

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 3477 - L2 Version 3
Chandra X-Ray Center

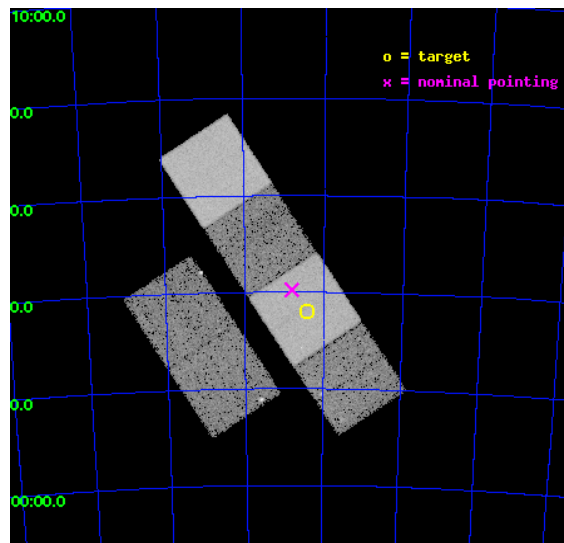
L2 Processing Date : Oct 4 2012

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1 Front

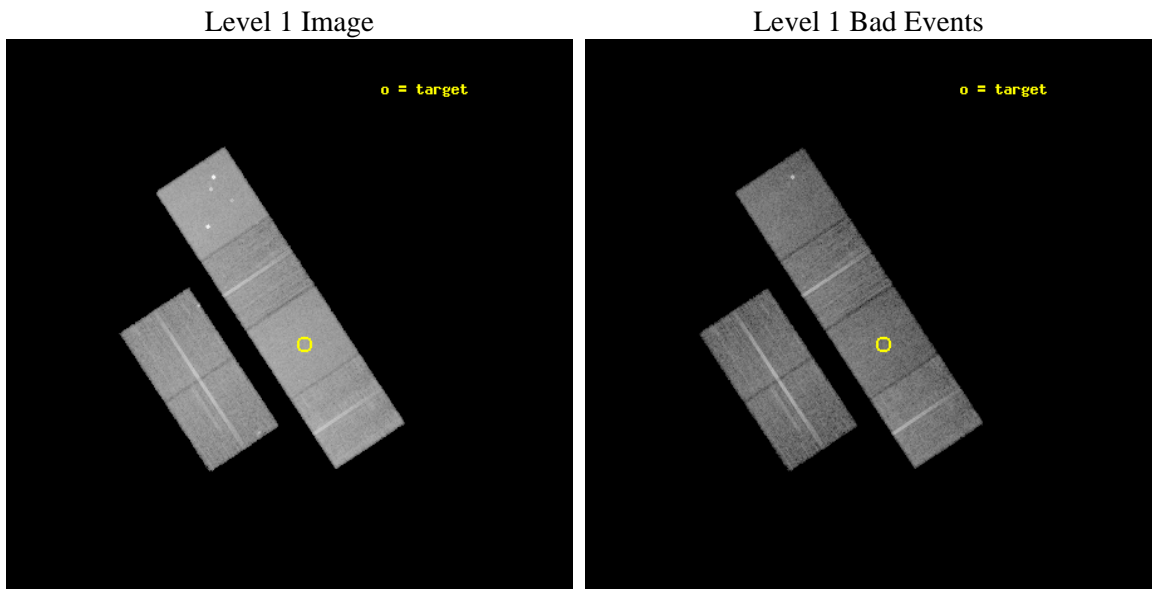
| | | |
|----------|--|---|
| seq_num | 500294 | Sequence number |
| obs_id | 3477 | Observation id |
| title | CHANDRA ARCSECOND LOCALIZATION OF THE DARK BURST GRB020321 | Proposa |
| observer | Prof. Derek Fox | Principal investigator |
| object | GRB020321 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 242.76 | Observer's specified target RA [deg] |
| dec_targ | -83.7 | Observer's specified target Dec [deg] |
| ra_nom | 243.00306806705 | Nominal RA [deg] |
| dec_nom | -83.662867746313 | Nominal Dec [deg] |
| roll_nom | 56.598225159291 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 20056.944676399 | Sum of GTIs [s] |
| livetime | 19802.971566064 | Livetime [s] |
| ontime2 | 20053.744756147 | Sum of GTIs [s] |
| ontime3 | 20056.821556404 | Sum of GTIs [s] |
| ontime5 | 20056.903636396 | Sum of GTIs [s] |
| ontime6 | 20053.621626154 | Sum of GTIs [s] |
| ontime7 | 20056.944676399 | Sum of GTIs [s] |
| ontime8 | 20056.780516401 | Sum of GTIs [s] |
| l2events | 197851 | Number of level 2 events |



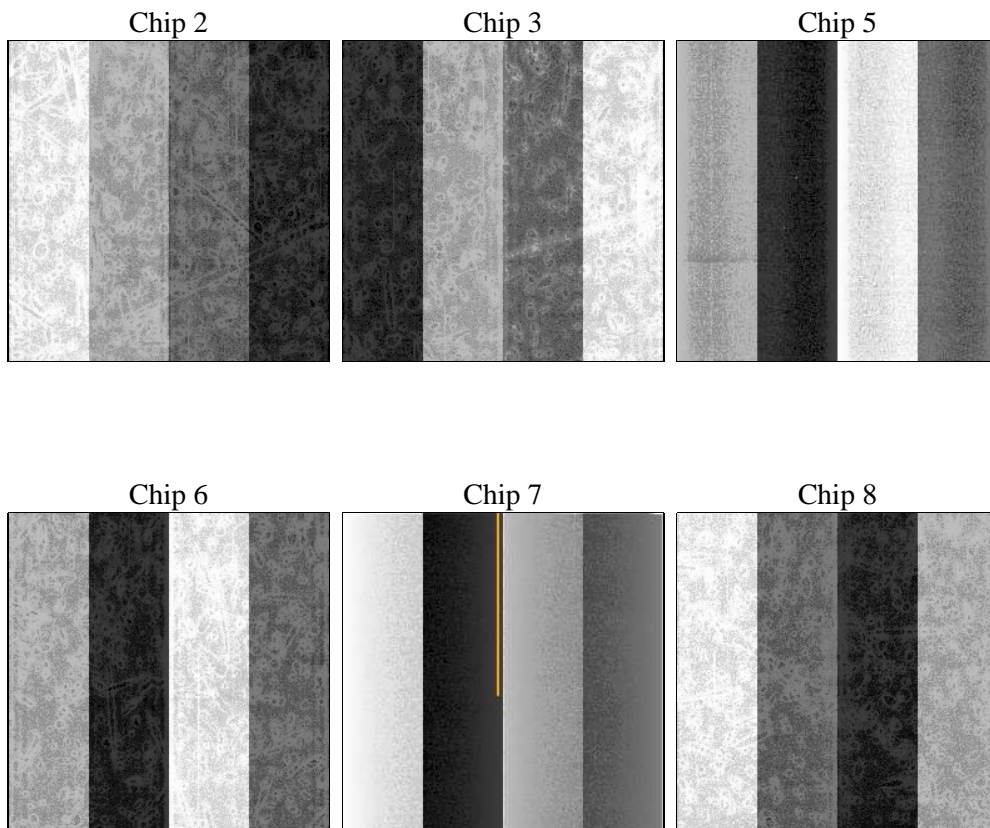
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 20000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 20056.944676399 | Sum of GTIs [s] |
| caldbver | 4.5.2 | | ontime2 | 20053.744756147 | Sum of GTIs [s] |
| date | 2012-10-04T16:33:19 | Date and time of file creation | ontime3 | 20056.821556404 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 20056.903636396 | Sum of GTIs [s] |
| | | | ontime6 | 20053.621626154 | Sum of GTIs [s] |
| | | | ontime7 | 20056.944676399 | Sum of GTIs [s] |
| | | | ontime8 | 20056.780516401 | Sum of GTIs [s] |
| | | | l1events | 893581 | Number of level 1 events |

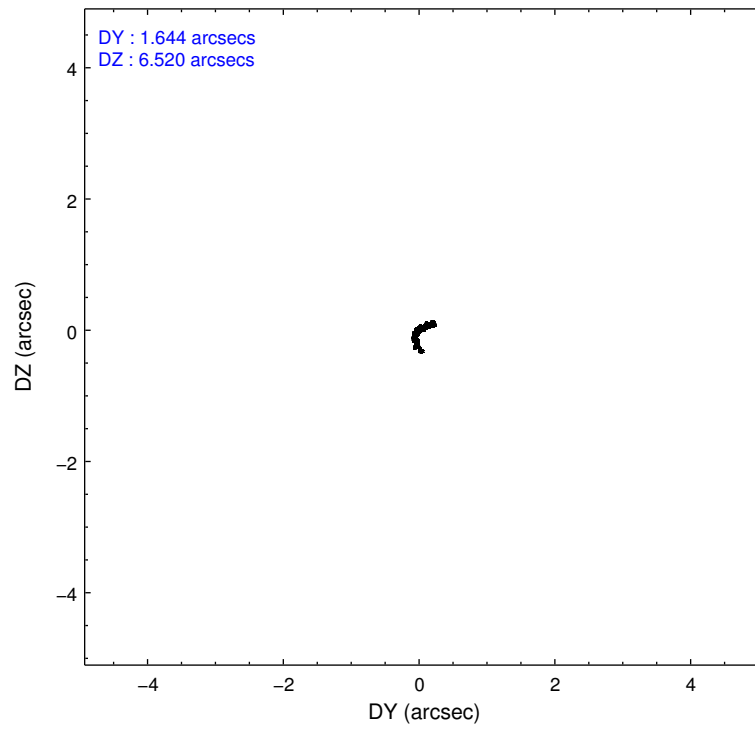
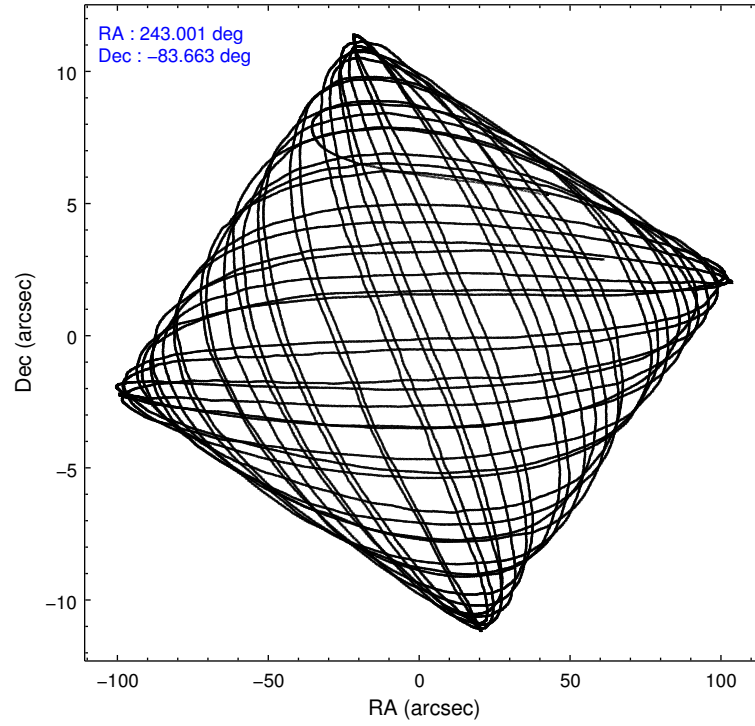
2.1.4 Events

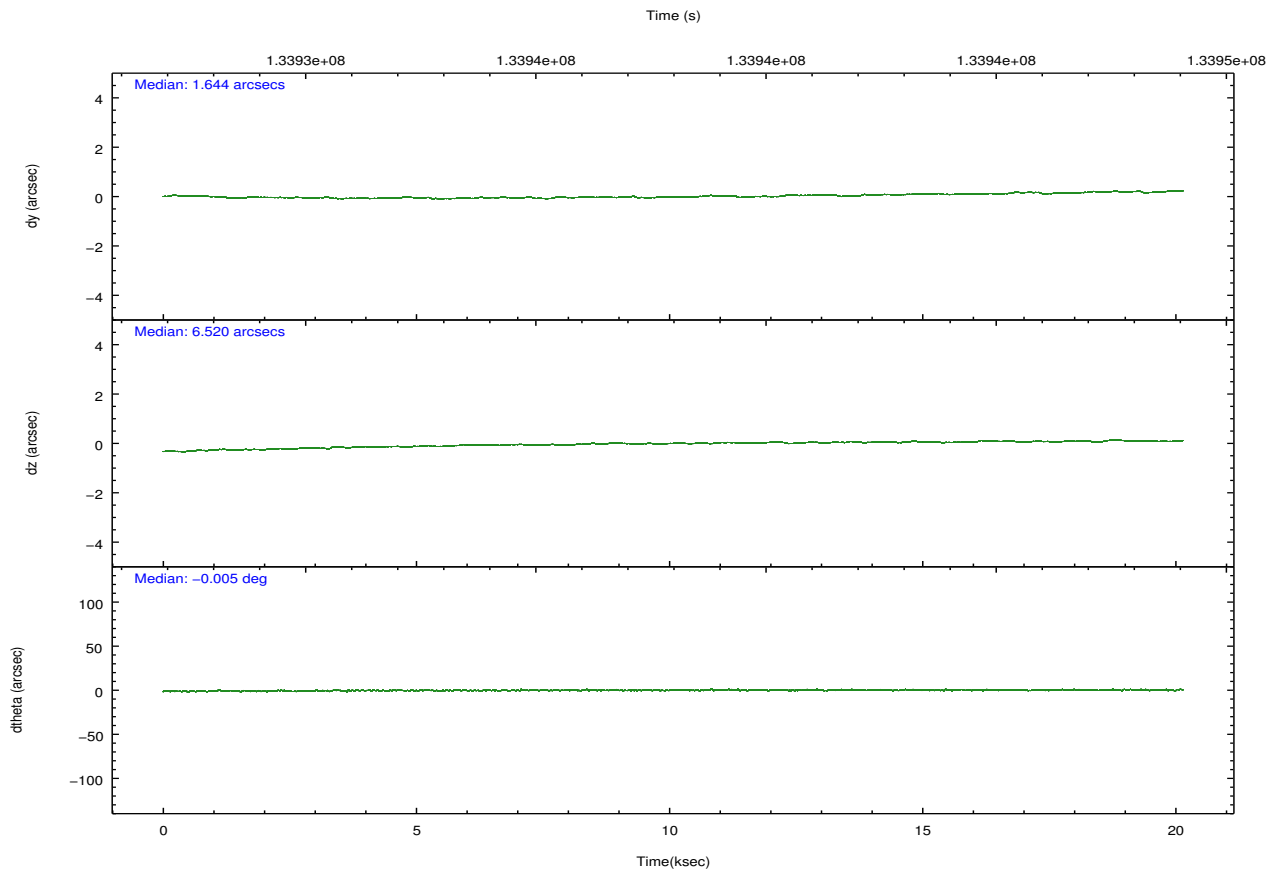
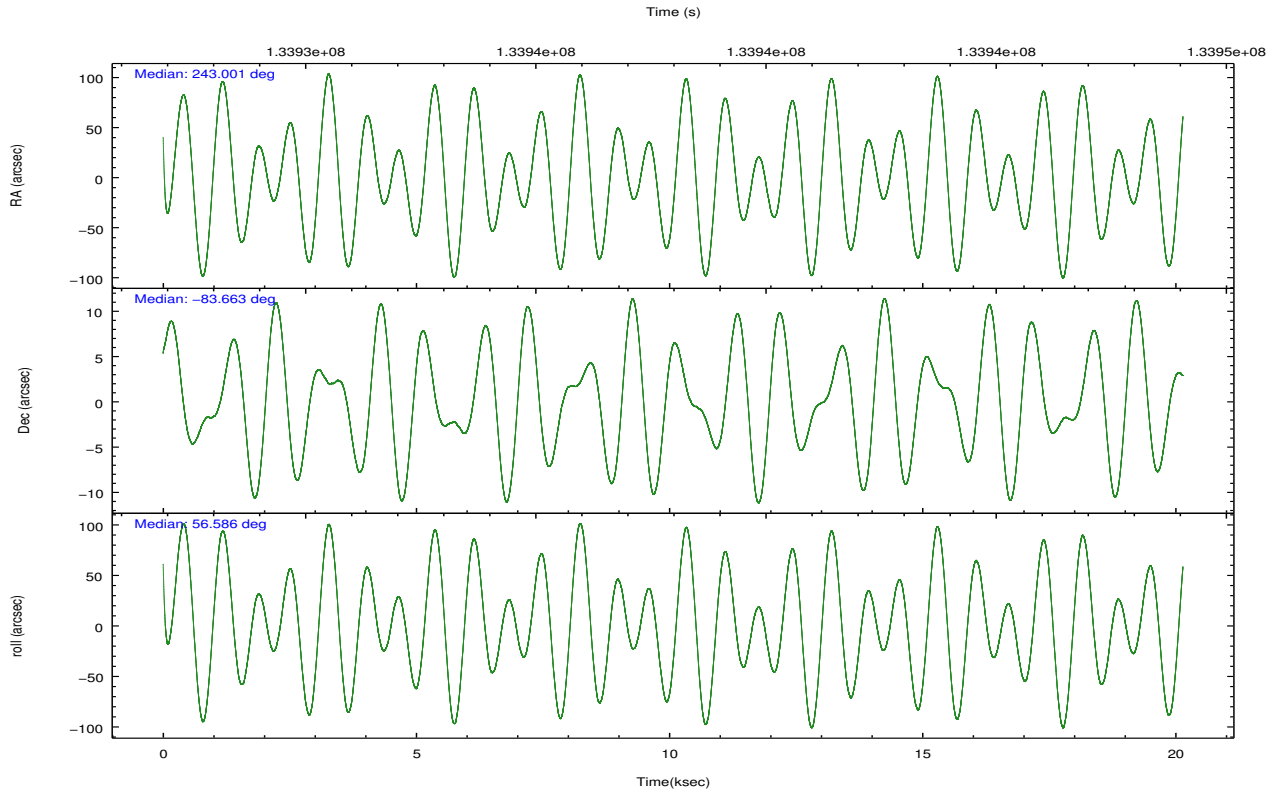
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|-------|--------|-------|--------|
| level 1 events | 127171 | 123370 | 189470 | 128144 | 163976 | 161450 | grade 0 events | 6663 | 6615 | 13981 | 6013 | 6549 | 10727 |
| rejected events | 111802 | 108481 | 99230 | 113315 | 95708 | 128308 | | 5% | 5% | 7% | 4% | 3% | 6% |
| rejected % | 87% | 87% | 52% | 88% | 58% | 79% | grade 1 events | 63 | 61 | 1447 | 65 | 149 | 104 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 3226 | 2978 | 26616 | 2935 | 13571 | 6899 |
| | | | | | | | | 2% | 2% | 14% | 2% | 8% | 4% |
| | | | | | | | grade 3 events | 1439 | 1459 | 3497 | 1460 | 6143 | 3689 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 4 events | 1430 | 1335 | 3351 | 1471 | 6106 | 3316 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 5 events | 4541 | 4979 | 13649 | 5573 | 15846 | 7016 |
| | | | | | | | | 3% | 4% | 7% | 4% | 9% | 4% |
| | | | | | | | grade 6 events | 2614 | 2509 | 42834 | 2953 | 35908 | 8517 |
| | | | | | | | | 2% | 2% | 22% | 2% | 21% | 5% |
| | | | | | | | grade 7 events | 107195 | 103434 | 84095 | 107674 | 79704 | 121182 |
| | | | | | | | | 84% | 83% | 44% | 84% | 48% | 75% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-235678 | ACIS-235678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 242.991507 | 243.0030680670542 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -83.690082 | -83.66286774631308 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 56.430104 | 56.59822515929115 | [s] Primary exposure time | 0.000000 | 3.2 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | | | |
| [mm] SIM defocus | 0 | 0.001444936568705701 | | | |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | | | |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | | | |
| [s] Observation start time (MET) | 133928051.184000 | 133927042.43502 | | | |
| Observation start date | 2002-03-31T02:13:07 | 2002-03-31T01:57:22 | | | |
| [s] Observation end time (MET) | 133948051.184000 | 133948573.5859 | | | |
| Observation end date | 2002-03-31T07:46:27 | 2002-03-31T07:56:13 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



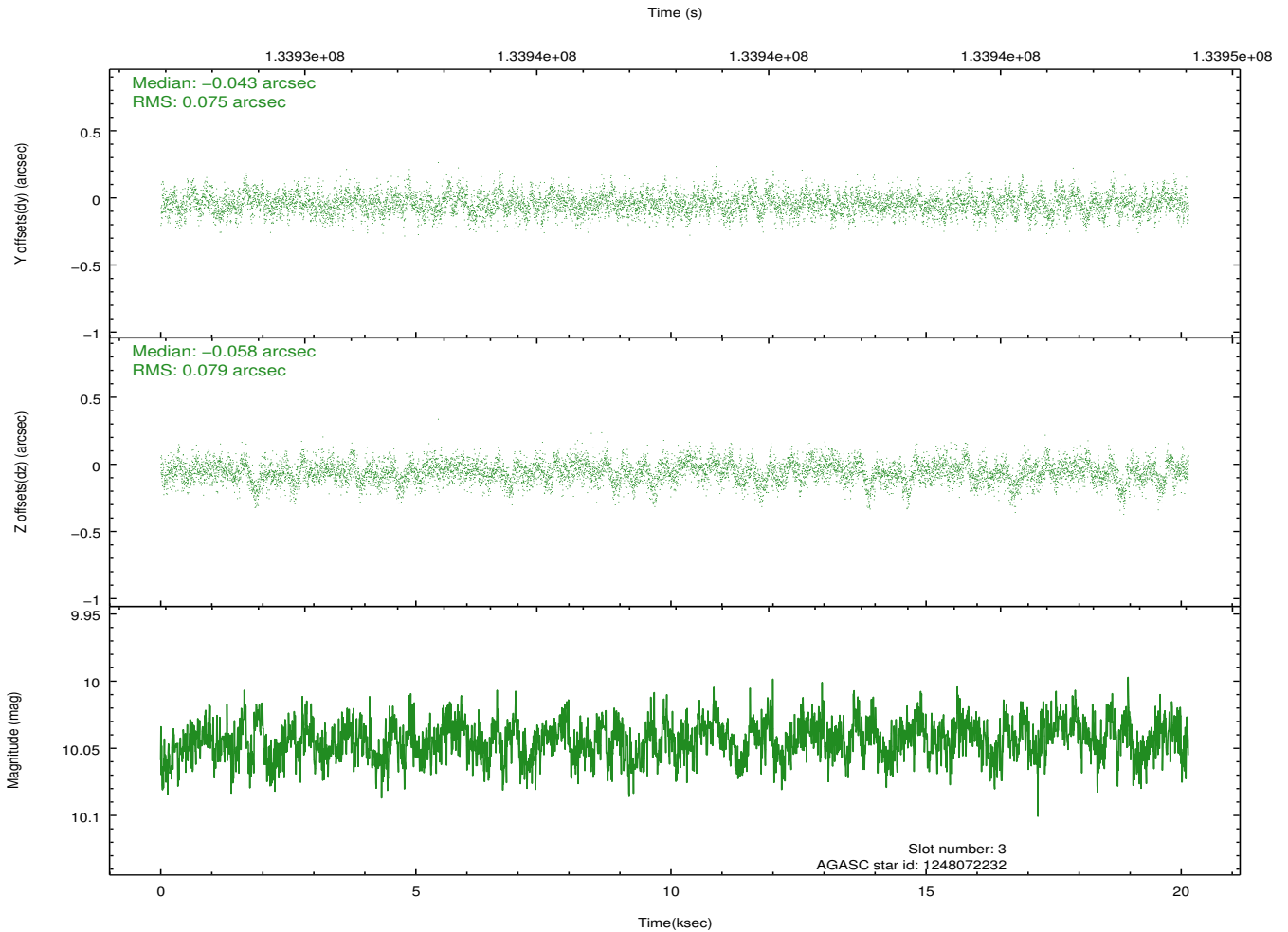
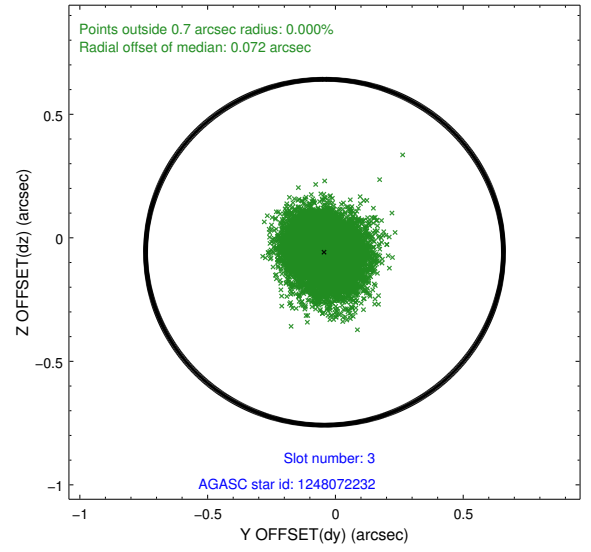
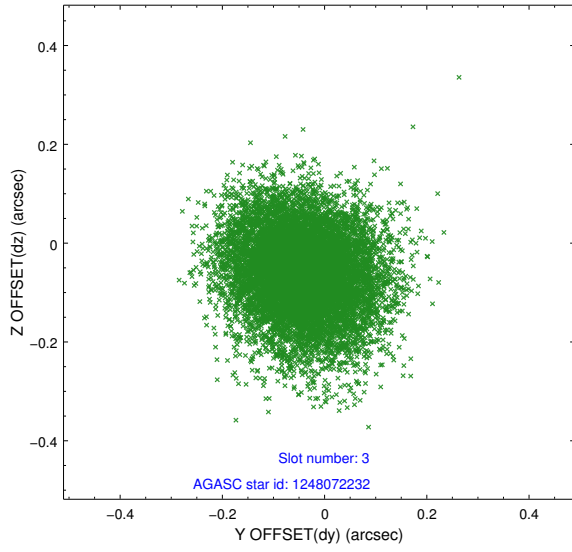


Slot Statistics

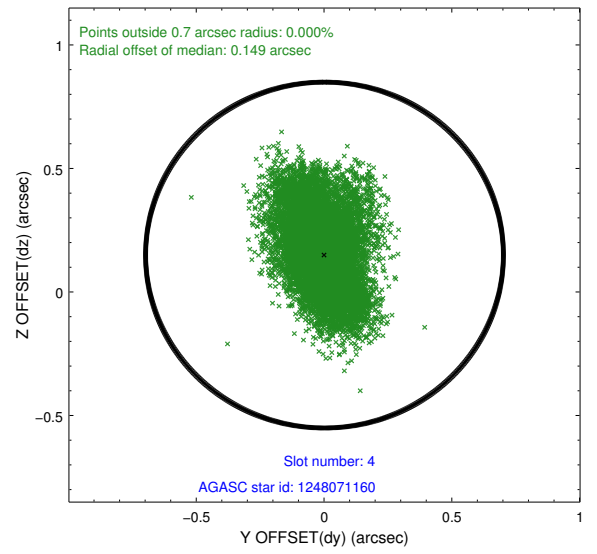
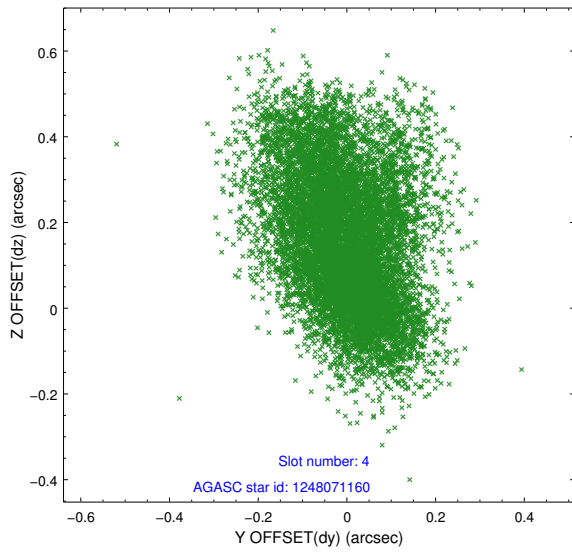
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|-------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 4912 | -0.045 | 0.005 | 0.007 | 0.011 | 0.000000 | 0.000000 | -754.29 | -1727.64 |
| 1 | FID | ACIS-S-4 | 7.20 | 4911 | -0.019 | 0.021 | 0.006 | 0.012 | 0.000000 | 0.000000 | 2158.90 | 180.71 |
| 2 | FID | ACIS-S-5 | 7.24 | 4913 | 0.033 | -0.016 | 0.007 | 0.011 | 0.000000 | 0.000000 | -1806.85 | 174.50 |
| 3 | GUIDE | 1248072232 | 10.04 | 9817 | -0.043 | -0.058 | 0.116 | 0.189 | 243.610535 | -83.301786 | 1308.92 | 555.73 |
| 4 | GUIDE | 1248071160 | 9.73 | 9823 | 0.002 | 0.149 | 0.193 | 0.317 | 248.106389 | -83.902907 | 371.38 | -2098.83 |
| 5 | GUIDE | 1248072112 | 9.52 | 9820 | 0.007 | 0.003 | 0.106 | 0.168 | 241.800325 | -83.936467 | -991.57 | -116.09 |
| 6 | GUIDE | 1248069088 | 9.85 | 9818 | 0.034 | -0.137 | 0.118 | 0.198 | 241.879282 | -83.662797 | -164.45 | 419.95 |
| 7 | GUIDE | 1248073536 | 8.94 | 9823 | 0.009 | 0.039 | 0.090 | 0.140 | 243.498582 | -83.851458 | -374.81 | -484.66 |

2.4 Star Slots

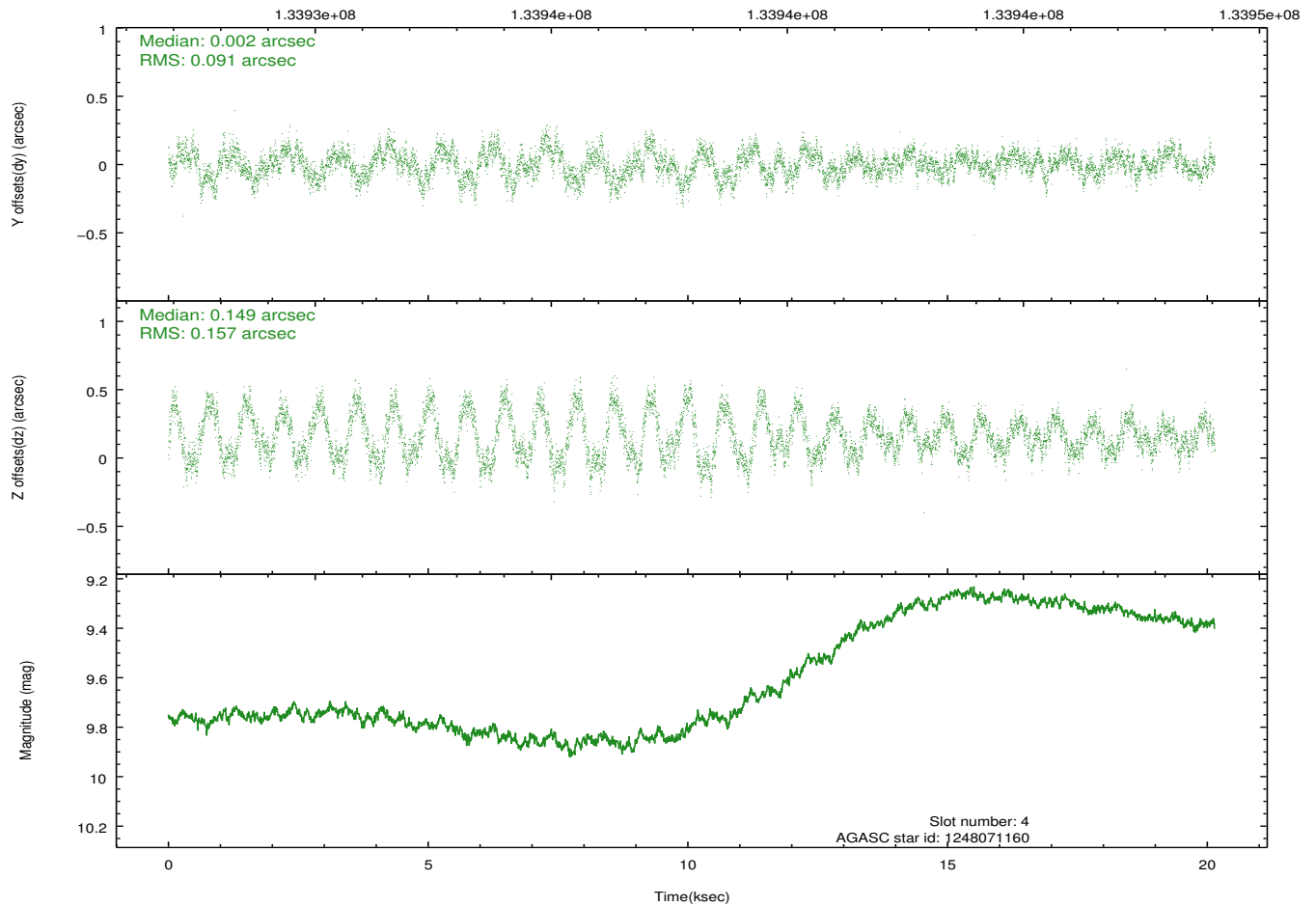
2.4.1 Slot 3



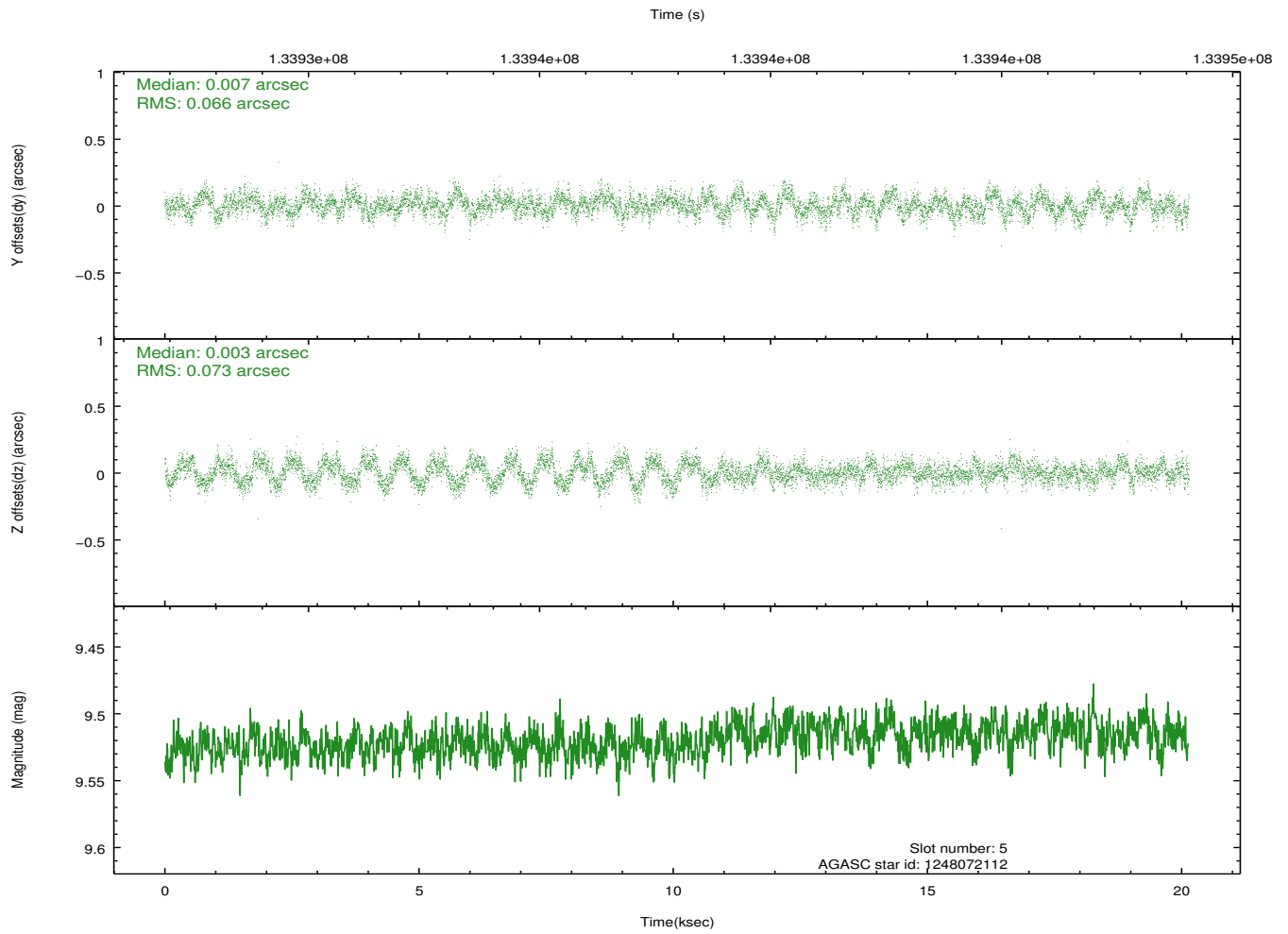
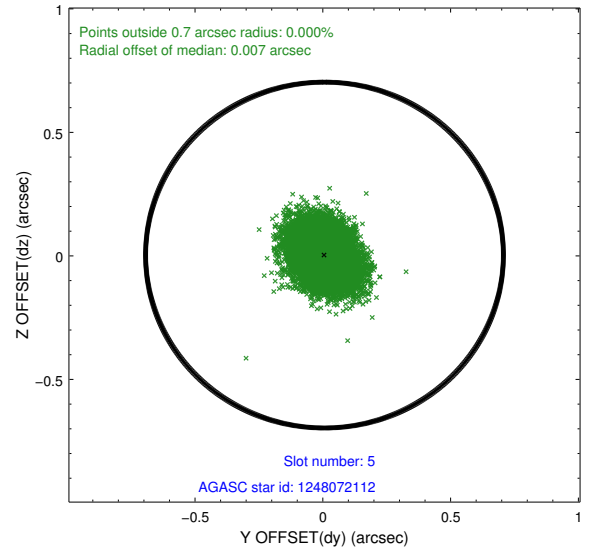
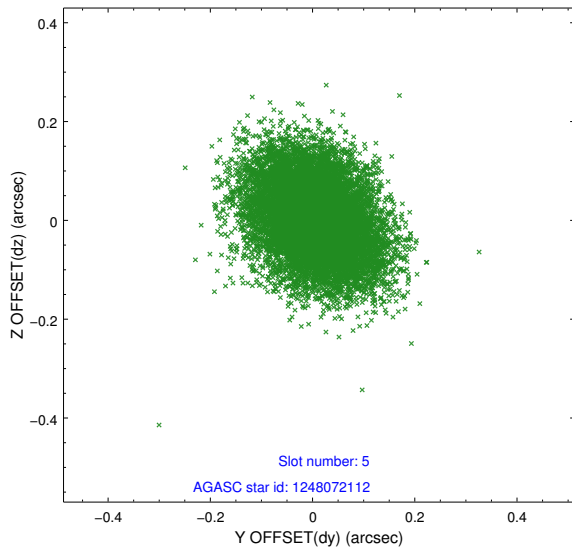
2.4.2 Slot 4



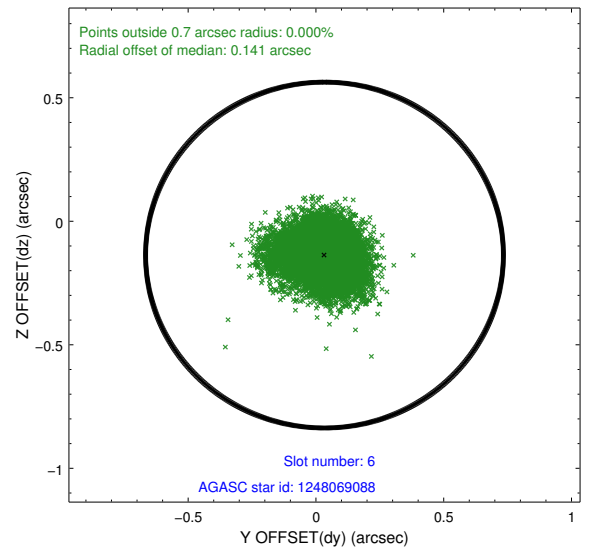
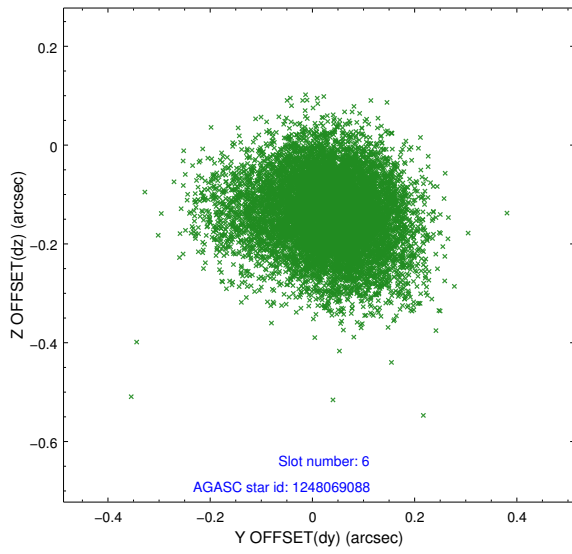
Time (s)



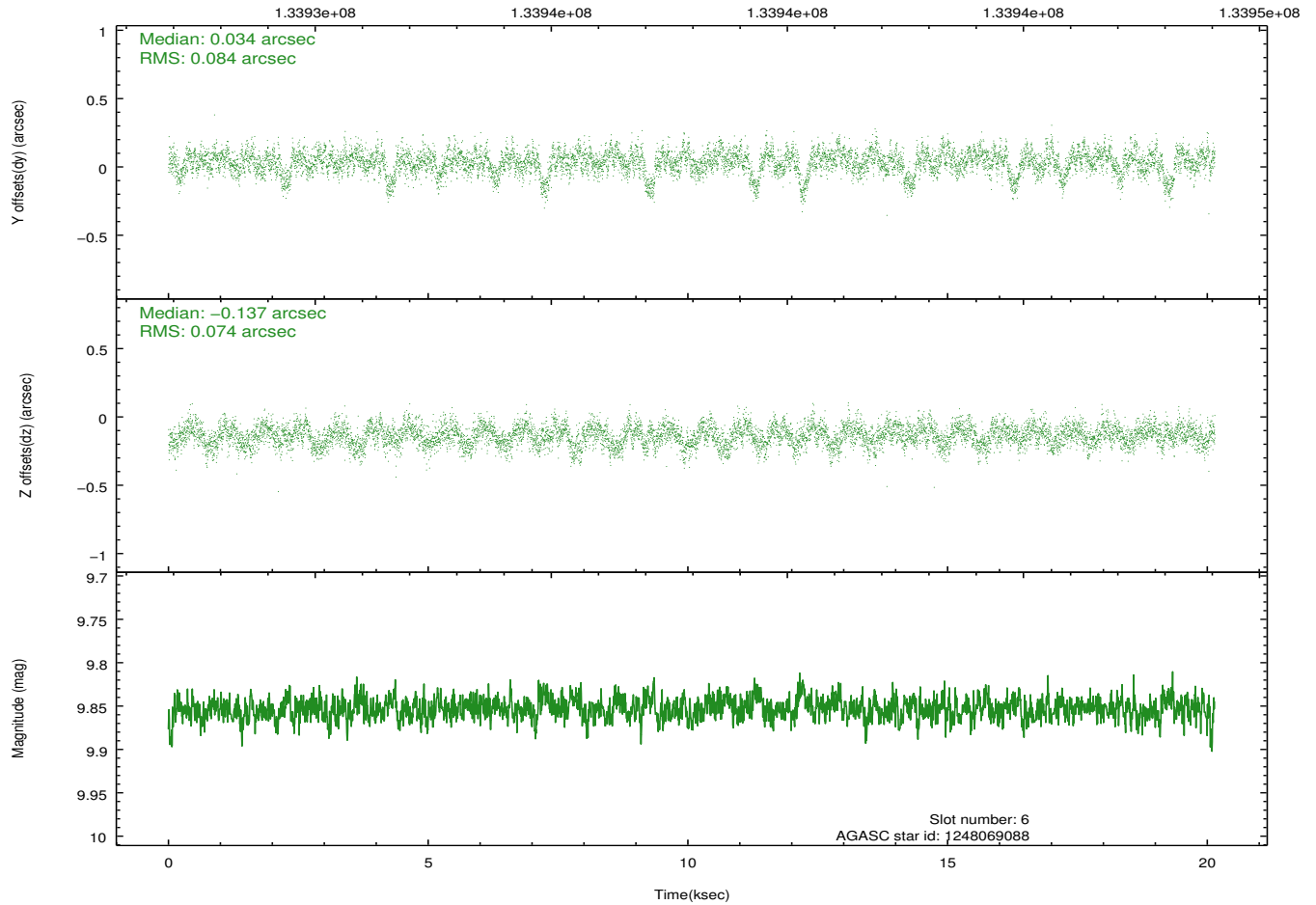
2.4.3 Slot 5



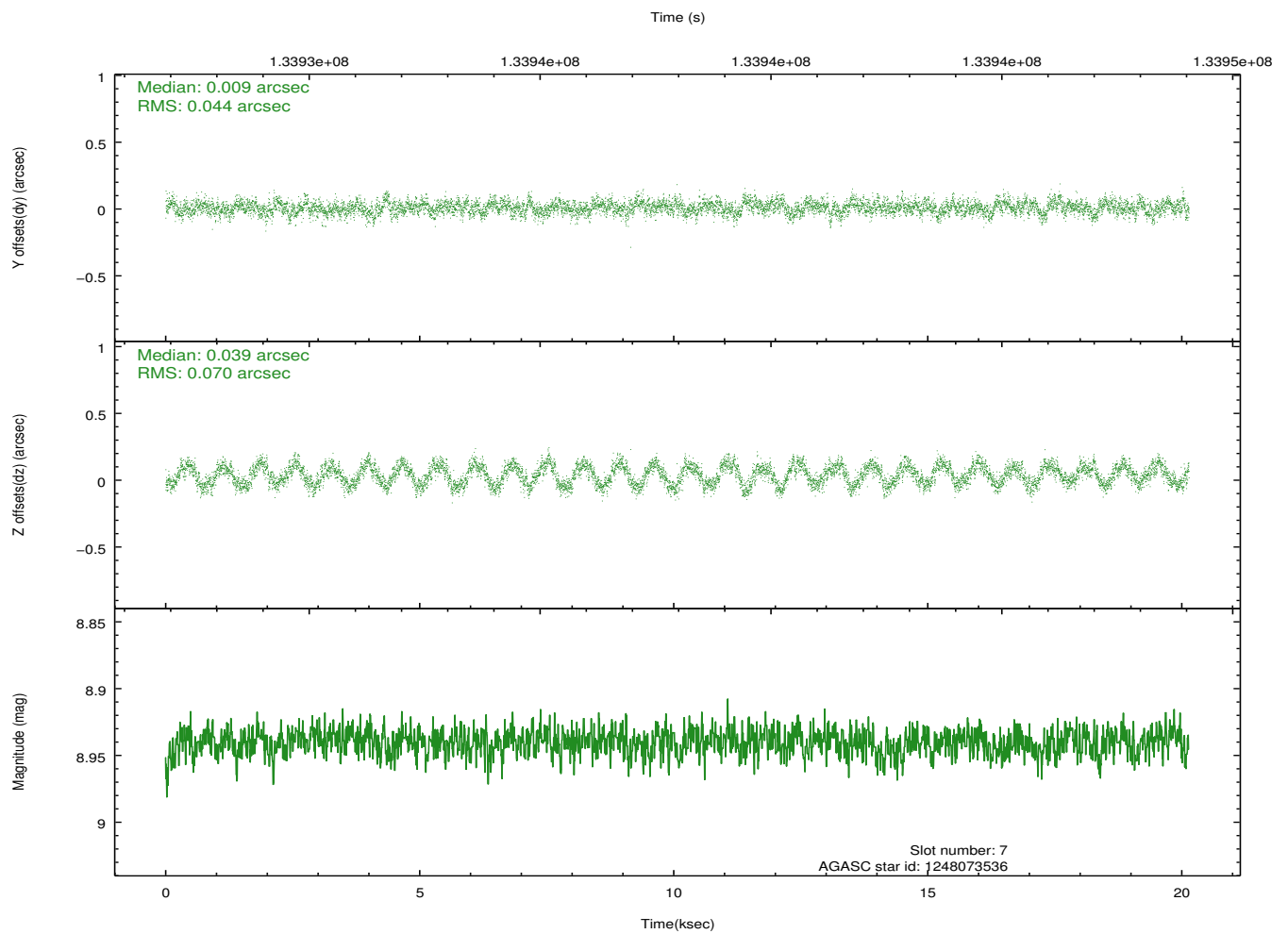
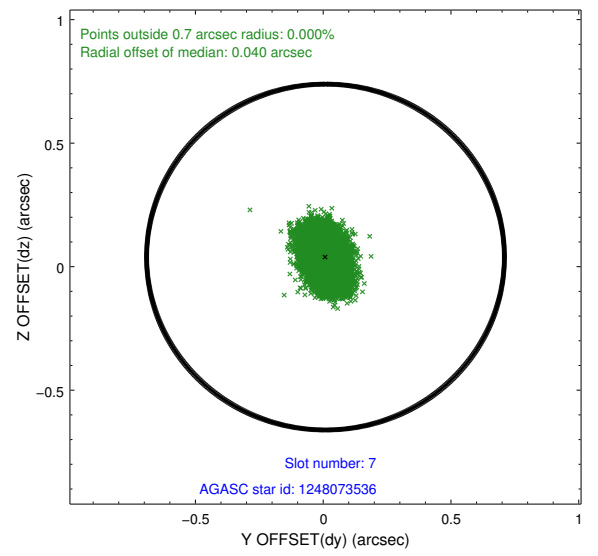
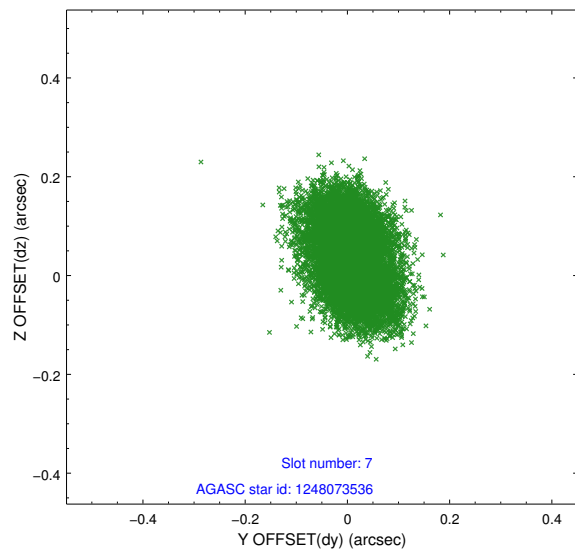
2.4.4 Slot 6



Time (s)

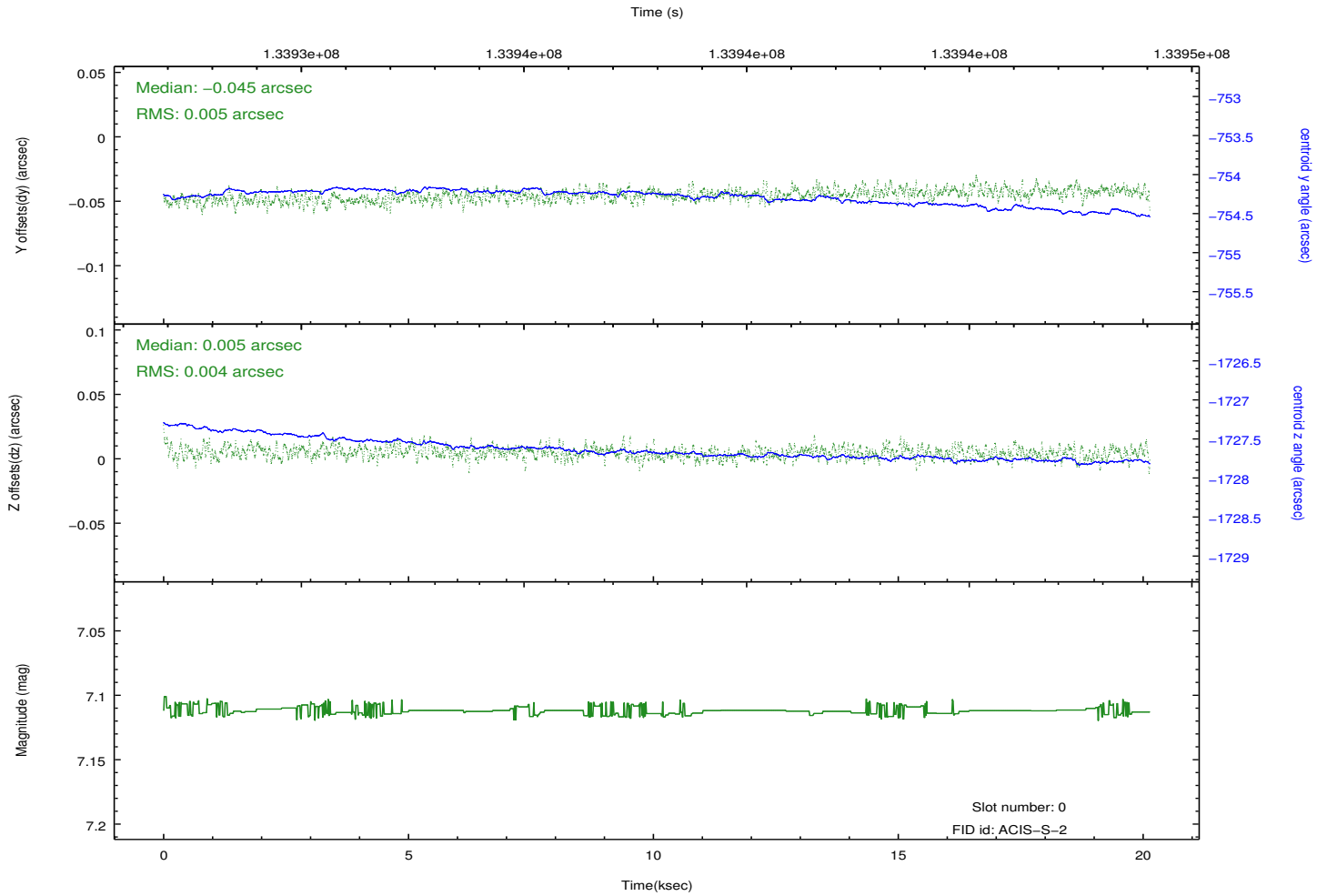
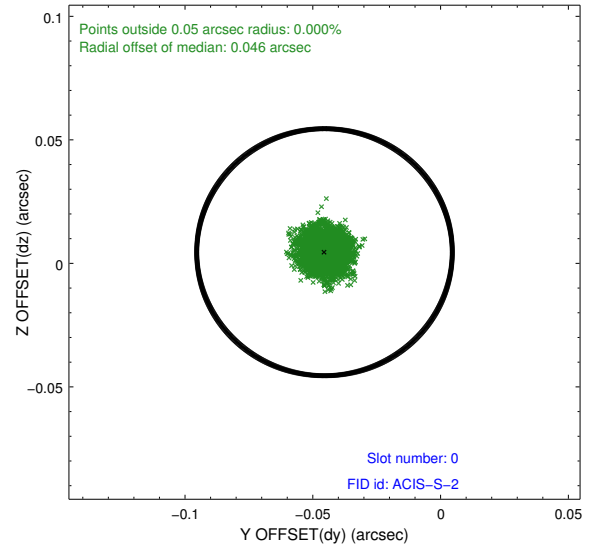
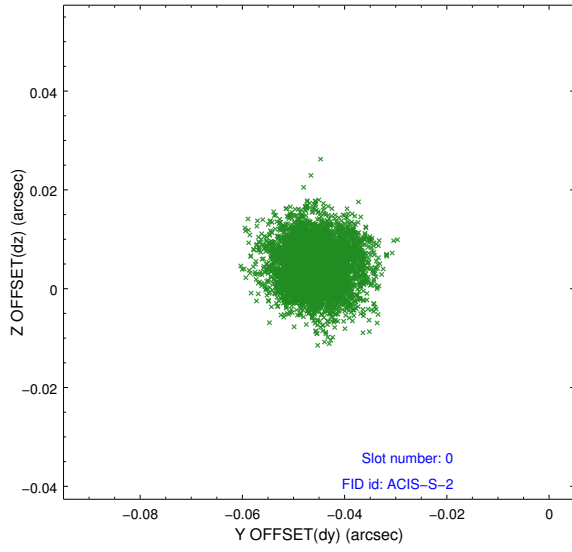


2.4.5 Slot 7

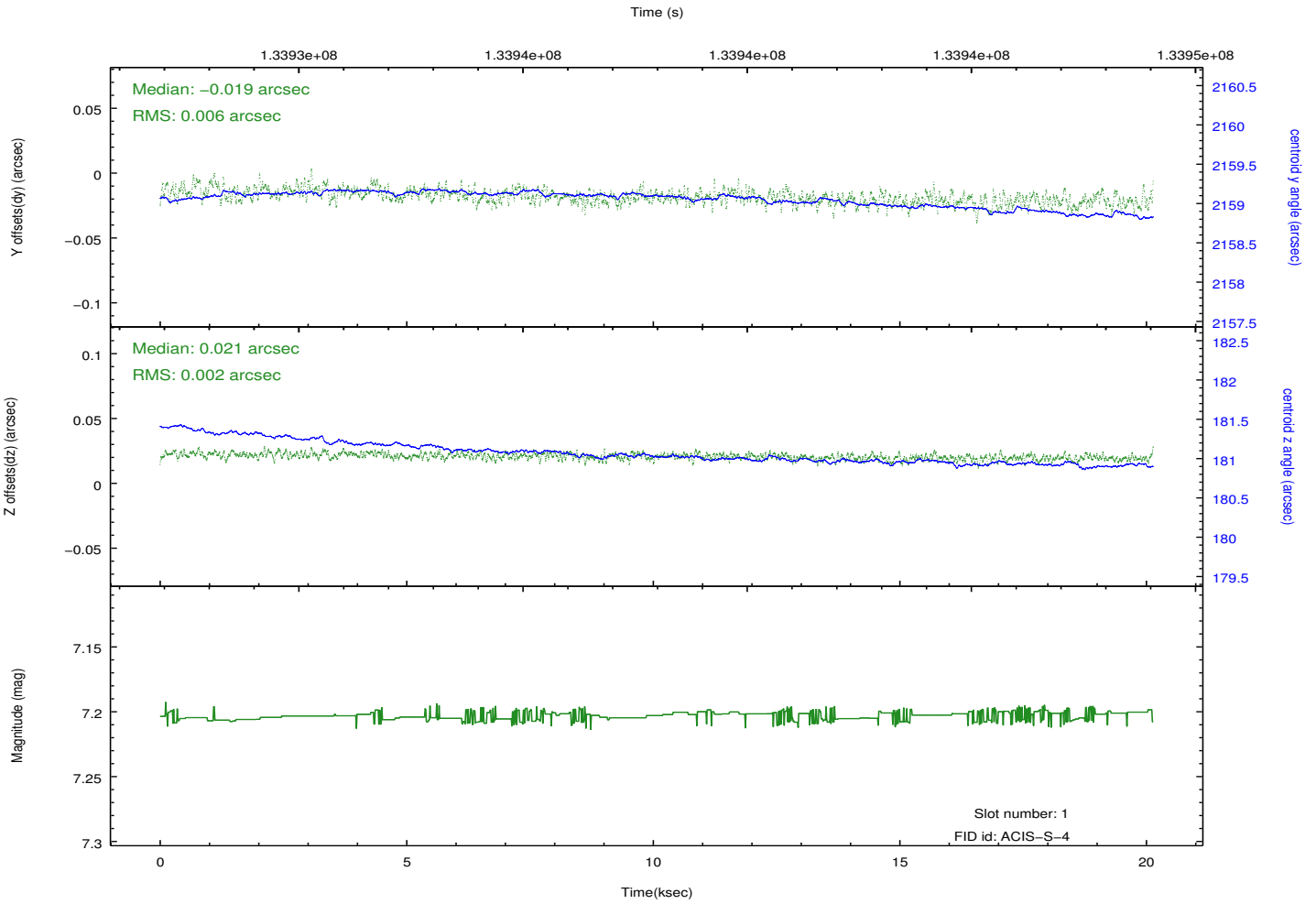
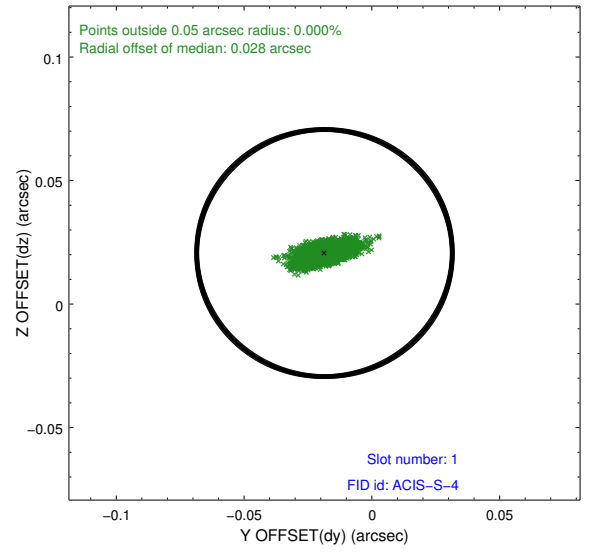
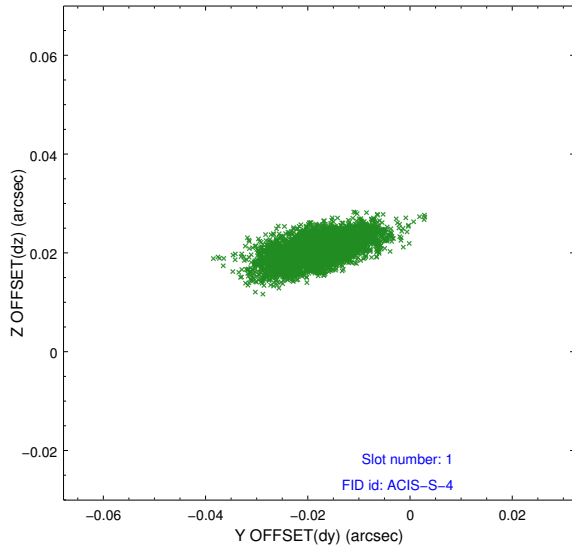


2.5 FID Slots

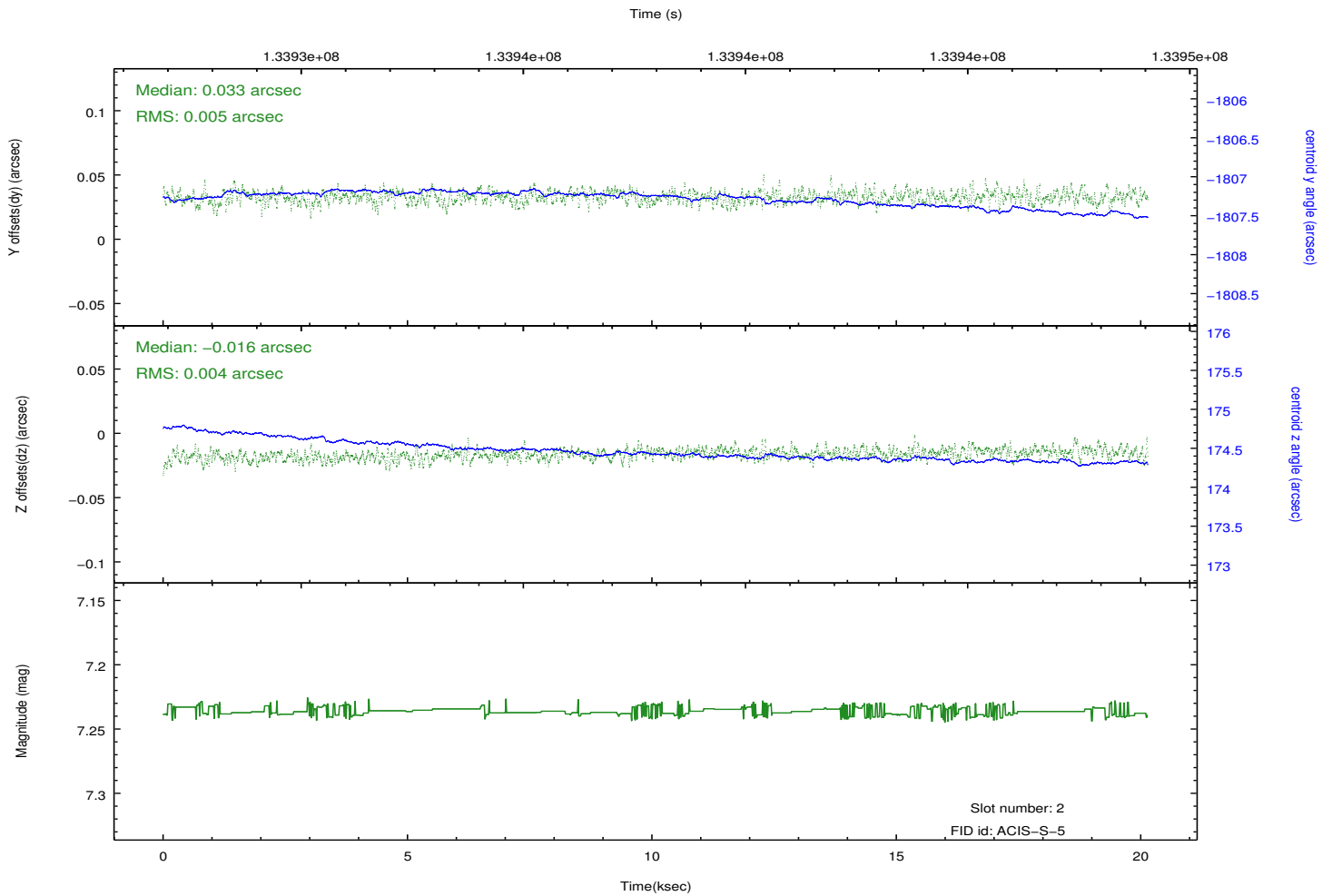
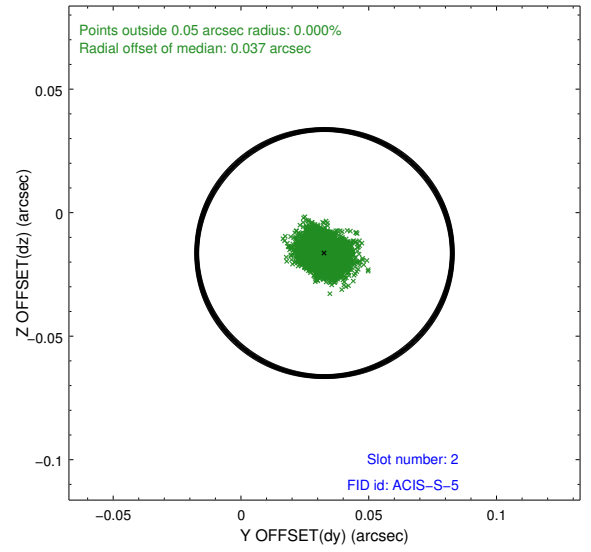
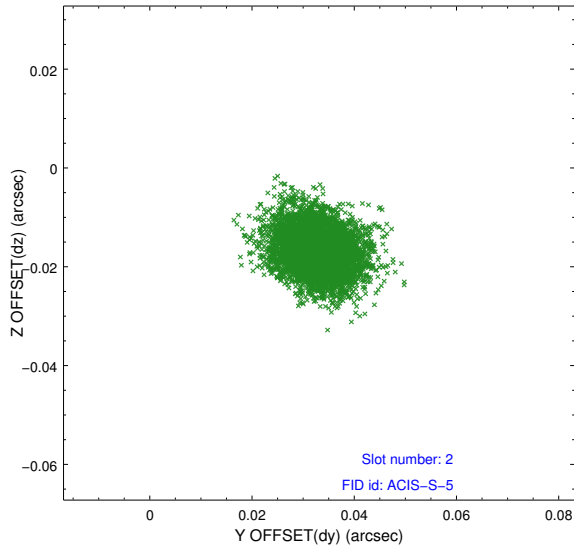
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2012.10.09 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 20.057 |

A.2 Comments