

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 5498 - L2 Version 2
Chandra X-Ray Center

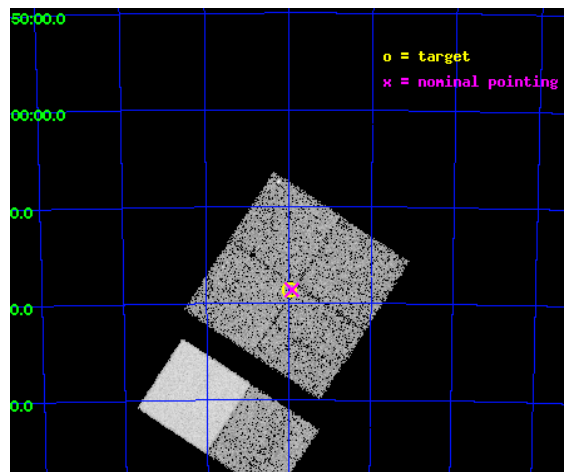
L2 Processing Date : Mar 27 2012

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1 Front

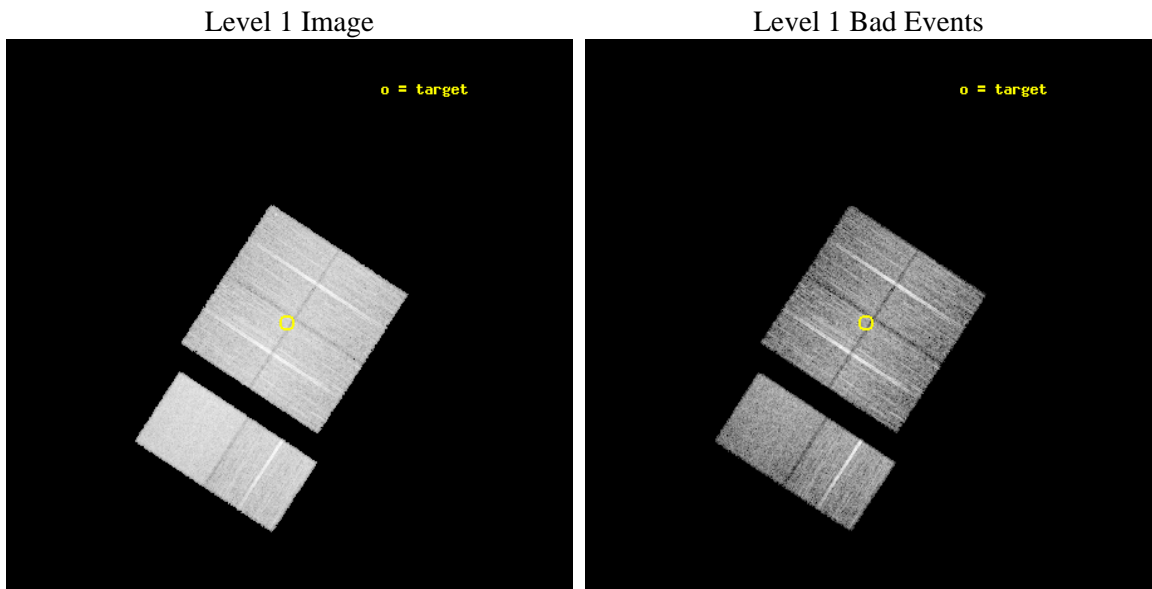
| | | |
|----------|---|---|
| seq_num | 400428 | Sequence number |
| obs_id | 5498 | Observation id |
| title | Discovering X-ray pulsars in the Wing of the Small Magellanic Cloud | |
| observer | Prof Malcolm Coe | Principal investigator |
| object | SMCwing 19 | Source name |
| dtycycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 14.995833 | Observer's specified target RA [deg] |
| dec_targ | -73.309444 | Observer's specified target Dec [deg] |
| ra_nom | 14.980086428259 | Nominal RA [deg] |
| dec_nom | -73.310294399261 | Nominal Dec [deg] |
| roll_nom | 213.23519989605 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 9756.7999636531 | Sum of GTIs [s] |
| livetime | 9633.2534876737 | Livetime [s] |
| ontime0 | 9756.7999636531 | Sum of GTIs [s] |
| ontime1 | 9756.7999636531 | Sum of GTIs [s] |
| ontime2 | 9756.7999636531 | Sum of GTIs [s] |
| ontime3 | 9756.7999636531 | Sum of GTIs [s] |
| ontime6 | 9756.7999636531 | Sum of GTIs [s] |
| ontime7 | 9756.7999636531 | Sum of GTIs [s] |
| l2events | 88927 | Number of level 2 events |



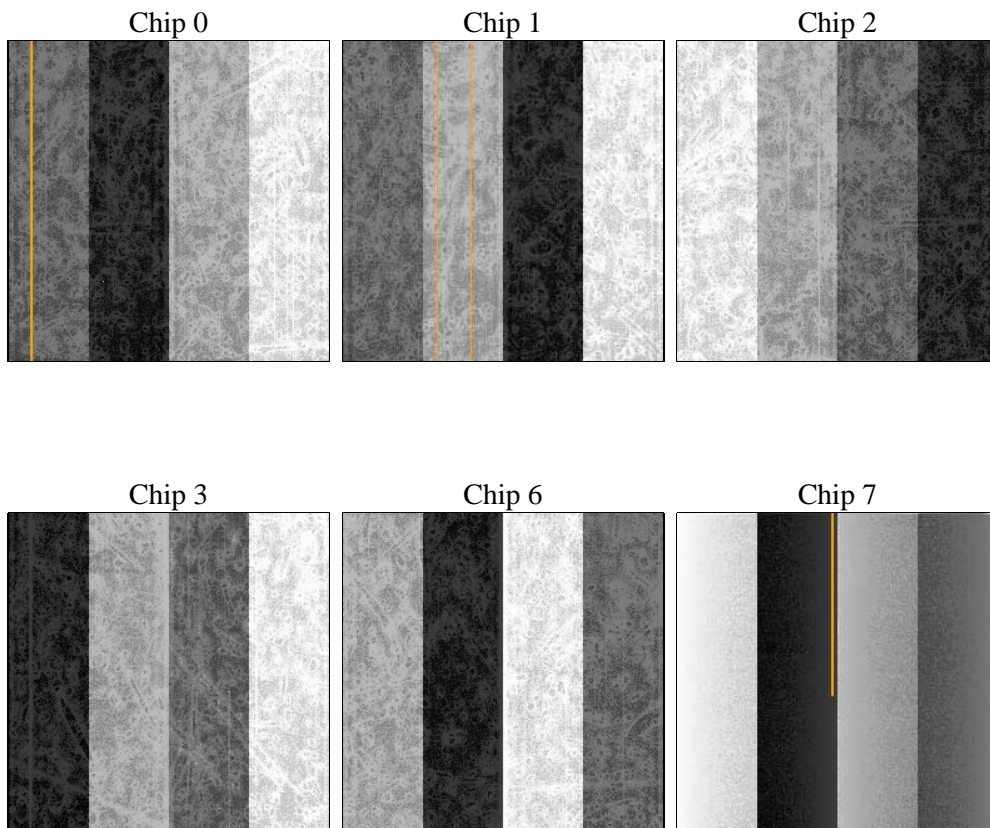
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 10000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3.1 | Processing system revision | ontime | 9756.7999636531 | Sum of GTIs [s] |
| caldbver | 4.4.8 | | ontime0 | 9756.7999636531 | Sum of GTIs [s] |
| date | 2012-03-27T03:30:35 | Date and time of file creation | ontime1 | 9756.7999636531 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 9756.7999636531 | Sum of GTIs [s] |
| | | | ontime3 | 9756.7999636531 | Sum of GTIs [s] |
| | | | ontime6 | 9756.7999636531 | Sum of GTIs [s] |
| | | | ontime7 | 9756.7999636531 | Sum of GTIs [s] |
| | | | l1events | 520259 | Number of level 1 events |

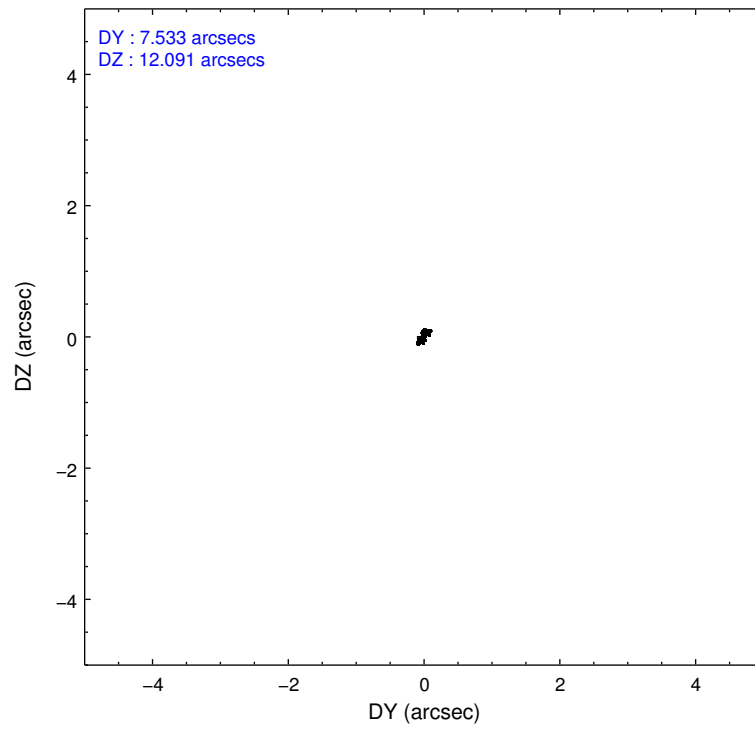
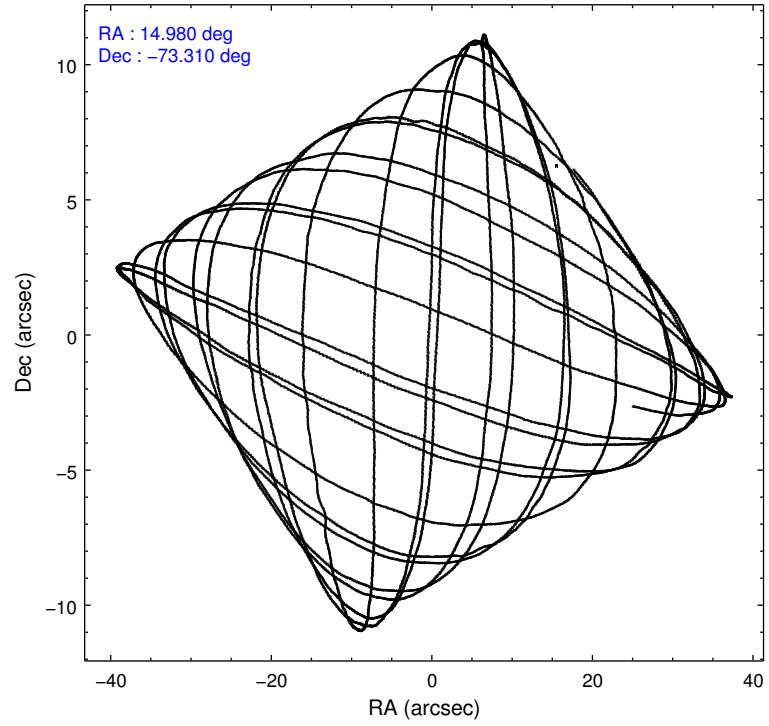
2.1.4 Events

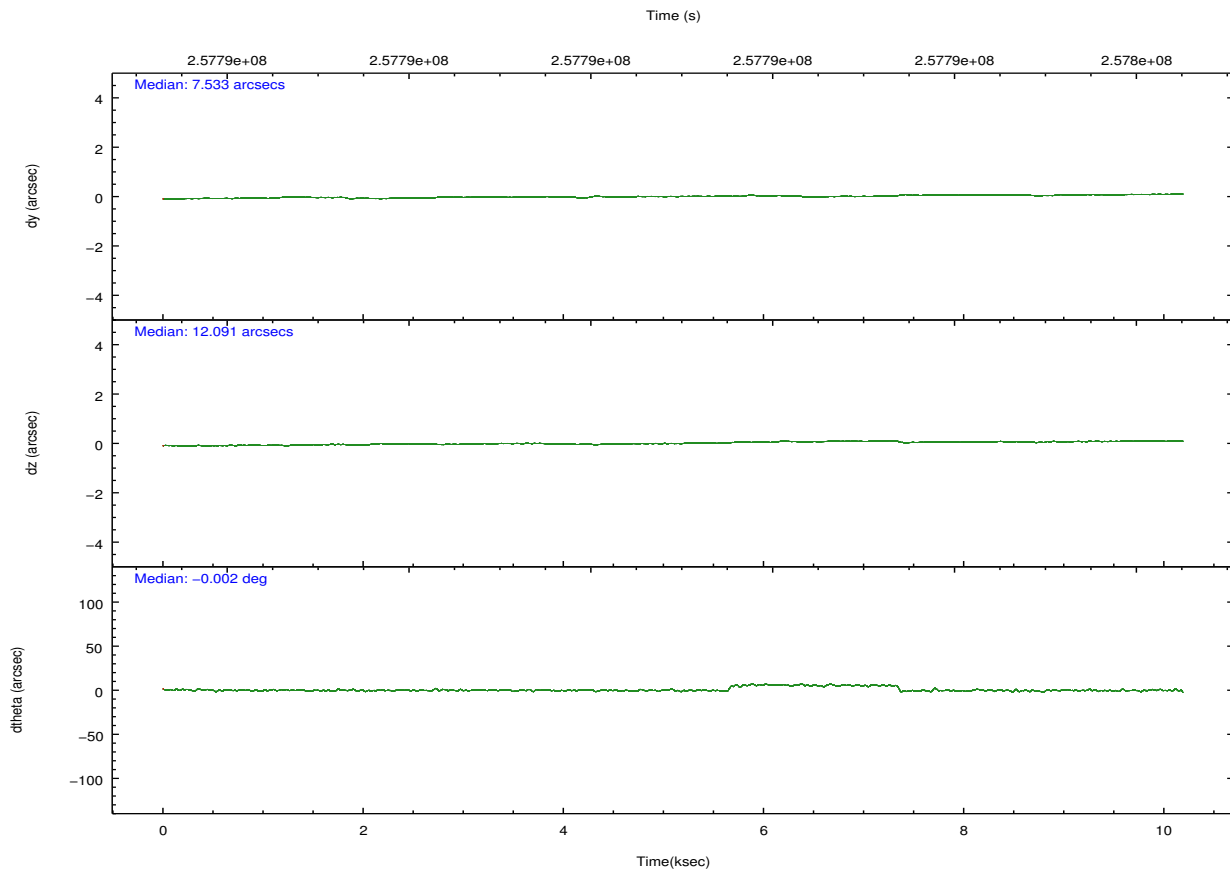
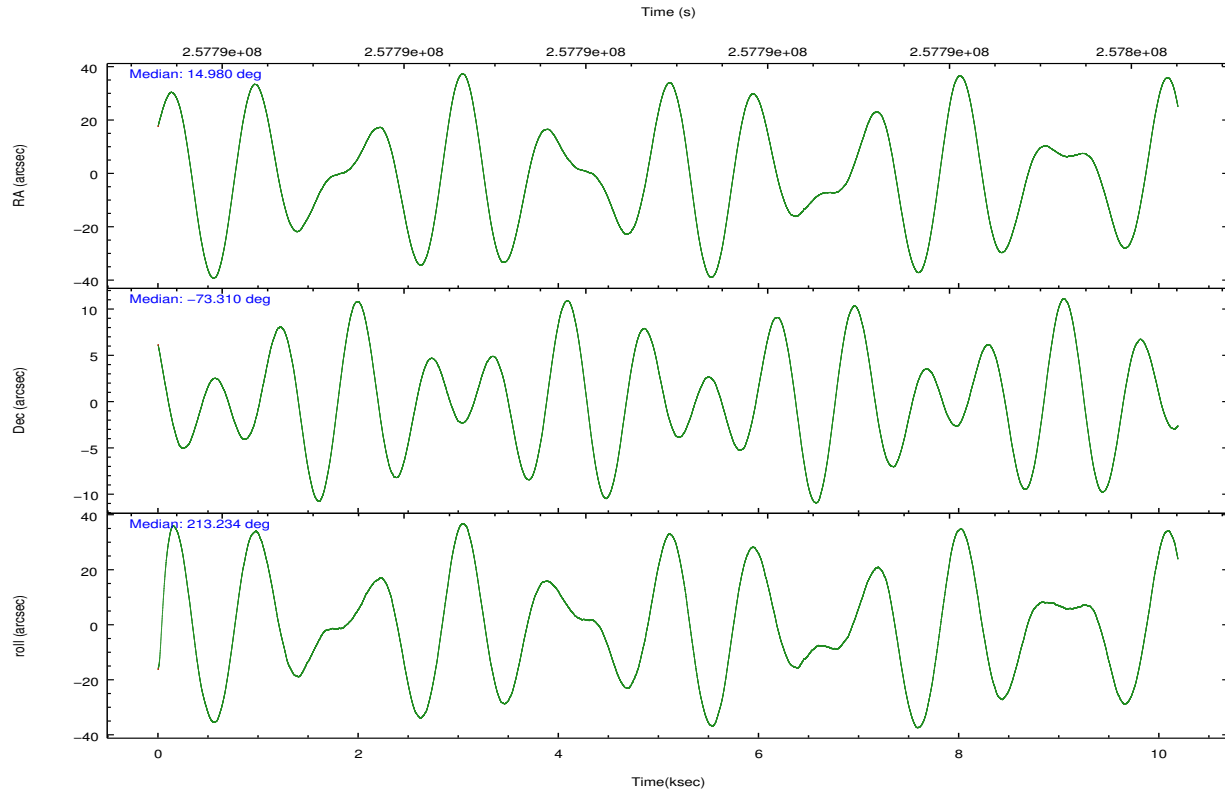
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|--------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 78370 | 74413 | 86246 | 82580 | 84978 | 113672 | grade 0 events | 4205 | 4149 | 4379 | 4281 | 3886 | 4066 |
| rejected events | 68460 | 63895 | 76419 | 72929 | 74911 | 66788 | | 5% | 5% | 5% | 5% | 4% | 3% |
| rejected % | 87% | 85% | 88% | 88% | 88% | 58% | grade 1 events | 46 | 34 | 60 | 49 | 44 | 131 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 2095 | 2359 | 2013 | 1804 | 2158 | 9421 |
| | | | | | | | | 2% | 3% | 2% | 2% | 2% | 8% |
| | | | | | | | grade 3 events | 979 | 1005 | 917 | 989 | 968 | 4226 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 4 events | 912 | 1014 | 914 | 874 | 939 | 4037 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 5 events | 3368 | 3629 | 3153 | 3811 | 3975 | 10939 |
| | | | | | | | | 4% | 4% | 3% | 4% | 4% | 9% |
| | | | | | | | grade 6 events | 1725 | 1997 | 1607 | 1707 | 2116 | 25154 |
| | | | | | | | | 2% | 2% | 1% | 2% | 2% | 22% |
| | | | | | | | grade 7 events | 65040 | 60226 | 73203 | 69065 | 70892 | 55698 |
| | | | | | | | | 82% | 80% | 84% | 83% | 83% | 48% |

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 | FAINT | FAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 15.022474 | 14.98008642825862 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -73.285744 | -73.31029439926063 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 213.067164 | 213.2351998960536 | [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) | 257785999.184000 | 257785623.21303 | | | |
| Observation start date | 2006-03-03T15:12:14 | 2006-03-03T15:07:03 | | | |
| [s] Observation end time (MET) | 257795999.184000 | 257796133.56351 | | | |
| Observation end date | 2006-03-03T17:58:54 | 2006-03-03T18:02:13 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



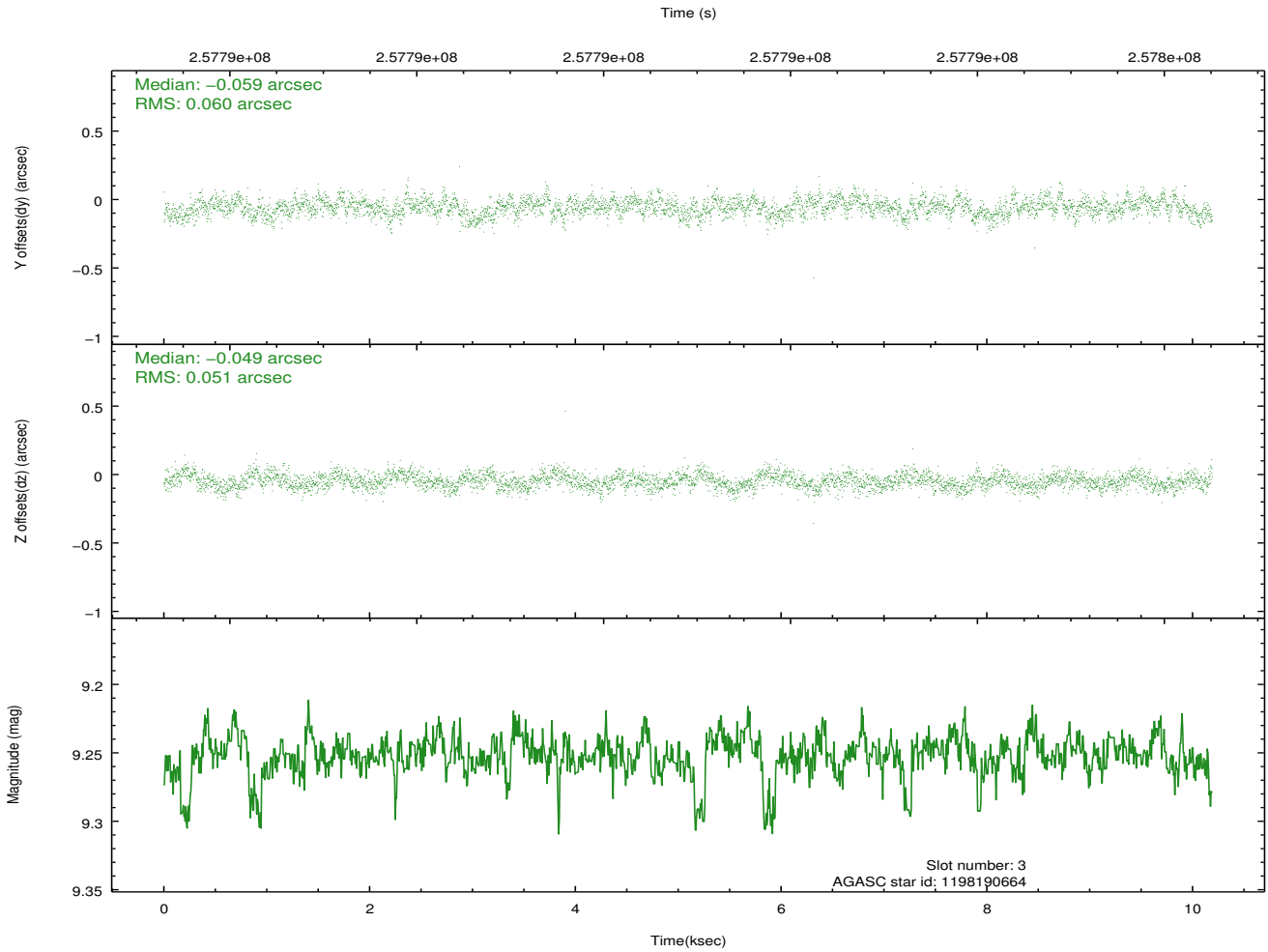
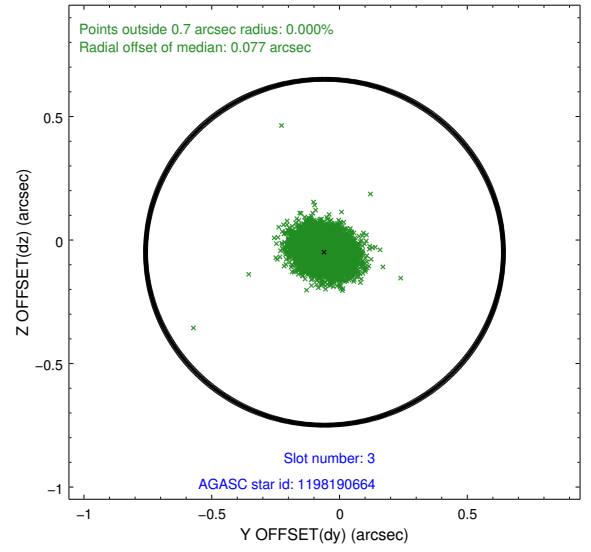
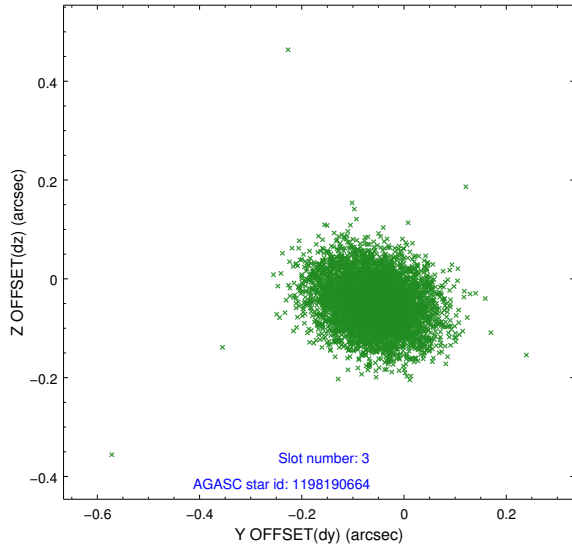


Slot Statistics

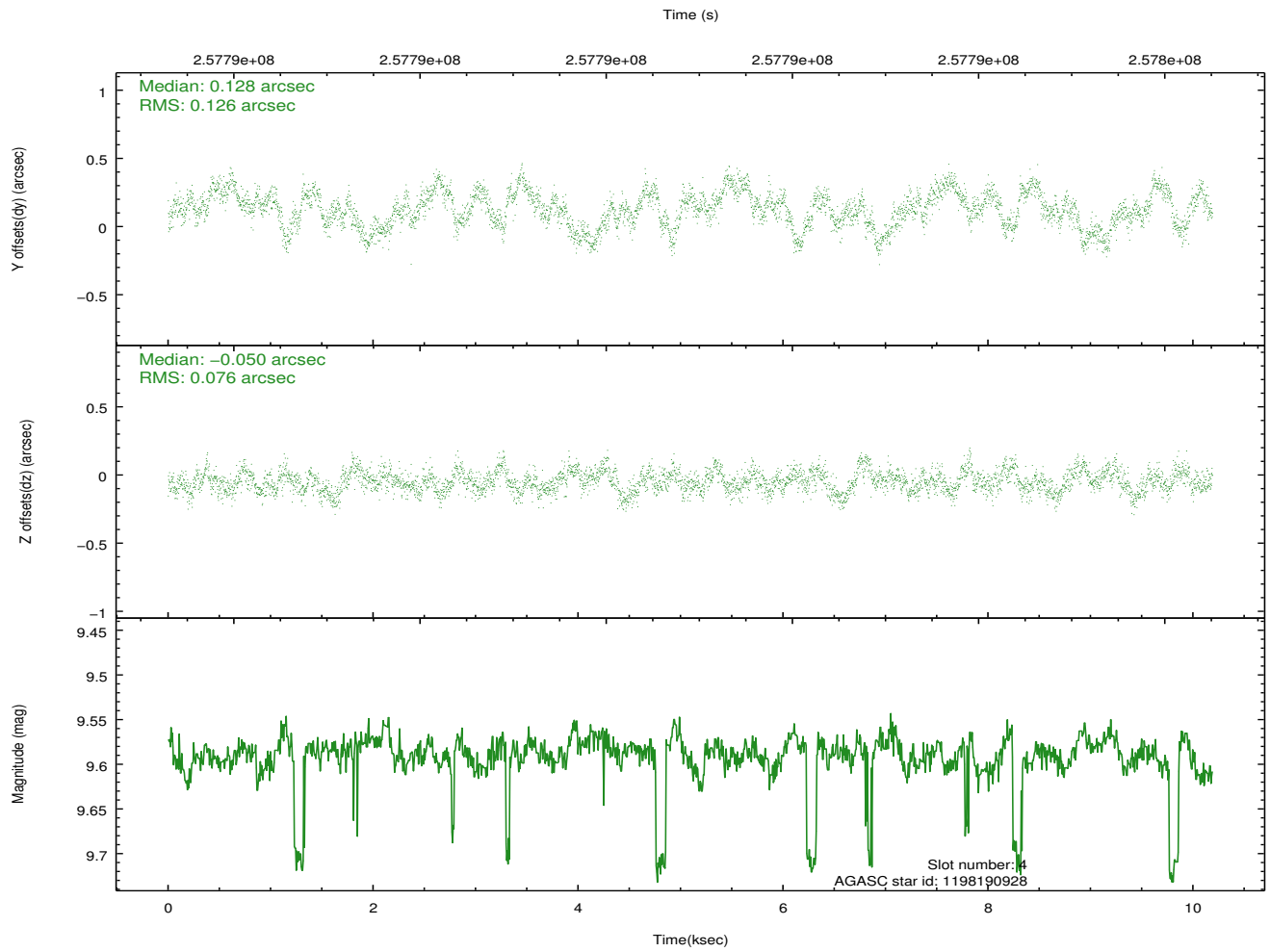
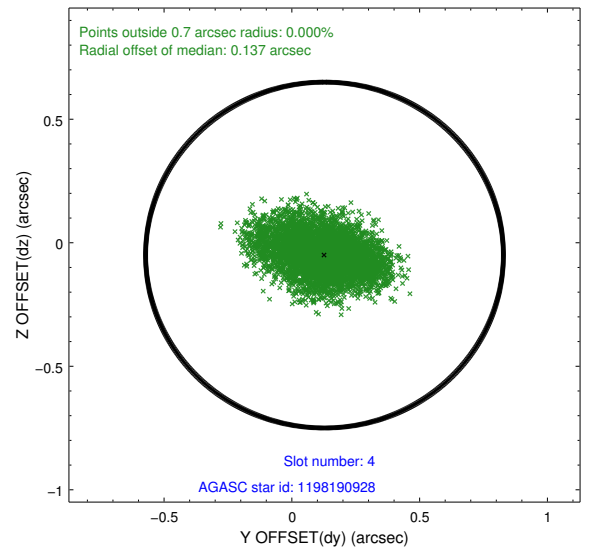
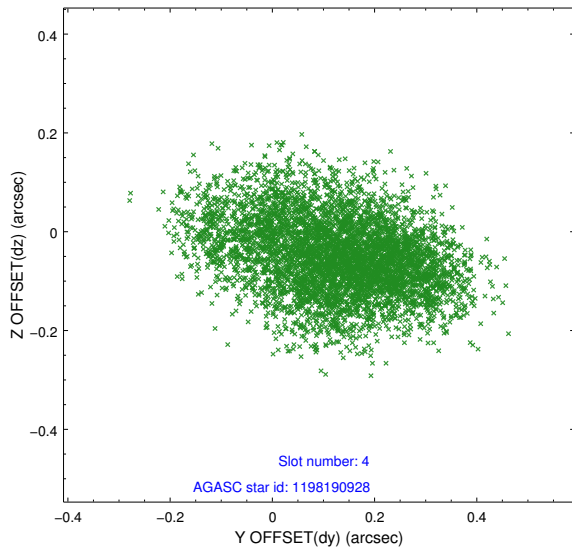
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | ACIS-I-2 | 7.14 | 2486 | -0.093 | -0.120 | 0.011 | 0.038 | 0.000000 | 0.000000 | -762.14 | -842.10 |
| 1 | FID | ACIS-I-4 | 7.17 | 2484 | 0.166 | 0.088 | 0.009 | 0.020 | 0.000000 | 0.000000 | 2151.96 | 1063.99 |
| 2 | FID | ACIS-I-5 | 7.22 | 2486 | -0.174 | 0.101 | 0.011 | 0.030 | 0.000000 | 0.000000 | -1815.37 | 1062.48 |
| 3 | GUIDE | 1198190664 | 9.25 | 4966 | -0.059 | -0.049 | 0.083 | 0.134 | 14.057016 | -73.825958 | 1876.95 | 1108.53 |
| 4 | GUIDE | 1198190928 | 9.59 | 4938 | 0.128 | -0.050 | 0.157 | 0.257 | 14.195337 | -73.718990 | 1554.60 | 856.75 |
| 5 | GUIDE | 1198191248 | 8.36 | 4966 | -0.043 | 0.005 | 0.074 | 0.121 | 15.995132 | -73.462457 | -483.06 | 1083.95 |
| 6 | GUIDE | 1198192176 | 9.52 | 4967 | -0.011 | 0.137 | 0.112 | 0.184 | 14.042526 | -73.121350 | 540.11 | -1047.46 |
| 7 | GUIDE | 1198282744 | 9.00 | 4966 | -0.009 | -0.044 | 0.078 | 0.125 | 17.028326 | -73.013356 | -2282.86 | 358.57 |

2.4 Star Slots

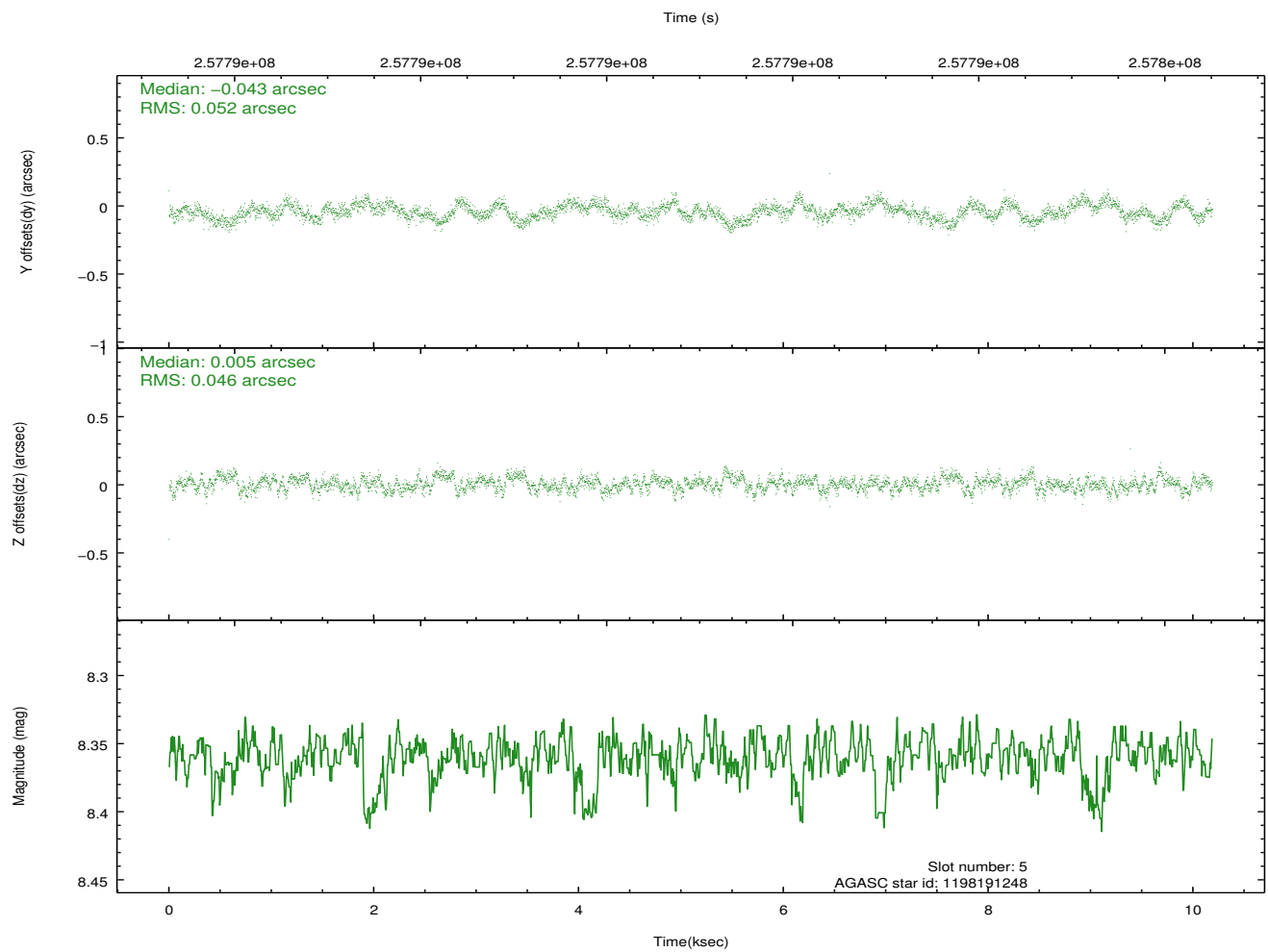
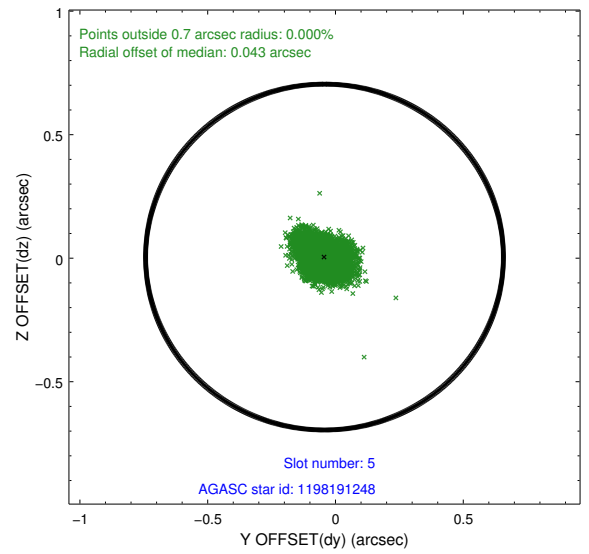
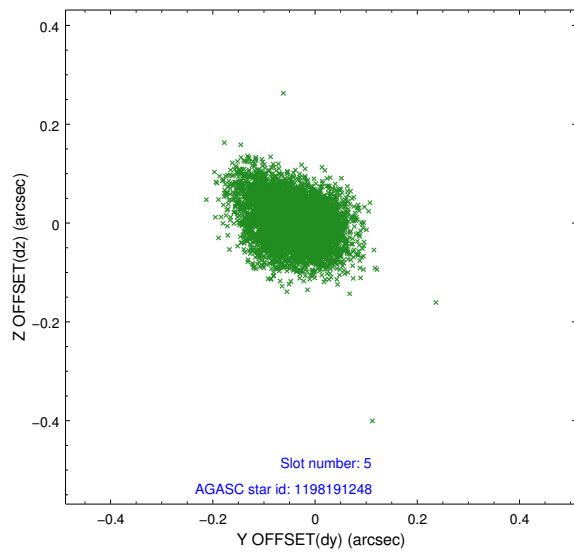
2.4.1 Slot 3



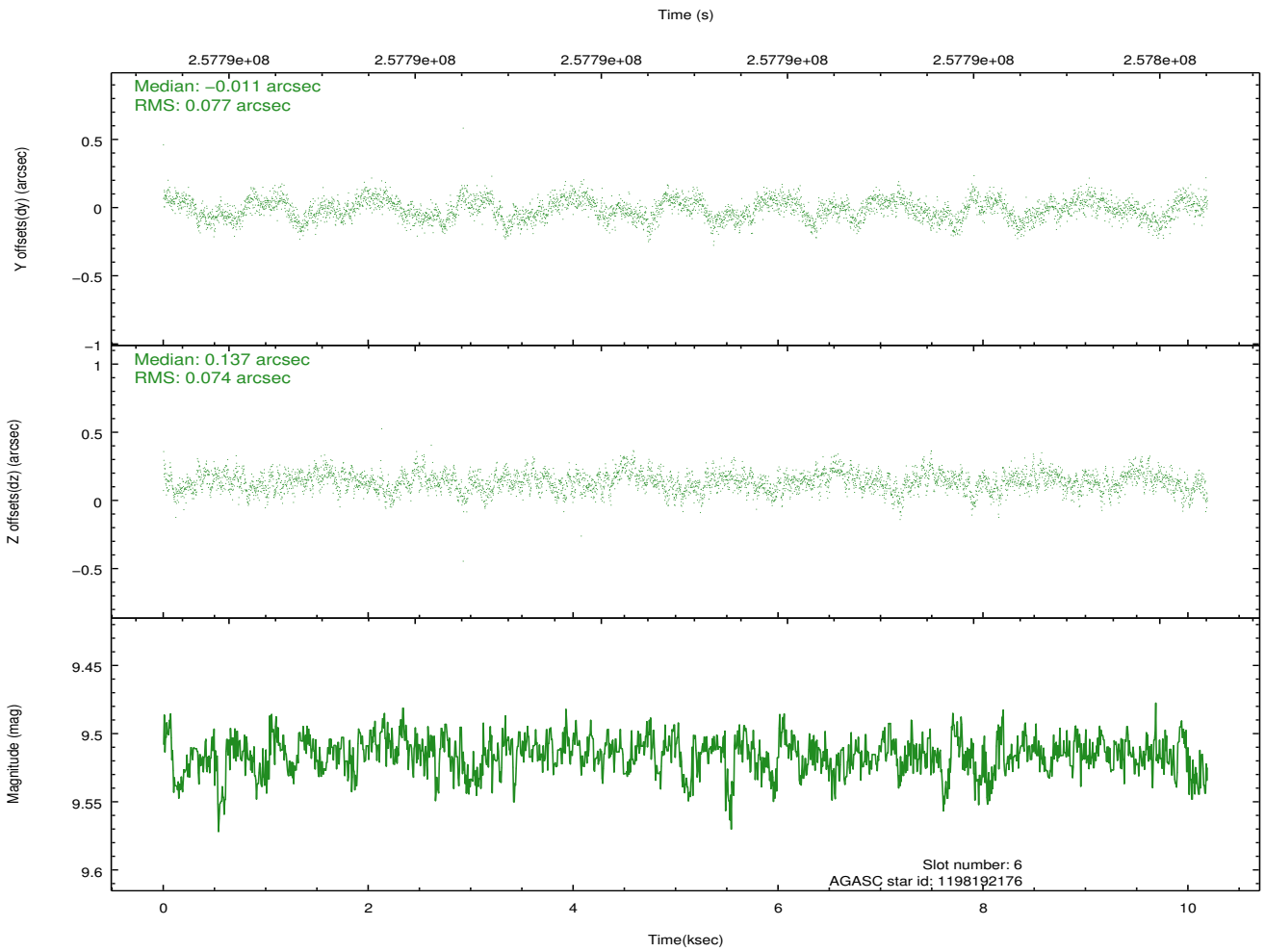
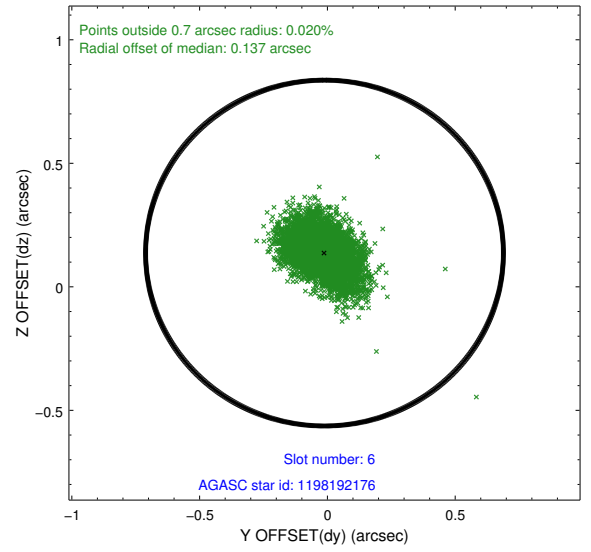
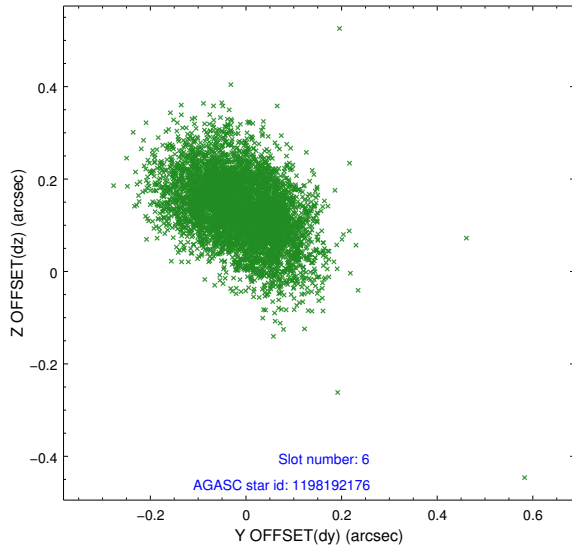
2.4.2 Slot 4



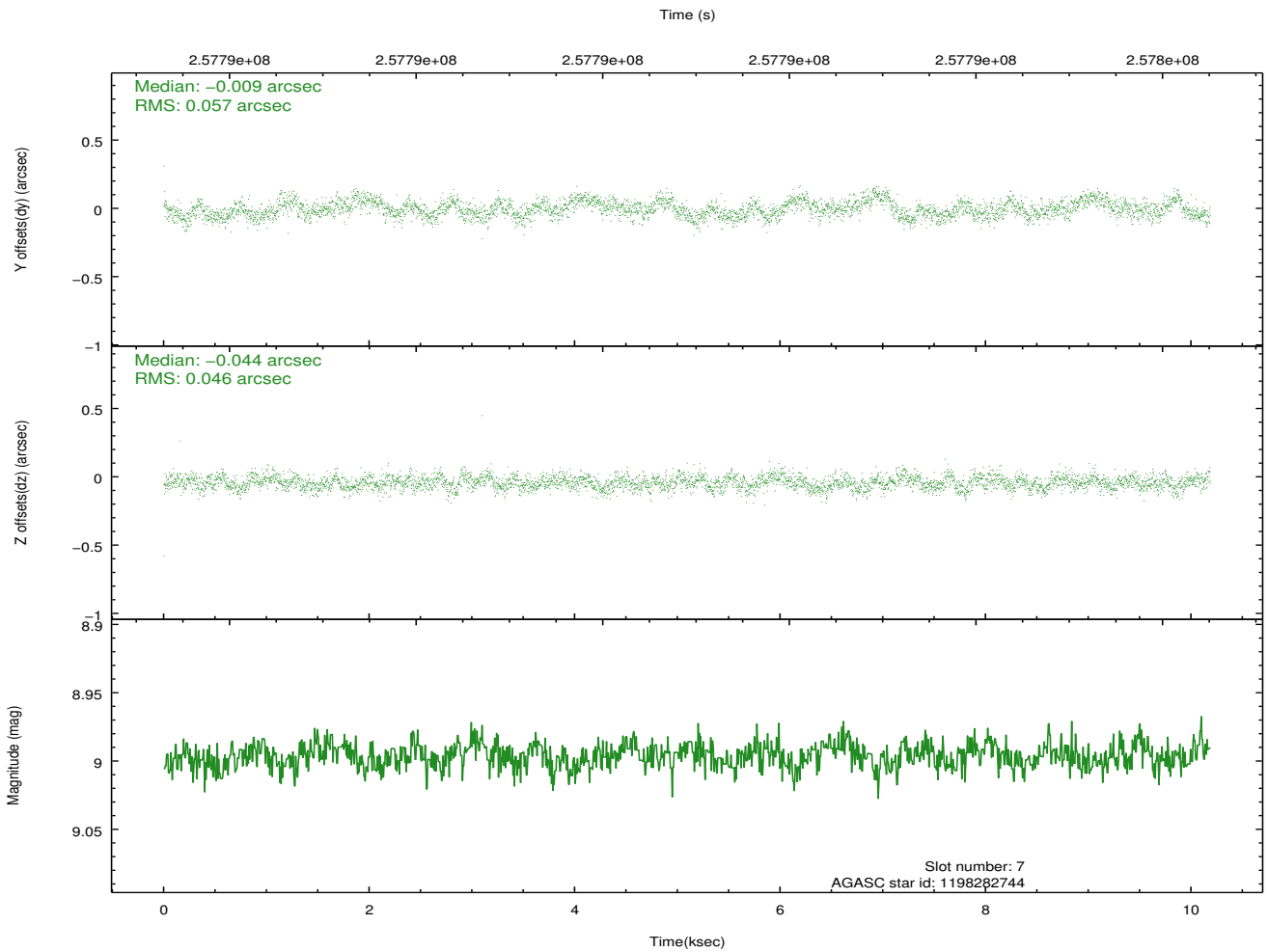
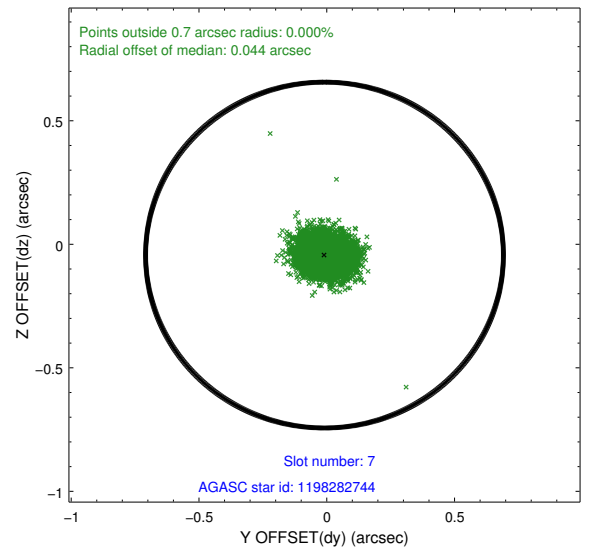
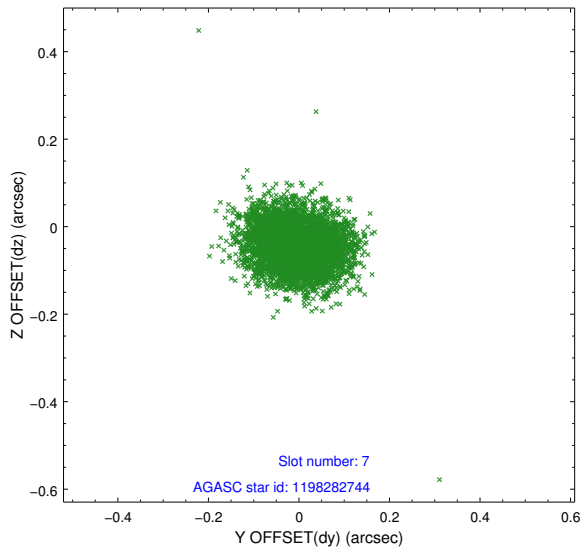
2.4.3 Slot 5



2.4.4 Slot 6

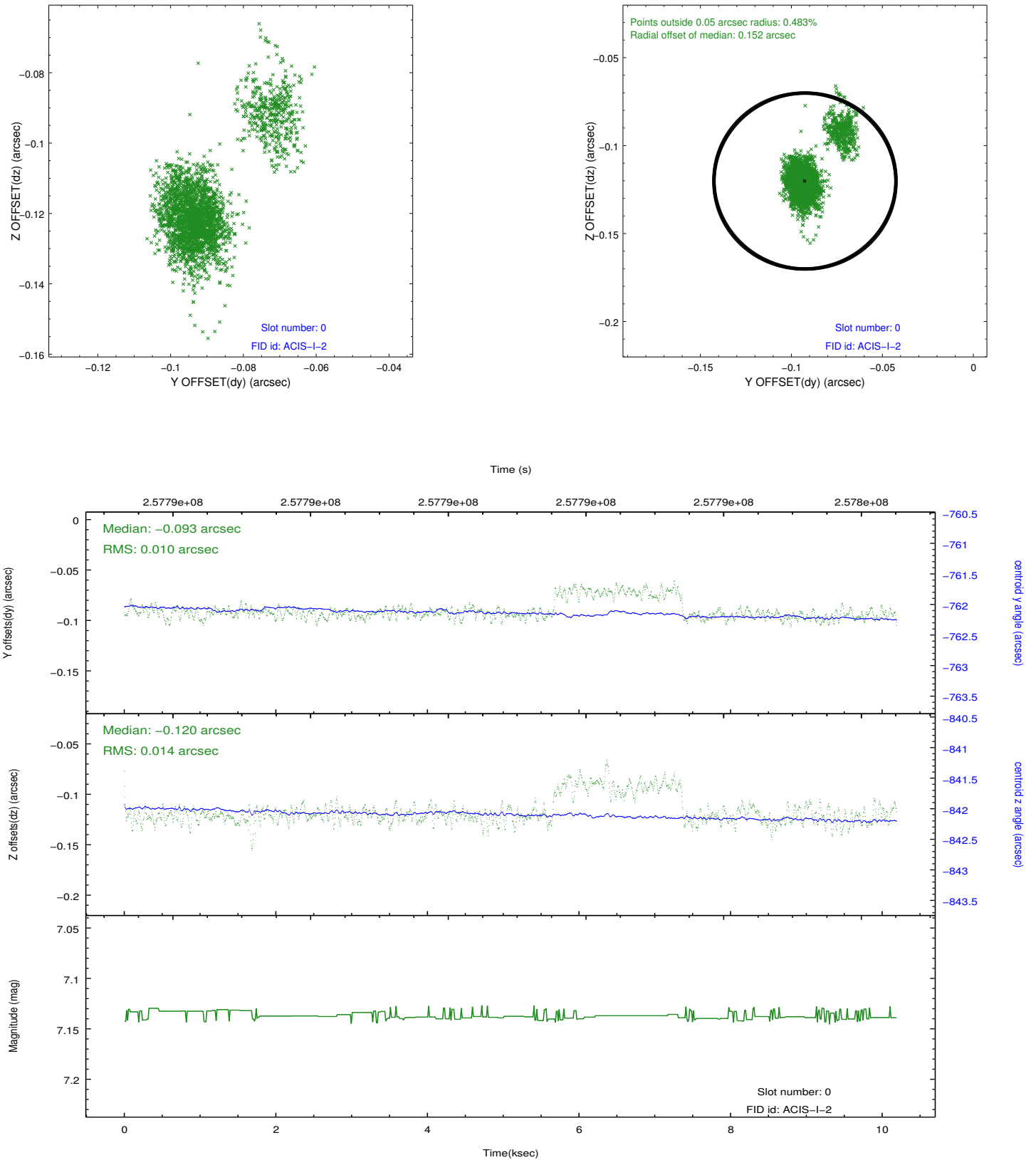


2.4.5 Slot 7

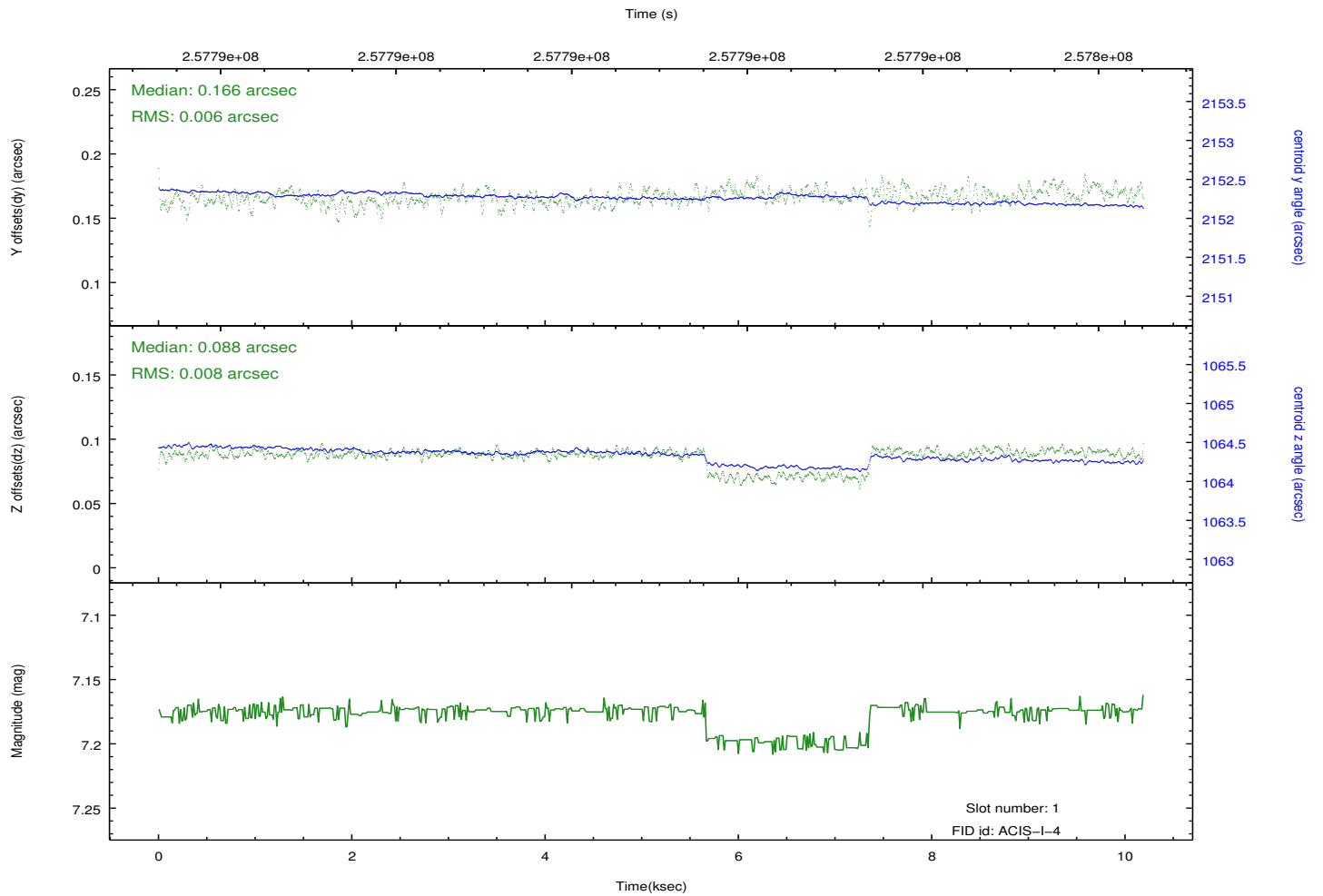
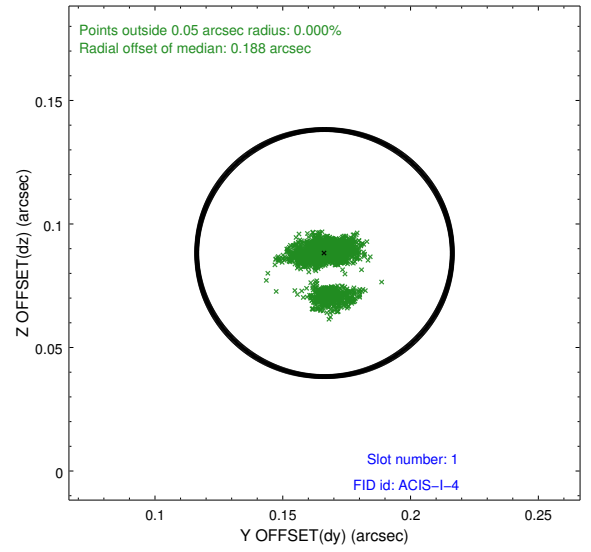
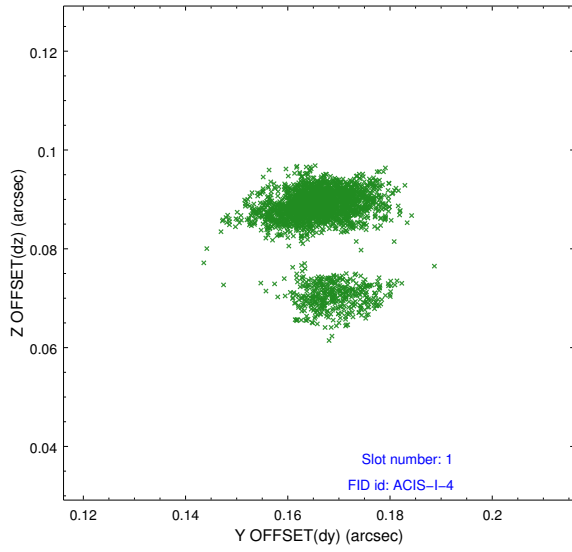


2.5 FID Slots

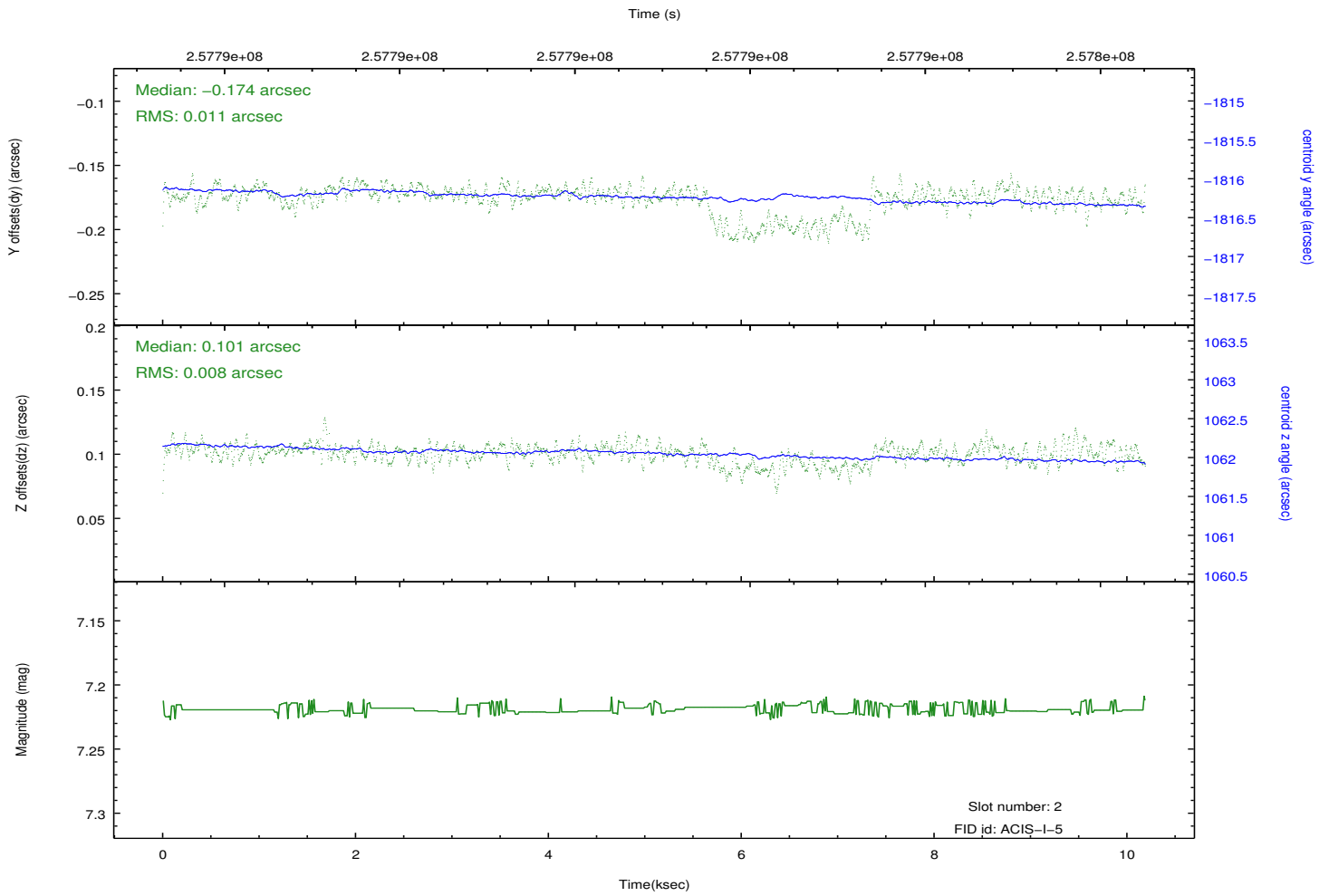
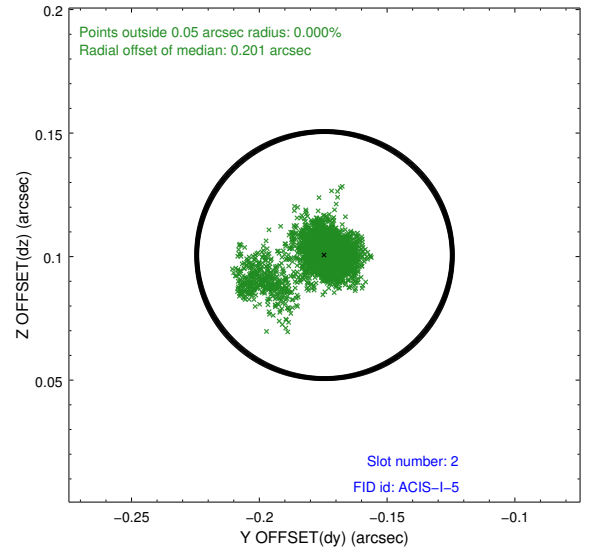
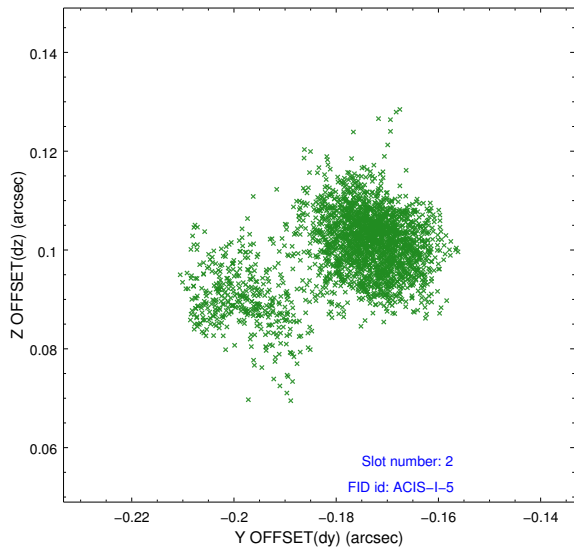
2.5.1 Slot 0



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) | 2012.03.28 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 9.75679996 |

A.2 Comments