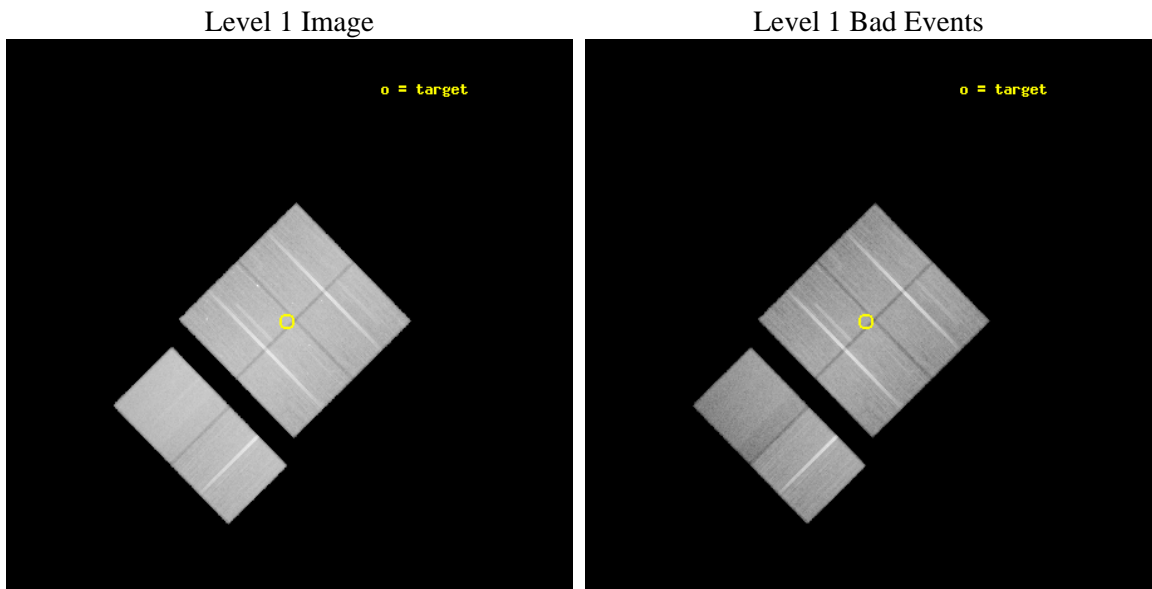
| | | |
|----------|---|---|
| seq_num | 200357 | Sequence number |
| obs_id | 5424 | Observation id |
| title | The power within the PacMan Nebula: Triggered Star Formation in NGC 281 | Proposal title |
| observer | Dr. Scott Wolk | Principal investigator |
| object | NGC 281 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 13.112917 | Observer's specified target RA [deg] |
| dec_targ | 56.565 | Observer's specified target Dec [deg] |
| ra_nom | 13.105129338361 | Nominal RA [deg] |
| dec_nom | 56.563209937938 | Nominal Dec [deg] |
| roll_nom | 225.51519191969 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 62658.994755328 | Sum of GTIs [s] |
| livetime | 61865.568835019 | Livetime [s] |
| ontime0 | 62671.95878613 | Sum of GTIs [s] |
| ontime1 | 62671.958776236 | Sum of GTIs [s] |
| ontime2 | 62655.753854573 | Sum of GTIs [s] |
| ontime3 | 62658.994755328 | Sum of GTIs [s] |
| ontime6 | 62675.199766517 | Sum of GTIs [s] |
| ontime7 | 62675.199766517 | Sum of GTIs [s] |
| l2events | 381036 | Number of level 2 events |



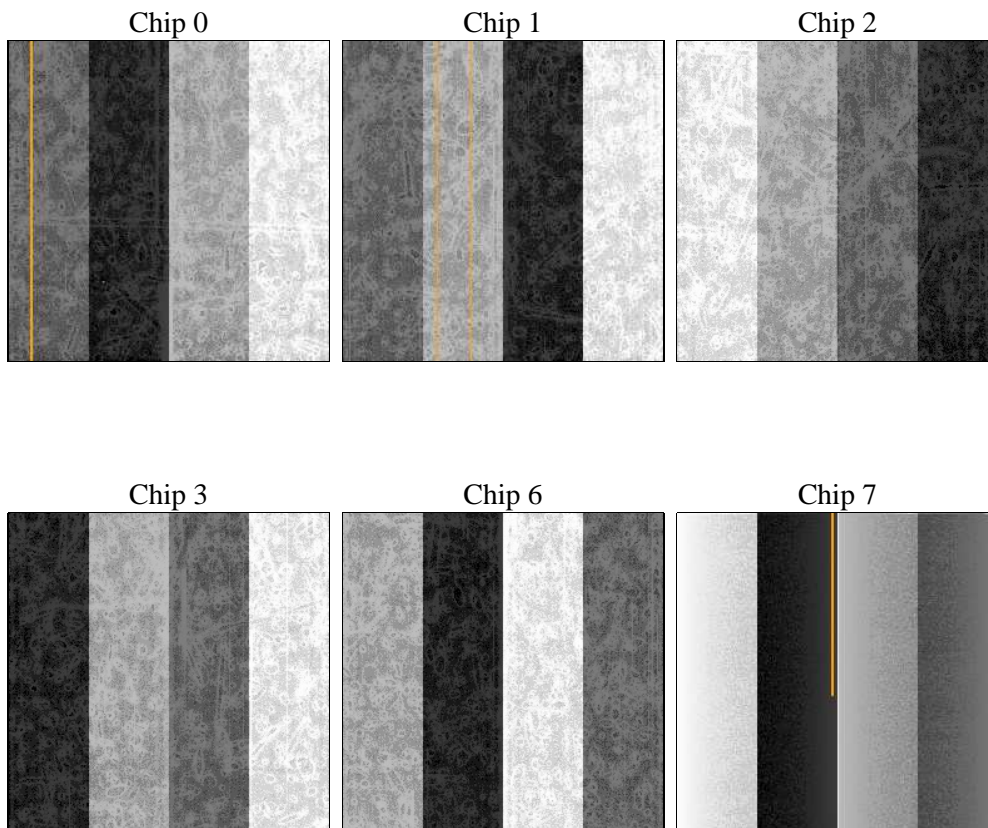
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 62533.802000 | [s] Scheduled observation exposure time |
| ascdsver | 8.5.1.1 | Processing system revision | ontime | 62658.994755328 | Sum of GTIs [s] |
| caldbver | 4.5.5 | | ontime0 | 62671.95878613 | Sum of GTIs [s] |
| date | 2012-12-31T13:37:04 | Date and time of file creation | ontime1 | 62671.958776236 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 62655.753854573 | Sum of GTIs [s] |
| | | | ontime3 | 62658.994755328 | Sum of GTIs [s] |
| | | | ontime6 | 62675.199766517 | Sum of GTIs [s] |
| | | | ontime7 | 62675.199766517 | Sum of GTIs [s] |
| | | | l1events | 2556605 | 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 | 396048 | 394664 | 444284 | 421957 | 436558 | 463094 | grade 0 events | 13867 | 17932 | 15527 | 17800 | 14285 | 17202 |
| rejected events | 356036 | 347011 | 403059 | 378280 | 393965 | 256010 | | 3% | 4% | 3% | 4% | 3% | 3% |
| rejected % | 89% | 87% | 90% | 89% | 90% | 55% | grade 1 events | 201 | 202 | 251 | 239 | 222 | 407 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 9382 | 10208 | 9359 | 8855 | 9300 | 41547 |
| | | | | | | | | 2% | 2% | 2% | 2% | 2% | 8% |
| | | | | | | | grade 3 events | 4700 | 5178 | 4329 | 4631 | 4790 | 19160 |
| | | | | | | | | 1% | 1% | 0% | 1% | 1% | 4% |
| | | | | | | | grade 4 events | 4464 | 5097 | 4681 | 4564 | 4809 | 19137 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 5 events | 14006 | 15528 | 13421 | 16542 | 16533 | 48683 |
| | | | | | | | | 3% | 3% | 3% | 3% | 3% | 10% |
| | | | | | | | grade 6 events | 7690 | 9333 | 7416 | 7913 | 9502 | 110408 |
| | | | | | | | | 1% | 2% | 1% | 1% | 2% | 23% |
| | | | | | | | grade 7 events | 341738 | 331186 | 389300 | 361413 | 377117 | 206550 |
| | | | | | | | | 86% | 83% | 87% | 85% | 86% | 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 | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 13.117383 | 13.10512933836078 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 56.589758 | 56.56320993793769 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 225.296276 | 225.5151919196903 | [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) | 248035289.184000 | 248034031.06128 | | | |
| Observation start date | 2005-11-10T18:40:25 | 2005-11-10T18:20:31 | | | |
| [s] Observation end time (MET) | 248097822.184000 | 248098061.78923 | | | |
| Observation end date | 2005-11-11T12:02:38 | 2005-11-11T12:07:41 | | | |
| Read mode | TIMED | TIMED | | | |

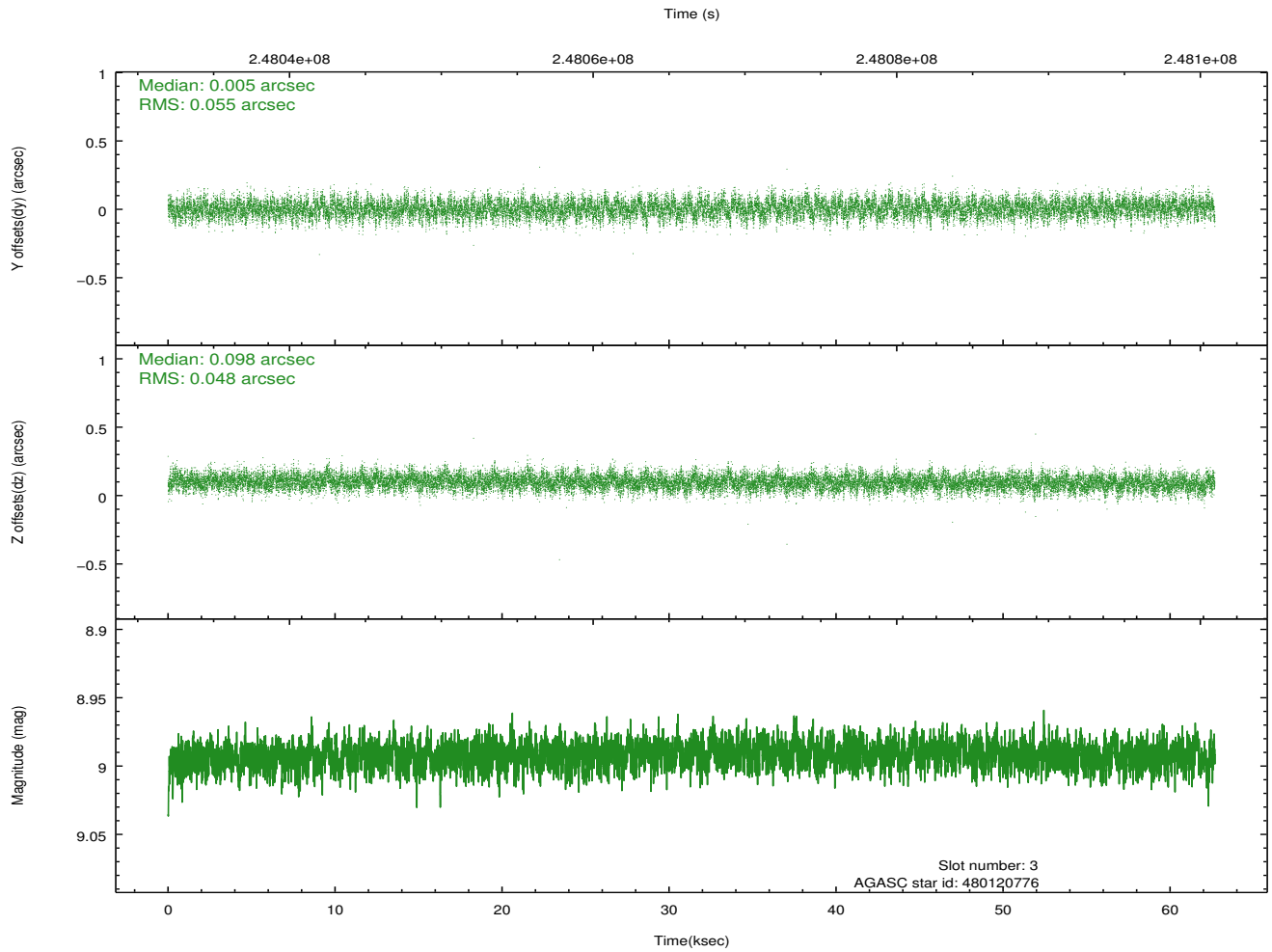
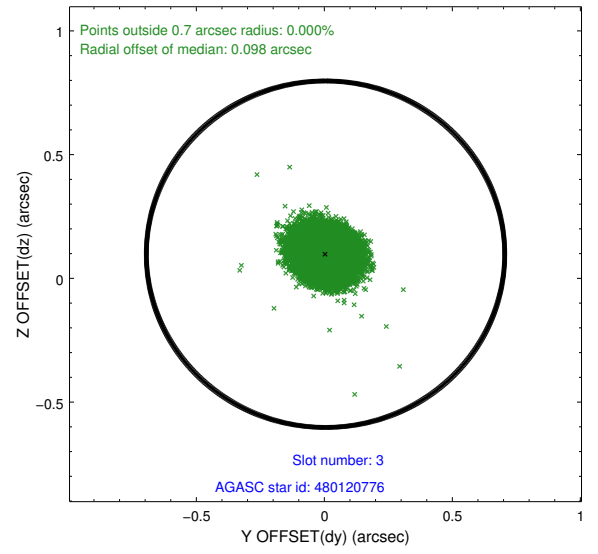
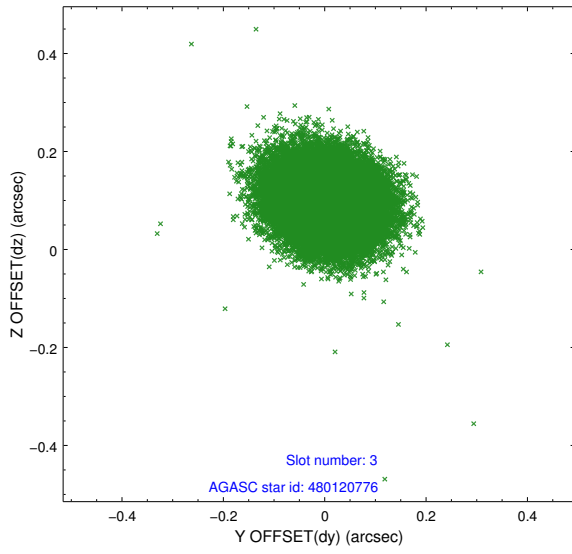
2.3 Aspect

Slot Statistics

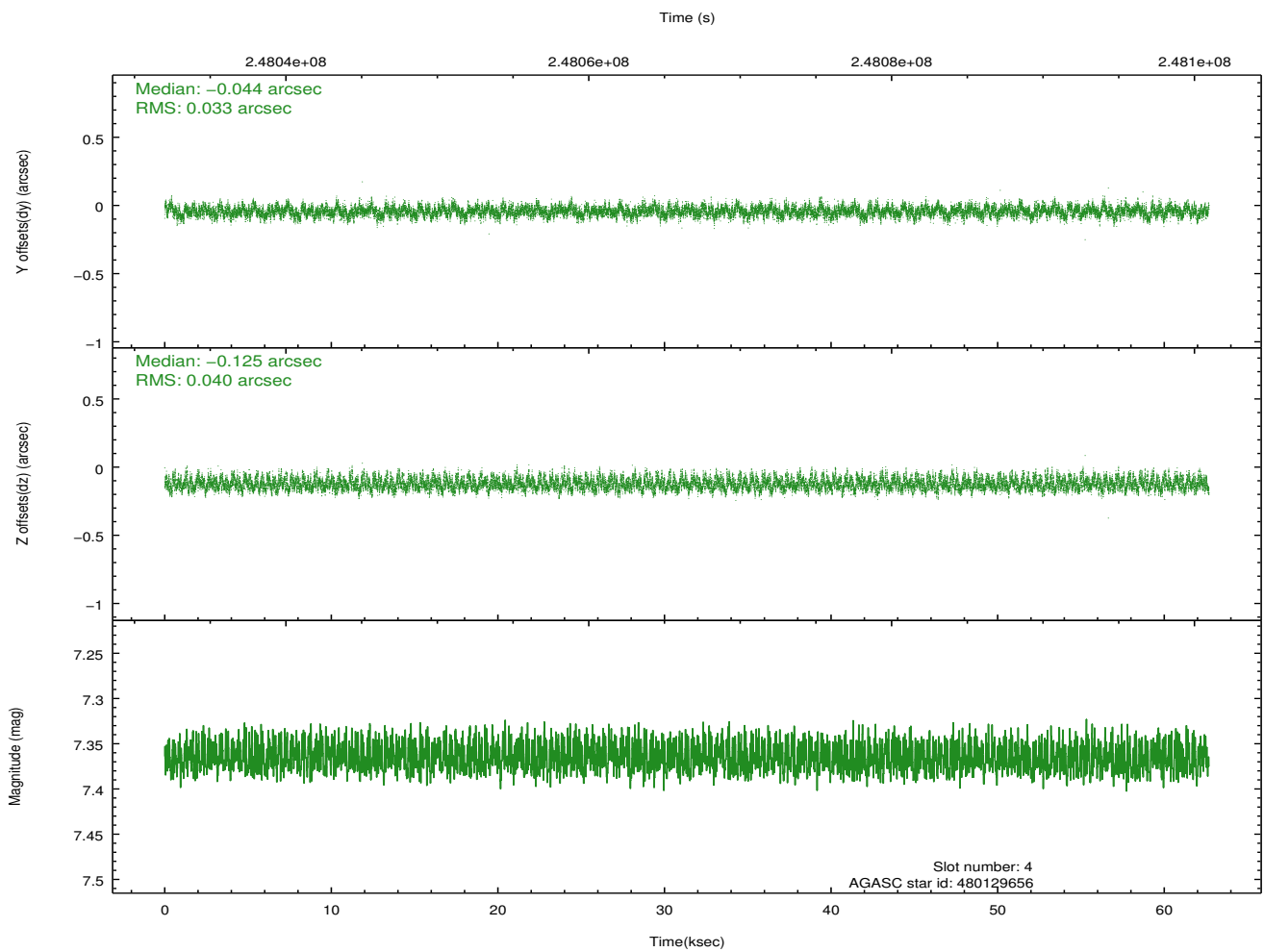
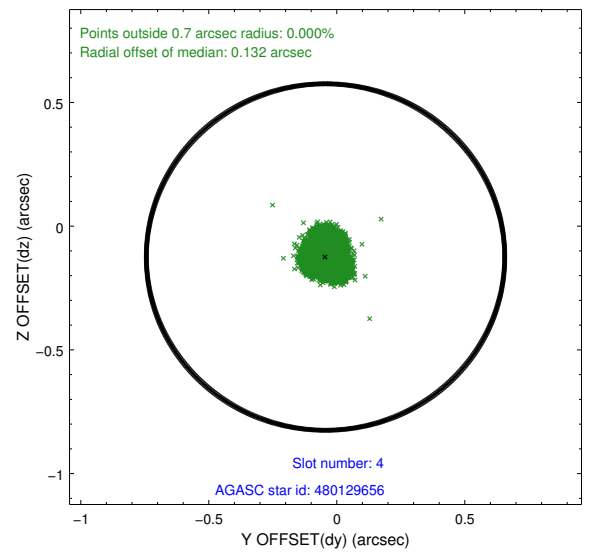
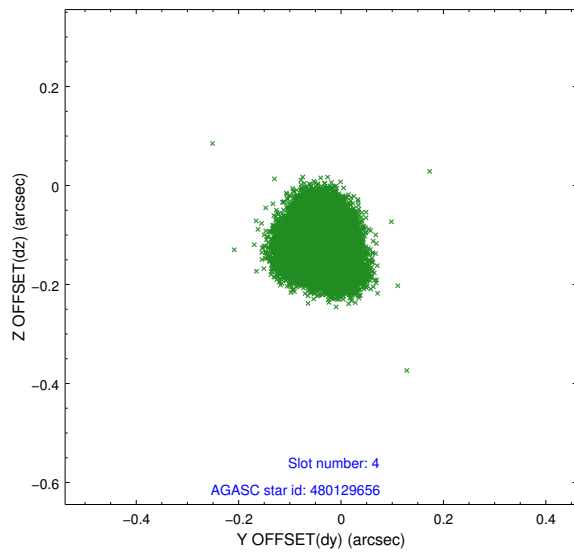
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0 | FID | ACIS-I-4 | 7.18 | 15288 | 0.140 | 0.014 | 0.023 | 0.035 | 0.000000 | 0.000000 | 2152.30 | 1066.18 |
| 1 | FID | ACIS-I-5 | 7.23 | 15288 | -0.232 | 0.014 | 0.023 | 0.033 | 0.000000 | 0.000000 | -1816.08 | 1063.98 |
| 2 | FID | ACIS-I-6 | 7.26 | 15286 | -0.007 | 0.039 | 0.009 | 0.016 | 0.000000 | 0.000000 | 397.79 | 1708.31 |
| 3 | GUIDE | 480120776 | 8.99 | 30558 | 0.005 | 0.098 | 0.078 | 0.125 | 11.785837 | 56.559271 | 1918.43 | -1817.92 |
| 4 | GUIDE | 480129656 | 7.36 | 30575 | -0.044 | -0.125 | 0.056 | 0.089 | 13.070380 | 56.264365 | 898.85 | 757.36 |
| 5 | GUIDE | 480136328 | 7.71 | 30571 | 0.007 | 0.018 | 0.066 | 0.102 | 13.273425 | 57.219156 | -1824.22 | -1377.92 |
| 6 | GUIDE | 481821576 | 7.92 | 30570 | 0.008 | 0.020 | 0.057 | 0.090 | 13.802183 | 56.483052 | -689.33 | 1232.98 |
| 7 | GUIDE | 479609704 | 8.42 | 30566 | 0.024 | -0.012 | 0.077 | 0.120 | 13.331651 | 55.769395 | 1793.51 | 2385.77 |

2.4 Star Slots

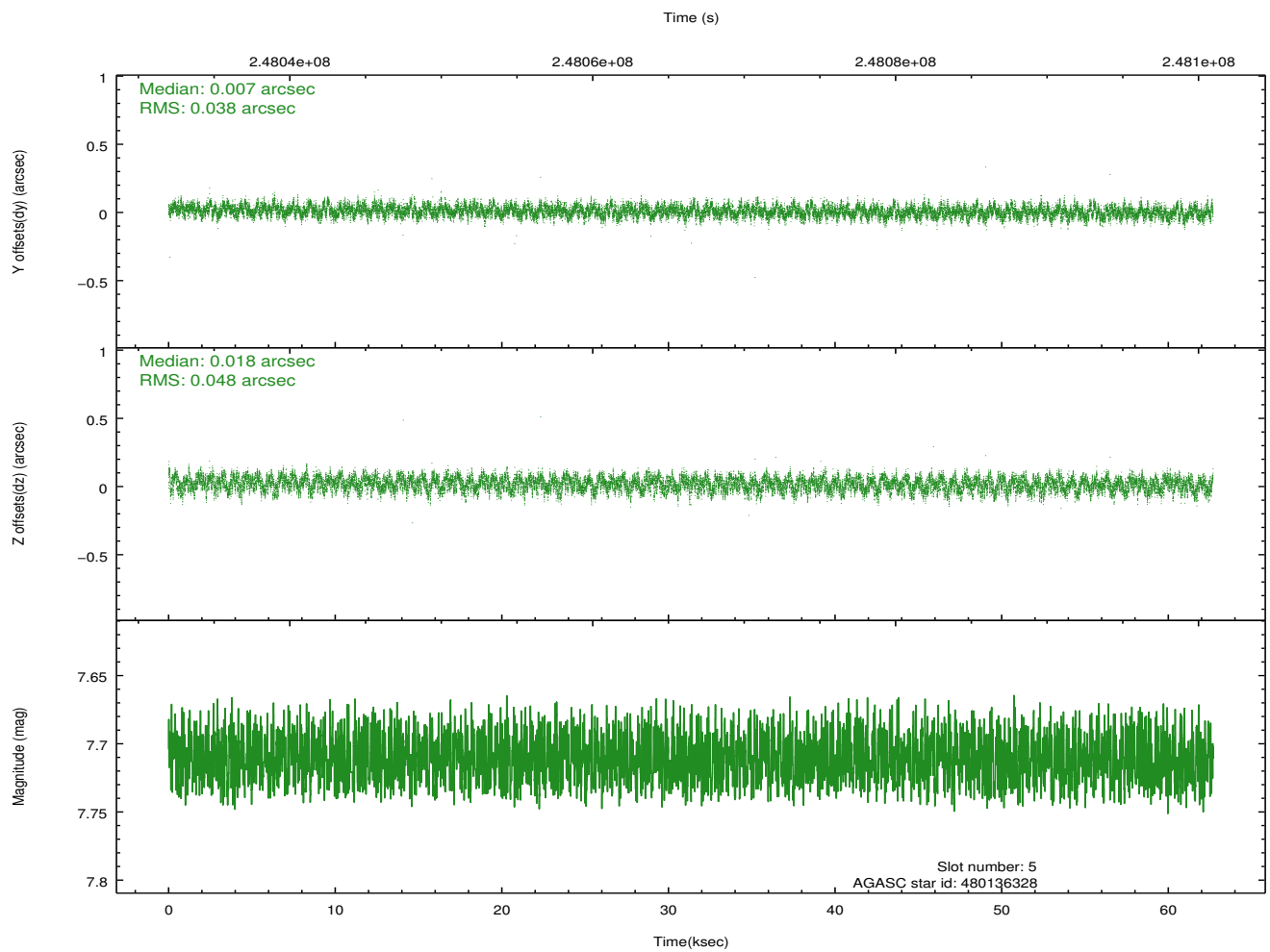
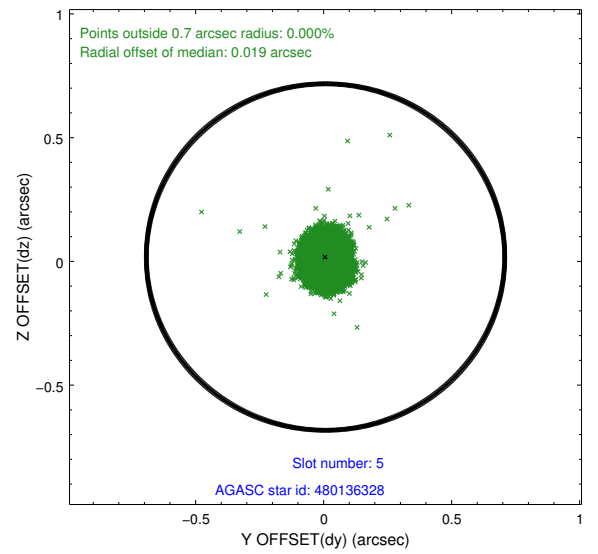
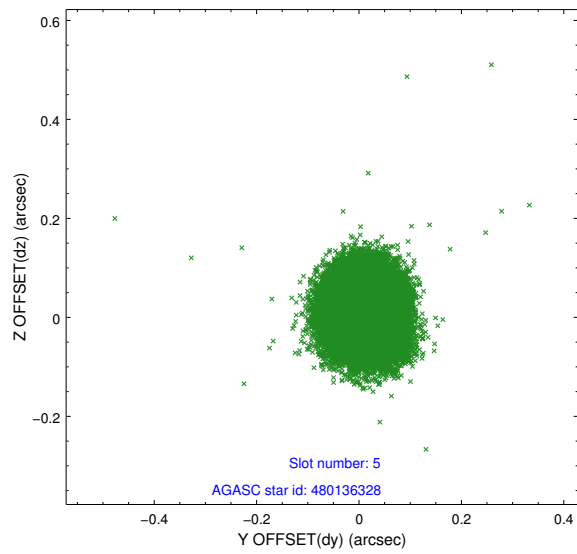
2.4.1 Slot 3



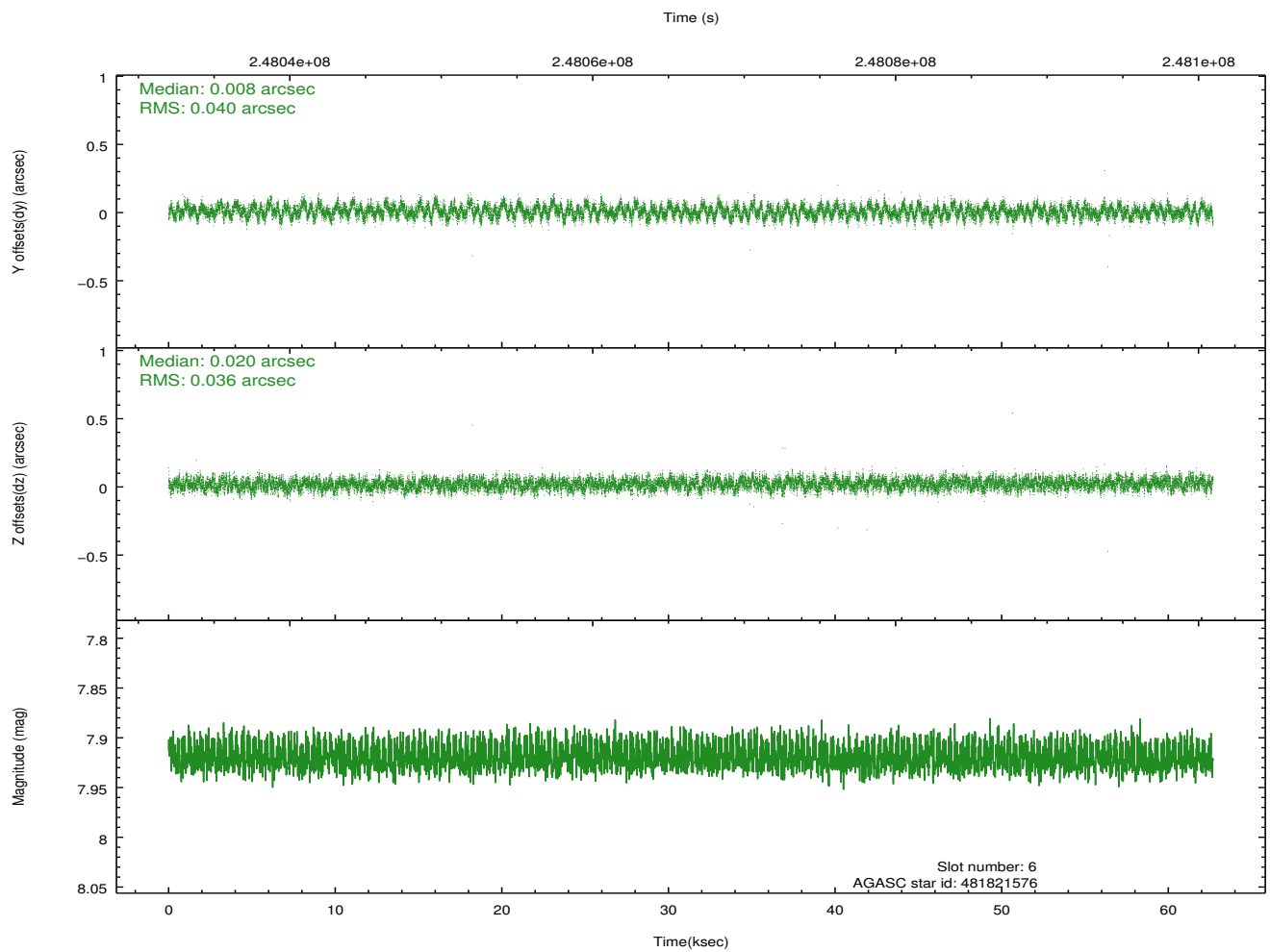
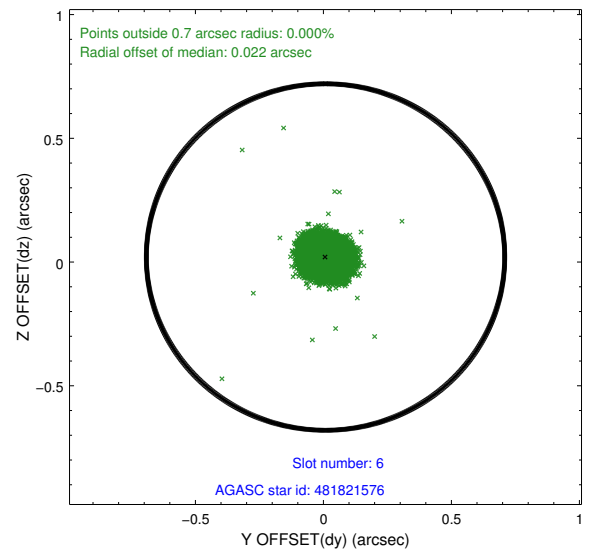
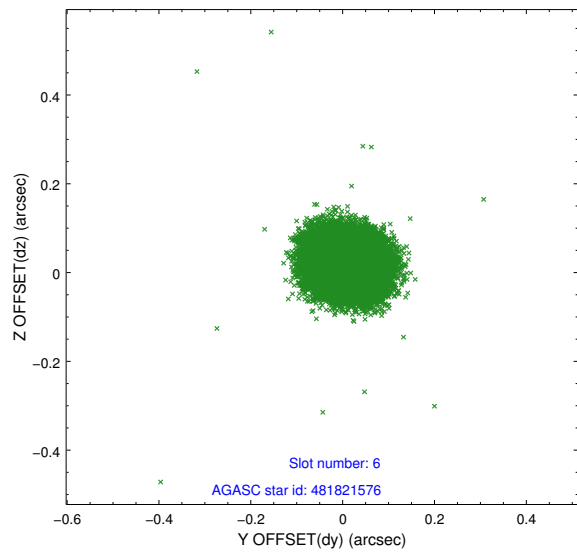
2.4.2 Slot 4



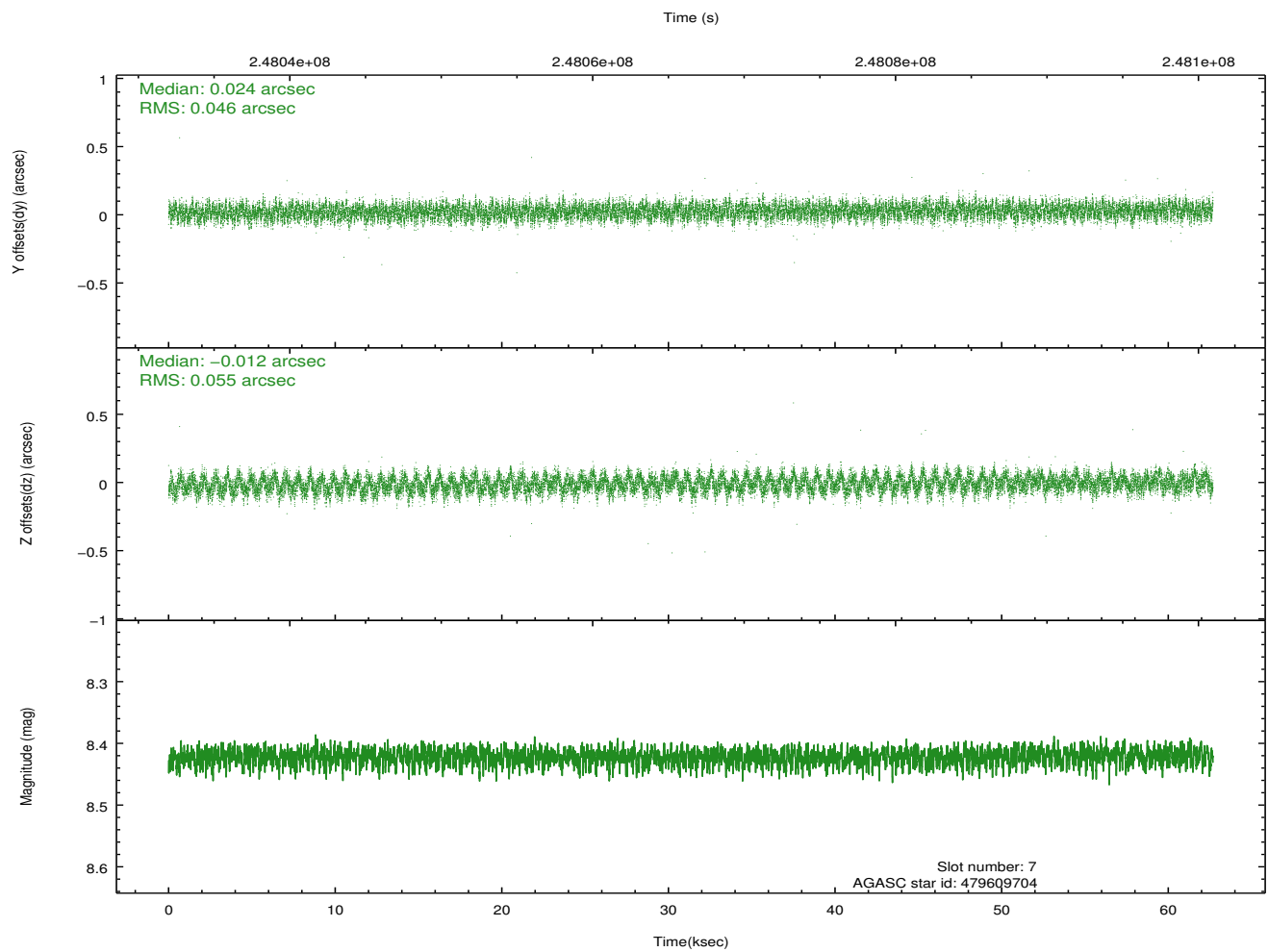
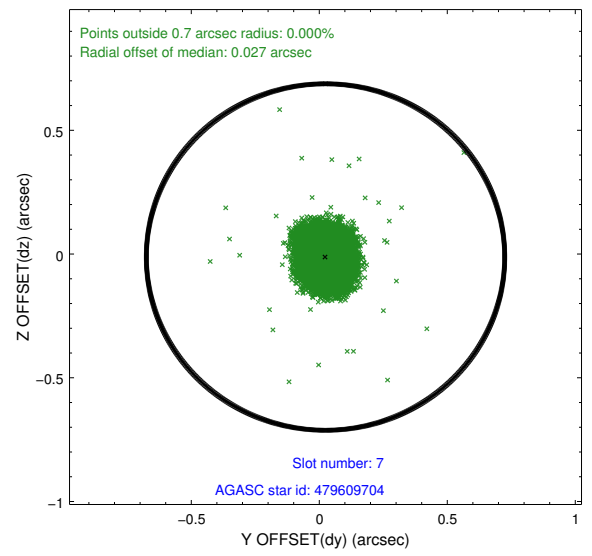
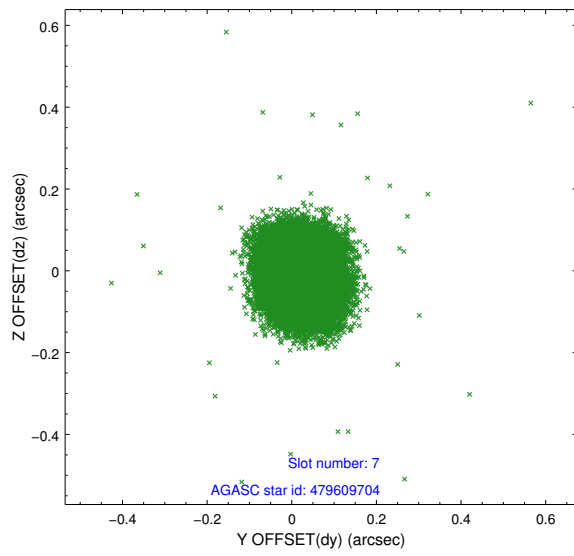
2.4.3 Slot 5



2.4.4 Slot 6

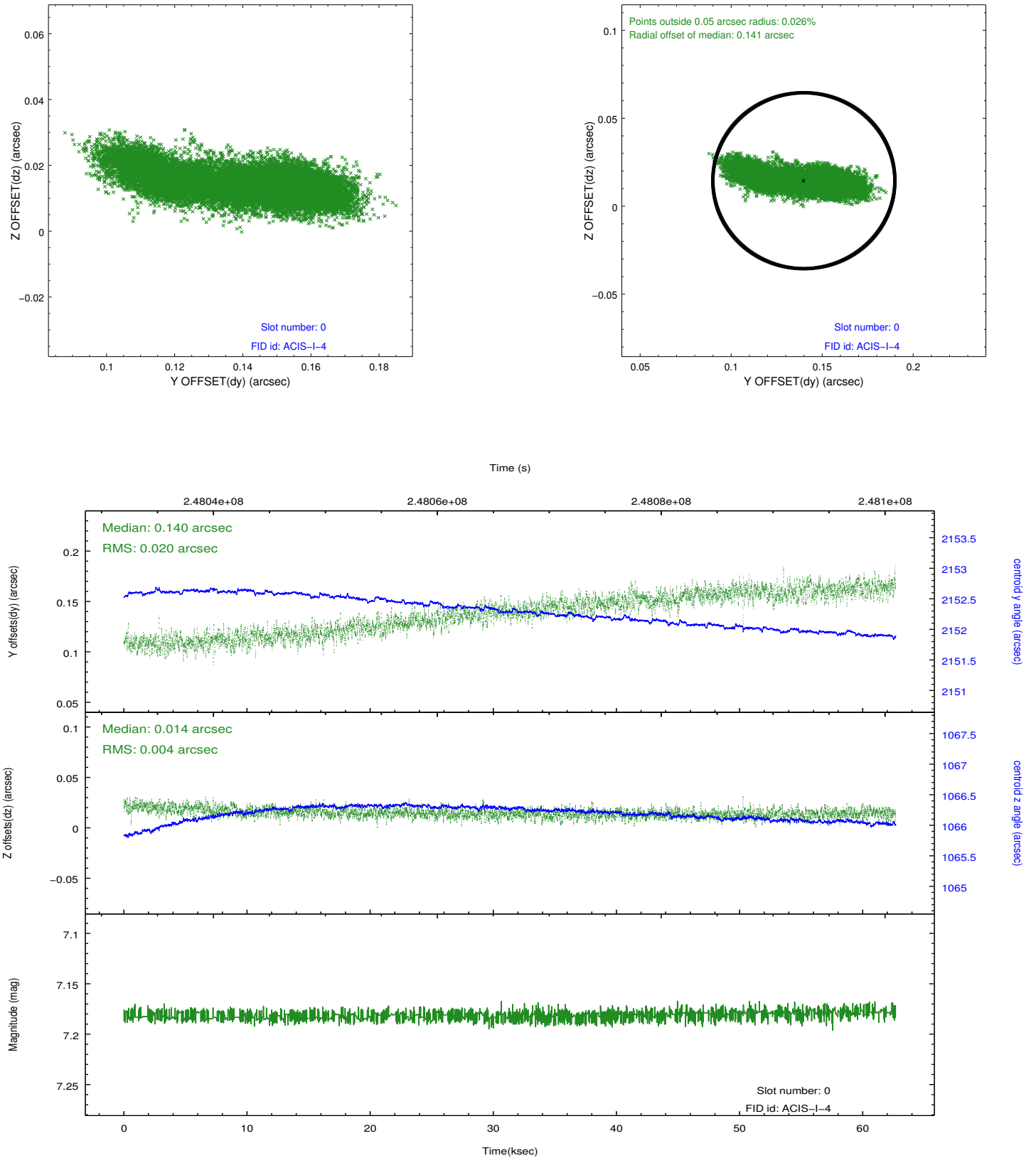


2.4.5 Slot 7

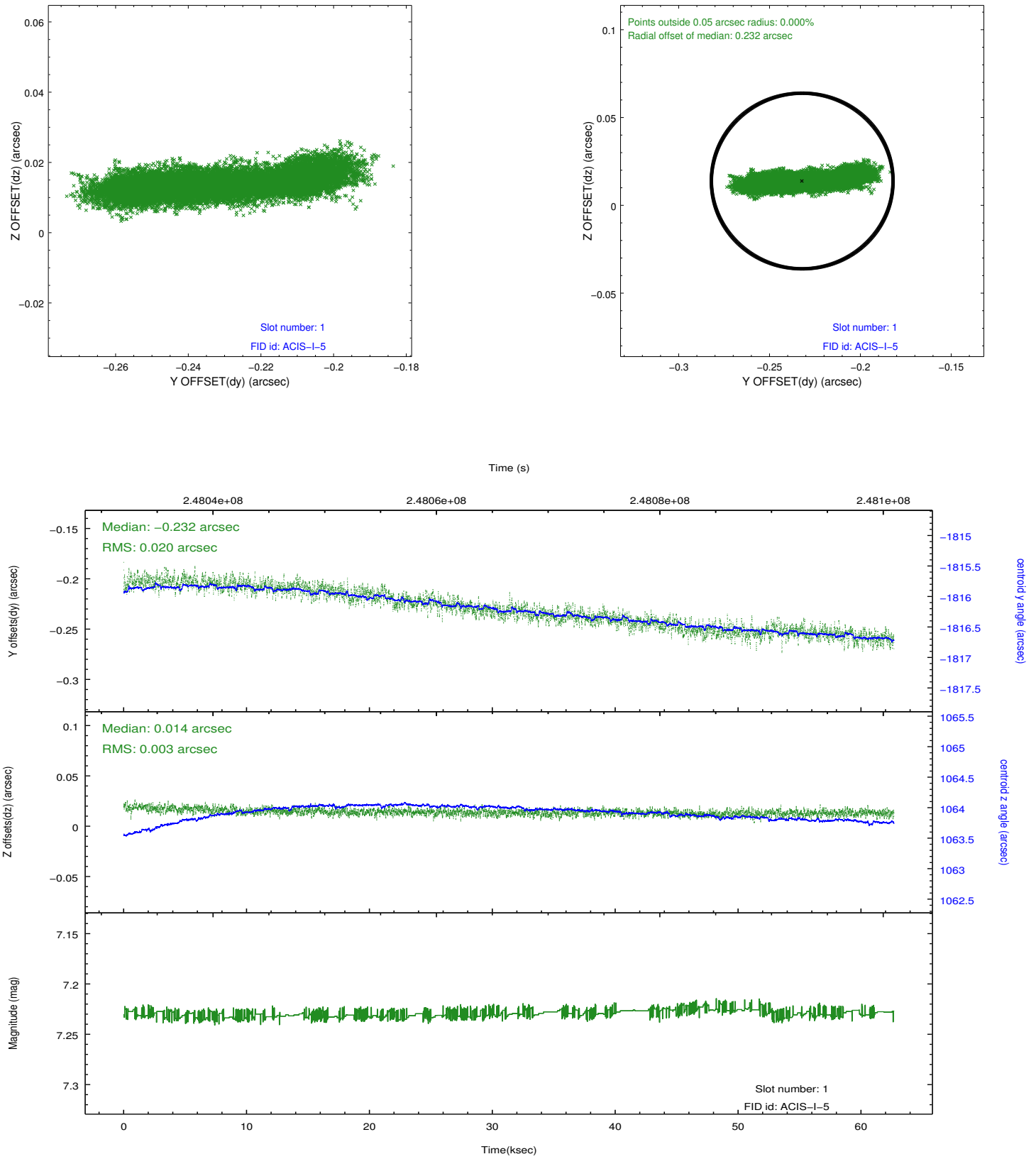


2.5 FID Slots

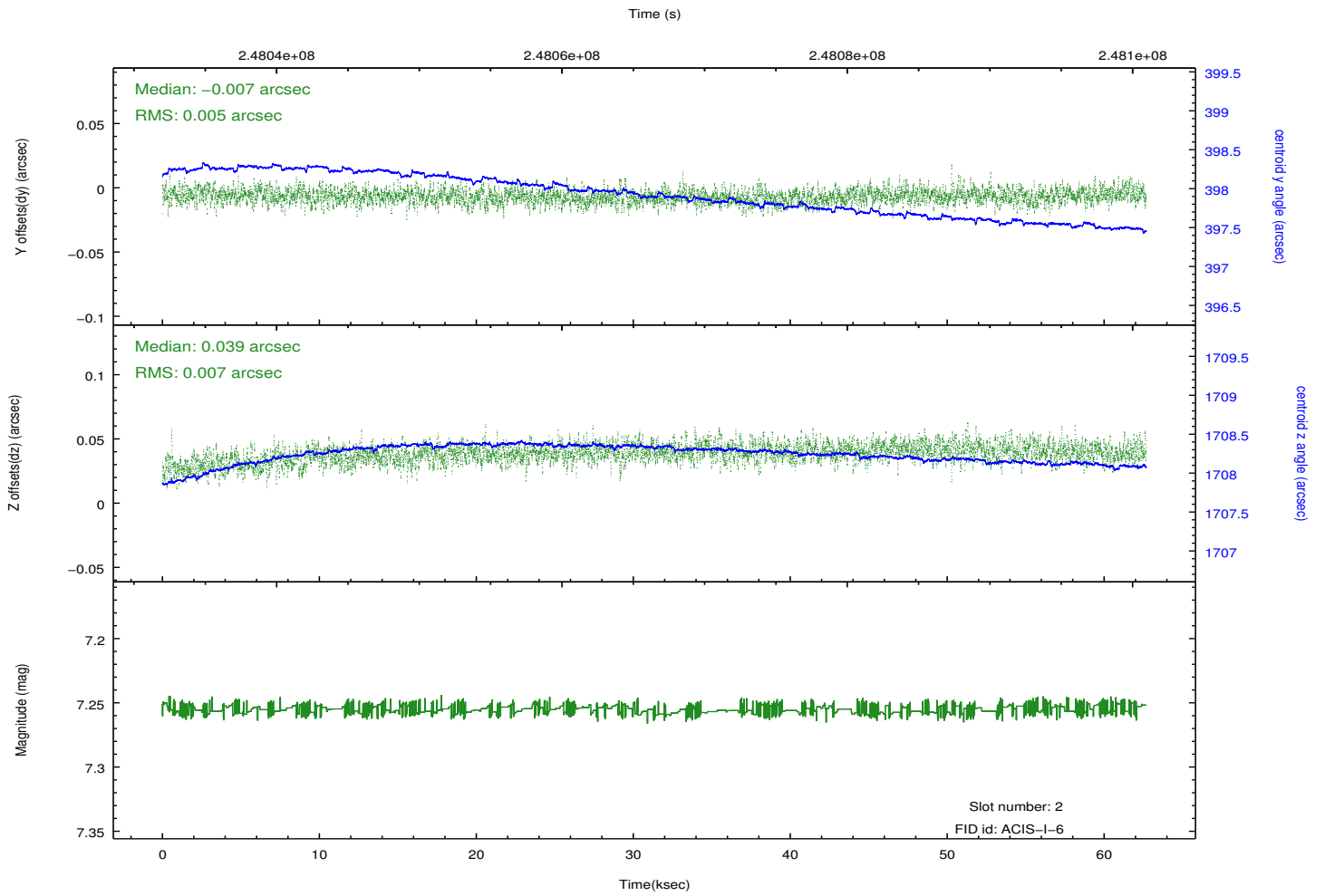
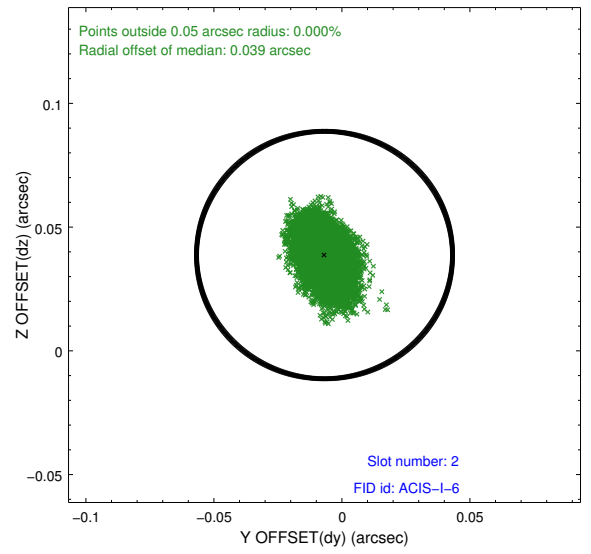
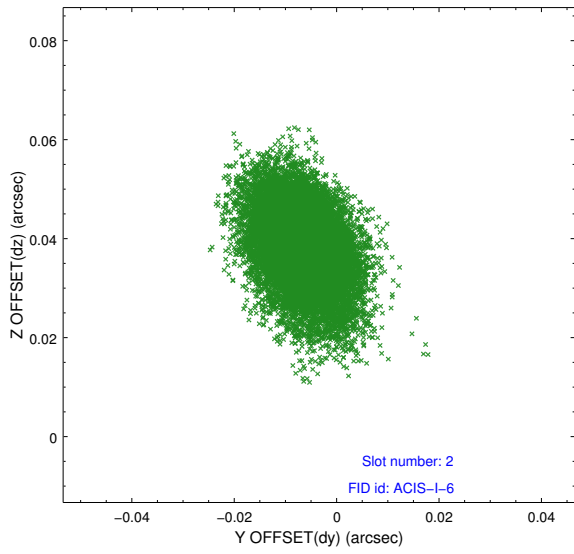
2.5.1 Slot 0



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) | 2013.01.28 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 62.65899 |

A.2 Comments