

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 4626 - L2 Version 3
Chandra X-Ray Center

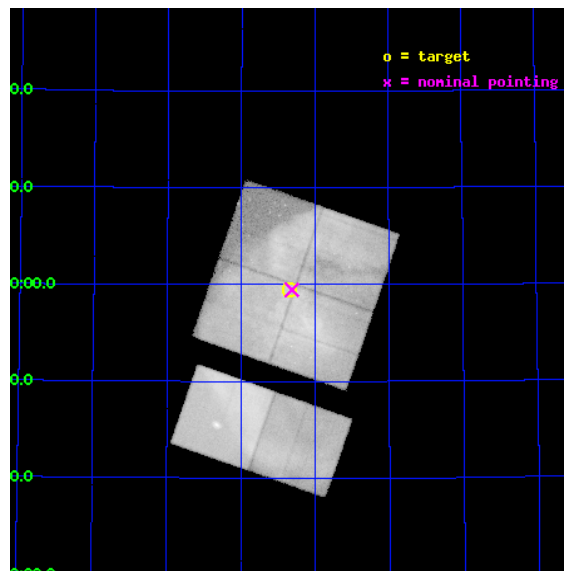
L2 Processing Date : Dec 9 2012

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

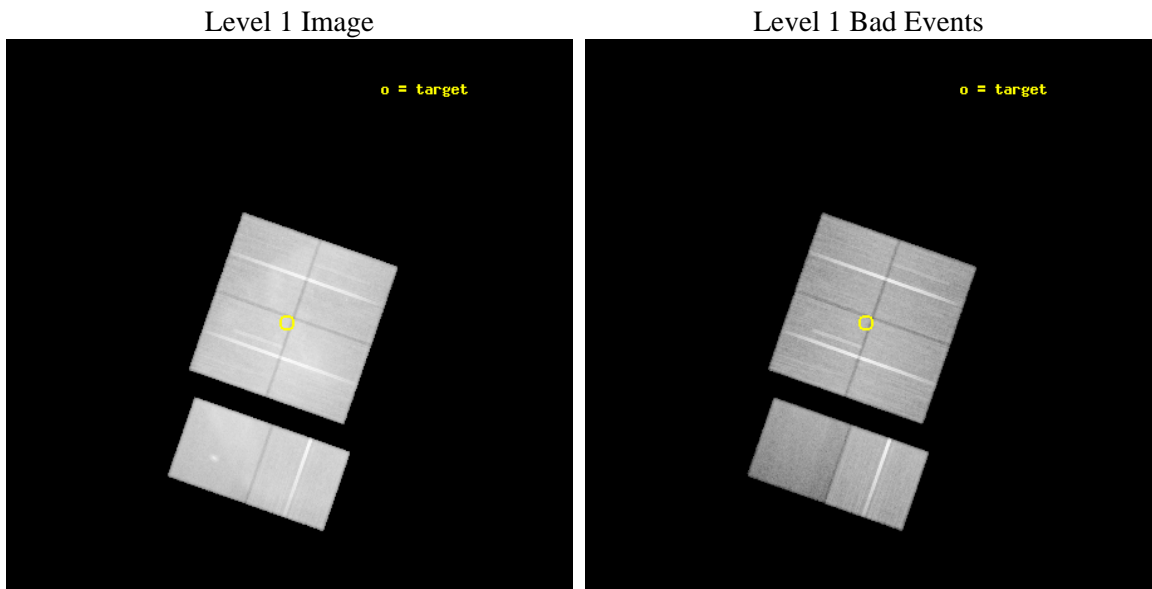
| | | |
|----------|---------------------|--|
| seq_num | 500451 | Sequence number |
| obs_id | 4626 | Observation id |
| title | The Lobe in CTB-109 | Proposal title |
| observer | Dr Manami Sasaki | Principal investigator |
| object | CTB-109 Lobe | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 345.5875 | Observer's specified target RA [deg] |
| dec_targ | 58.990833 | Observer's specified target Dec [deg] |
| ra_nom | 345.57848678423 | Nominal RA [deg] |
| dec_nom | 58.991129890211 | Nominal Dec [deg] |
| roll_nom | 199.21640940749 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 80627.076758832 | Sum of GTIs [s] |
| livetime | 79606.128165114 | Livetime [s] |
| ontime0 | 80623.835798532 | Sum of GTIs [s] |
| ontime1 | 80623.835788578 | Sum of GTIs [s] |
| ontime2 | 80633.558729321 | Sum of GTIs [s] |
| ontime3 | 80627.076758832 | Sum of GTIs [s] |
| ontime6 | 80620.594868094 | Sum of GTIs [s] |
| ontime7 | 80636.799699605 | Sum of GTIs [s] |
| l2events | 1161103 | Number of level 2 events |



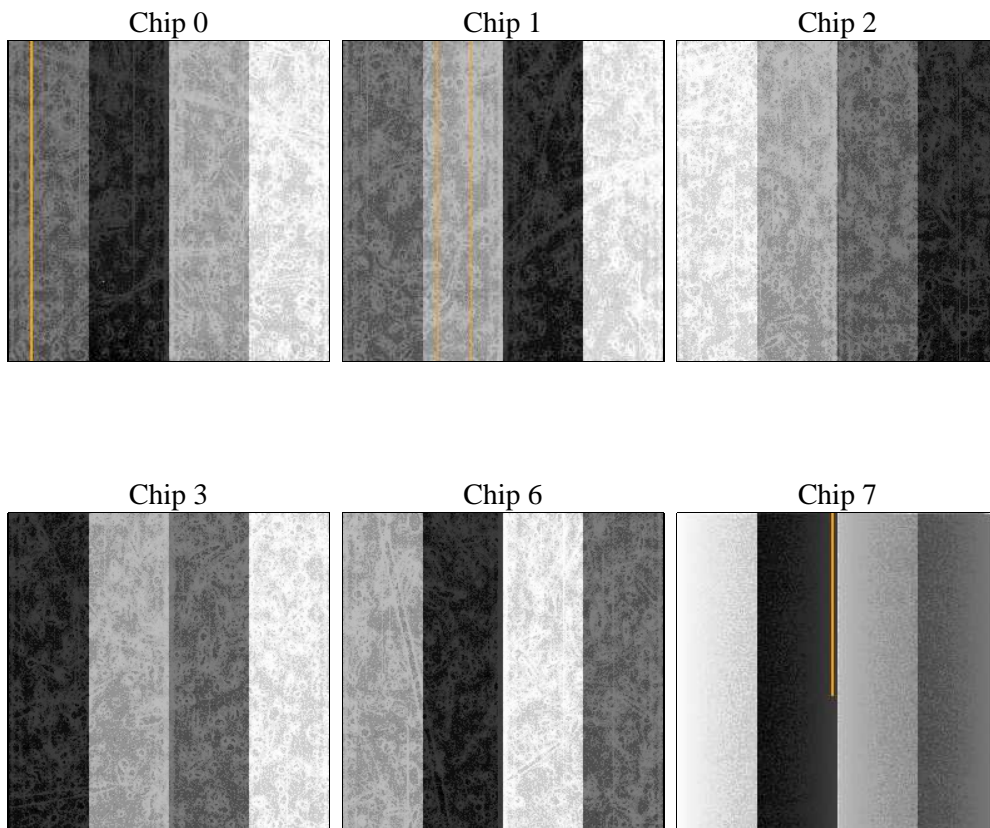
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 80500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.5 | Processing system revision | ontime | 80627.076758832 | Sum of GTIs [s] |
| caldbver | 4.5.4 | | ontime0 | 80623.835798532 | Sum of GTIs [s] |
| date | 2012-12-09T11:13:54 | Date and time of file creation | ontime1 | 80623.835788578 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 80633.558729321 | Sum of GTIs [s] |
| | | | ontime3 | 80627.076758832 | Sum of GTIs [s] |
| | | | ontime6 | 80620.594868094 | Sum of GTIs [s] |
| | | | ontime7 | 80636.799699605 | Sum of GTIs [s] |
| | | | l1events | 3686600 | 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 | 577085 | 554126 | 720394 | 644023 | 626434 | 564538 | grade 0 events | 129227 | 105631 | 193352 | 149964 | 118886 | 51919 |
| rejected events | 401726 | 405143 | 476226 | 448202 | 462739 | 249239 | | 22% | 19% | 26% | 23% | 18% | 9% |
| rejected % | 69% | 73% | 66% | 69% | 73% | 44% | grade 1 events | 725 | 585 | 1130 | 879 | 592 | 411 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 20917 | 18128 | 24821 | 21094 | 19384 | 69868 |
| | | | | | | | | 3% | 3% | 3% | 3% | 3% | 12% |
| | | | | | | | grade 3 events | 8311 | 7759 | 8744 | 8196 | 7684 | 32077 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 5% |
| | | | | | | | grade 4 events | 7752 | 7629 | 8802 | 8053 | 7499 | 31793 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 5% |
| | | | | | | | grade 5 events | 15229 | 16722 | 14608 | 17409 | 17828 | 51499 |
| | | | | | | | | 2% | 3% | 2% | 2% | 2% | 9% |
| | | | | | | | grade 6 events | 10209 | 10957 | 9779 | 9730 | 11269 | 133407 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 23% |
| | | | | | | | grade 7 events | 384715 | 386715 | 459158 | 428698 | 443292 | 193564 |
| | | | | | | | | 66% | 69% | 63% | 66% | 70% | 34% |

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 | 345.613103 | 345.5784867842335 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 59.011932 | 58.99112989021089 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 198.978056 | 199.2164094074892 | [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) | 212767994.184000 | 212766312.23341 | | | |
| Observation start date | 2004-09-28T14:12:10 | 2004-09-28T13:45:12 | | | |
| [s] Observation end time (MET) | 212848494.184000 | 212849103.02461 | | | |
| Observation end date | 2004-09-29T12:33:50 | 2004-09-29T12:45:03 | | | |
| Read mode | TIMED | TIMED | | | |

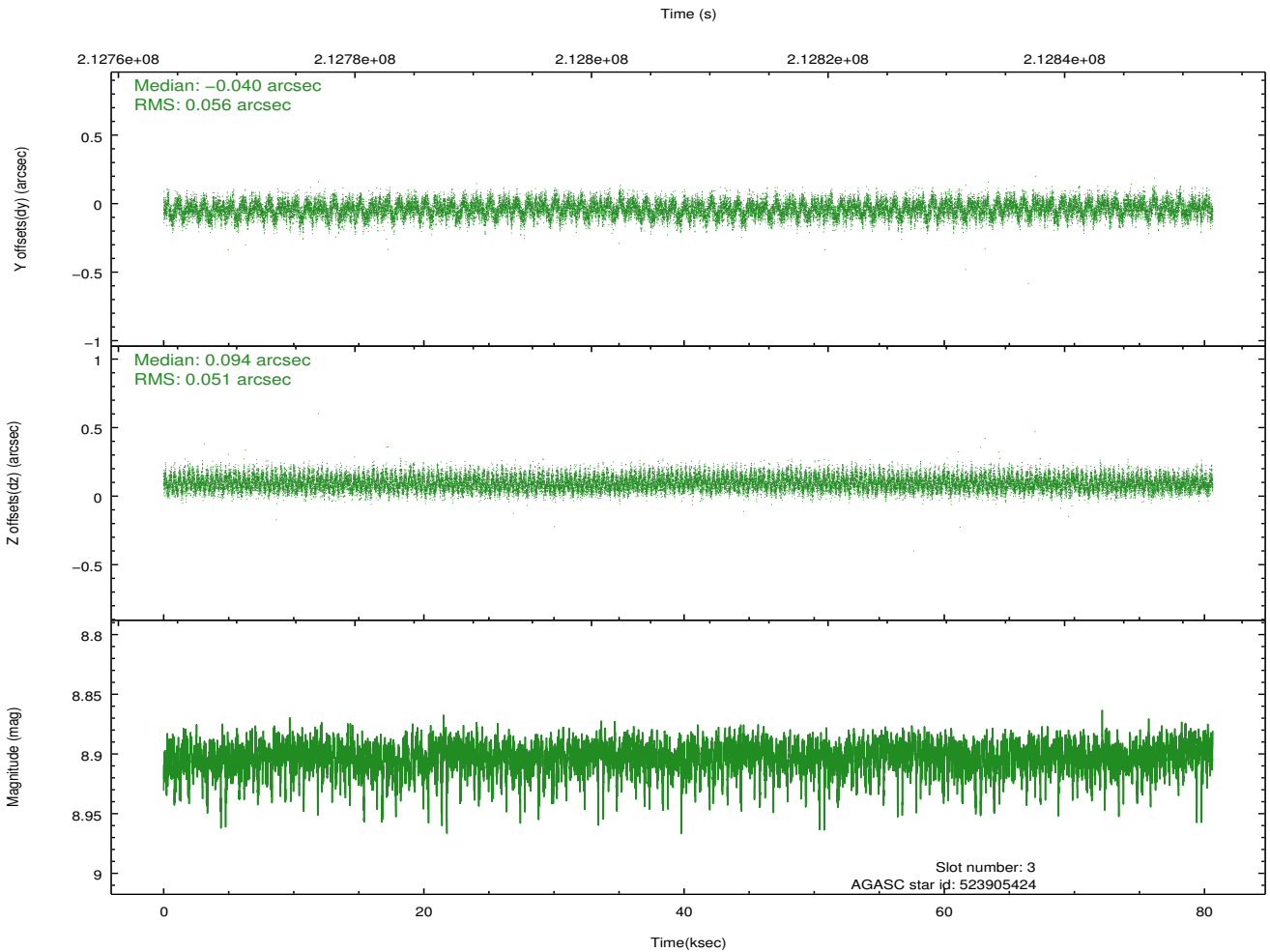
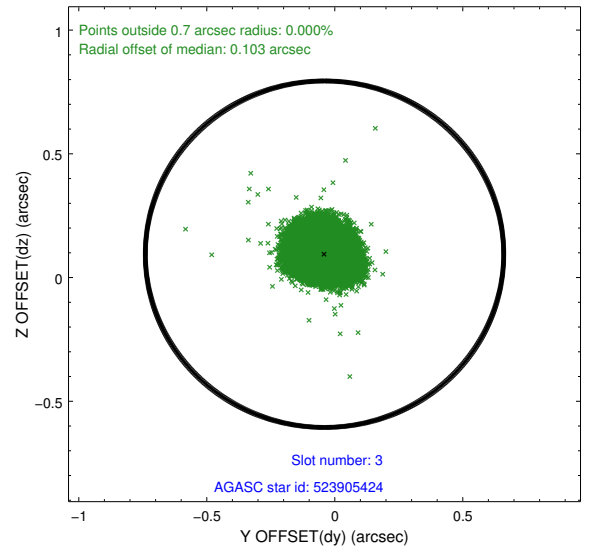
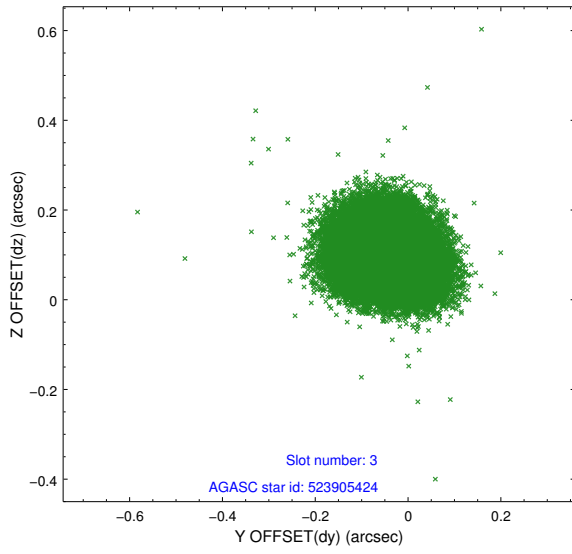
2.3 Aspect

Slot Statistics

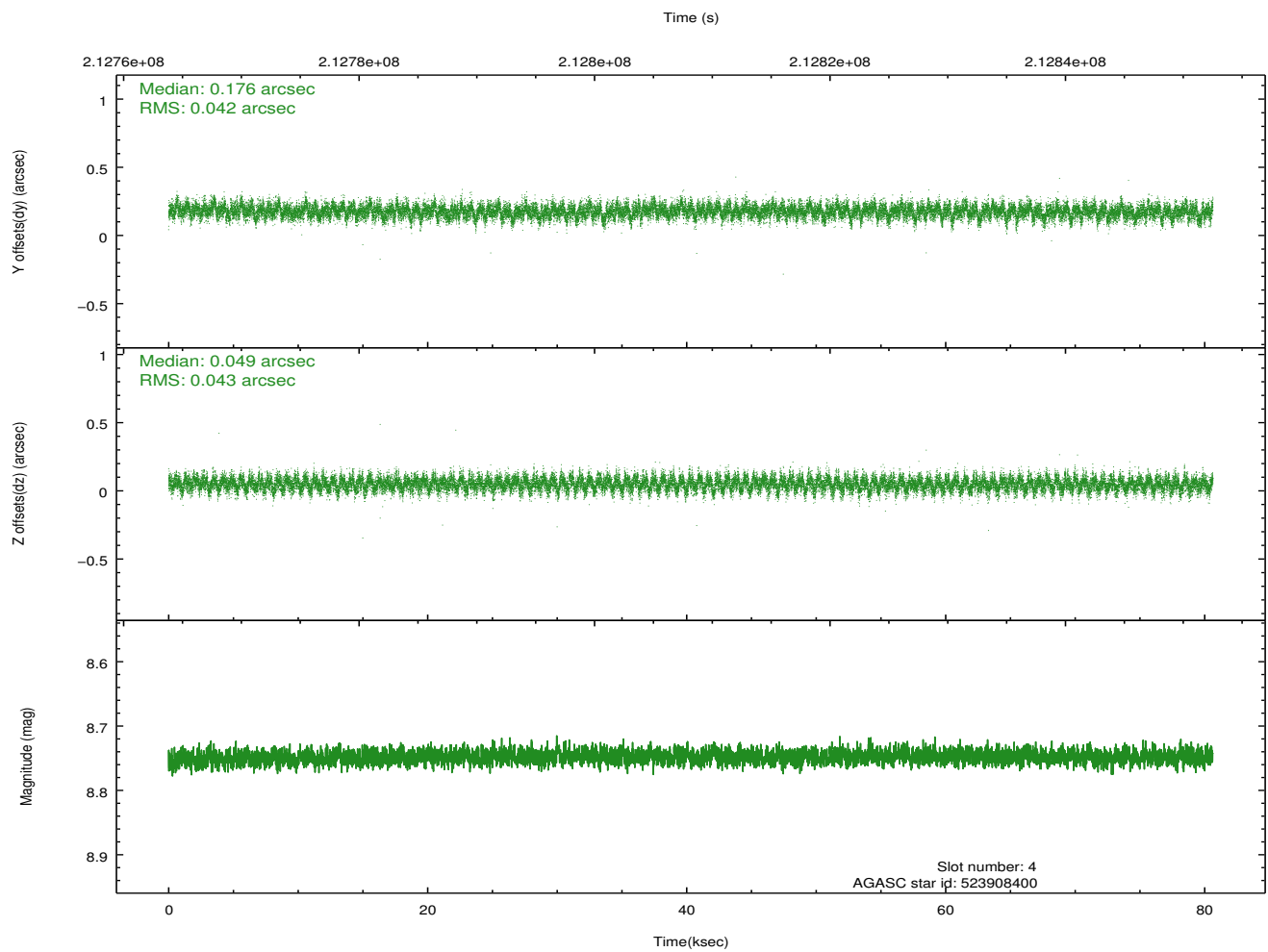
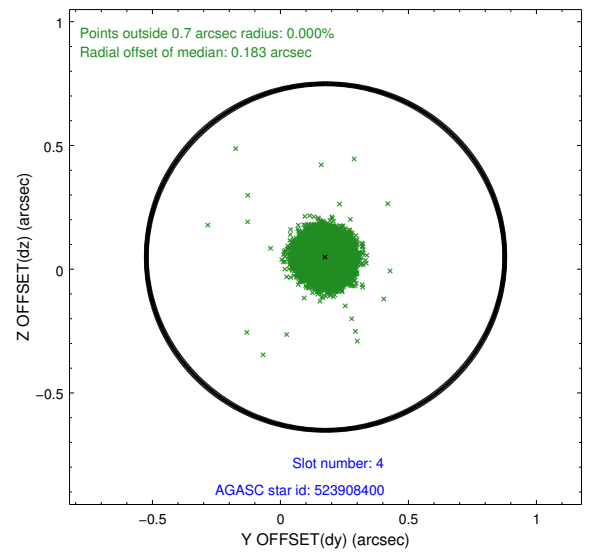
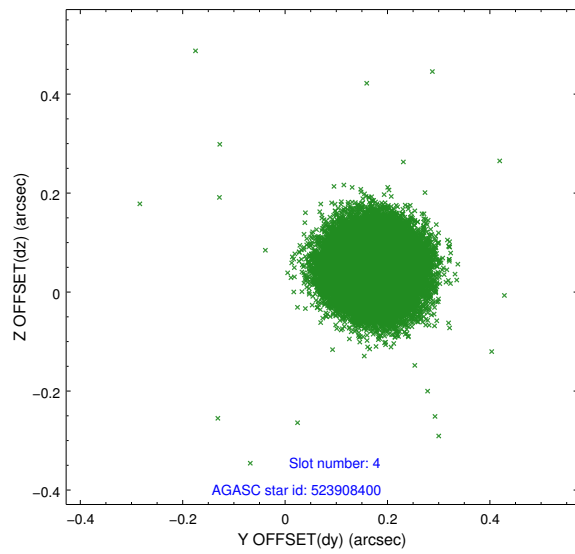
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.24 | 19669 | -0.046 | 0.073 | 0.015 | 0.023 | 0.000000 | 0.000000 | 933.99 | -832.96 |
| 1 | FID | ACIS-I-2 | 7.14 | 19668 | -0.107 | -0.061 | 0.014 | 0.021 | 0.000000 | 0.000000 | -760.20 | -839.50 |
| 2 | FID | ACIS-I-4 | 7.18 | 19664 | 0.059 | 0.055 | 0.012 | 0.021 | 0.000000 | 0.000000 | 2154.01 | 1066.86 |
| 3 | GUIDE | 523905424 | 8.90 | 39314 | -0.040 | 0.094 | 0.081 | 0.128 | 344.391403 | 59.077650 | 2053.75 | -977.61 |
| 4 | GUIDE | 523908400 | 8.75 | 39318 | 0.176 | 0.049 | 0.065 | 0.103 | 346.578212 | 58.886074 | -1554.33 | 1000.13 |
| 5 | GUIDE | 523913184 | 8.69 | 39320 | 0.000 | -0.180 | 0.084 | 0.132 | 346.255850 | 58.466726 | -508.09 | 2244.15 |
| 6 | GUIDE | 523895760 | 9.22 | 39301 | -0.076 | 0.002 | 0.105 | 0.174 | 345.460828 | 58.395581 | 992.99 | 2004.99 |
| 7 | GUIDE | 523896760 | 7.60 | 39329 | -0.062 | 0.031 | 0.053 | 0.085 | 345.655764 | 59.605061 | -767.49 | -1993.74 |

2.4 Star Slots

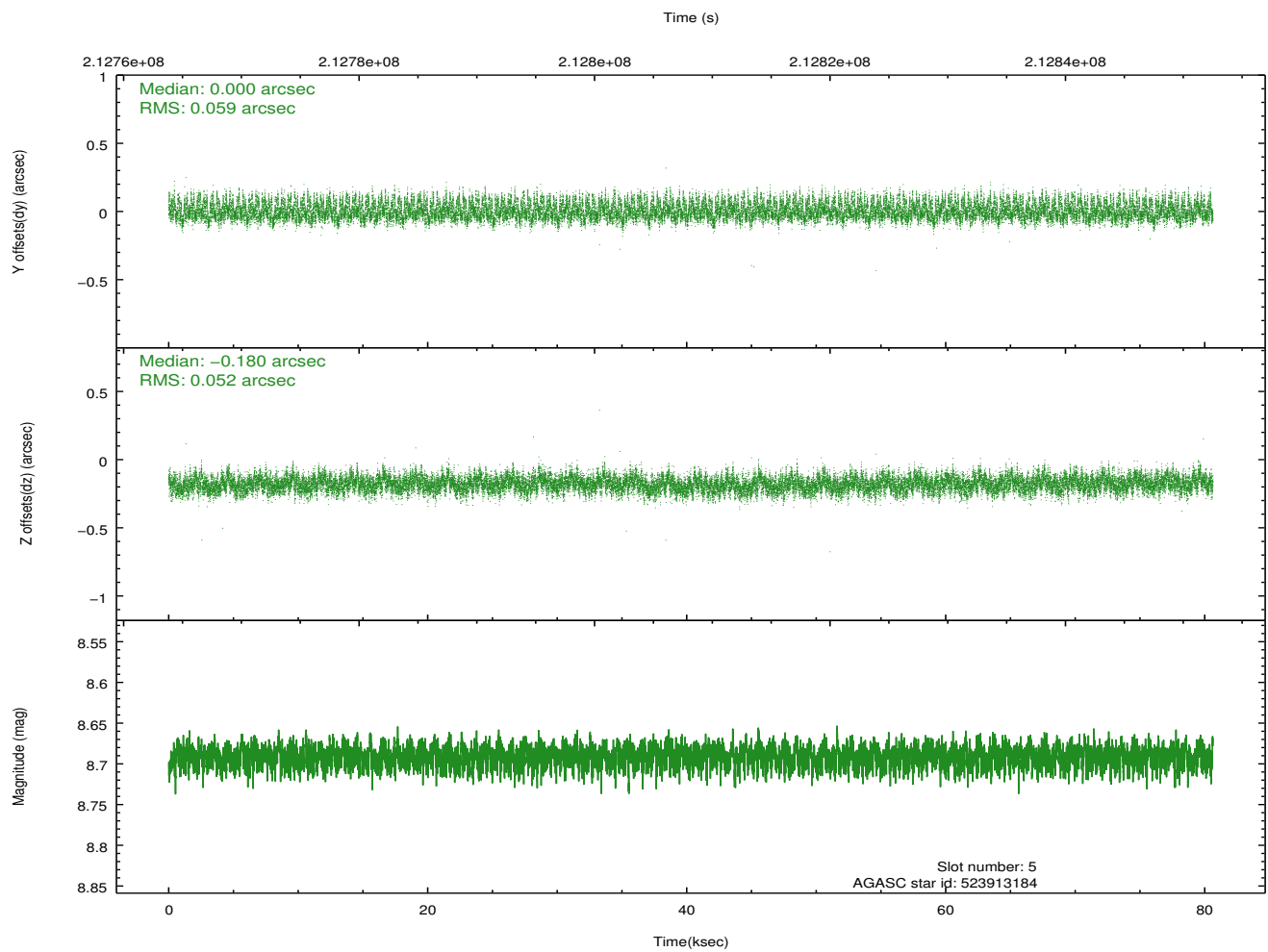
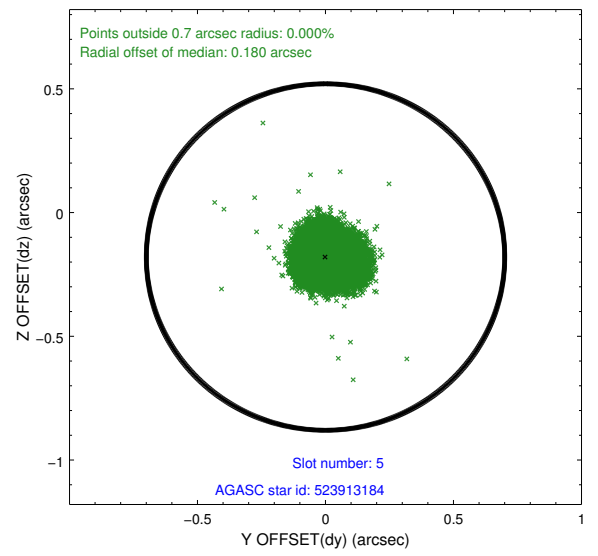
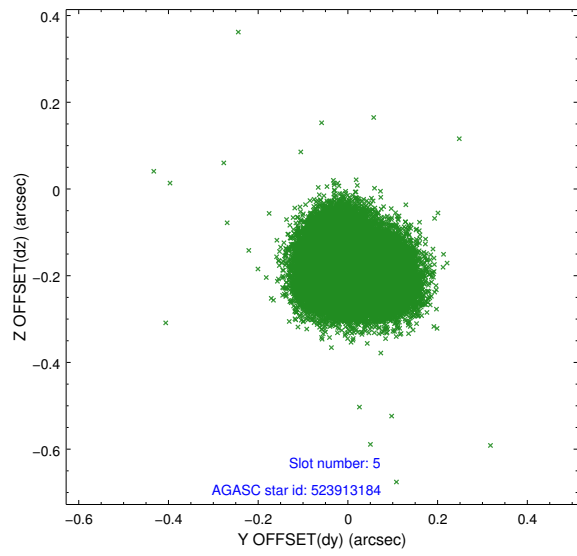
2.4.1 Slot 3



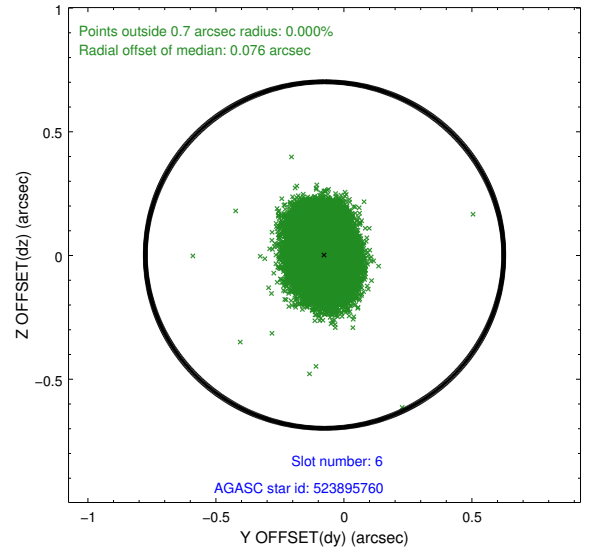
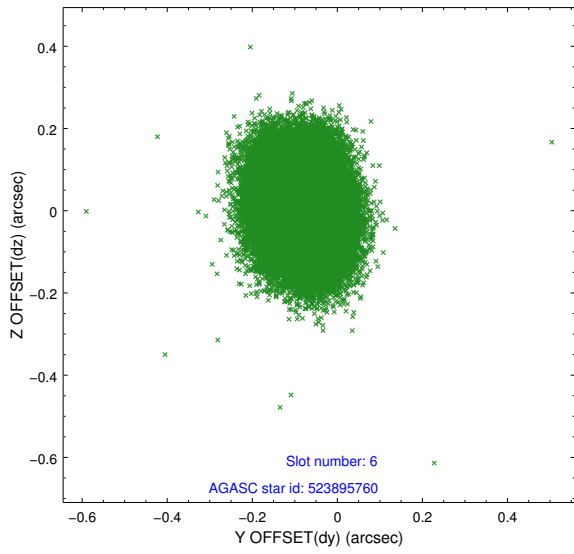
2.4.2 Slot 4



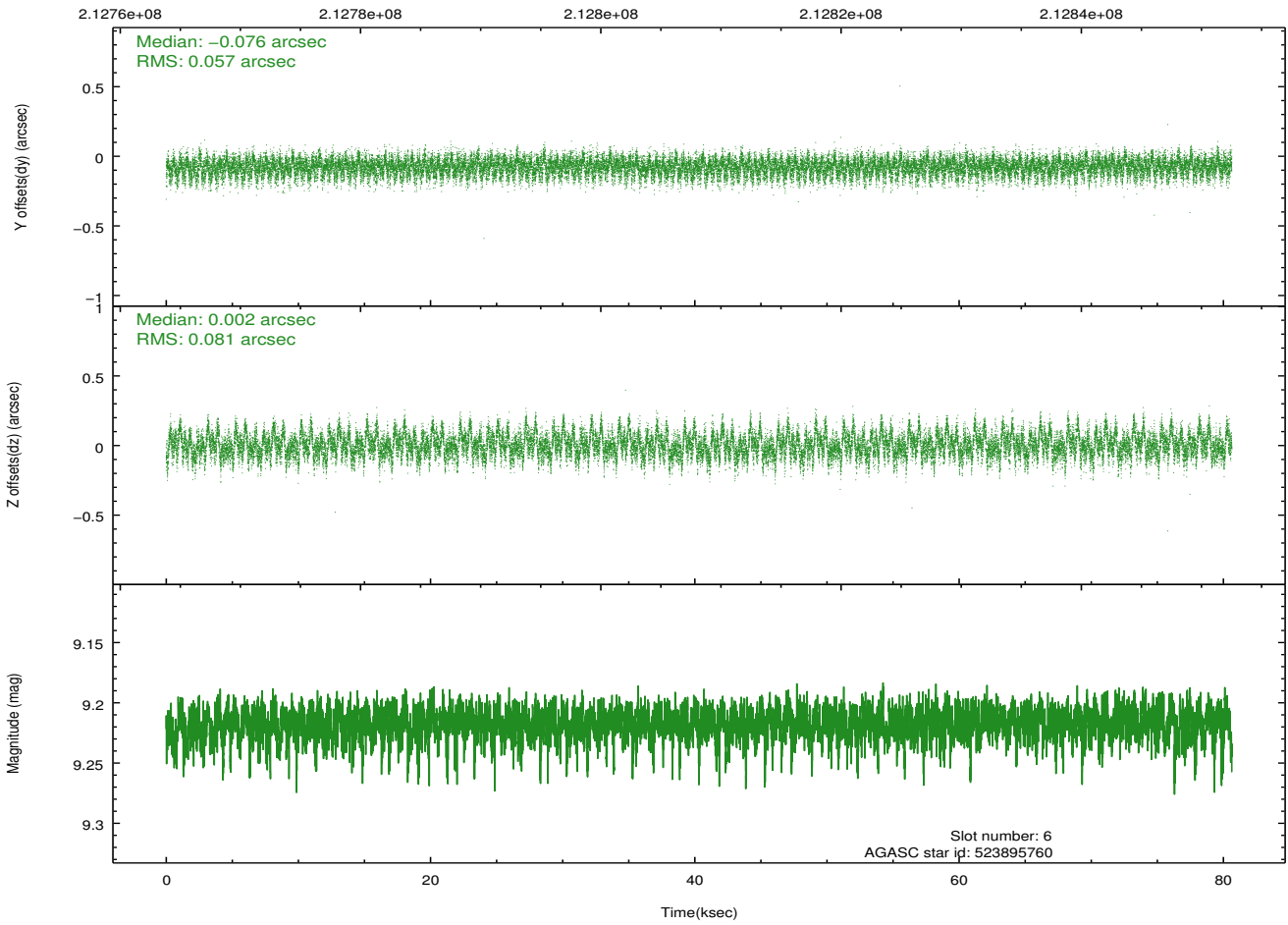
2.4.3 Slot 5



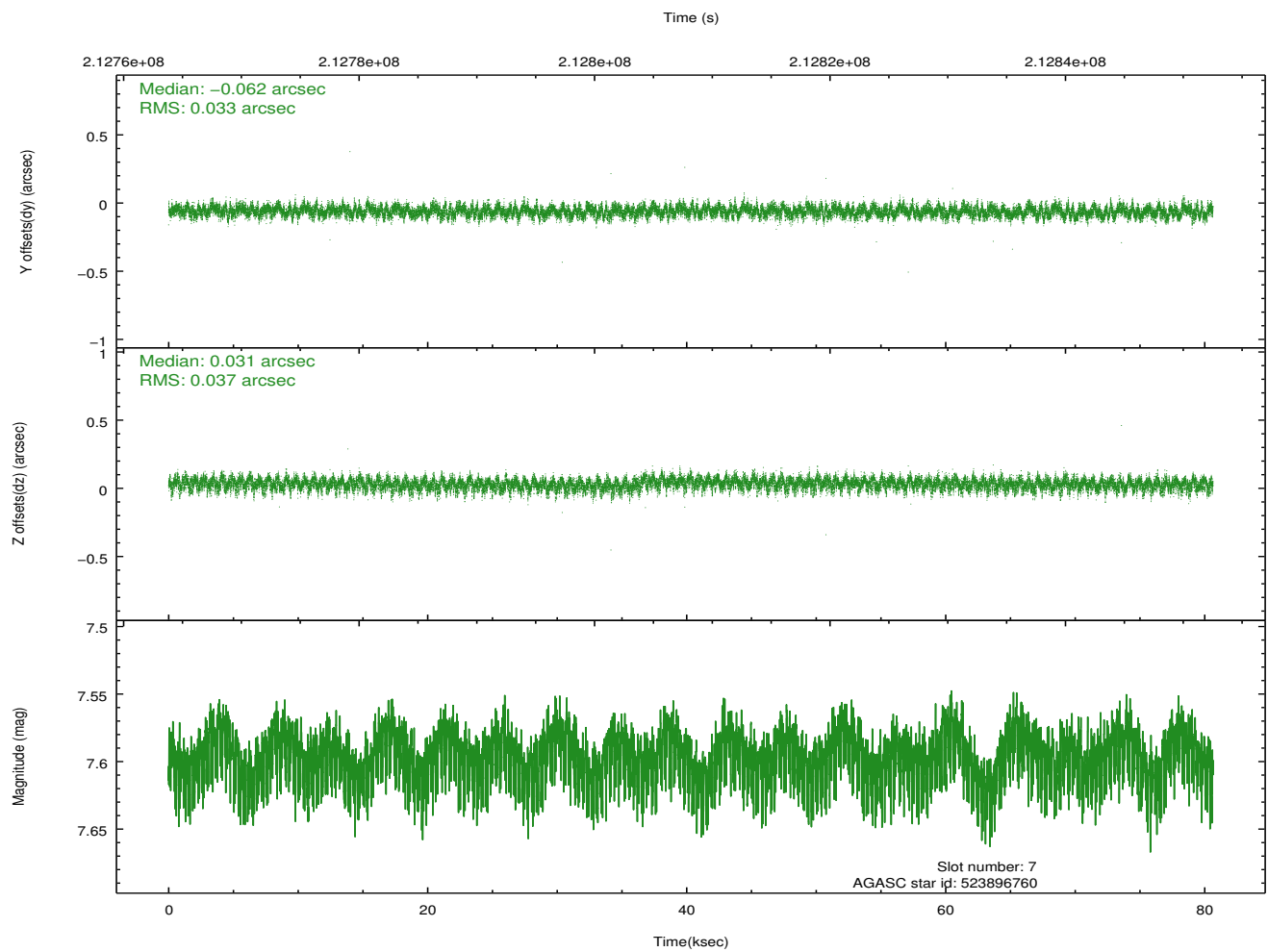
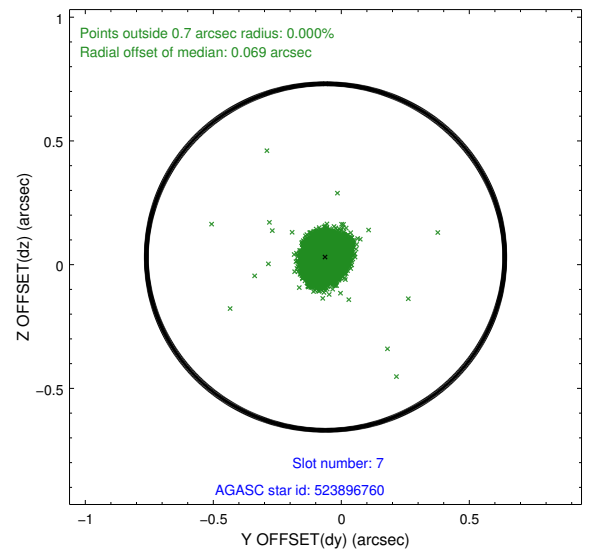
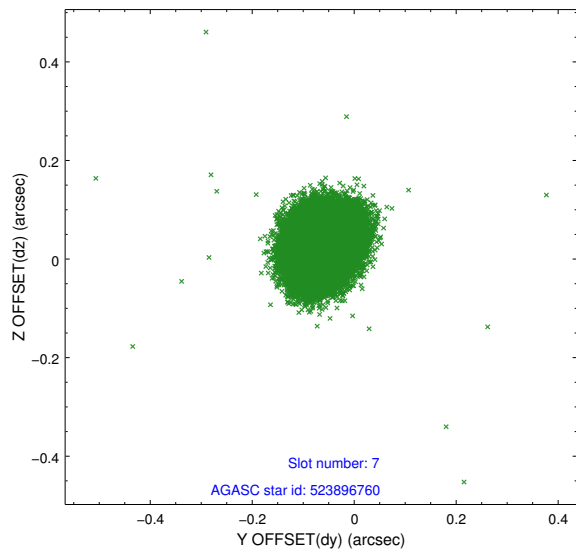
2.4.4 Slot 6



Time (s)

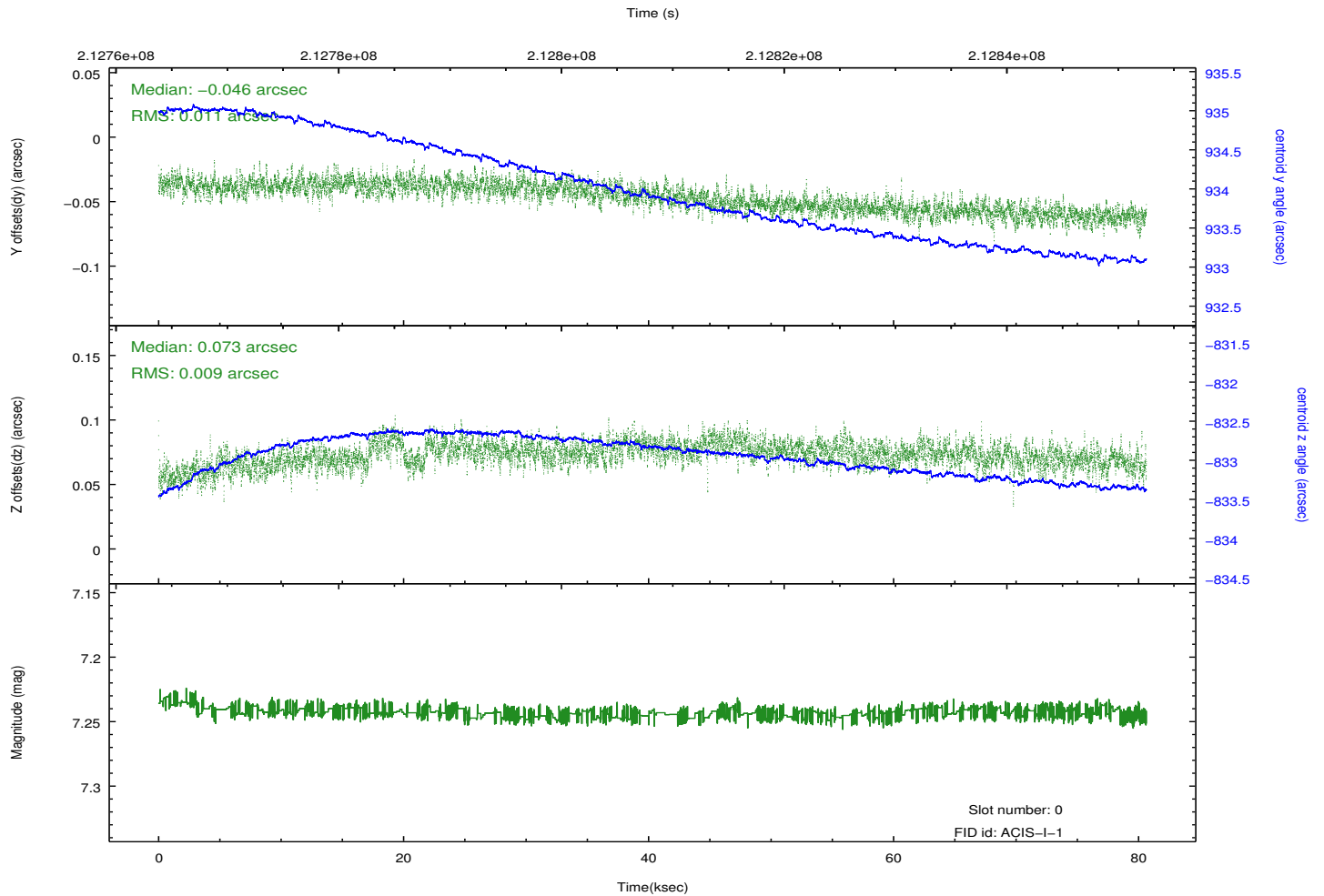
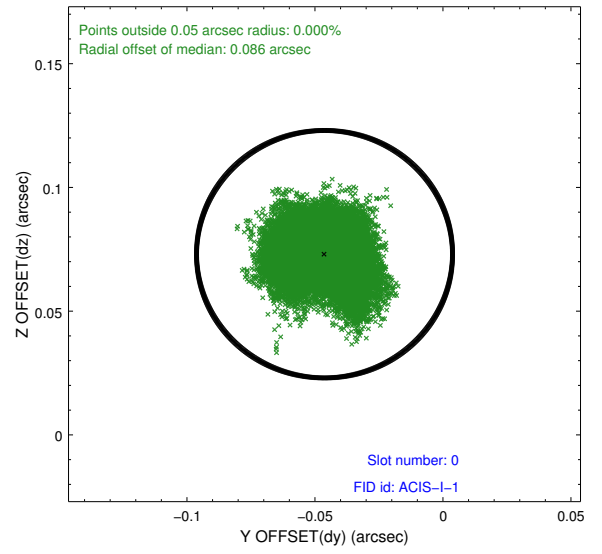
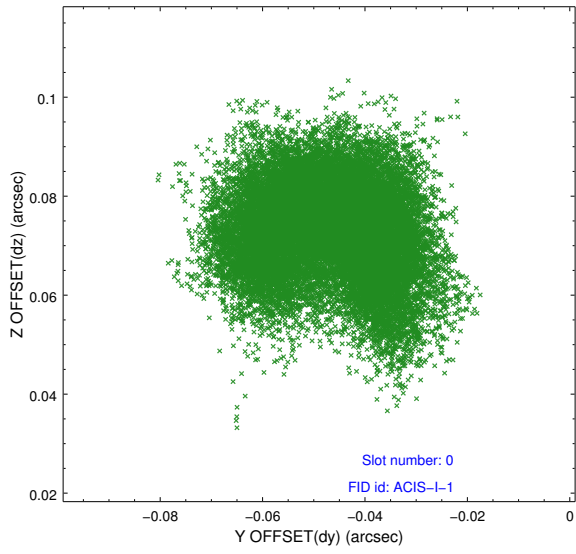


2.4.5 Slot 7

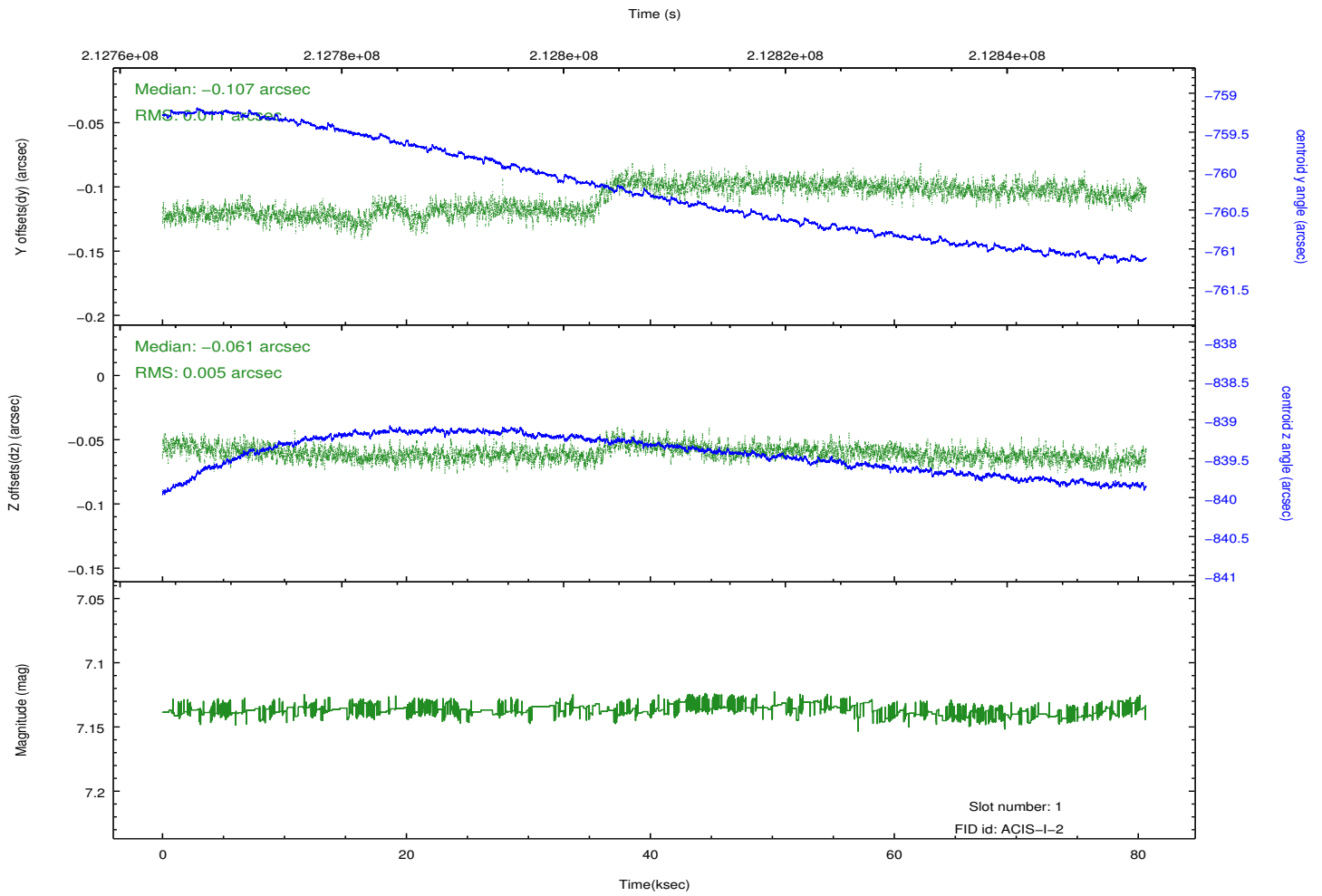
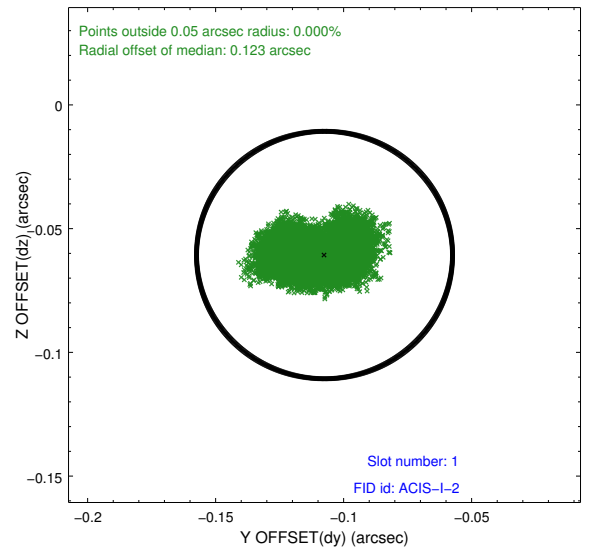
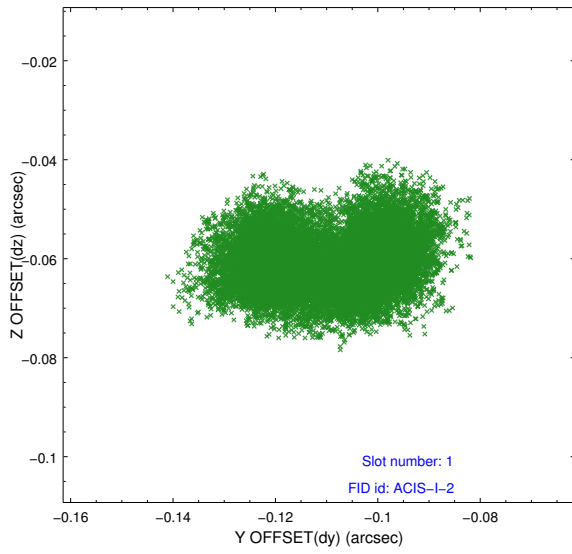


2.5 FID Slots

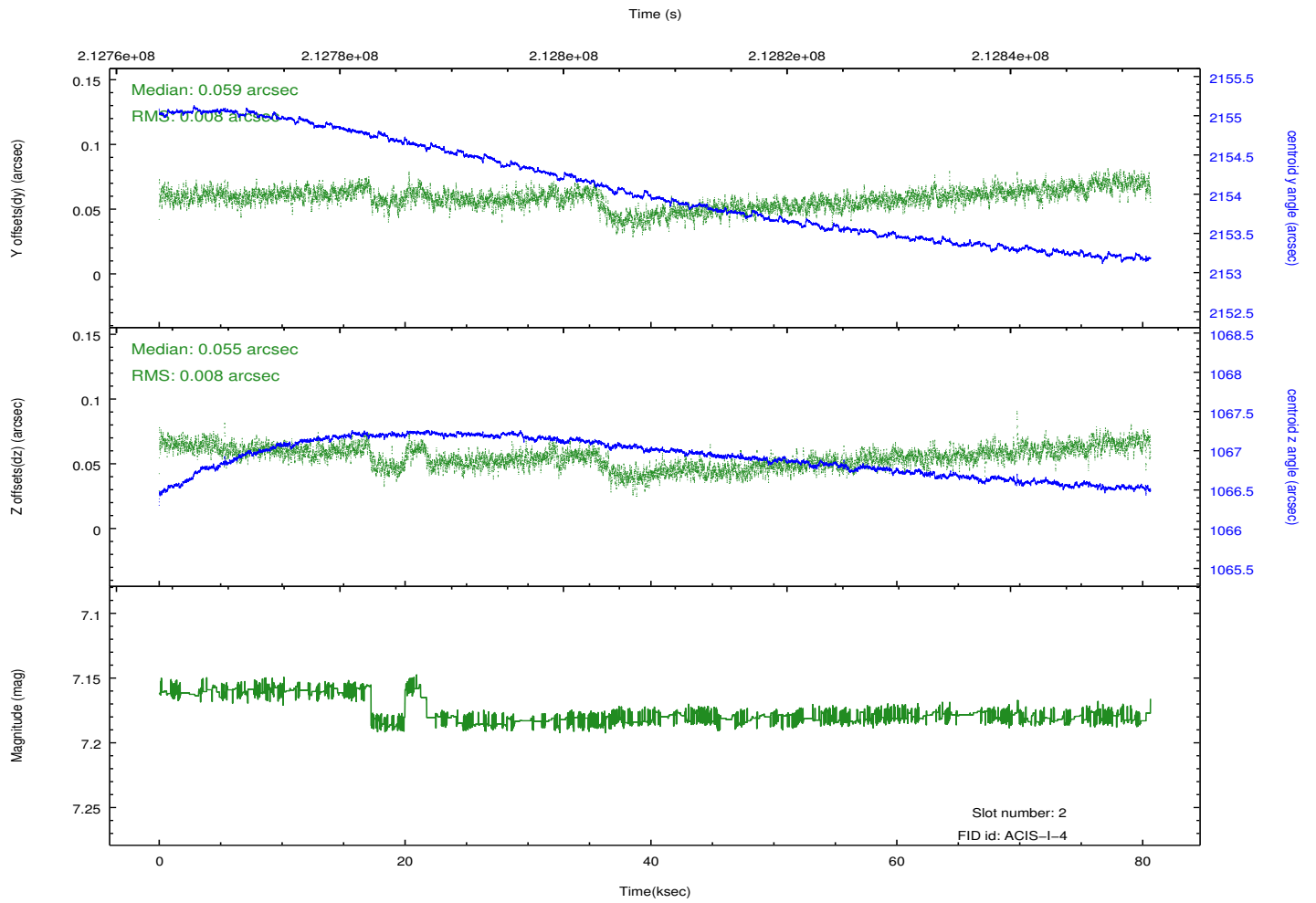
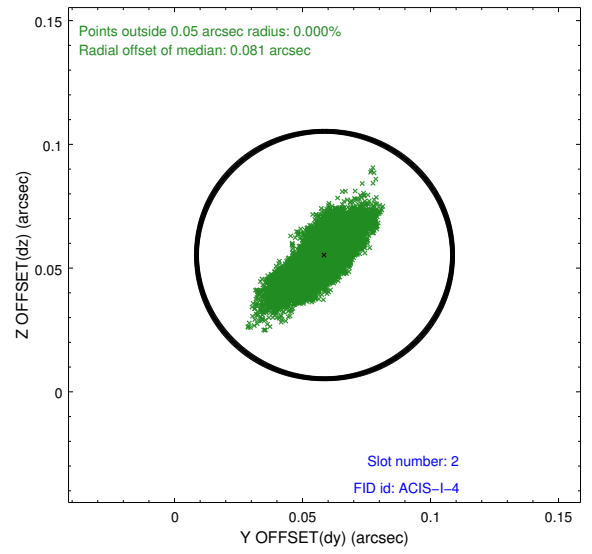
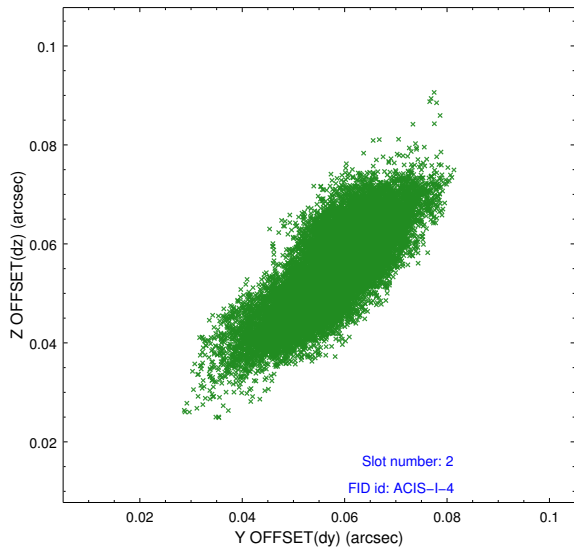
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2013.01.03 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 80.636 |

A.2 Comments