

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 10471 - L2 Version 2
Chandra X-Ray Center

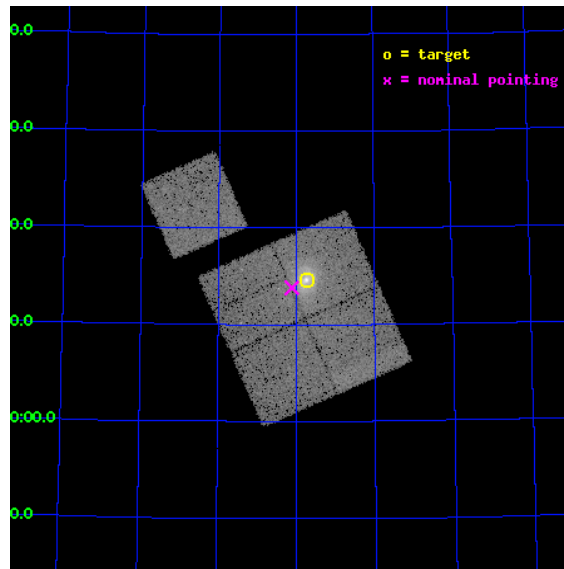
L2 Processing Date : Jun 9 2012

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

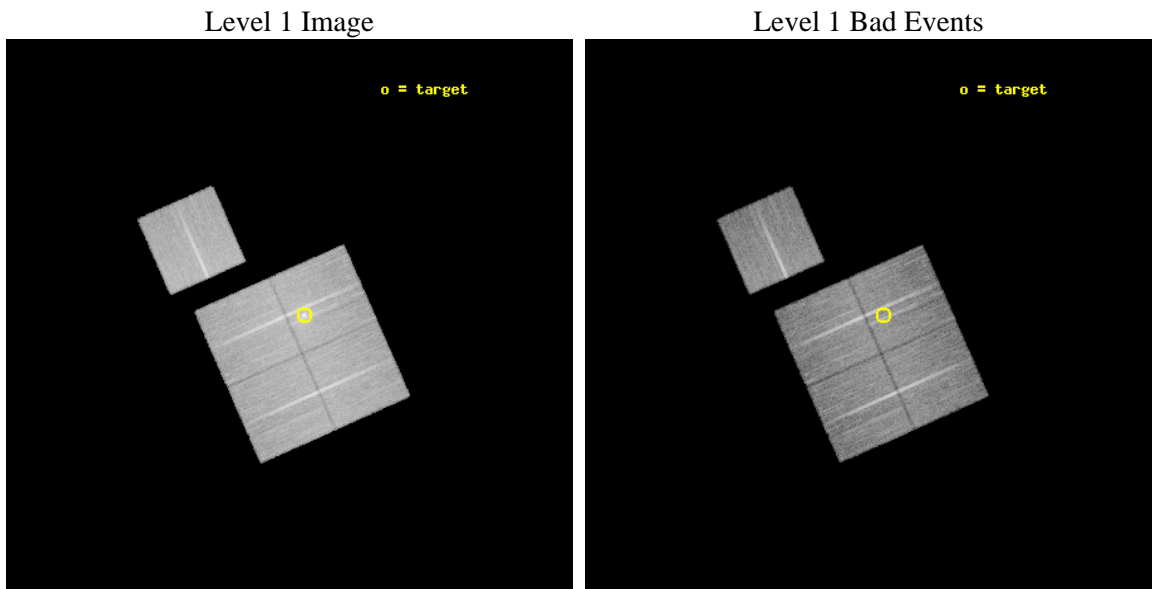
| | | |
|----------|---|---|
| seq_num | 800829 | Sequence number |
| obs_id | 10471 | Observation id |
| title | A Deep Image of the Most Powerful Cluster AGN Outburst | Proposal ti |
| observer | Prof. Brian McNamara | Principal investigator |
| object | MS0735.6+7421 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 115.433333 | Observer's specified target RA [deg] |
| dec_targ | 74.243972 | Observer's specified target Dec [deg] |
| ra_nom | 115.52935365677 | Nominal RA [deg] |
| dec_nom | 74.230423225062 | Nominal Dec [deg] |
| roll_nom | 336.11625391185 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 19715.602954805 | Sum of GTIs [s] |
| livetime | 19458.004087785 | Livetime [s] |
| ontime0 | 19715.479834795 | Sum of GTIs [s] |
| ontime1 | 19715.520874798 | Sum of GTIs [s] |
| ontime2 | 19709.279994071 | Sum of GTIs [s] |
| ontime3 | 19715.602954805 | Sum of GTIs [s] |
| ontime6 | 19709.15687418 | Sum of GTIs [s] |
| l2events | 84050 | Number of level 2 events |



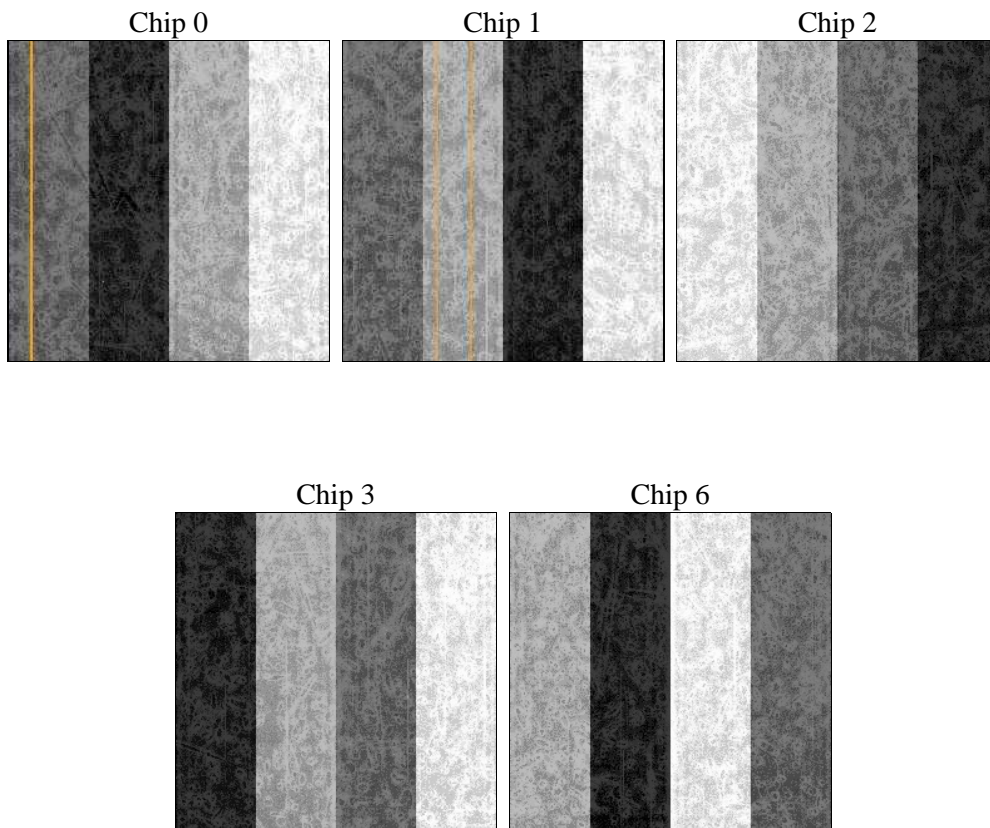
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 19672.594000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 19715.602954805 | Sum of GTIs [s] |
| caldsver | 4.4.10 | | ontime0 | 19715.479834795 | Sum of GTIs [s] |
| date | 2012-06-09T08:34:58 | Date and time of file creation | ontime1 | 19715.520874798 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 19709.279994071 | Sum of GTIs [s] |
| | | | ontime3 | 19715.602954805 | Sum of GTIs [s] |
| | | | ontime6 | 19709.15687418 | Sum of GTIs [s] |
| | | | l1events | 832903 | Number of level 1 events |

2.1.4 Events

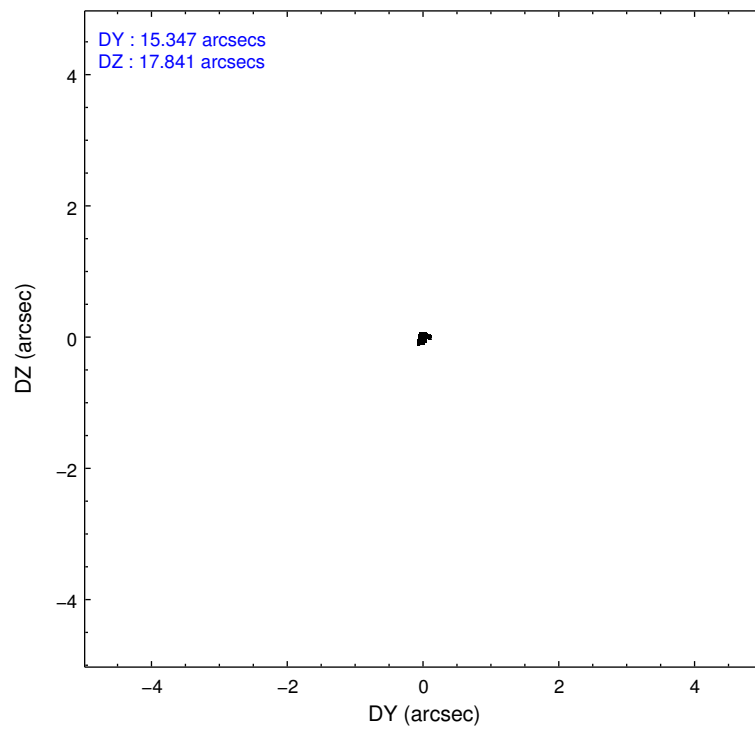
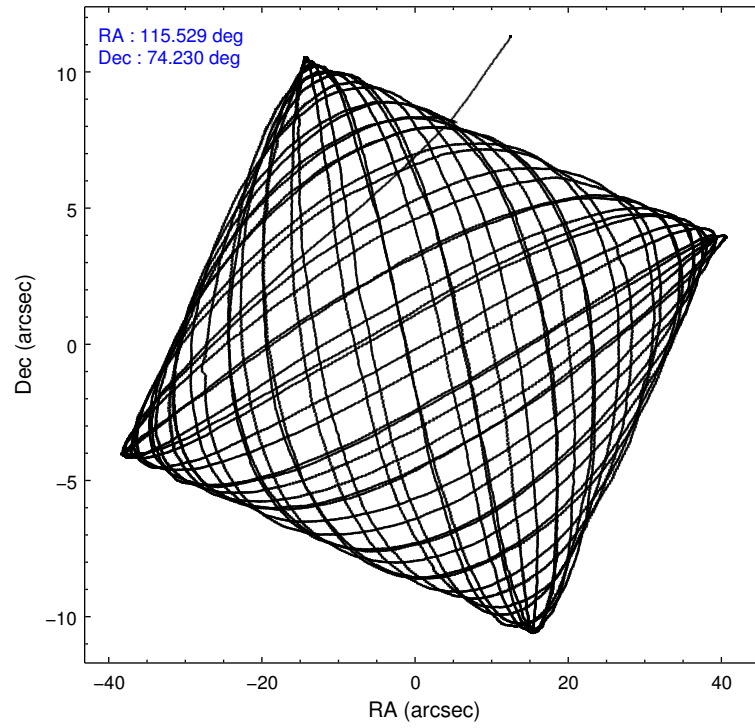
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 158416 | 160727 | 170120 | 176387 | 167253 |
| rejected events | 141394 | 141491 | 152387 | 148656 | 149659 |
| rejected % | 89% | 88% | 89% | 84% | 89% |

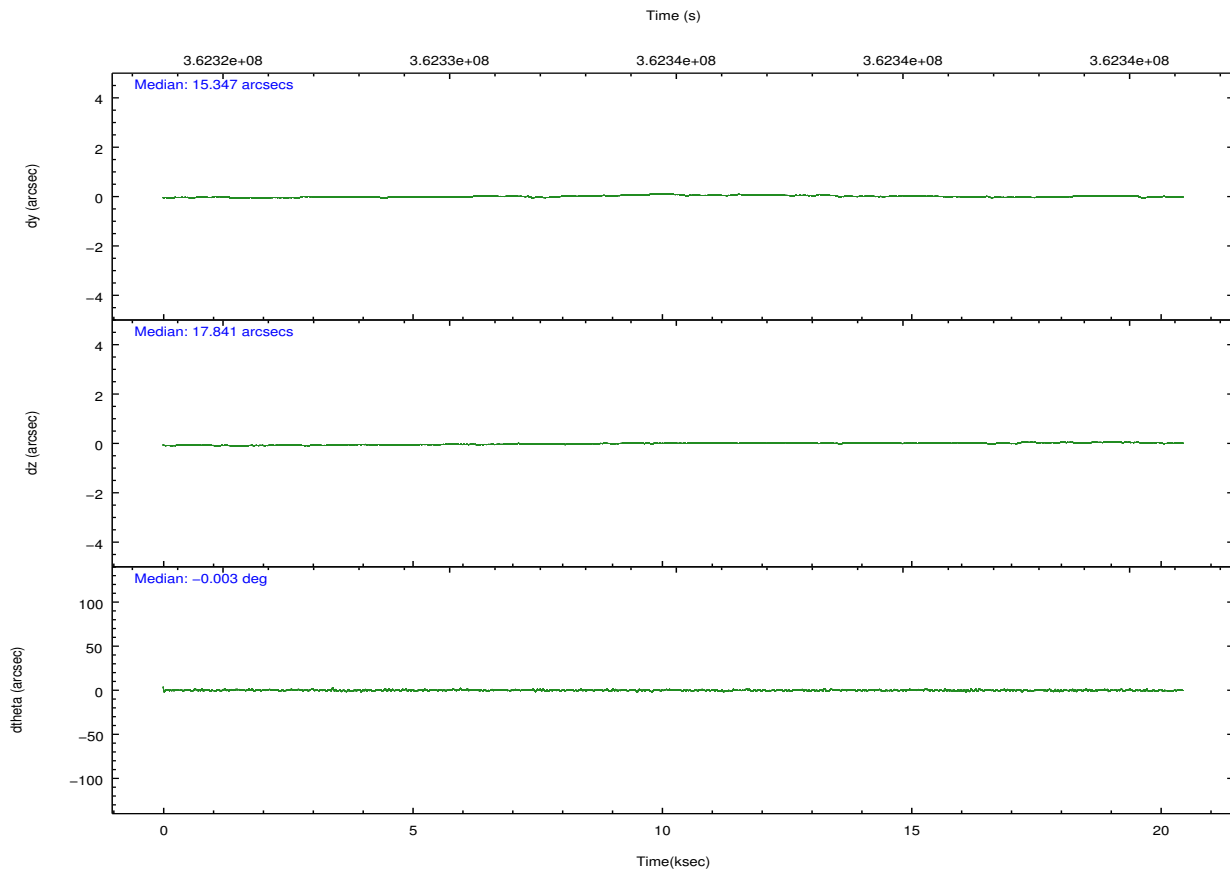
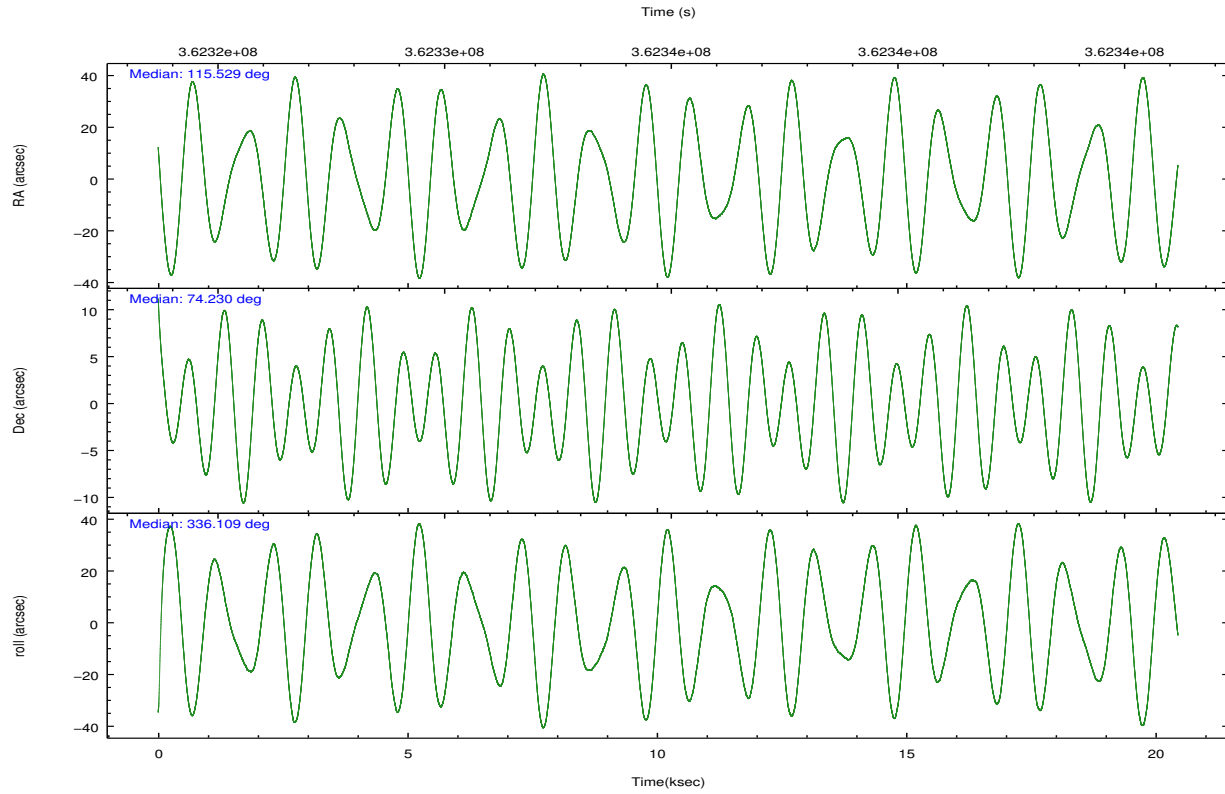
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 5866 | 6727 | 6702 | 15309 | 6125 |
| | 3% | 4% | 3% | 8% | 3% |
| grade 1 events | 86 | 101 | 99 | 198 | 91 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 4185 | 4629 | 4226 | 4513 | 3913 |
| | 2% | 2% | 2% | 2% | 2% |
| grade 3 events | 1864 | 1991 | 1799 | 2207 | 1899 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 4 events | 1788 | 1933 | 1864 | 2154 | 1857 |
| | 1% | 1% | 1% | 1% | 1% |
| grade 5 events | 6024 | 6757 | 5723 | 7157 | 6898 |
| | 3% | 4% | 3% | 4% | 4% |
| grade 6 events | 3320 | 3970 | 3145 | 3558 | 3803 |
| | 2% | 2% | 1% | 2% | 2% |
| grade 7 events | 135283 | 134619 | 146562 | 141291 | 142667 |
| | 85% | 83% | 86% | 80% | 85% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-01236 | ACIS-01236 | 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 | 115.428929 | 115.5293536567693 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 74.227365 | 74.23042322506171 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 336.004234 | 336.1162539118492 | [s] Primary exposure time | 0.000000 | 3.1 |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | | | |
| [mm] SIM defocus | 0 | 0.001439871863259334 | | | |
| [mm] SIM translation stage pos | -225.592463 | -225.5818545406617 | | | |
| [mm] SIM translation stage offset | -8 | -8.010598462268035 | | | |
| [s] Observation start time (MET) | 362325469.184000 | 362324241.81421 | | | |
| Observation start date | 2009-06-25T13:56:43 | 2009-06-25T13:37:21 | | | |
| [s] Observation end time (MET) | 362345141.184000 | 362345375.77776 | | | |
| Observation end date | 2009-06-25T19:24:35 | 2009-06-25T19:29:35 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



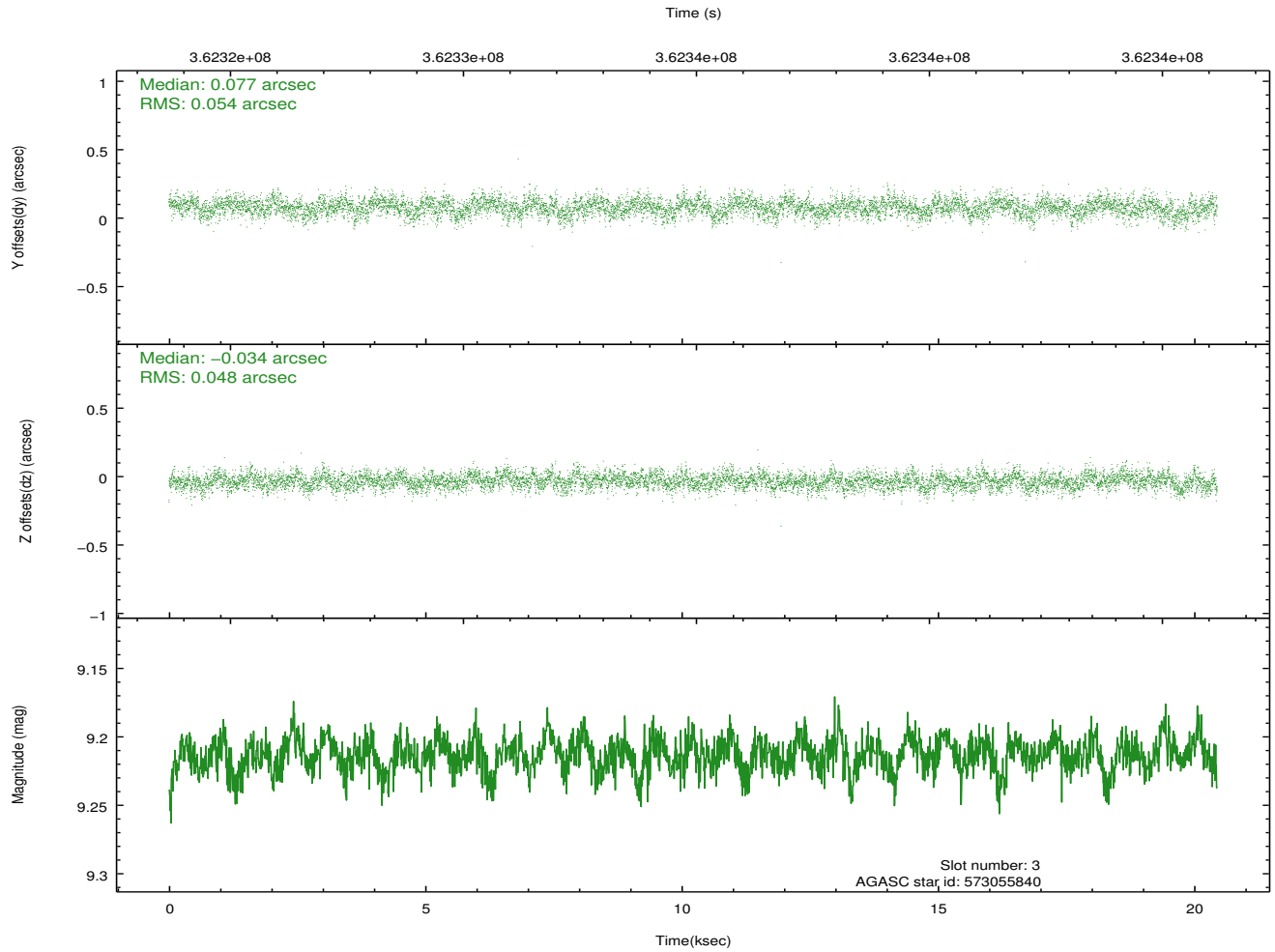
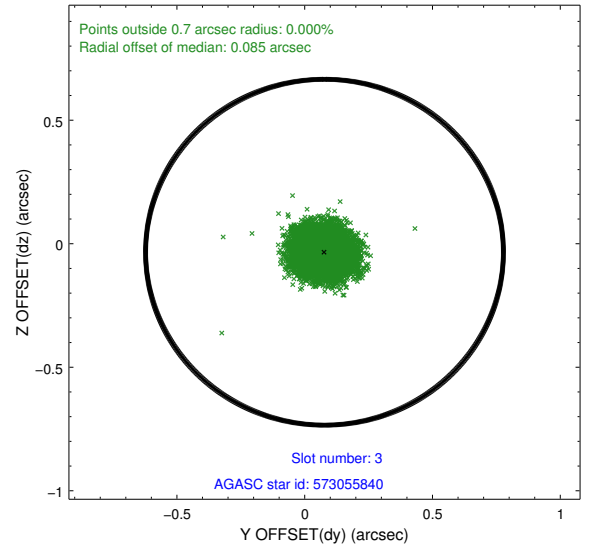
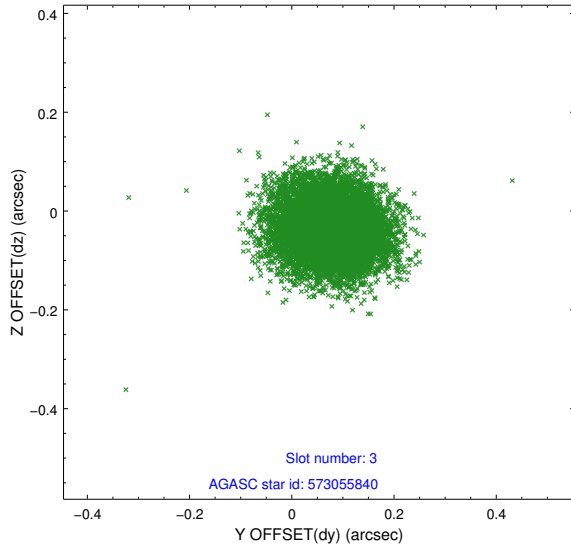


Slot Statistics

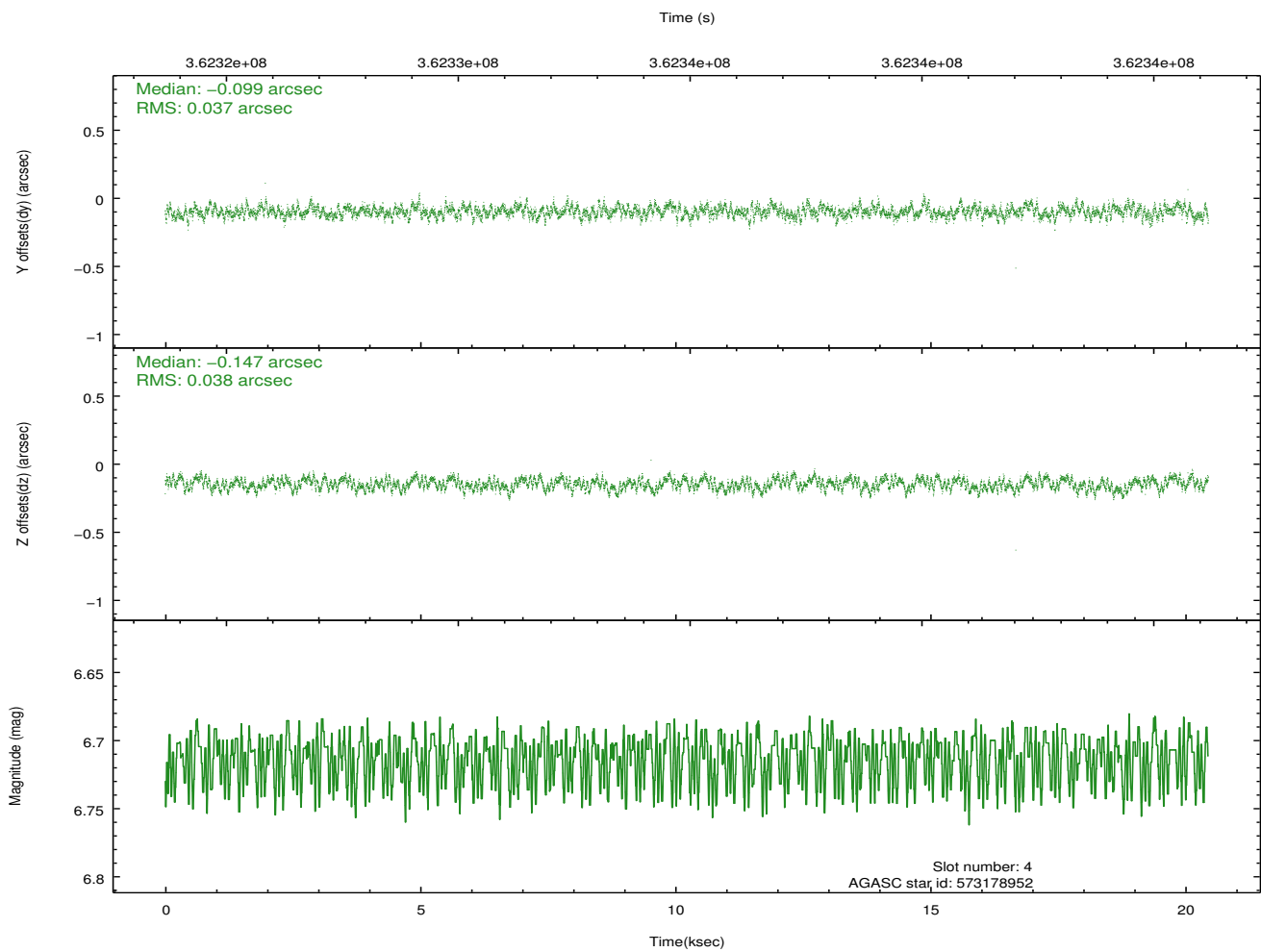
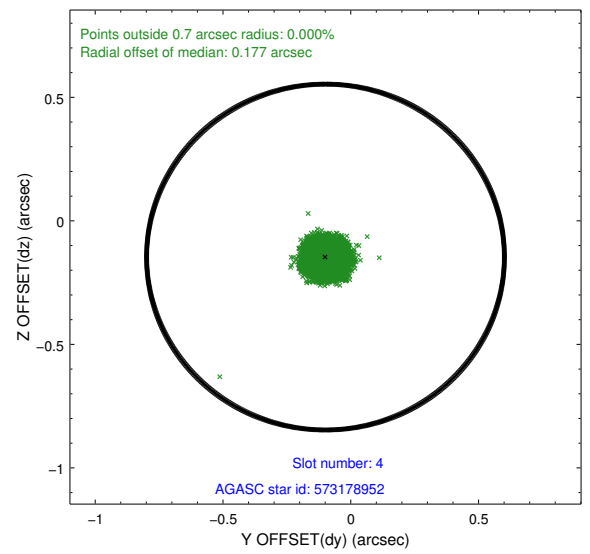
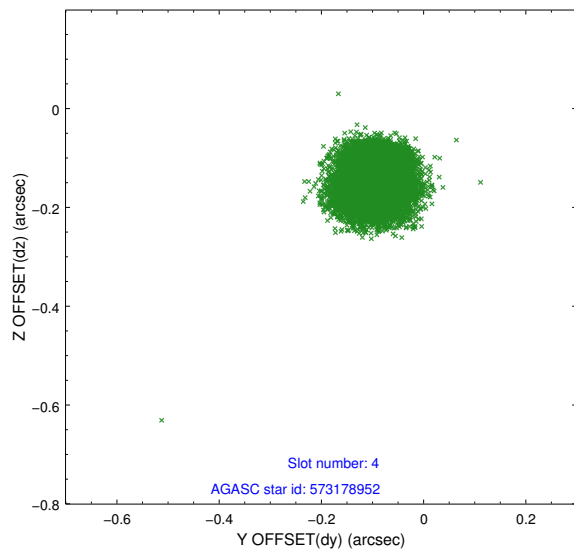
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-2 | 6.95 | 4988 | -0.095 | -0.079 | 0.008 | 0.015 | 0.000000 | 0.000000 | -770.72 | -1011.34 |
| 1 | FID | ACIS-I-4 | 6.92 | 4987 | 0.122 | 0.078 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2143.40 | 894.86 |
| 2 | FID | ACIS-I-5 | 6.98 | 4987 | -0.128 | 0.069 | 0.009 | 0.015 | 0.000000 | 0.000000 | -1823.97 | 891.82 |
| 3 | GUIDE | 573055840 | 9.21 | 9968 | 0.077 | -0.034 | 0.077 | 0.126 | 113.597023 | 74.523847 | -2051.98 | 284.16 |
| 4 | GUIDE | 573178952 | 6.71 | 9975 | -0.099 | -0.147 | 0.057 | 0.088 | 117.150959 | 74.043209 | 1816.99 | 109.62 |
| 5 | GUIDE | 573179104 | 9.23 | 9965 | 0.120 | 0.139 | 0.096 | 0.157 | 116.721510 | 73.777279 | 1841.67 | -938.26 |
| 6 | GUIDE | 573179776 | 9.11 | 9965 | -0.018 | -0.125 | 0.106 | 0.166 | 115.887555 | 74.372574 | 194.01 | 659.77 |
| 7 | GUIDE | 573180248 | 7.75 | 9972 | -0.078 | 0.165 | 0.073 | 0.120 | 114.639898 | 73.595816 | 190.25 | -2398.69 |

2.4 Star Slots

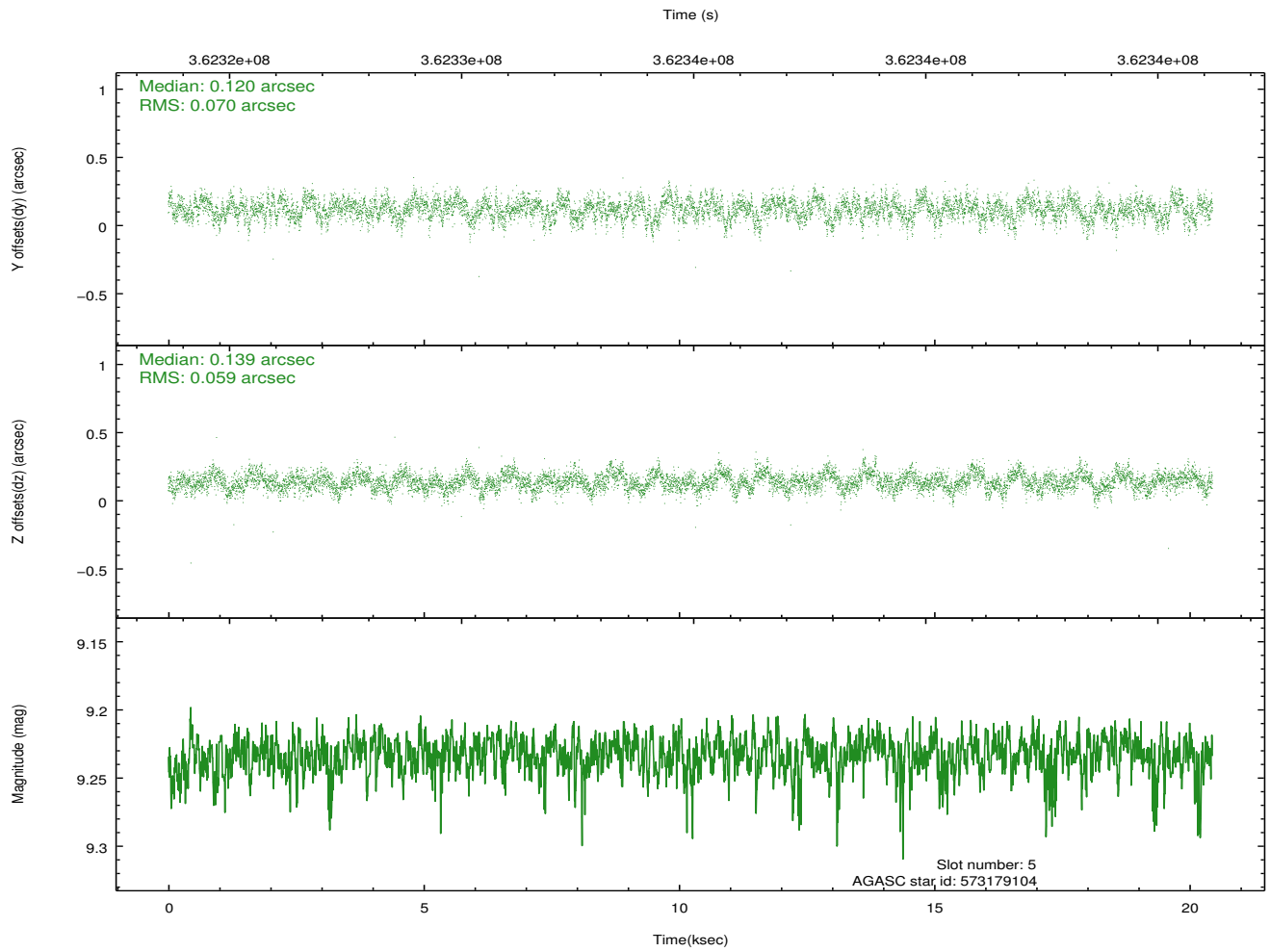
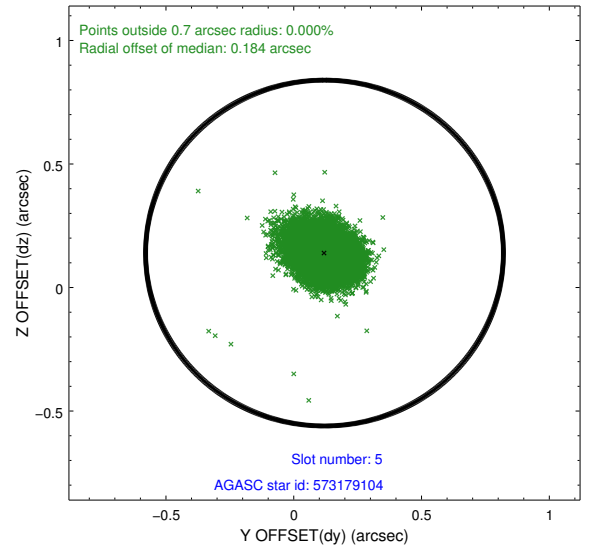
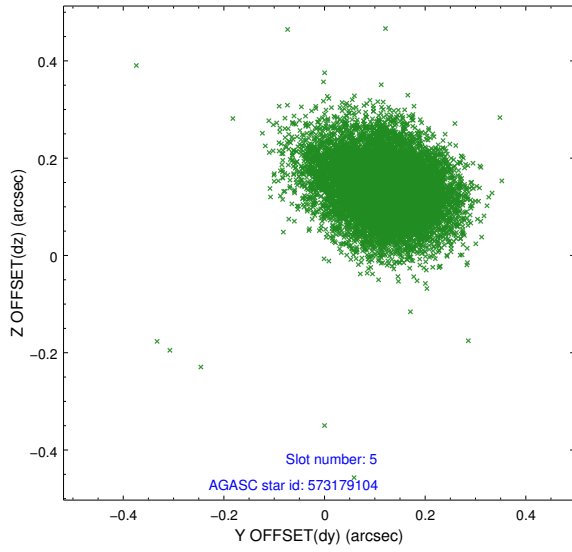
2.4.1 Slot 3



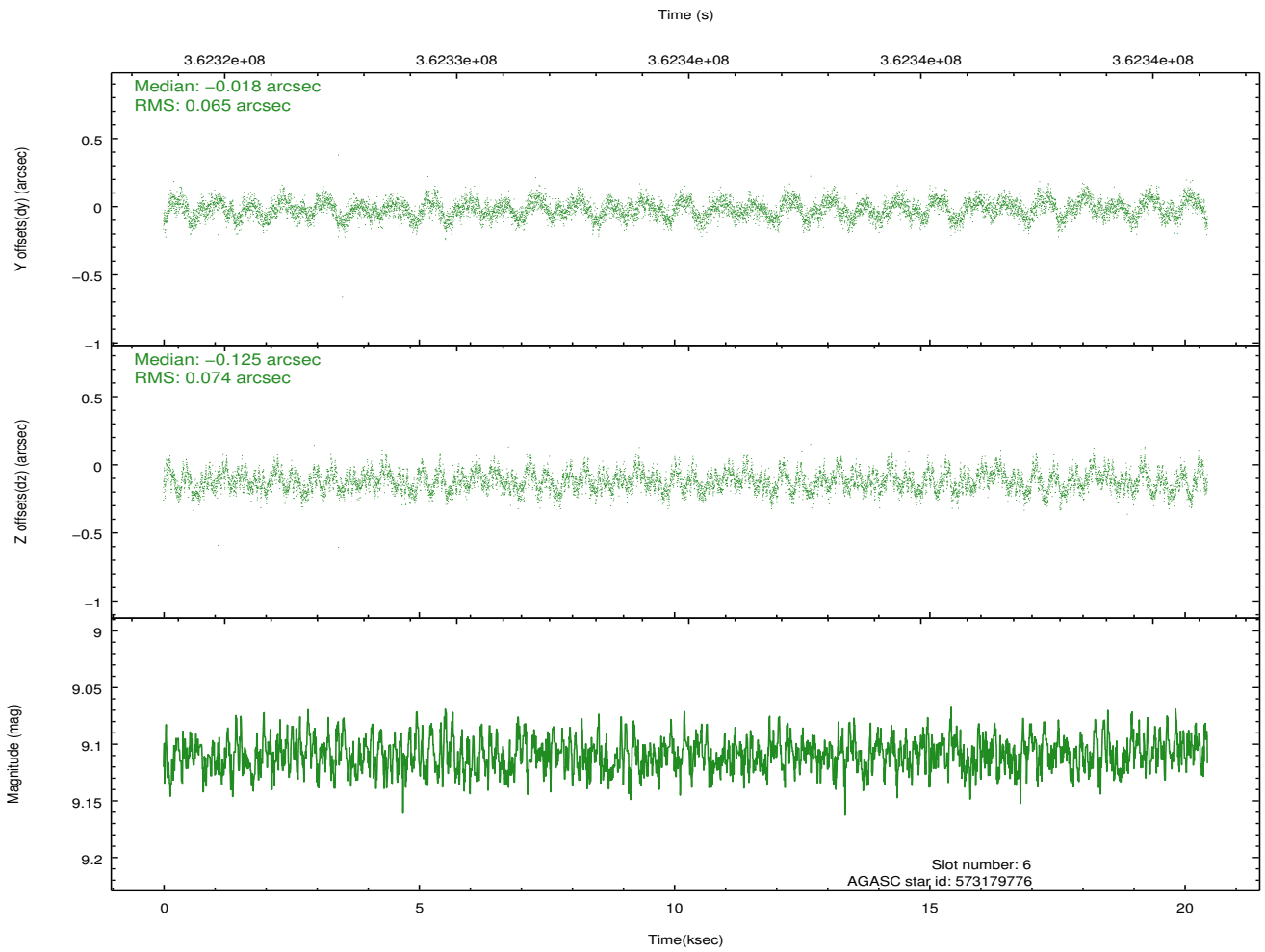
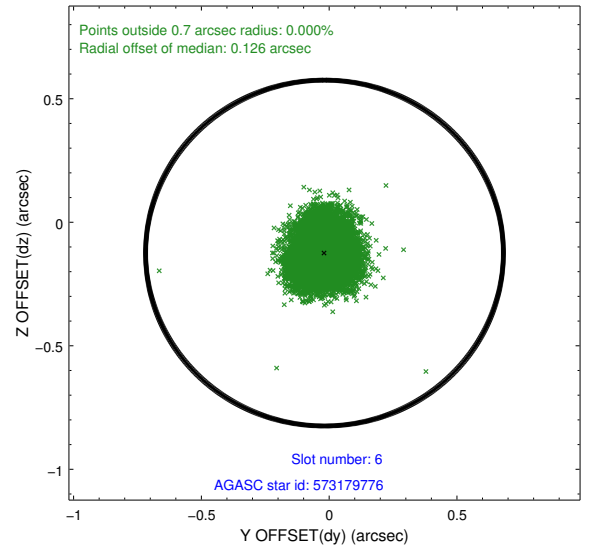
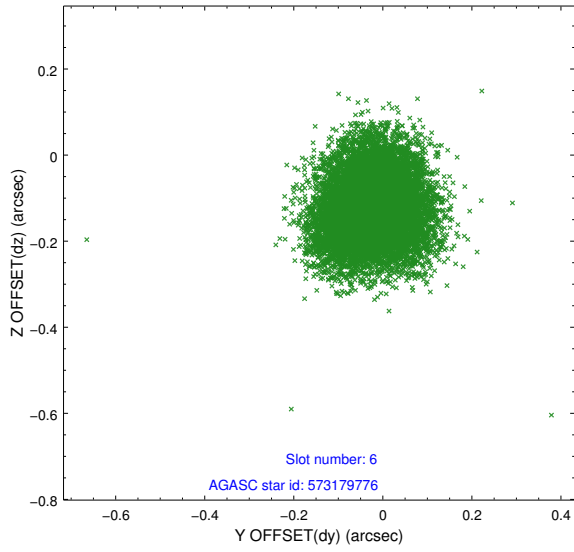
2.4.2 Slot 4



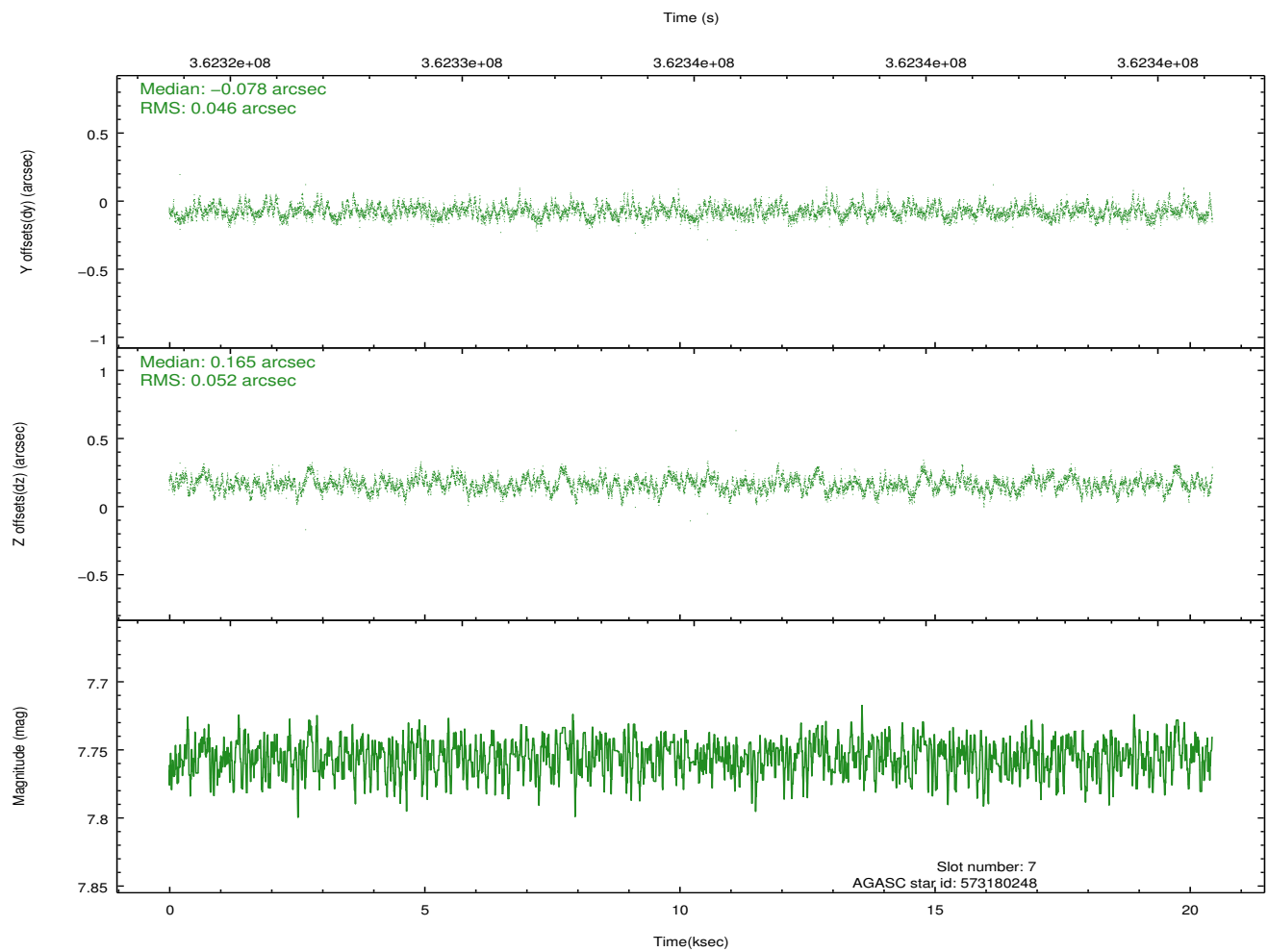
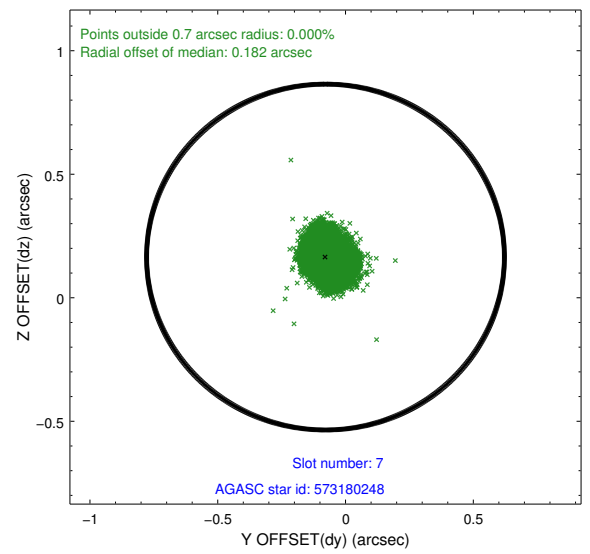
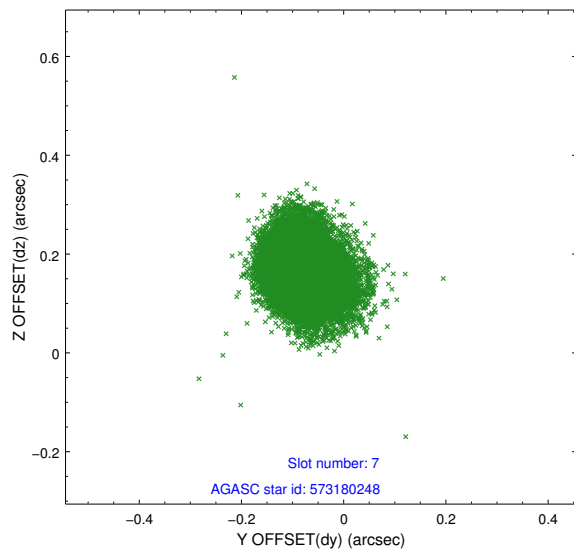
2.4.3 Slot 5



2.4.4 Slot 6

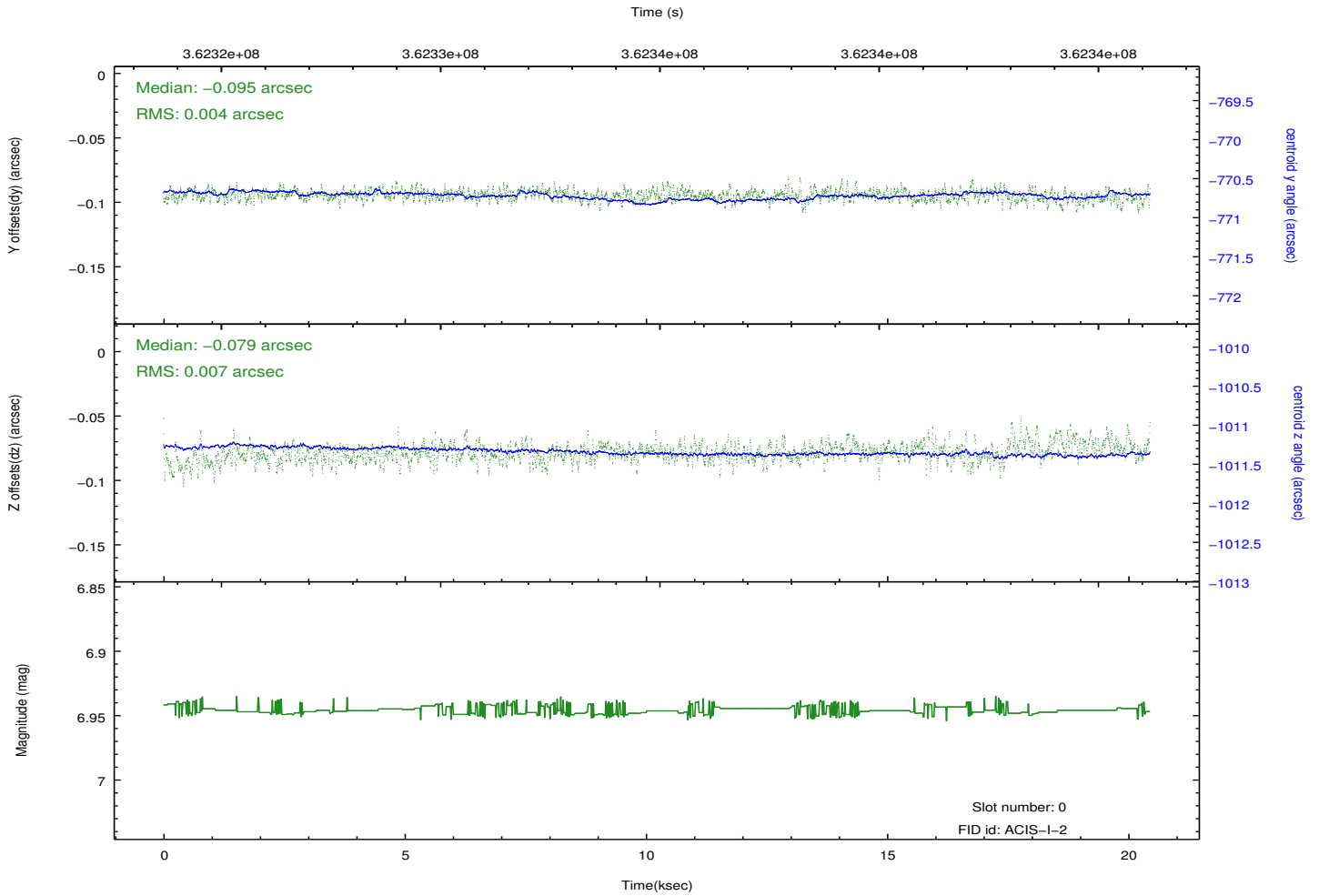
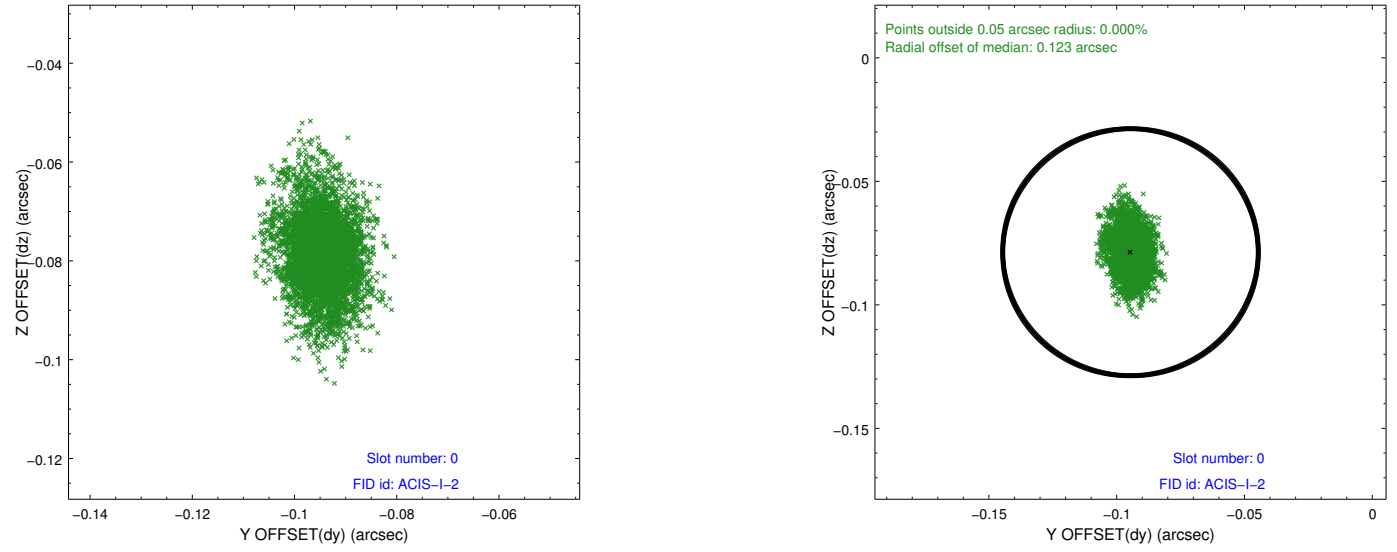


2.4.5 Slot 7

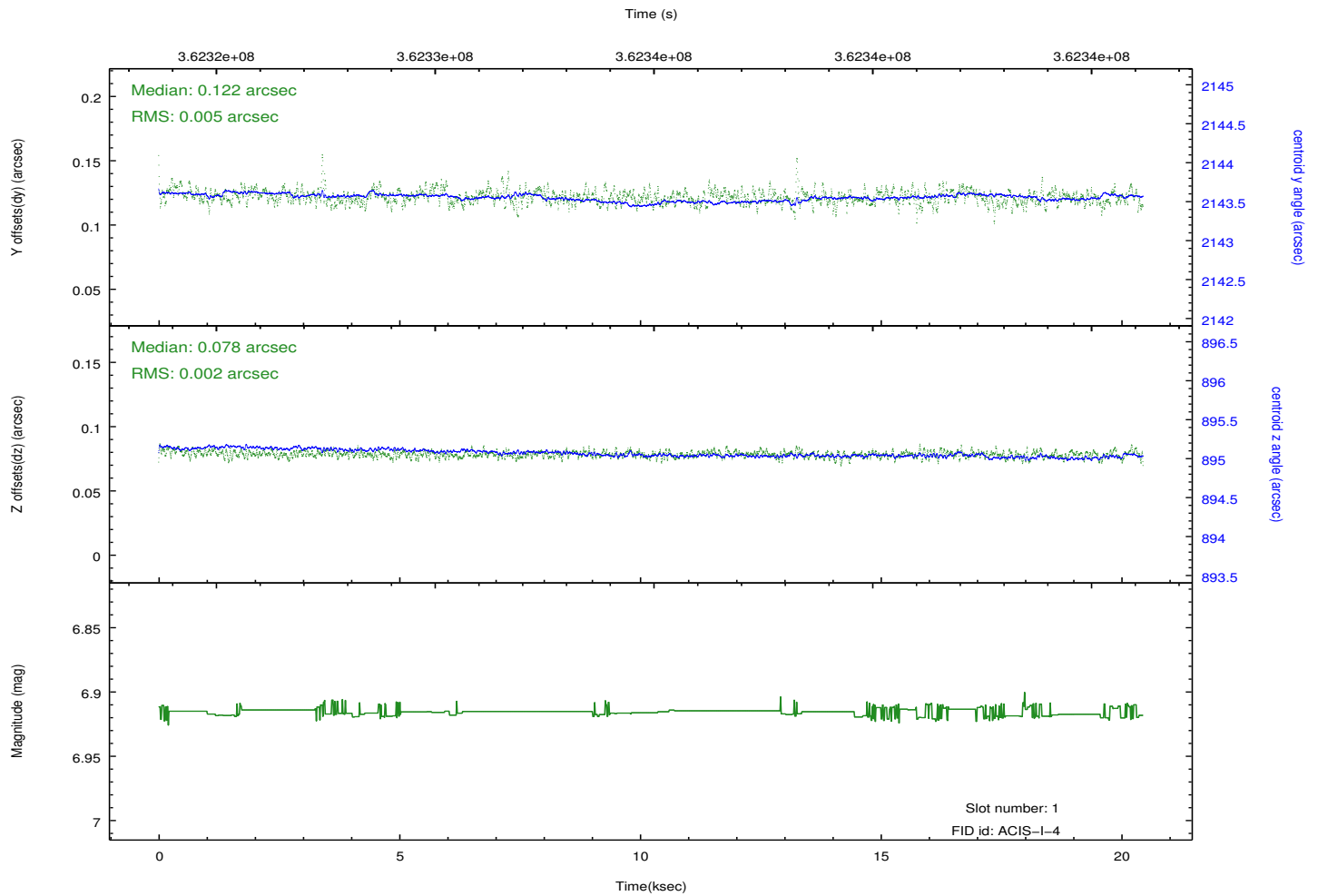
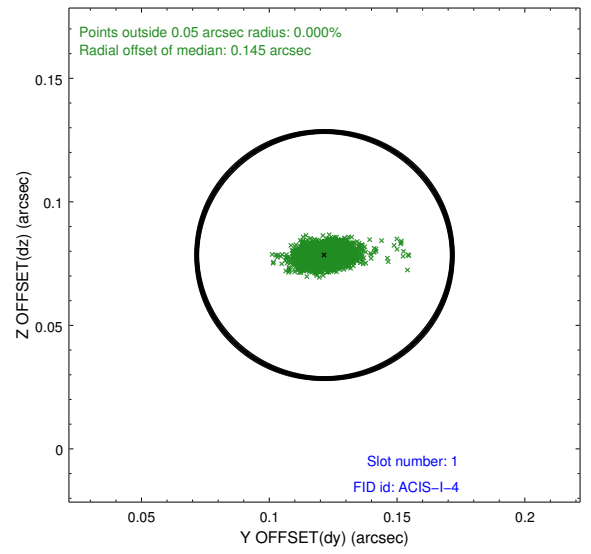
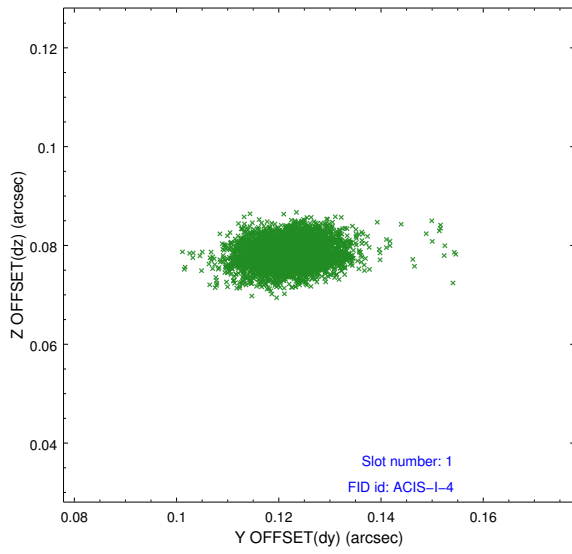


2.5 FID Slots

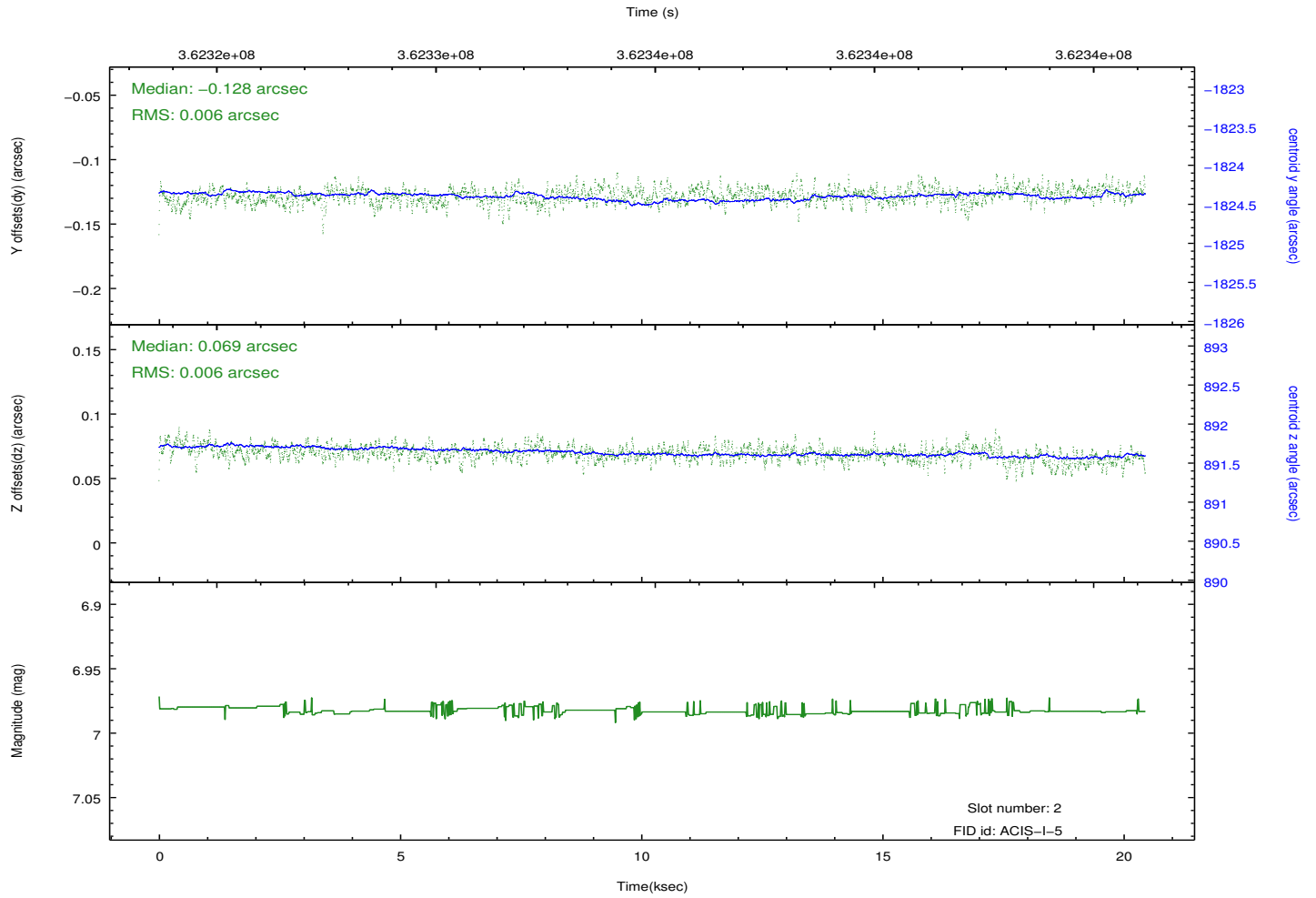
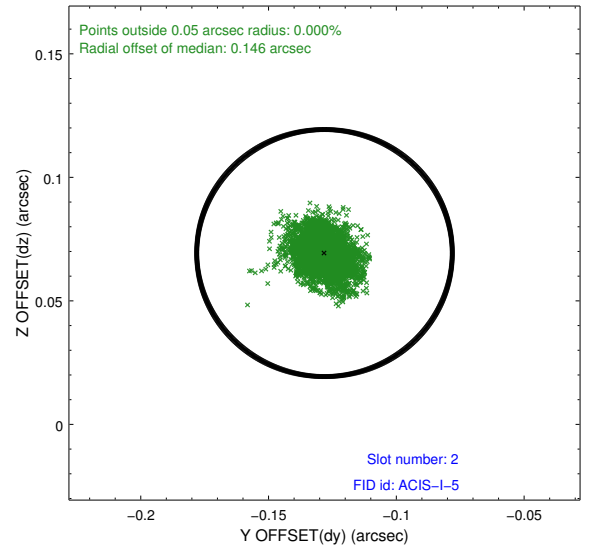
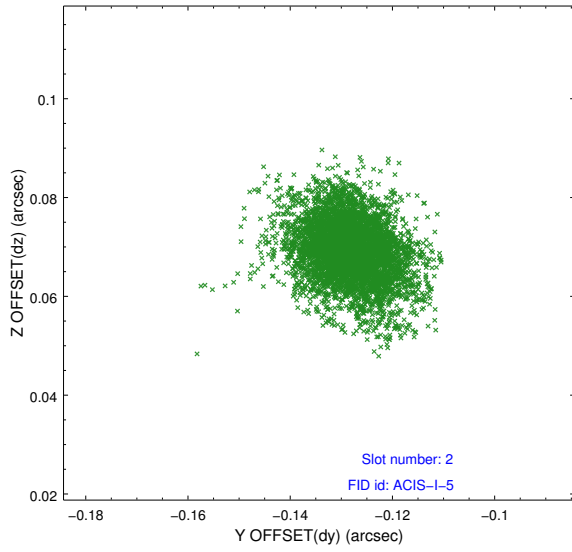
2.5.1 Slot 0



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) | 2012.06.12 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 19.7160001 |

A.2 Comments