

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 7591 - L2 Version 3
Chandra X-Ray Center

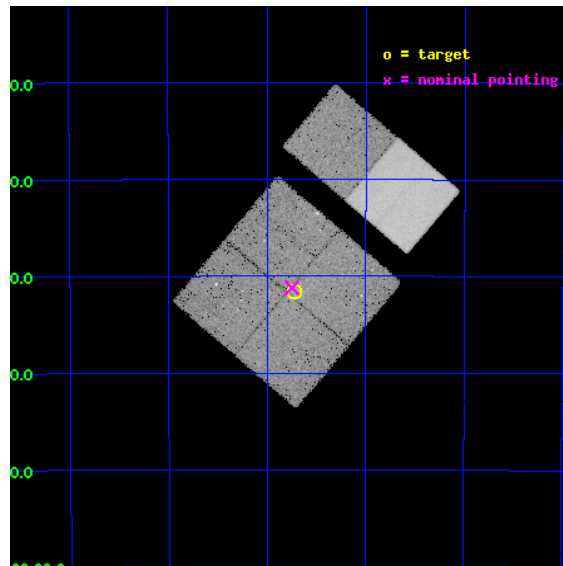
L2 Processing Date : Apr 24 2012

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

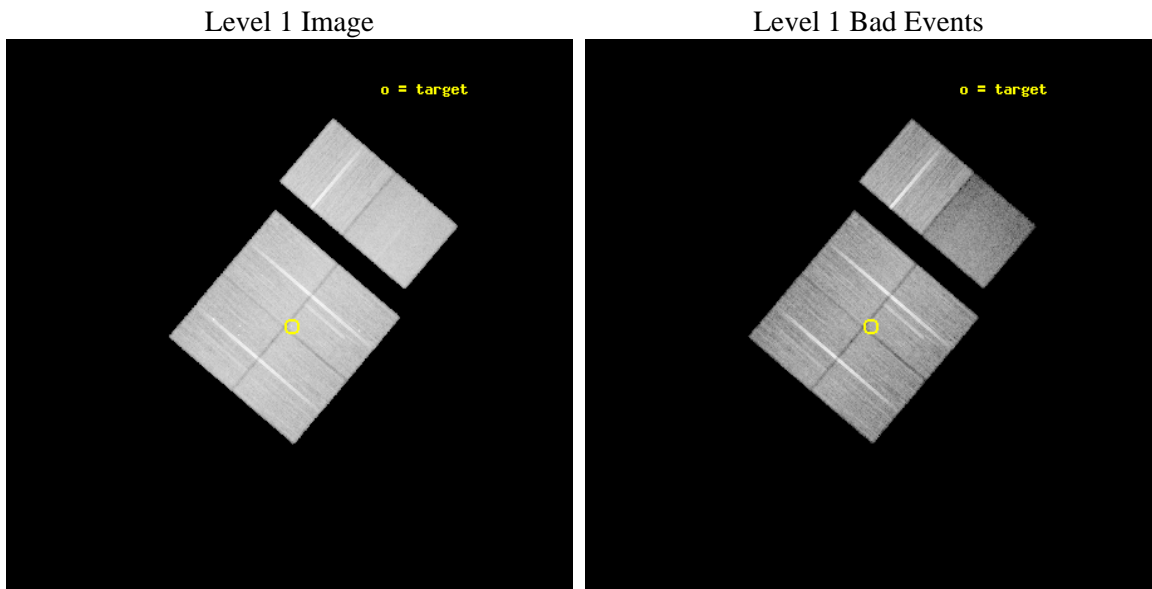
| | | |
|----------|--|---|
| seq_num | 500721 | Sequence number |
| obs_id | 7591 | Observation id |
| title | Chandra Search for Young Neutron Stars | Proposal title |
| observer | Dr. Stephen Murray | Principal investigator |
| object | HESS J1640-465 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 250.180833 | Observer's specified target RA [deg] |
| dec_targ | -46.526944 | Observer's specified target Dec [deg] |
| ra_nom | 250.18712558248 | Nominal RA [deg] |
| dec_nom | -46.520107874264 | Nominal Dec [deg] |
| roll_nom | 40.377399498433 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 29177.558881164 | Sum of GTIs [s] |
| livetime | 28808.095061994 | Livetime [s] |
| ontime0 | 29180.799891353 | Sum of GTIs [s] |
| ontime1 | 29174.317900717 | Sum of GTIs [s] |
| ontime2 | 29177.558950603 | Sum of GTIs [s] |
| ontime3 | 29177.558881164 | Sum of GTIs [s] |
| ontime6 | 29180.799891353 | Sum of GTIs [s] |
| ontime7 | 29180.799891353 | Sum of GTIs [s] |
| l2events | 201938 | Number of level 2 events |



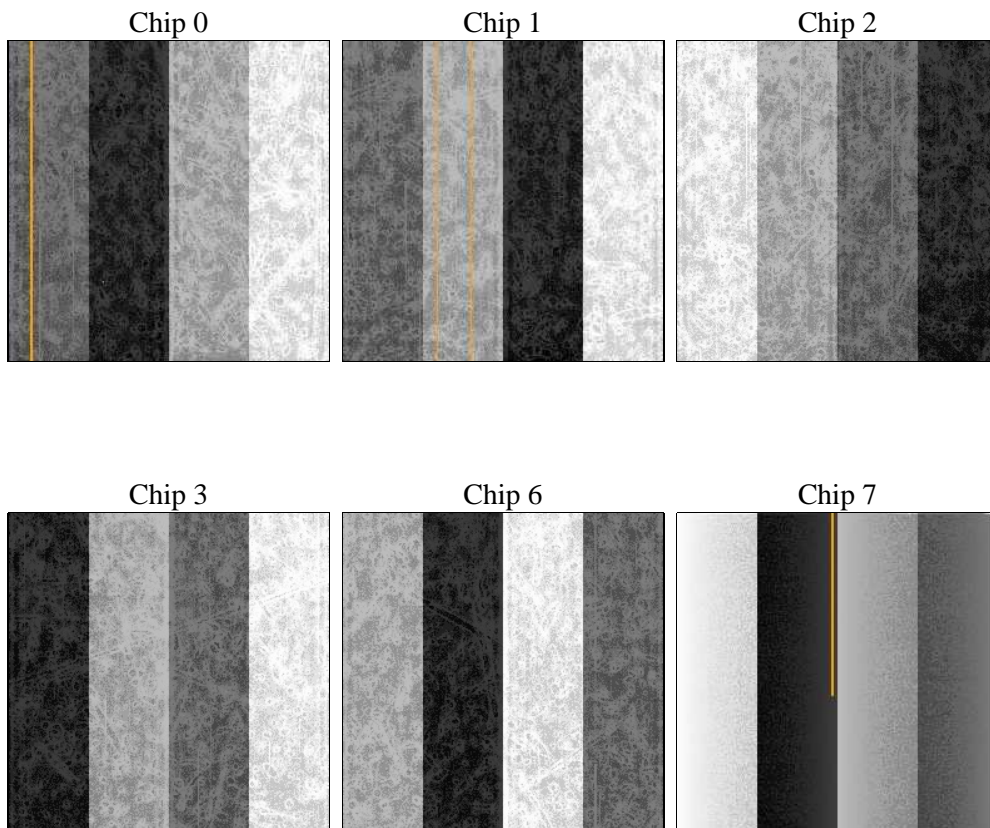
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 29000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.4 | Processing system revision | ontime | 29177.558881164 | Sum of GTIs [s] |
| caldbver | 4.4.9 | | ontime0 | 29180.799891353 | Sum of GTIs [s] |
| date | 2012-04-24T21:35:50 | Date and time of file creation | ontime1 | 29174.317900717 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime2 | 29177.558950603 | Sum of GTIs [s] |
| | | | ontime3 | 29177.558881164 | Sum of GTIs [s] |
| | | | ontime6 | 29180.799891353 | Sum of GTIs [s] |
| | | | ontime7 | 29180.799891353 | Sum of GTIs [s] |
| | | | l1events | 1366155 | Number of level 1 events |

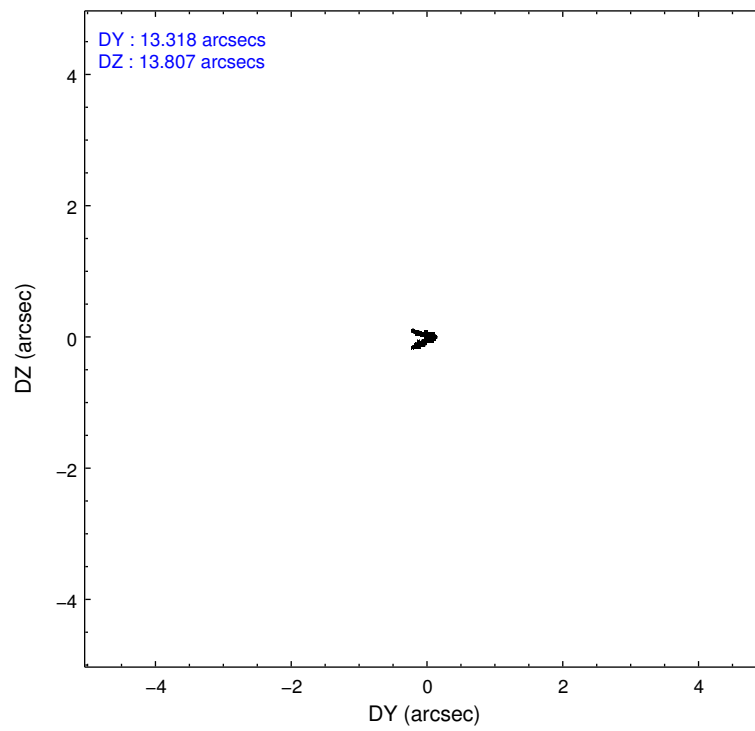
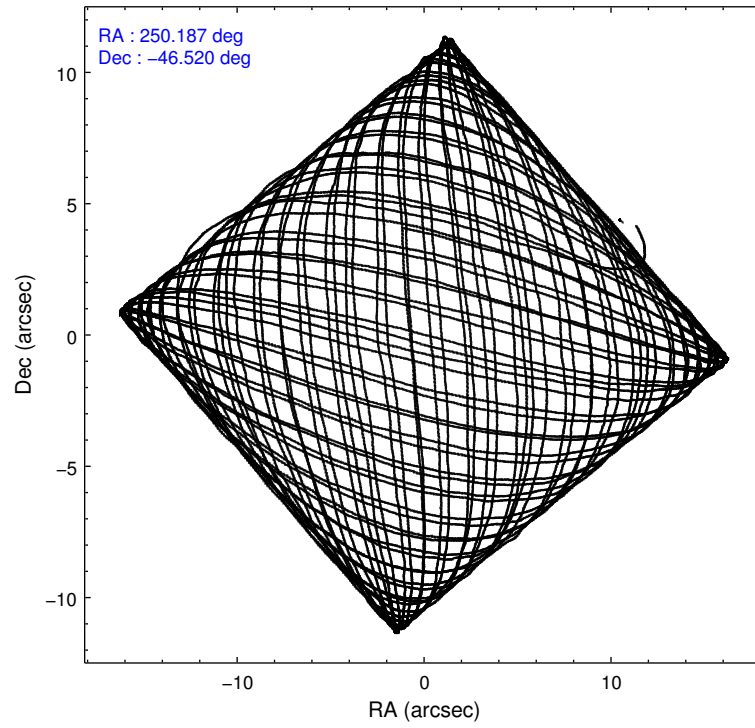
2.1.4 Events

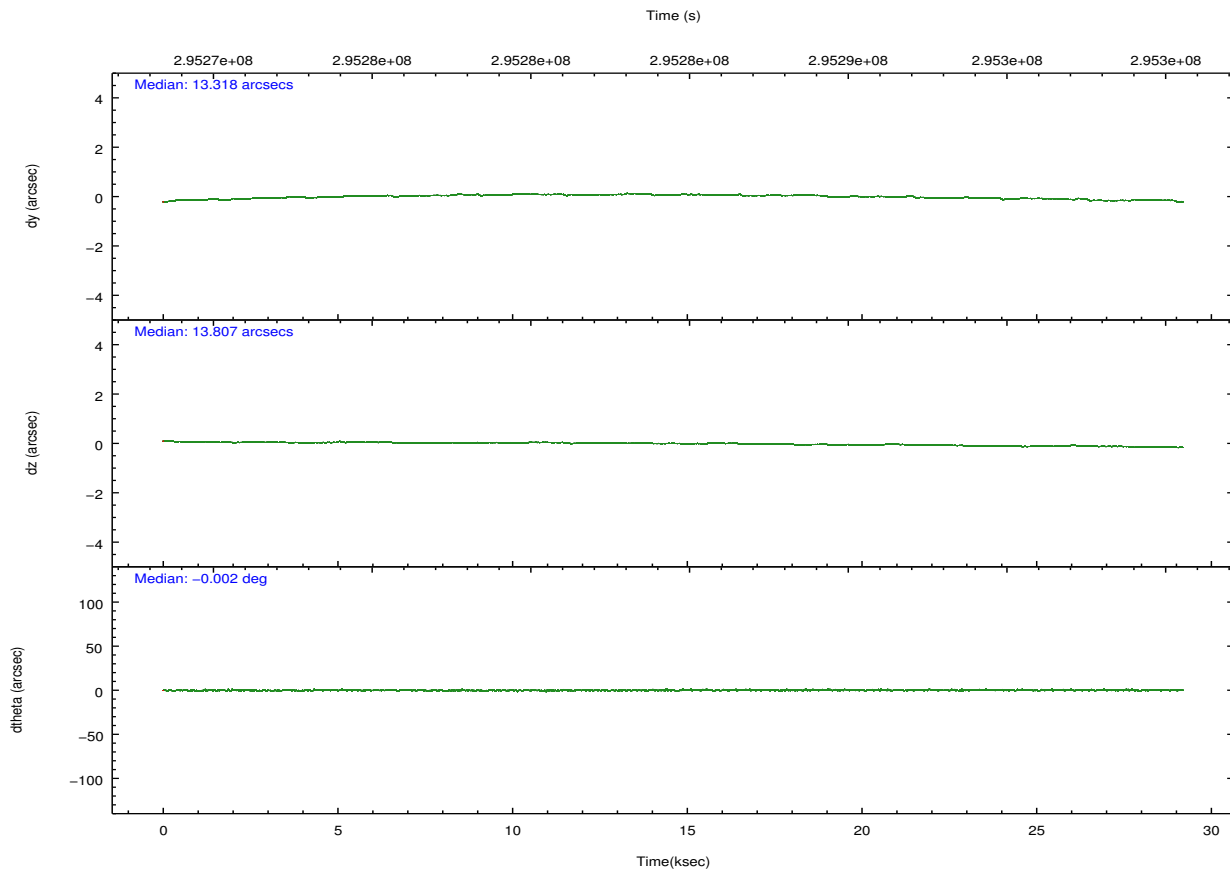
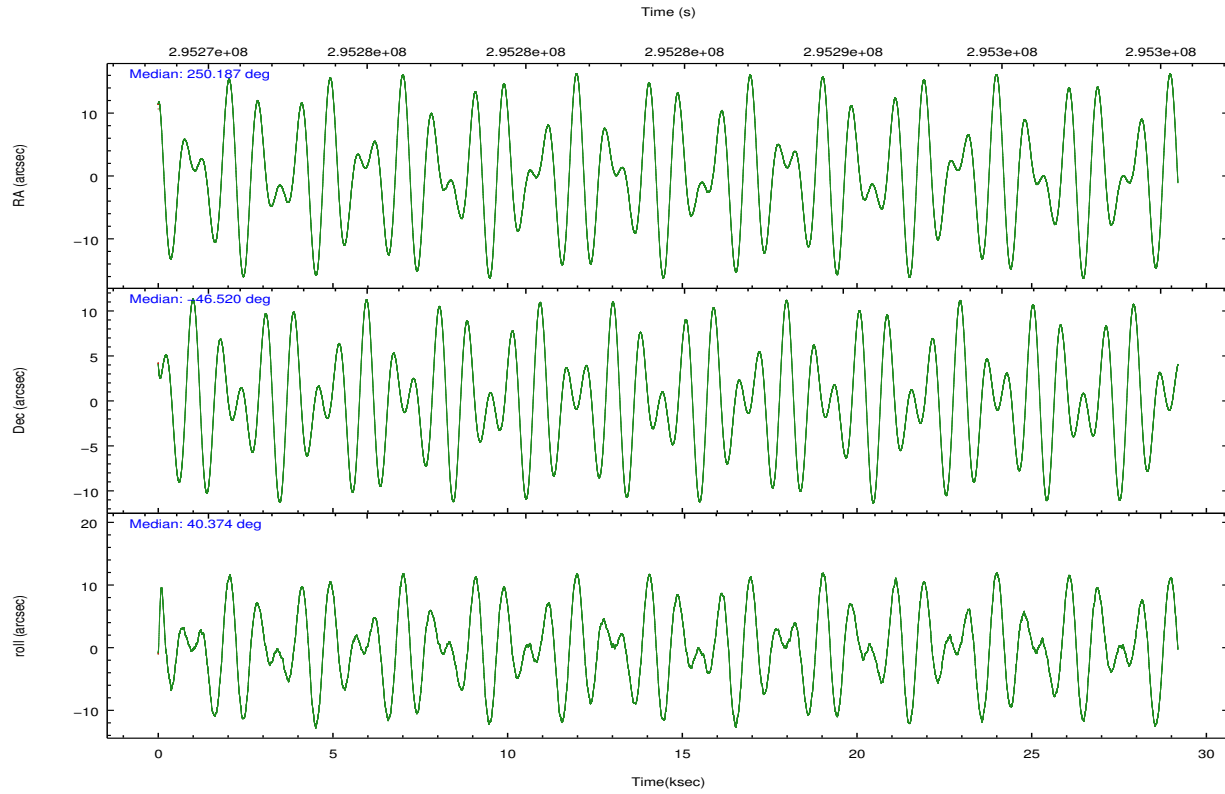
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|-------|
| level 1 events | 217834 | 209721 | 250088 | 231678 | 241095 | 215739 | grade 0 events | 10544 | 9892 | 11152 | 10718 | 9358 | 11363 |
| rejected events | 193606 | 185017 | 225214 | 207574 | 217703 | 111465 | | 4% | 4% | 4% | 4% | 3% | 5% |
| rejected % | 88% | 88% | 90% | 89% | 90% | 51% | grade 1 events | 156 | 148 | 157 | 155 | 133 | 307 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 5571 | 5350 | 5639 | 4967 | 5184 | 22905 |
| | | | | | | | | 2% | 2% | 2% | 2% | 2% | 10% |
| | | | | | | | grade 3 events | 2523 | 2809 | 2506 | 2647 | 2548 | 10467 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 4 events | 2347 | 2770 | 2482 | 2433 | 2437 | 10193 |
| | | | | | | | | 1% | 1% | 0% | 1% | 1% | 4% |
| | | | | | | | grade 5 events | 6262 | 7286 | 6127 | 7765 | 8003 | 23081 |
| | | | | | | | | 2% | 3% | 2% | 3% | 3% | 10% |
| | | | | | | | grade 6 events | 4058 | 4724 | 3878 | 4077 | 4662 | 52929 |
| | | | | | | | | 1% | 2% | 1% | 1% | 1% | 24% |
| | | | | | | | grade 7 events | 186373 | 176742 | 218147 | 198916 | 208770 | 84494 |
| | | | | | | | | 85% | 84% | 87% | 85% | 86% | 39% |

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 | 250.173835 | 250.1871255824801 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | -46.546043 | -46.52010787426354 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 40.159075 | 40.37739949843325 | 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 | O1 | Y |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | CCD S3 on | O2 | Y |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 295270074.184000 | 295268491.22857 | CCD S5 on | N | N |
| Observation start date | 2007-05-11T11:26:49 | 2007-05-11T11:01:31 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 295299074.184000 | 295299761.41756 | On-chip summing requested | N | N |
| Observation end date | 2007-05-11T19:30:09 | 2007-05-11T19:42:41 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect





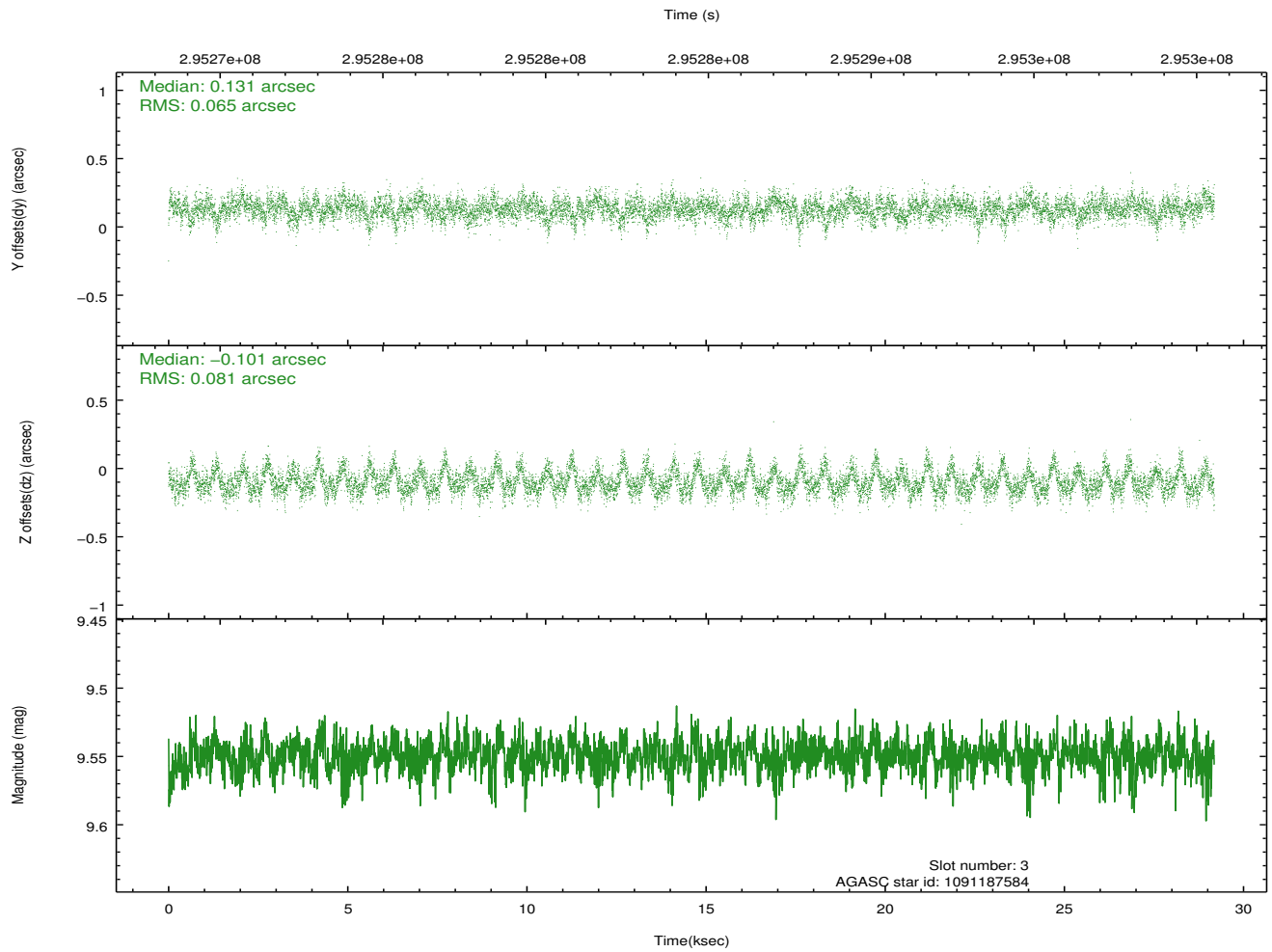
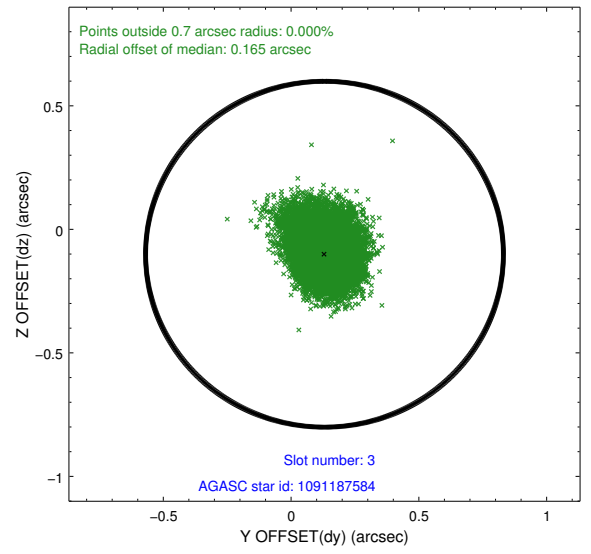
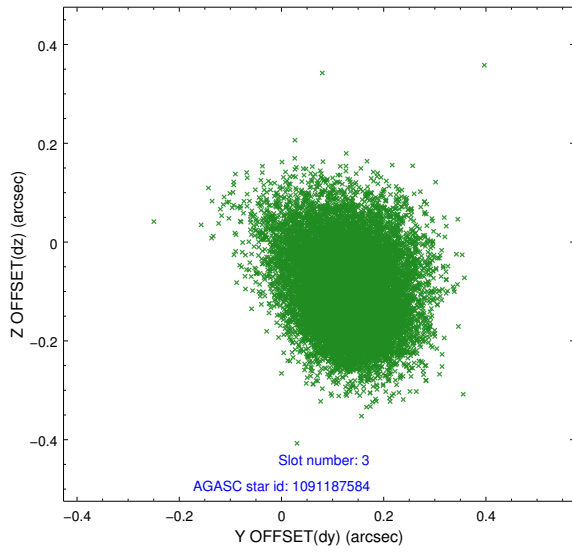
Slot Statistics

| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.23 | 7120 | 0.043 | 0.002 | 0.007 | 0.012 | 0.000000 | 0.000000 | 926.25 | -837.35 |
| 1 | FID | ACIS-I-5 | 7.22 | 7120 | -0.224 | 0.047 | 0.007 | 0.011 | 0.000000 | 0.000000 | -1822.09 | 1060.13 |
| 2 | FID | ACIS-I-6 | 7.24 | 7120 | 0.091 | 0.022 | 0.007 | 0.011 | 0.000000 | 0.000000 | 391.74 | 1704.71 |
| 3 | GUIDE | 1091187584 | 9.55 | 14215 | 0.131 | -0.101 | 0.109 | 0.184 | 249.154381 | -46.614366 | -2095.49 | 1425.13 |
| 4 | GUIDE | 1091193912 | 8.90 | 14230 | -0.164 | -0.070 | 0.082 | 0.131 | 250.208472 | -45.834358 | 1718.53 | 1902.35 |
| 5 | GUIDE | 1091334688 | 6.13 | 14239 | -0.216 | -0.189 | 0.068 | 0.109 | 250.764858 | -46.070295 | 2229.23 | 352.98 |
| 6 | GUIDE | 1091703920 | 9.72 | 14226 | 0.300 | 0.083 | 0.119 | 0.197 | 249.858992 | -46.910499 | -1438.21 | -504.42 |
| 7 | GUIDE | 1091838488 | 9.44 | 14227 | -0.052 | 0.281 | 0.141 | 0.256 | 251.127983 | -46.881927 | 1005.56 | -2448.67 |

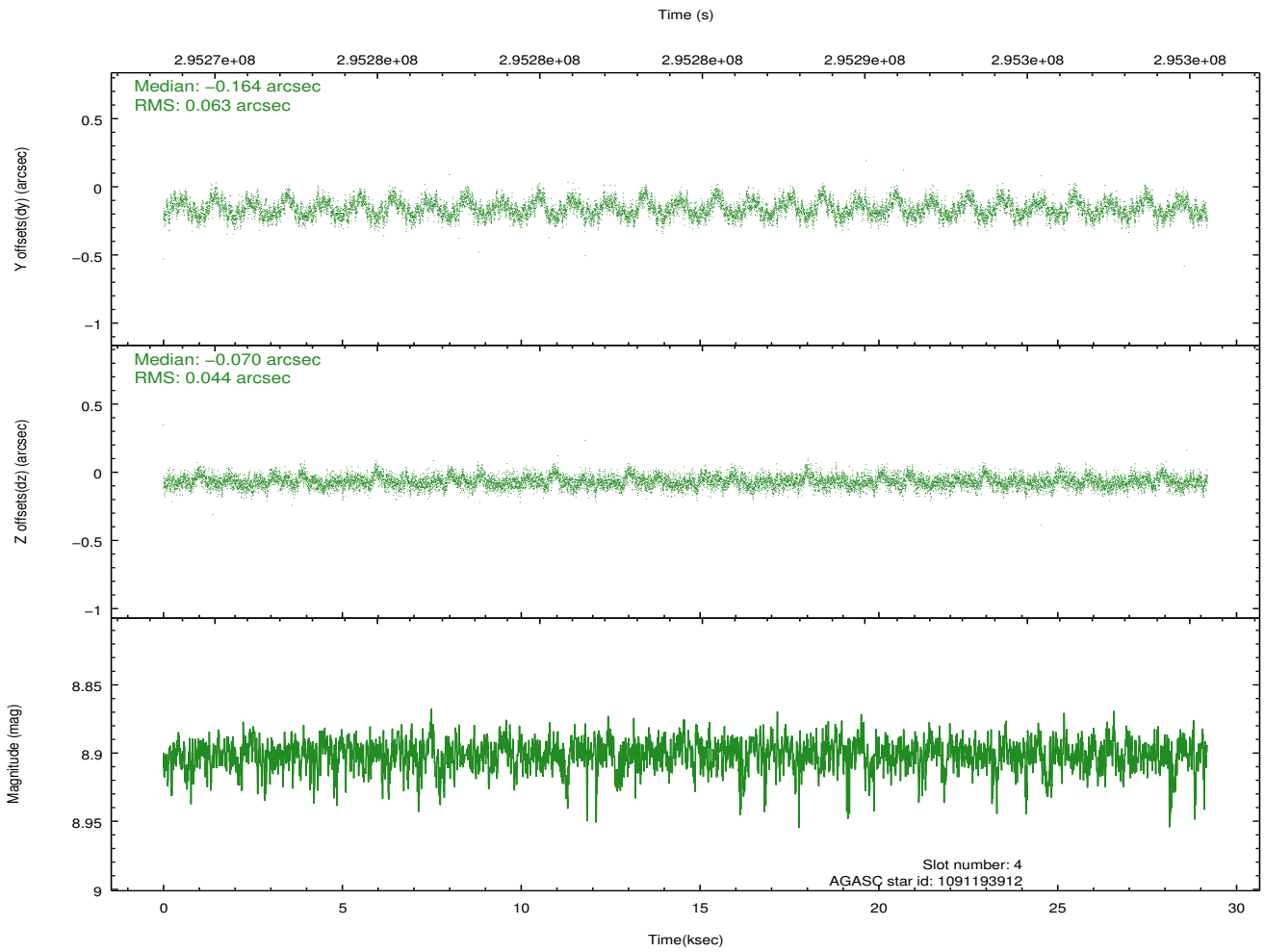
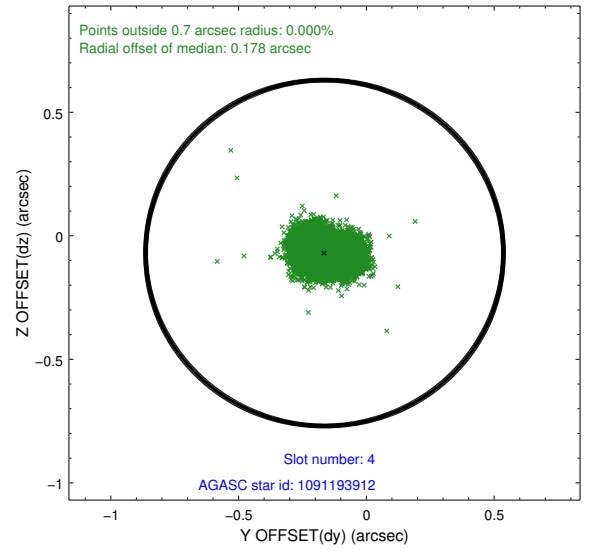
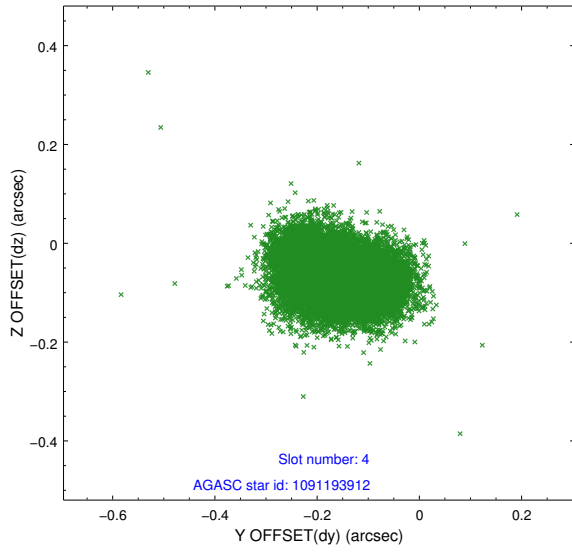
∞

2.4 Star Slots

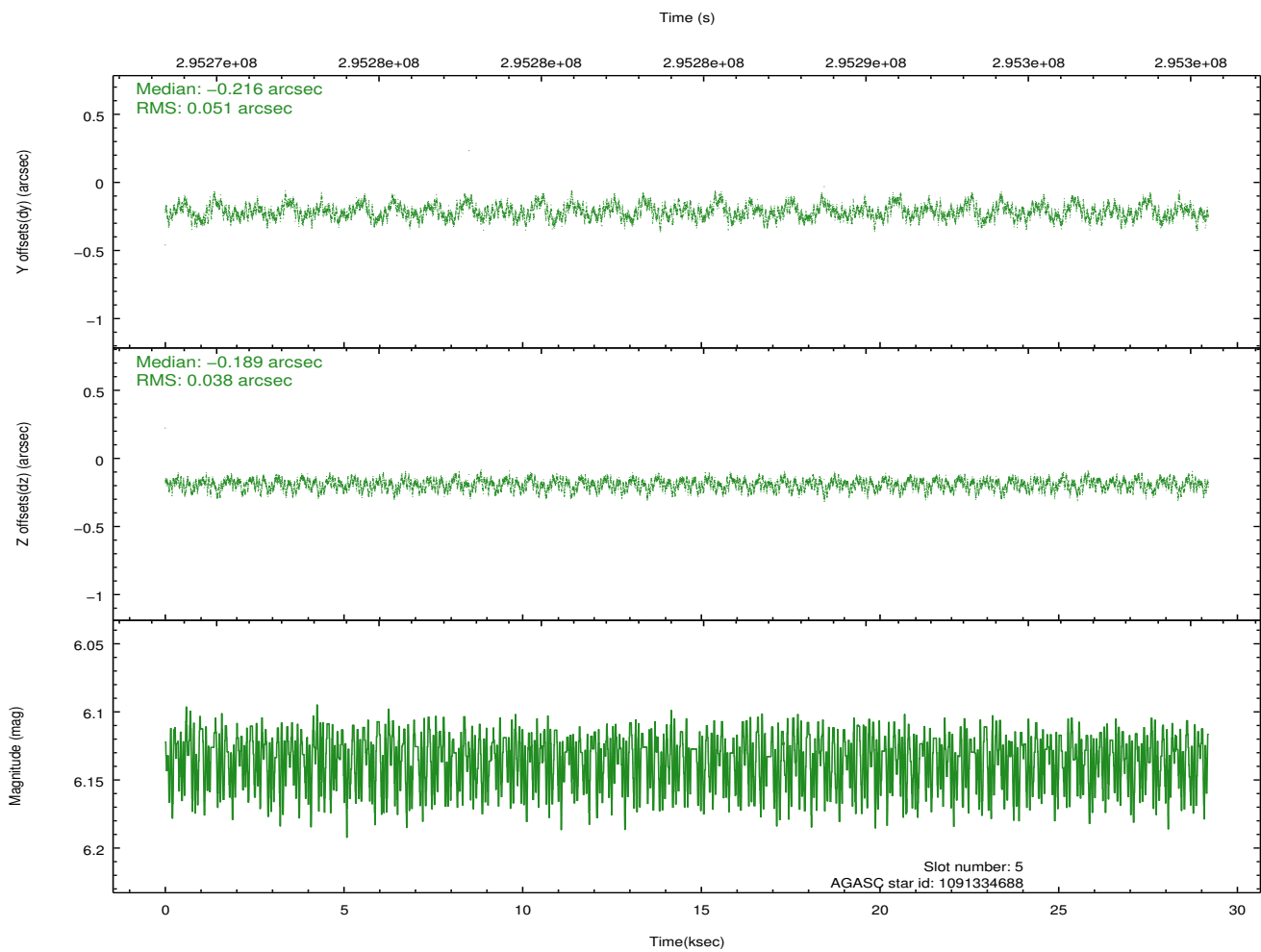
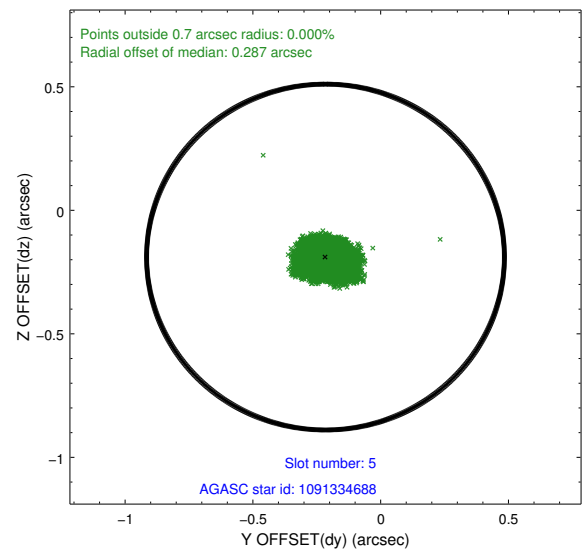
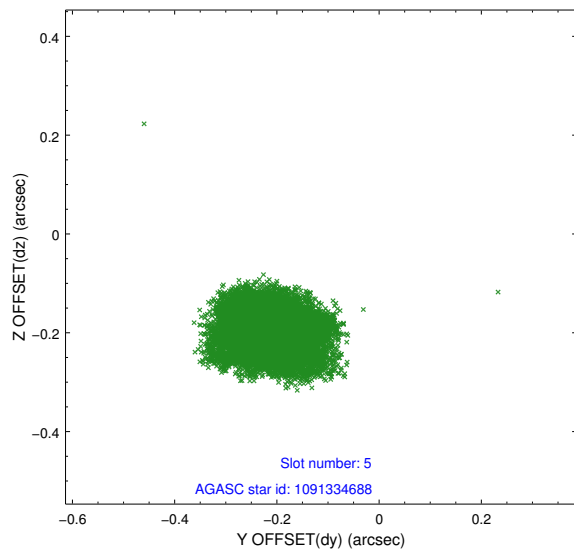
2.4.1 Slot 3



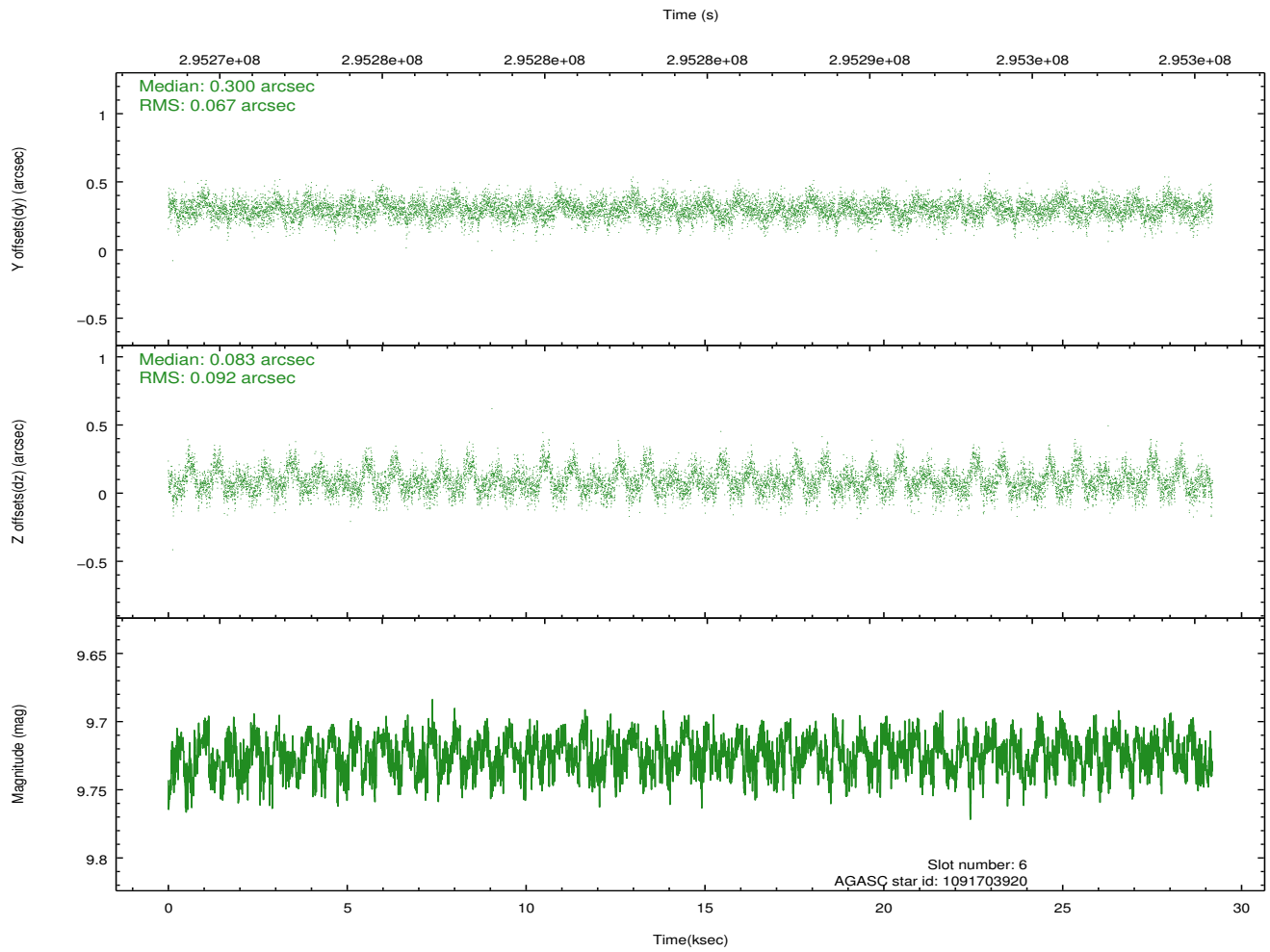
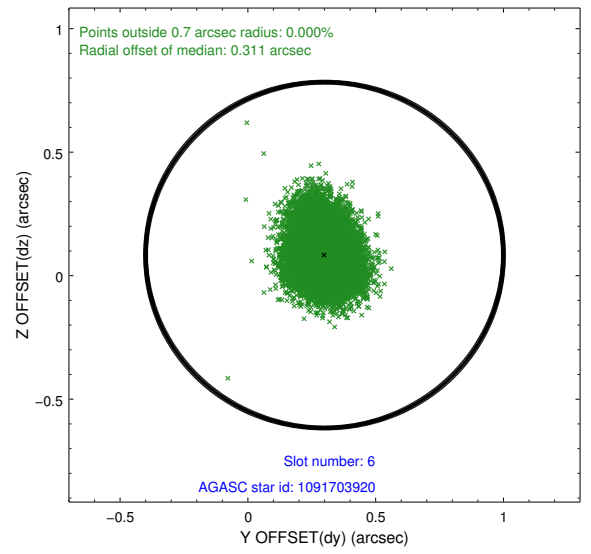
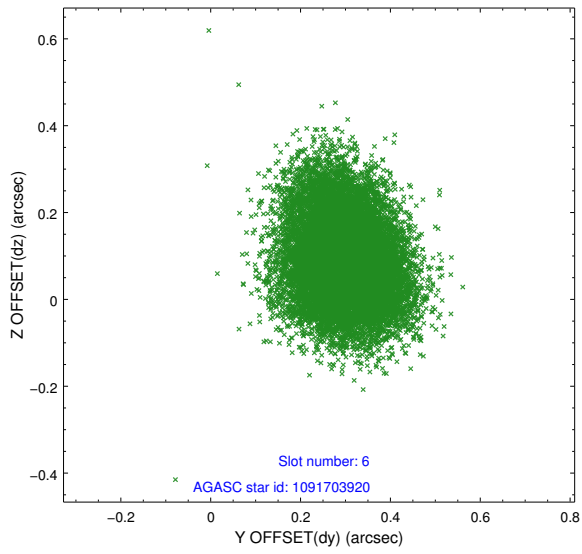
2.4.2 Slot 4



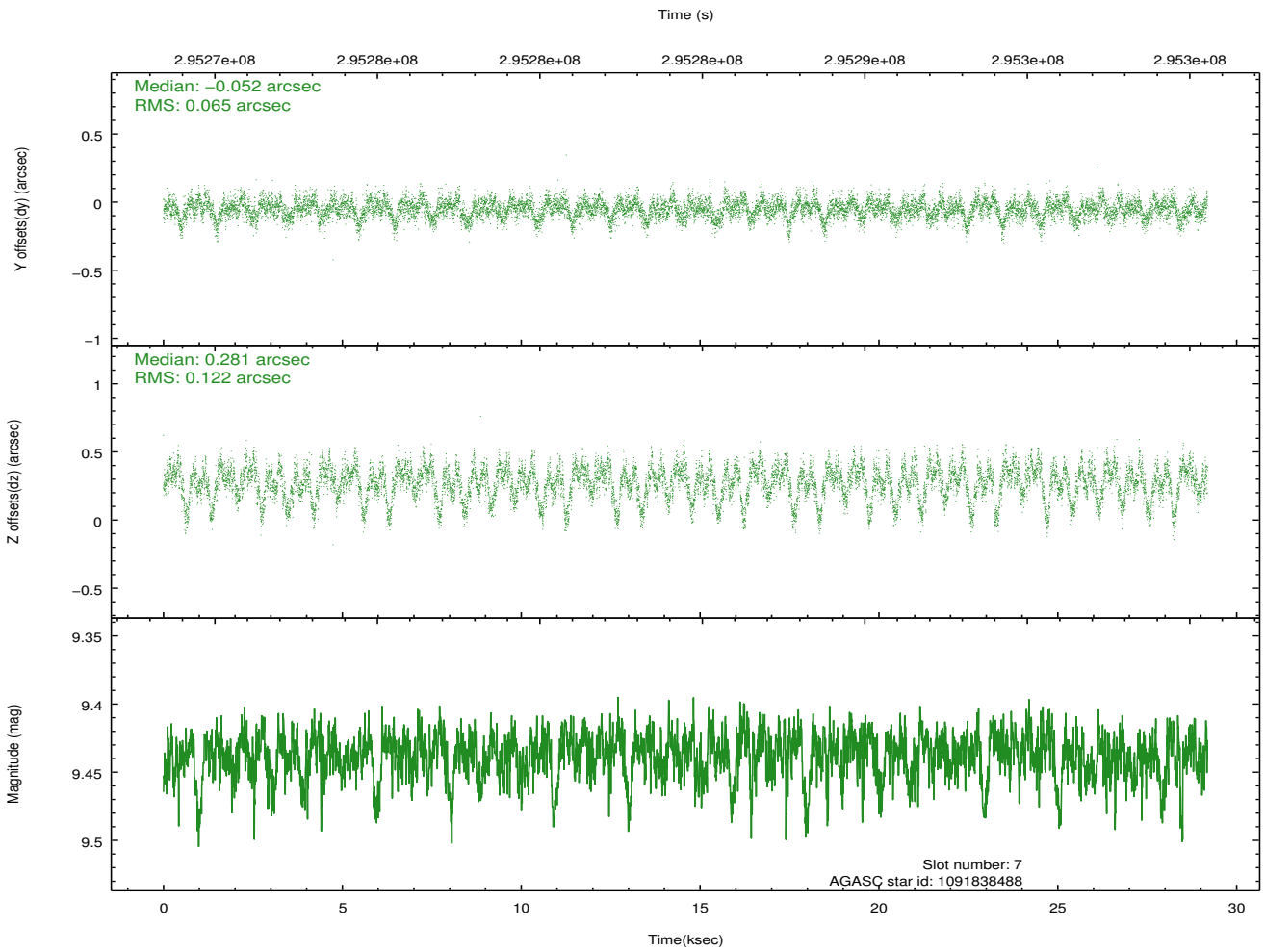
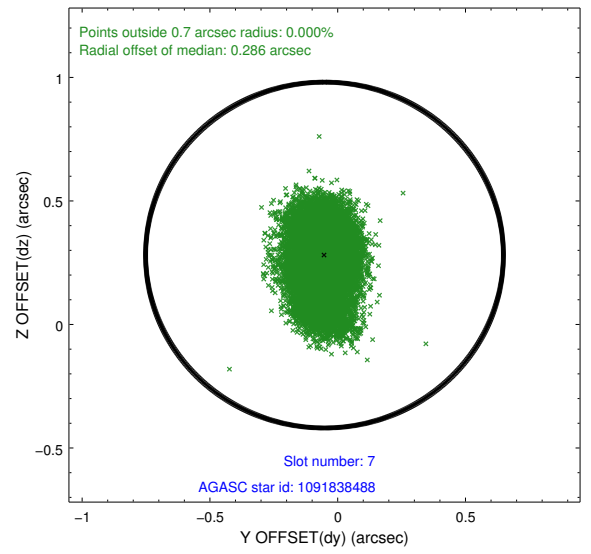
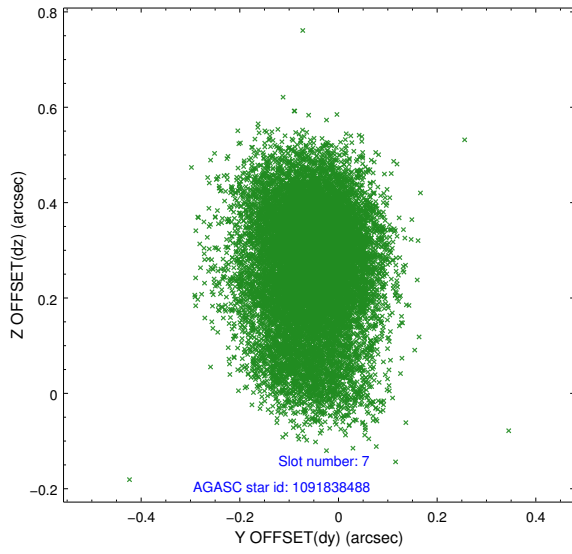
2.4.3 Slot 5



2.4.4 Slot 6

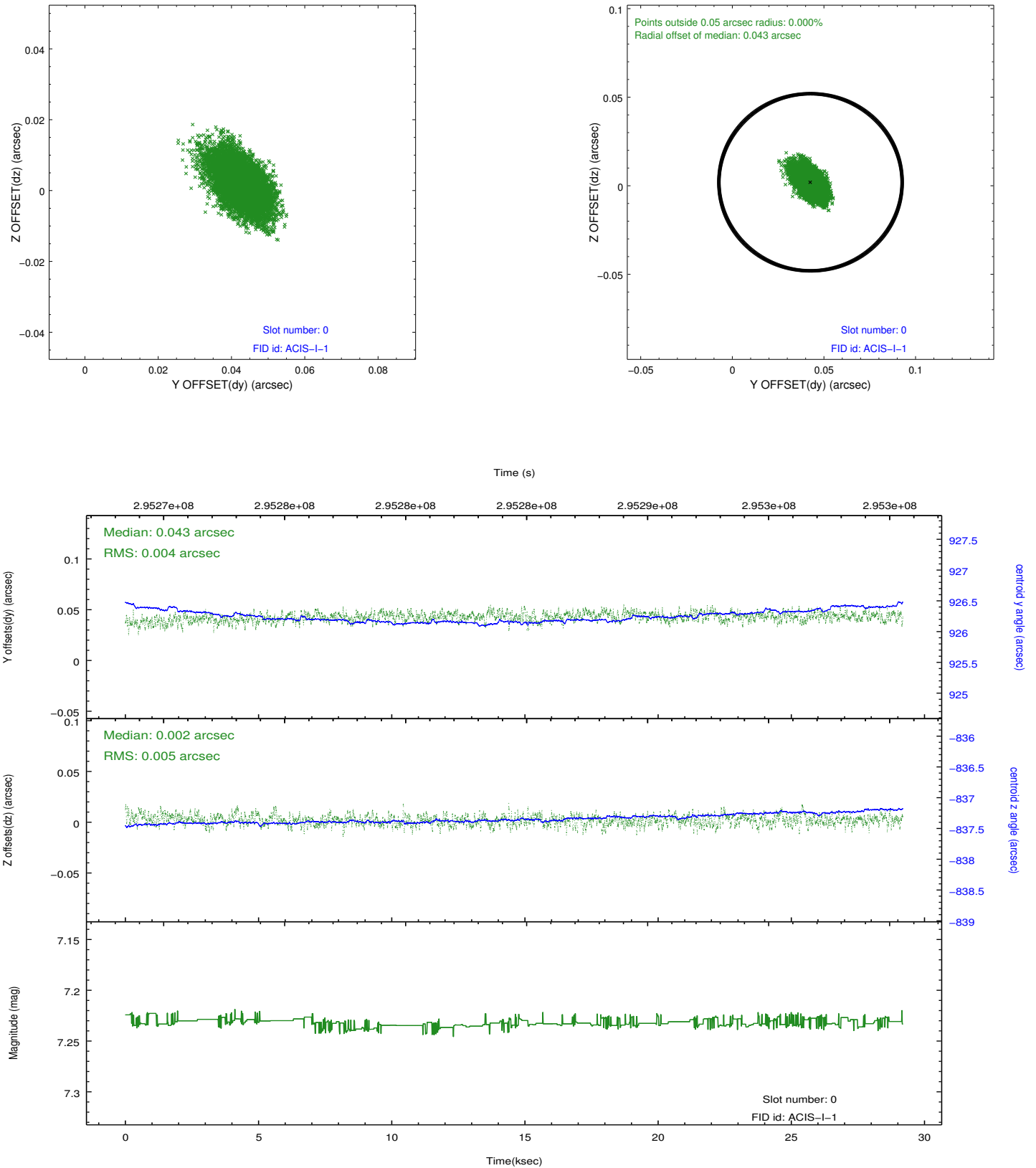


2.4.5 Slot 7

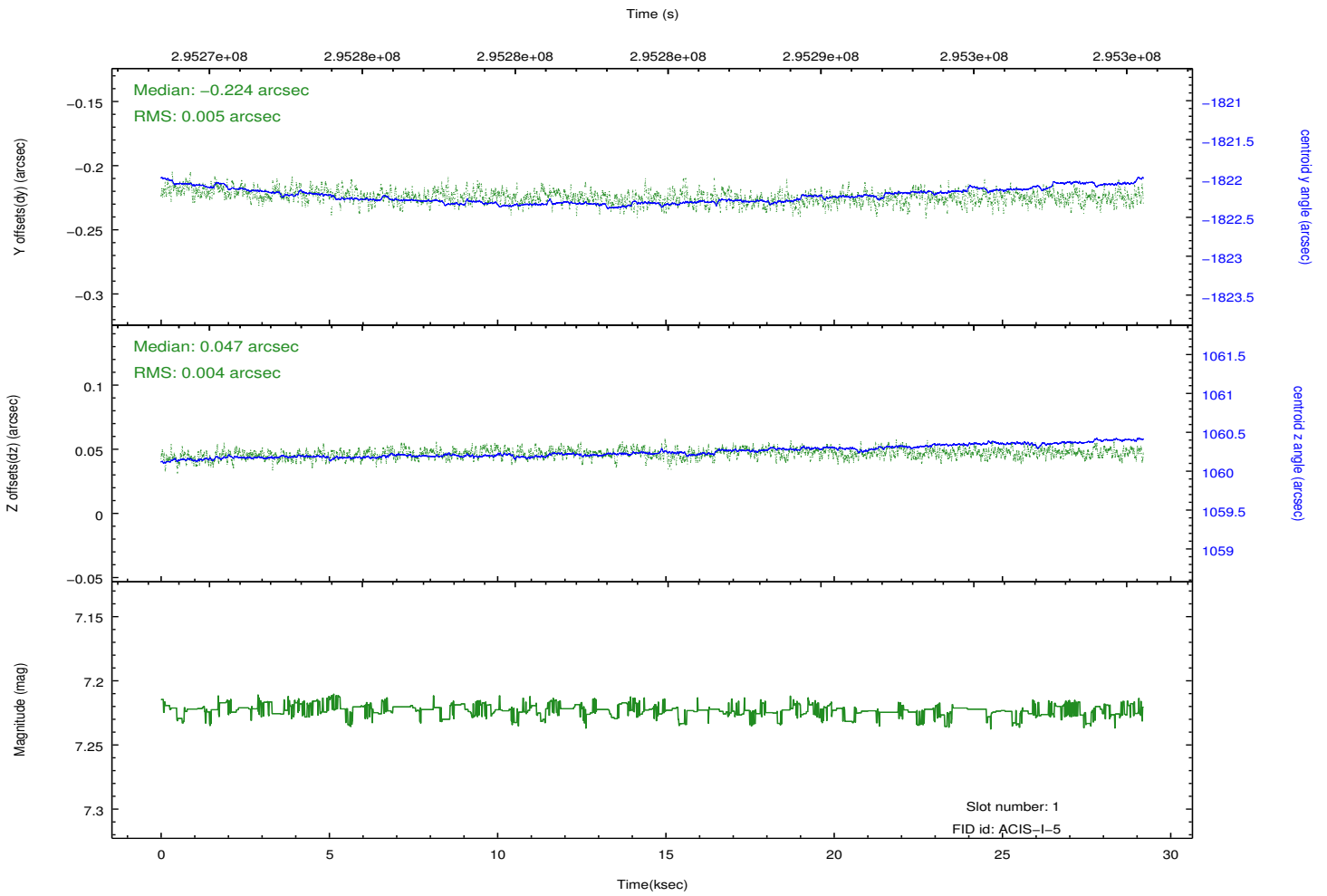
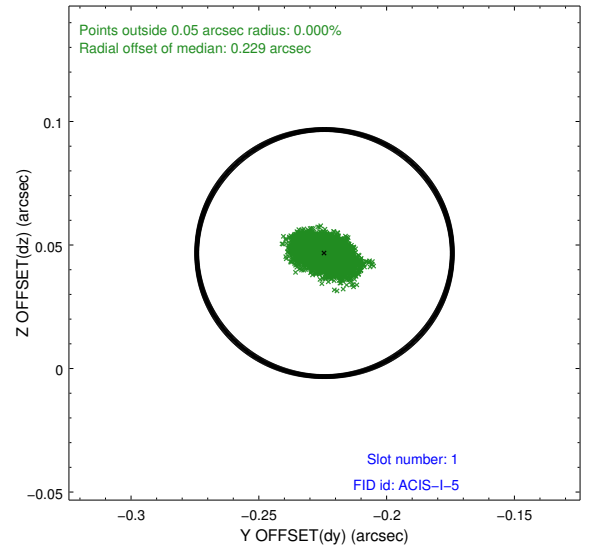
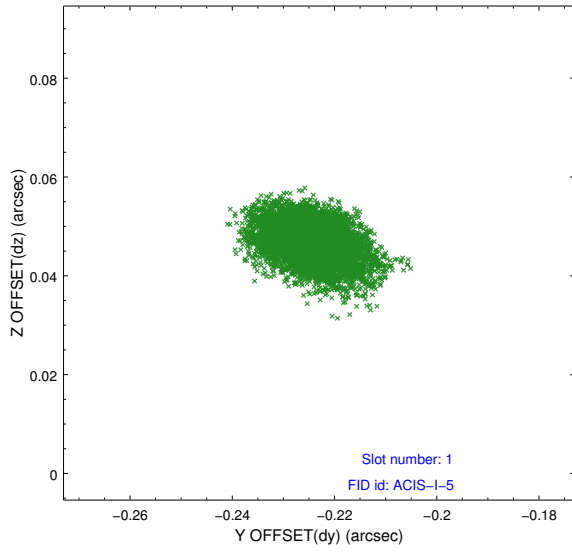


2.5 FID Slots

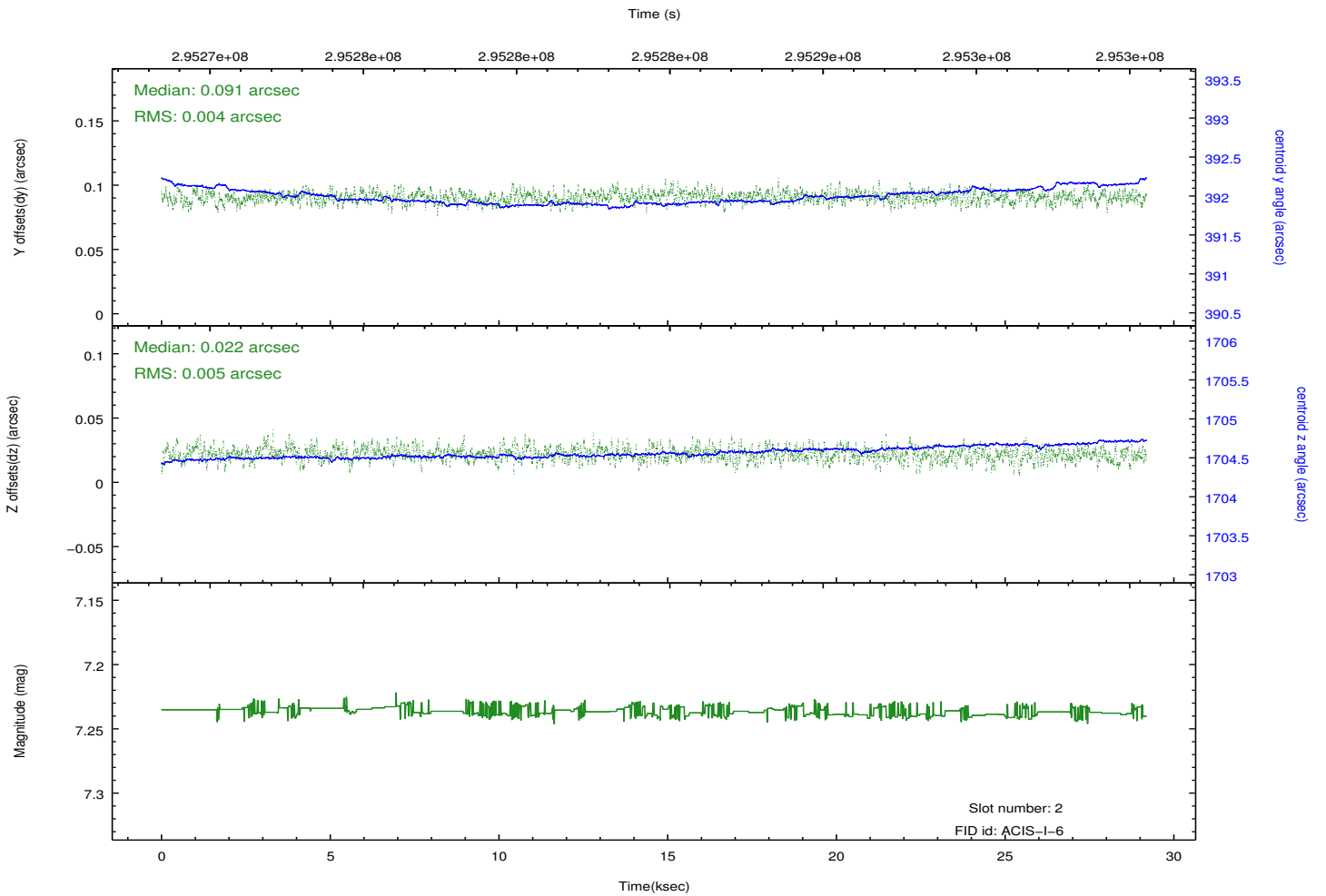
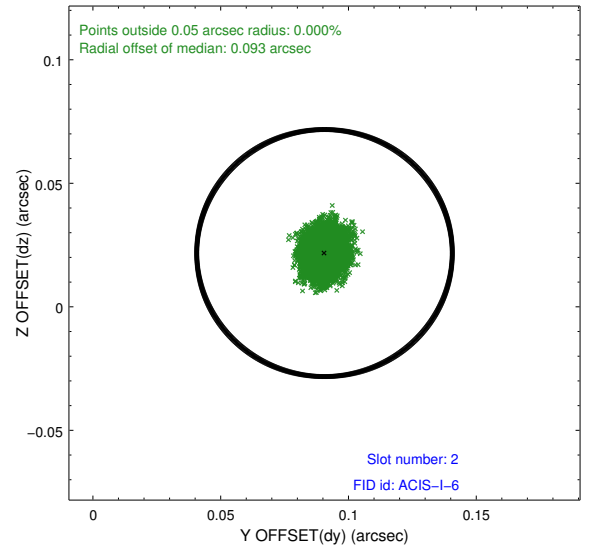
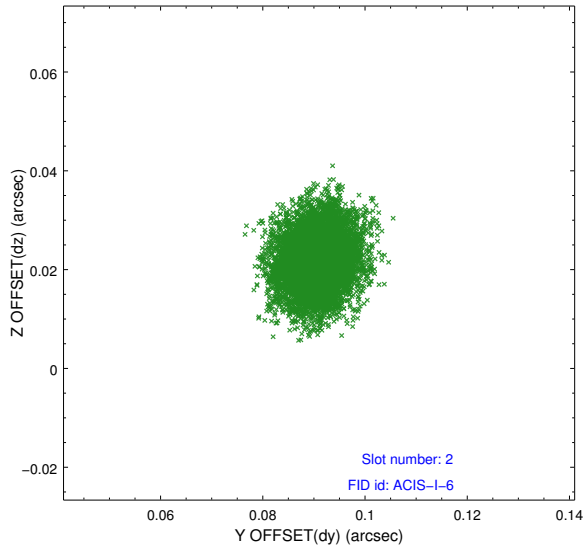
2.5.1 Slot 0



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) | 2012.04.25 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 29.1775588 |

A.2 Comments