

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9779 - L2 Version 2
Chandra X-Ray Center

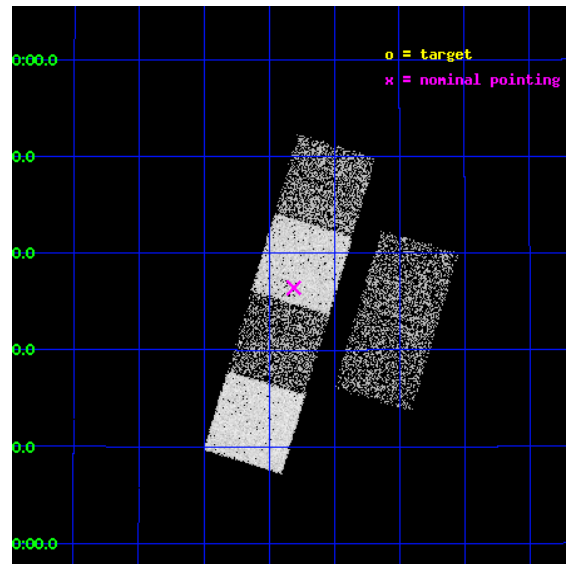
L2 Processing Date : May 7 2012

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

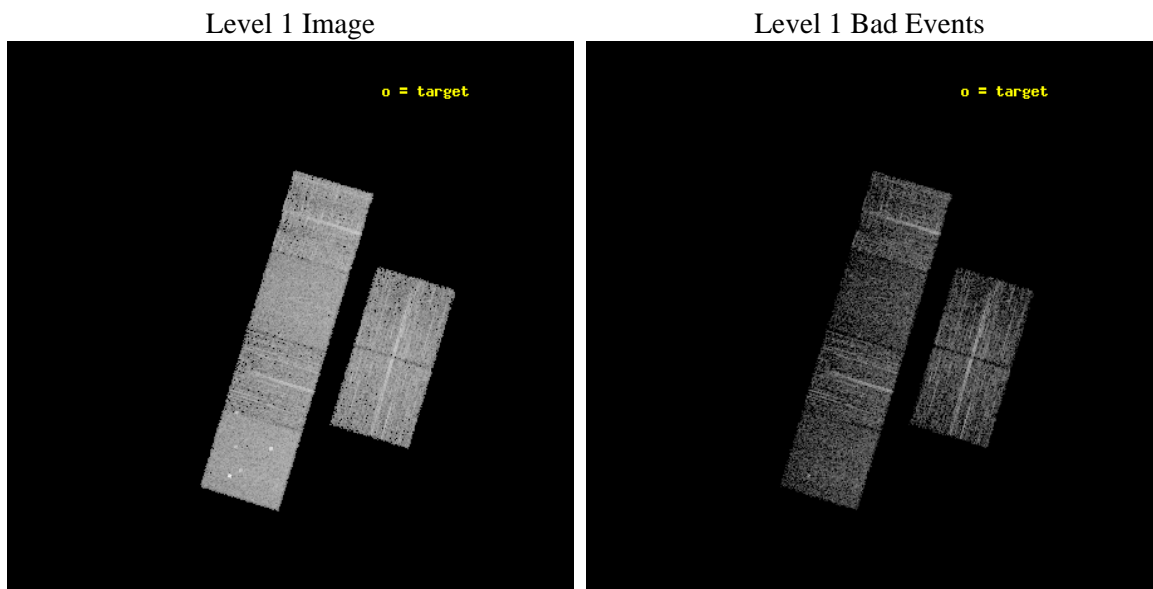
| | | |
|-----------|-------------------------------------------------------|---------------------------------------------|
| seq_num | 100070 | Sequence number |
| obs_id | 9779 | Observation id |
| title | High Resolution Imaging and Spectroscopy of 8P/Tuttle | Proposal tit |
| observer | Dr Damian Christian | Principal investigator |
| object | 8P/Tuttle (2008) | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 24.054167 | Observer's specified target RA [deg] |
| dec_targ | 26.219722 | Observer's specified target Dec [deg] |
| ra_nom | 24.327693055017 | Nominal RA [deg] |
| dec_nom | 24.607145953869 | Nominal Dec [deg] |
| roll_nom | 286.83353363059 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 3190.3999881744 | Sum of GTIs [s] |
| livedtime | 3150.0012224959 | Livetime [s] |
| ontime2 | 3190.3999881744 | Sum of GTIs [s] |
| ontime3 | 3190.3999881744 | Sum of GTIs [s] |
| ontime5 | 3190.3999881744 | Sum of GTIs [s] |
| ontime6 | 3190.3999881744 | Sum of GTIs [s] |
| ontime7 | 3190.3999881744 | Sum of GTIs [s] |
| ontime8 | 3190.3999881744 | Sum of GTIs [s] |
| l2events | 40785 | Number of level 2 events |



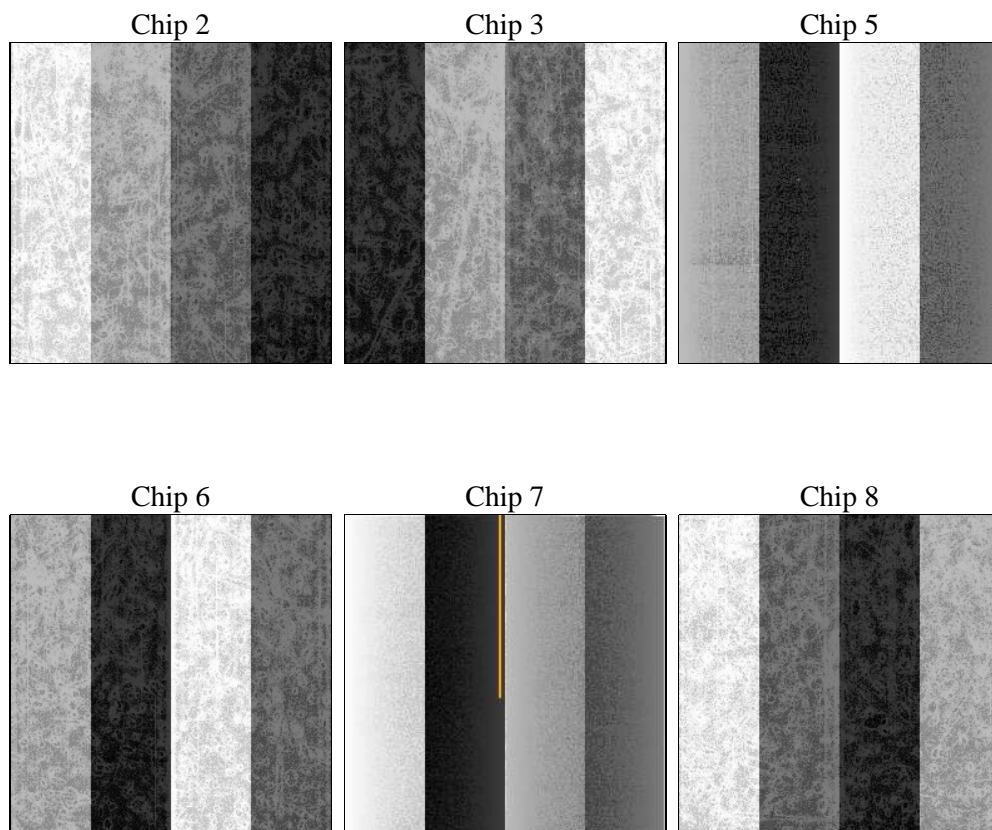
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|-----------------------------------------|
| obi_num | 0 | Obi number | sched_exp_time | 3000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.4 | Processing system revision | ontime | 3190.3999881744 | Sum of GTIs [s] |
| caldbver | 4.4.9 | | ontime2 | 3190.3999881744 | Sum of GTIs [s] |
| date | 2012-05-07T14:11:53 | Date and time of file creation | ontime3 | 3190.3999881744 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime5 | 3190.3999881744 | Sum of GTIs [s] |
| | | | ontime6 | 3190.3999881744 | Sum of GTIs [s] |
| | | | ontime7 | 3190.3999881744 | Sum of GTIs [s] |
| | | | ontime8 | 3190.3999881744 | Sum of GTIs [s] |
| | | | l1events | 196646 | Number of level 1 events |

2.1.4 Events

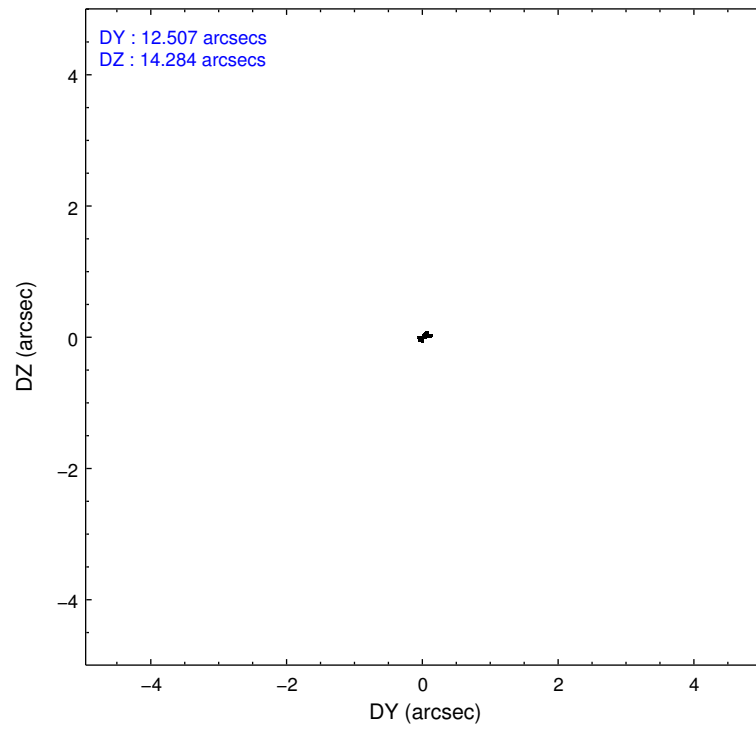
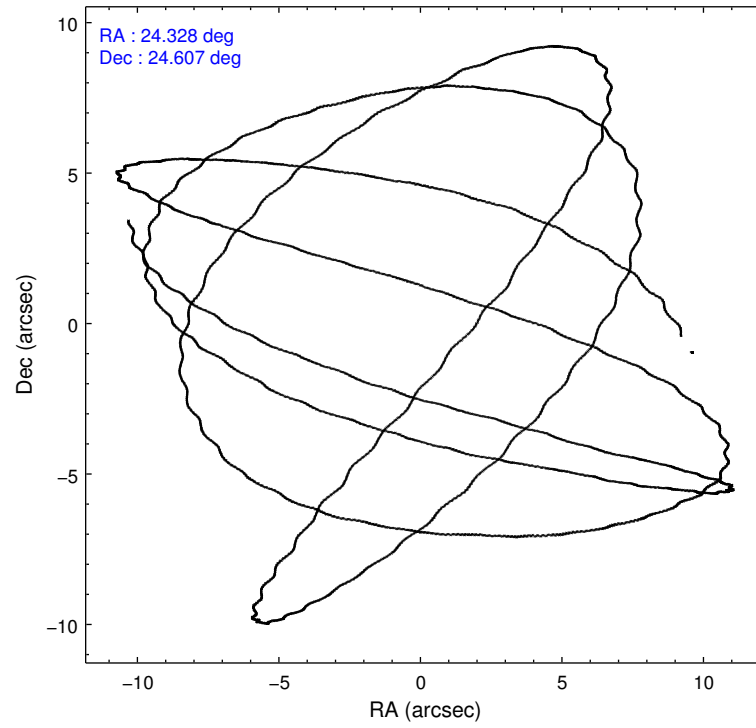
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 29987 | 27857 | 41108 | 28830 | 33294 | 35570 | grade 0 events | 1024 | 935 | 2905 | 1148 | 1966 | 2786 |
| rejected events | 27403 | 25413 | 21907 | 25983 | 18901 | 27455 | | 3% | 3% | 7% | 3% | 5% | 7% |
| rejected % | 91% | 91% | 53% | 90% | 56% | 77% | grade 1 events | 15 | 15 | 129 | 9 | 52 | 29 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 679 | 572 | 6196 | 628 | 3214 | 2099 |
| | | | | | | | | 2% | 2% | 15% | 2% | 9% | 5% |
| | | | | | | | grade 3 events | 288 | 305 | 823 | 352 | 1424 | 987 |
| | | | | | | | | 0% | 1% | 2% | 1% | 4% | 2% |
| | | | | | | | grade 4 events | 322 | 317 | 799 | 323 | 1406 | 885 |
| | | | | | | | | 1% | 1% | 1% | 1% | 4% | 2% |
| | | | | | | | grade 5 events | 1031 | 1119 | 3141 | 1120 | 3399 | 1599 |
| | | | | | | | | 3% | 4% | 7% | 3% | 10% | 4% |
| | | | | | | | grade 6 events | 505 | 554 | 10433 | 659 | 7736 | 2195 |
| | | | | | | | | 1% | 1% | 25% | 2% | 23% | 6% |
| | | | | | | | grade 7 events | 26123 | 24040 | 16682 | 24591 | 14097 | 24990 |
| | | | | | | | | 87% | 86% | 40% | 85% | 42% | 70% |

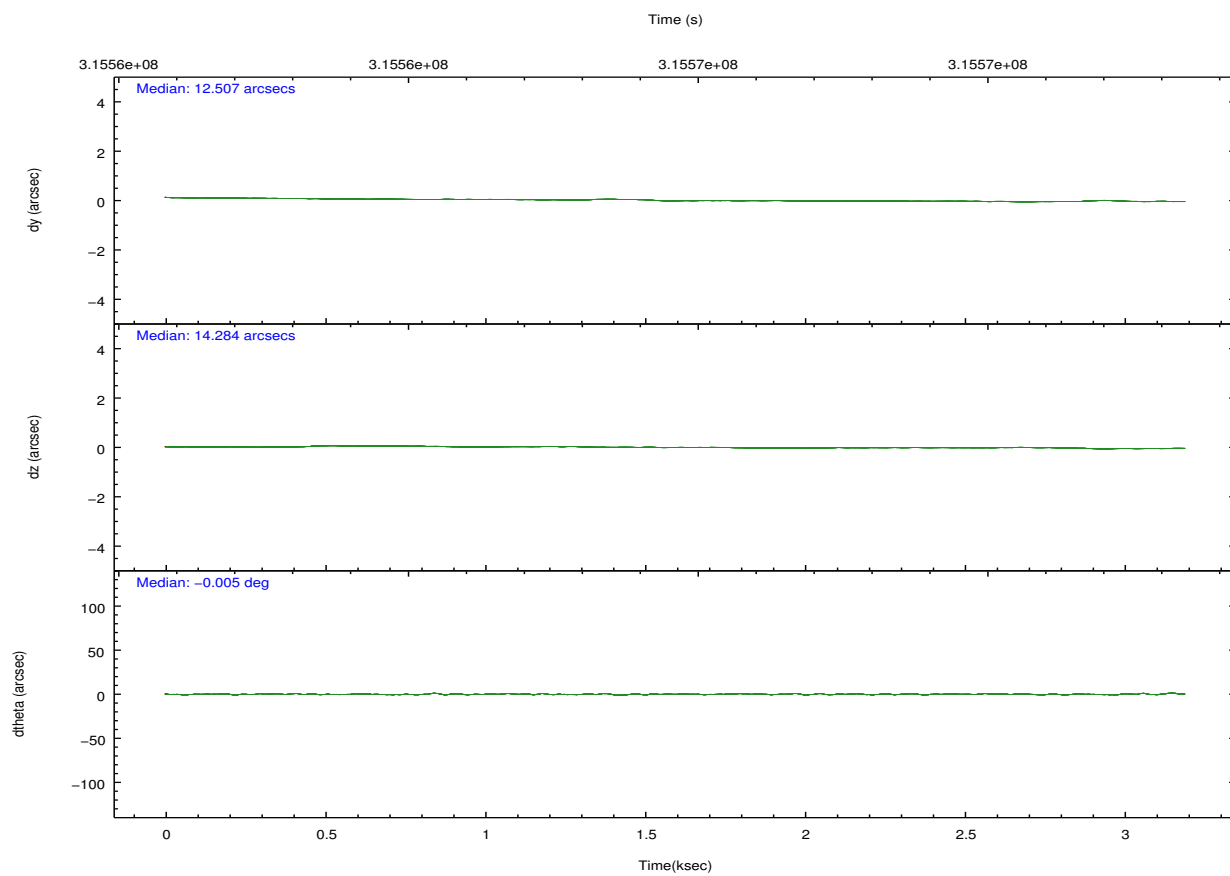
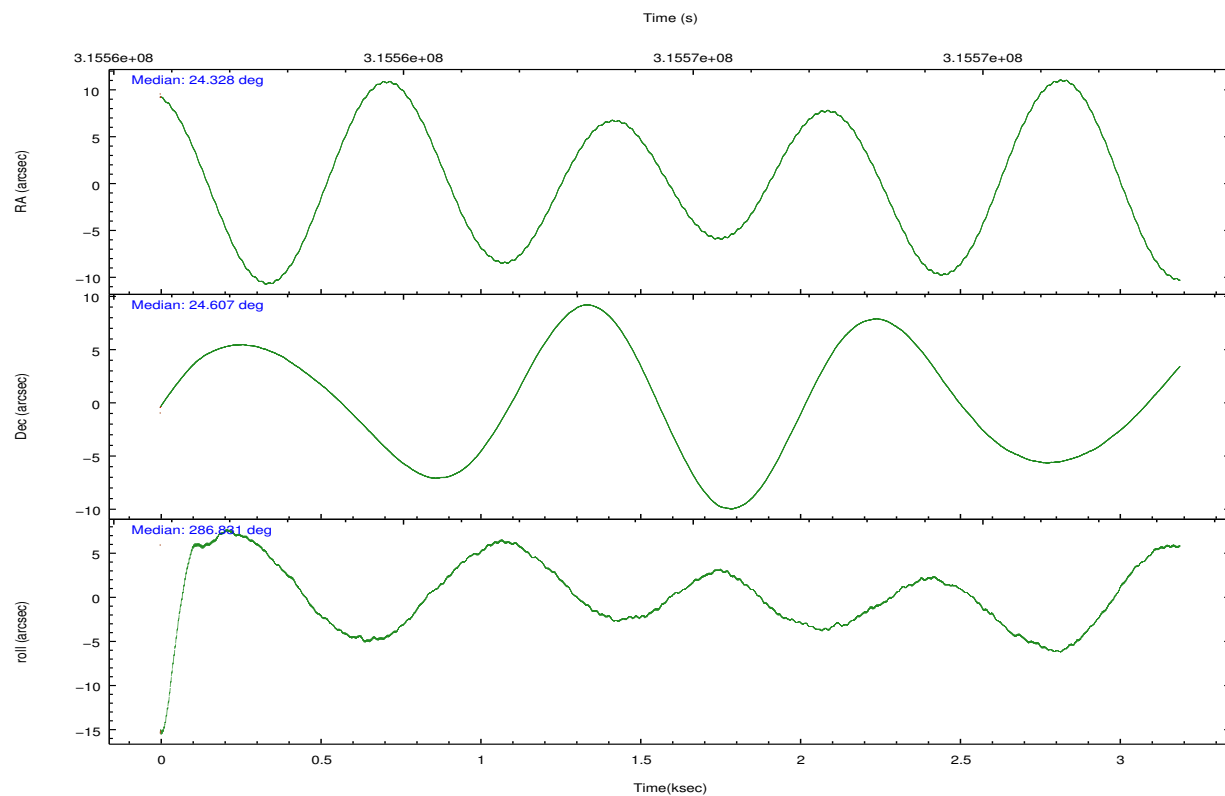
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|
| Instrument | ACIS | ACIS |
| Detector | ACIS-235678 | ACIS-235678 |
| Grating | NONE | NONE |
| Data mode | VFAINT | VFAINT |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 24.305467 | 24.32769305501733 |
| [deg] Pointing Dec | 24.625538 | 24.60714595386866 |
| [deg] Pointing Roll | 286.686243 | 286.8335336305917 |
| [s] Window start time (MET) | 314928065.184000 | 314928065.184000 |
| [s] Window stop time (MET) | 316828805.184000 | 316828805.184000 |
| [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) | 315564507.184000 | 315564130.7794 |
| Observation start date | 2008-01-01T08:47:22 | 2008-01-01T08:42:10 |
| [s] Observation end time (MET) | 315567507.184000 | 315567640.89207 |
| Observation end date | 2008-01-01T09:37:22 | 2008-01-01T09:40:40 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---------------------------------------|-----------|---------|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |
| Number of optional ACIS chips dropped | 0 | 0 |
| On-chip summing requested | N | N |
| Subarray requested | NONE | NONE |
| Alternating exposures requested | N | N |
| [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



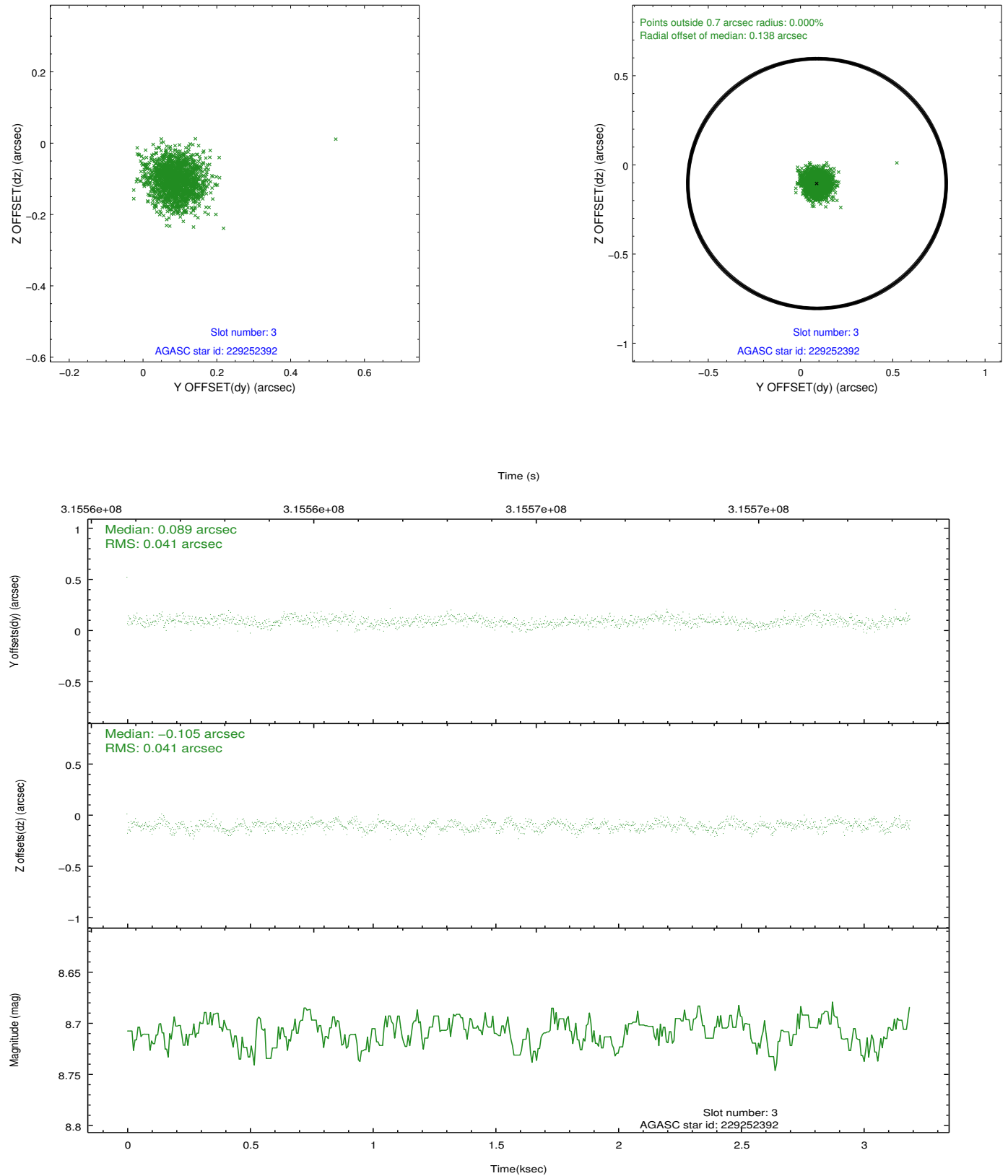


Slot Statistics

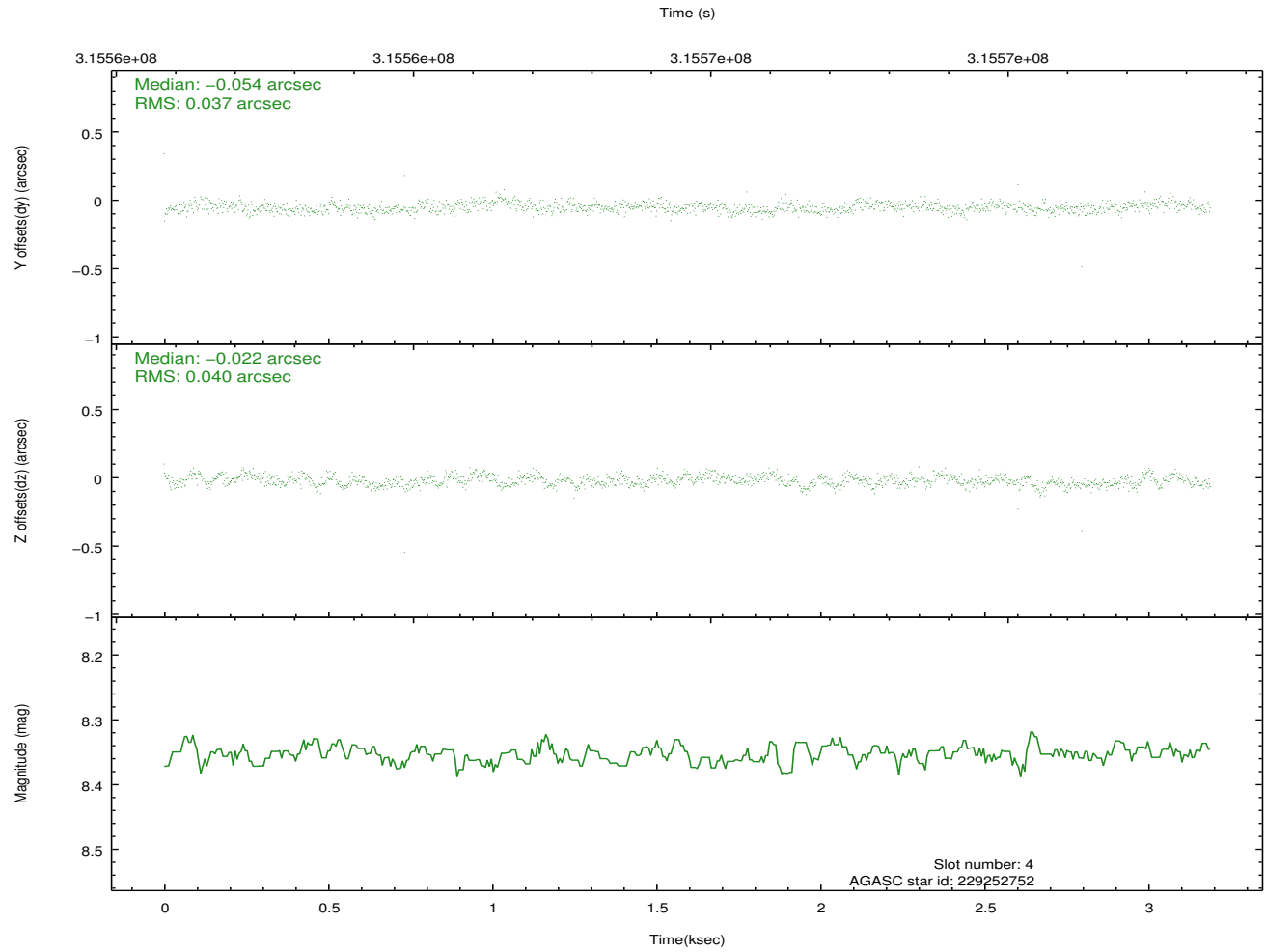
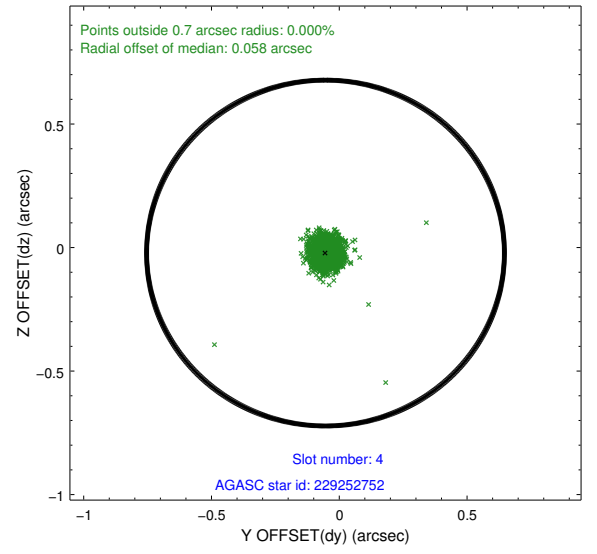
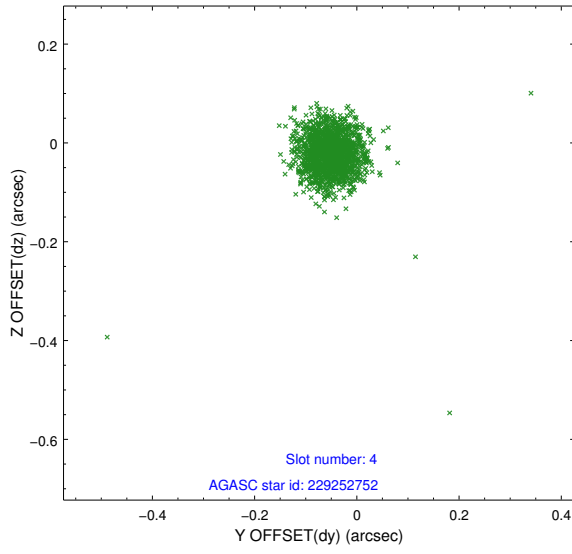
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.09 | 779 | -0.045 | -0.043 | 0.006 | 0.011 | 0.000000 | 0.000000 | -765.46 | -1735.70 |
| 1 | FID | ACIS-S-4 | 7.18 | 779 | 0.149 | 0.033 | 0.007 | 0.012 | 0.000000 | 0.000000 | 2147.09 | 170.82 |
| 2 | FID | ACIS-S-5 | 7.22 | 779 | -0.135 | 0.018 | 0.007 | 0.013 | 0.000000 | 0.000000 | -1815.85 | 166.71 |
| 3 | GUIDE | 229252392 | 8.71 | 1554 | 0.089 | -0.105 | 0.061 | 0.096 | 24.062418 | 24.367790 | 659.95 | -1029.66 |
| 4 | GUIDE | 229252752 | 8.35 | 1556 | -0.054 | -0.022 | 0.052 | 0.083 | 24.225654 | 24.410043 | 668.94 | -473.88 |
| 5 | GUIDE | 229255600 | 8.38 | 1556 | 0.022 | -0.146 | 0.076 | 0.116 | 24.102689 | 24.216856 | 1218.69 | -1060.33 |
| 6 | GUIDE | 229640256 | 6.94 | 1557 | -0.279 | 0.031 | 0.062 | 0.104 | 24.354558 | 25.167769 | -1821.85 | 711.01 |
| 7 | GUIDE | 229250008 | 9.22 | 1548 | 0.224 | 0.244 | 0.089 | 0.147 | 24.918884 | 24.309304 | 1663.60 | 1603.11 |

2.4 Star Slots

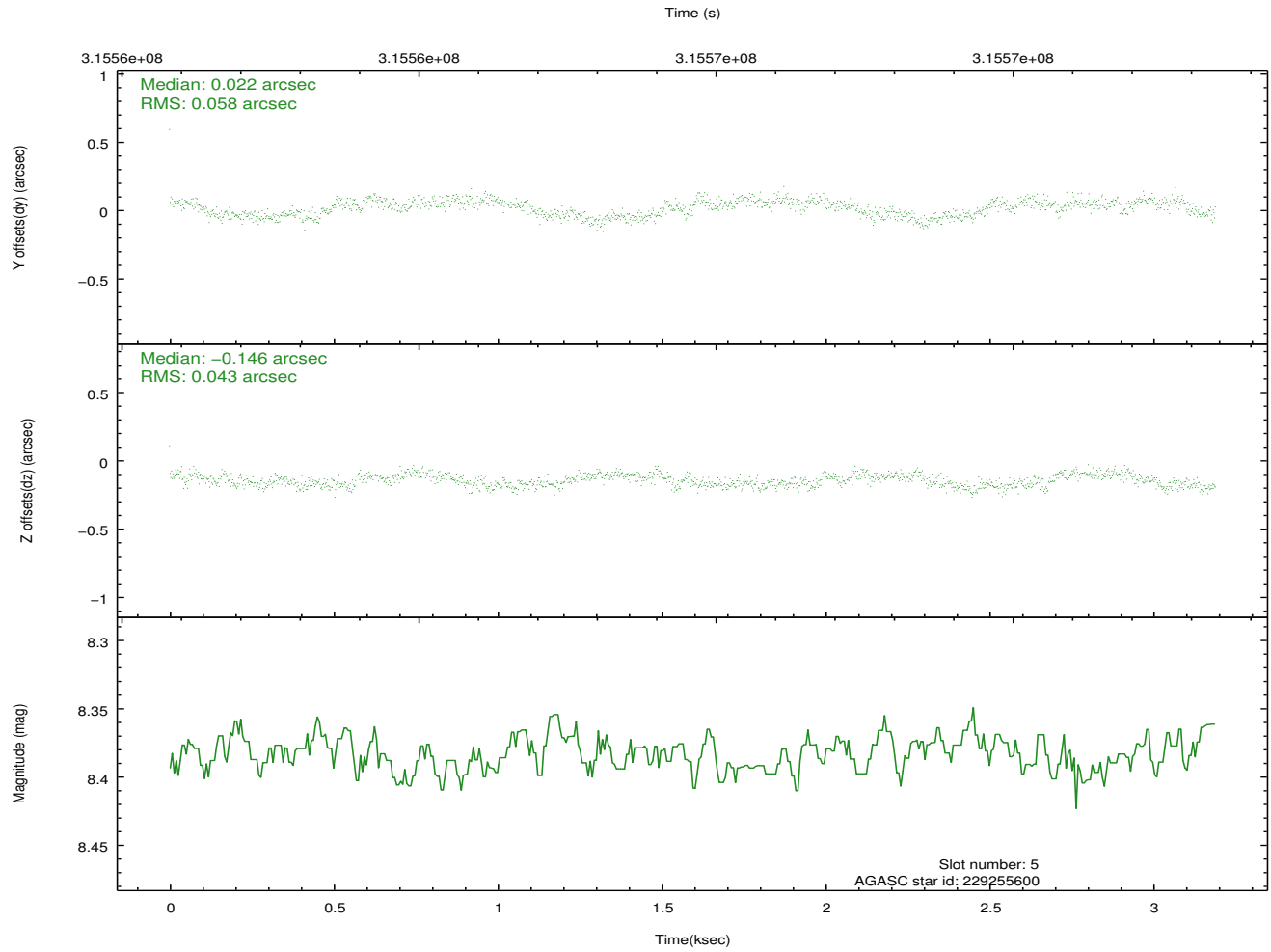
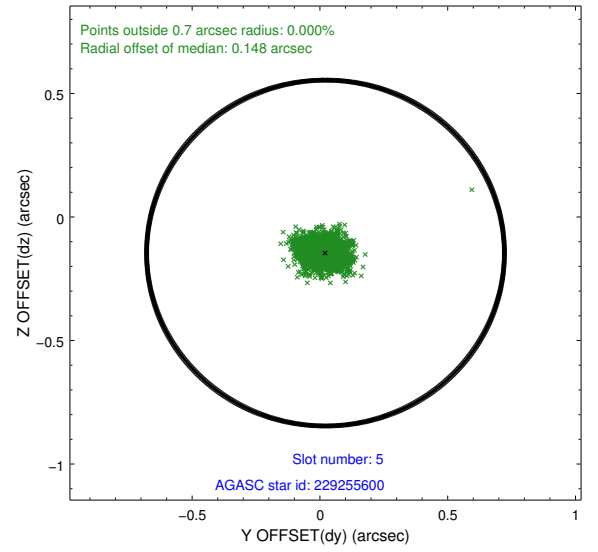
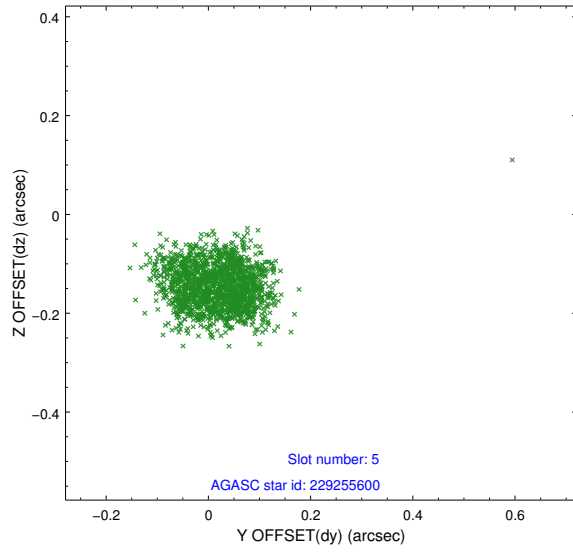
2.4.1 Slot 3



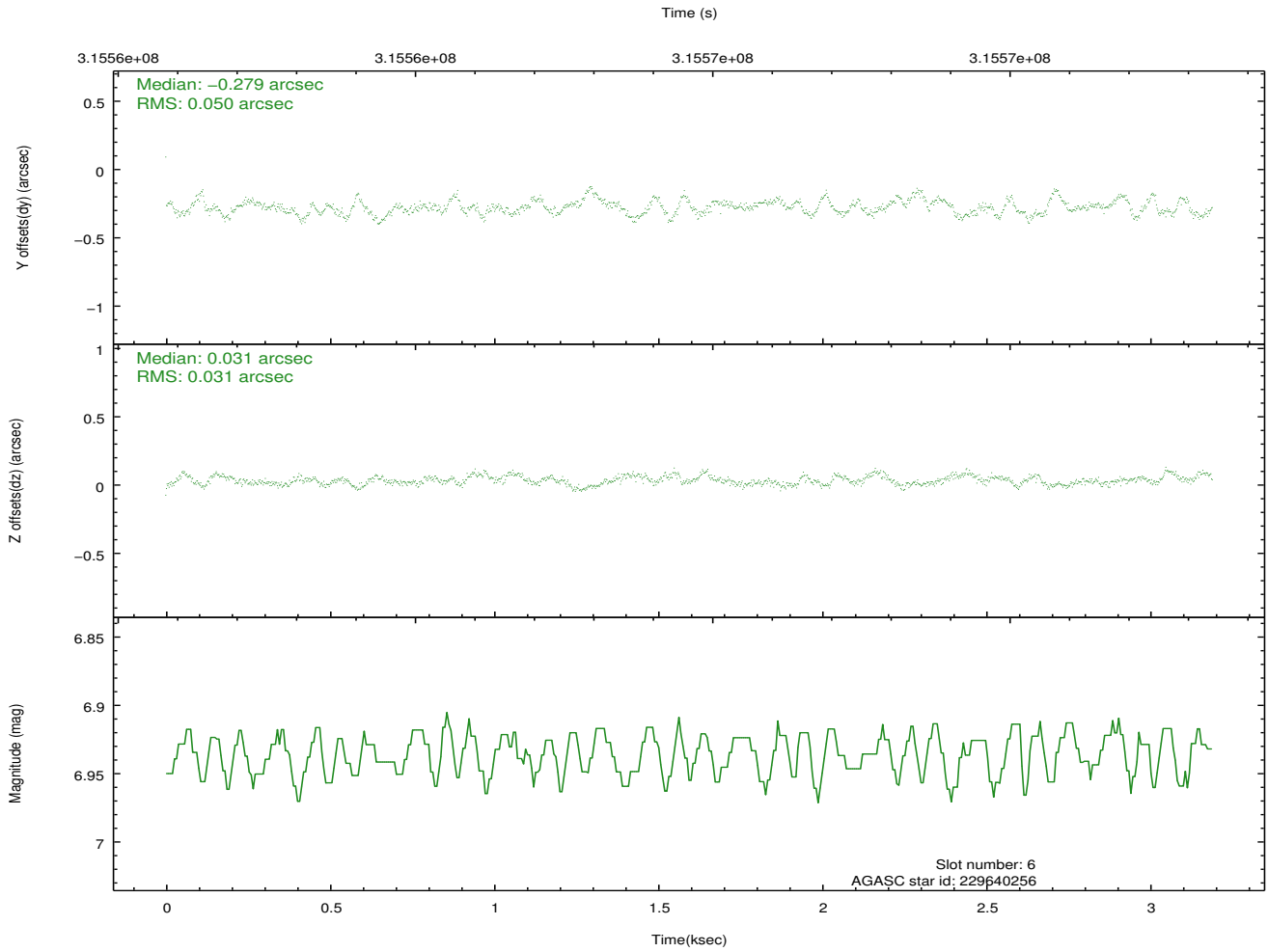
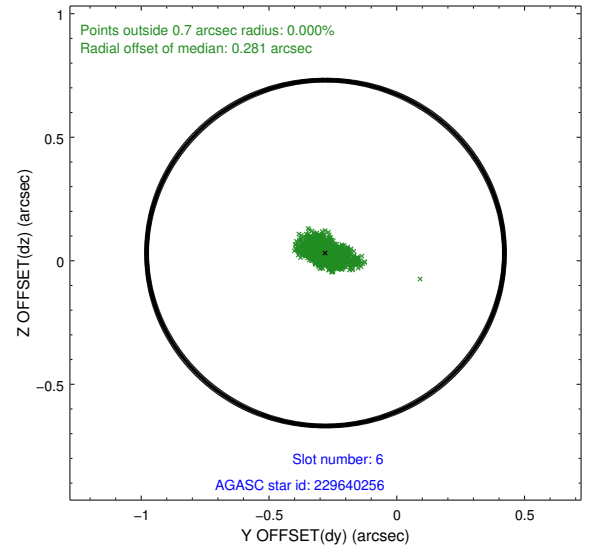
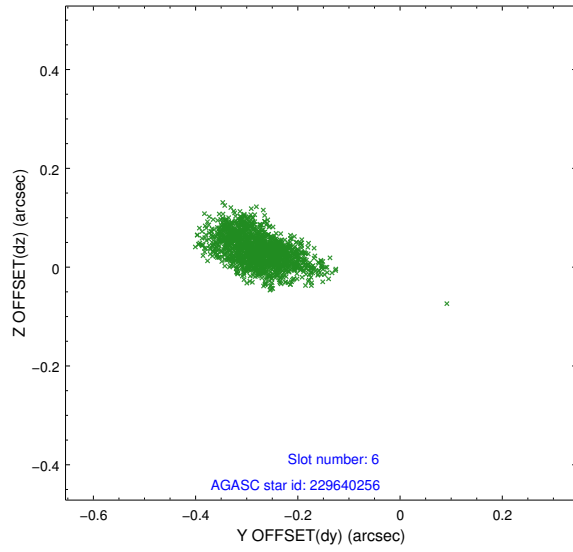
2.4.2 Slot 4



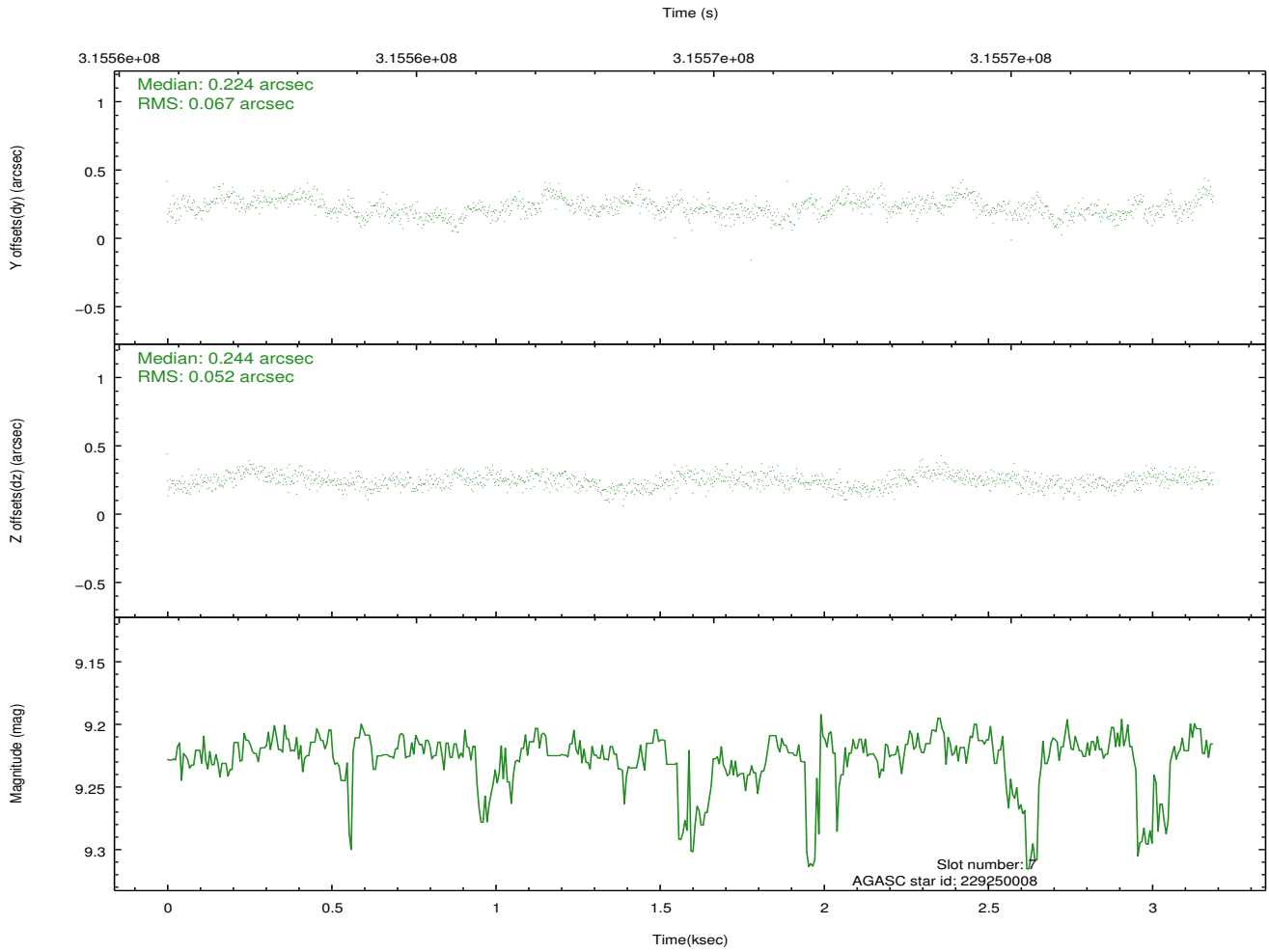
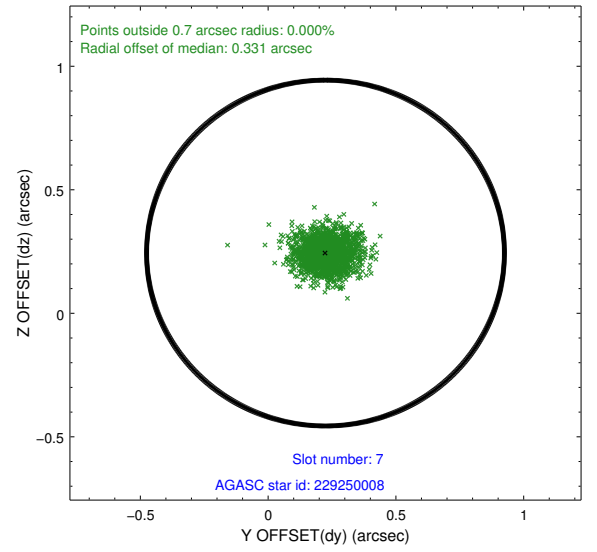
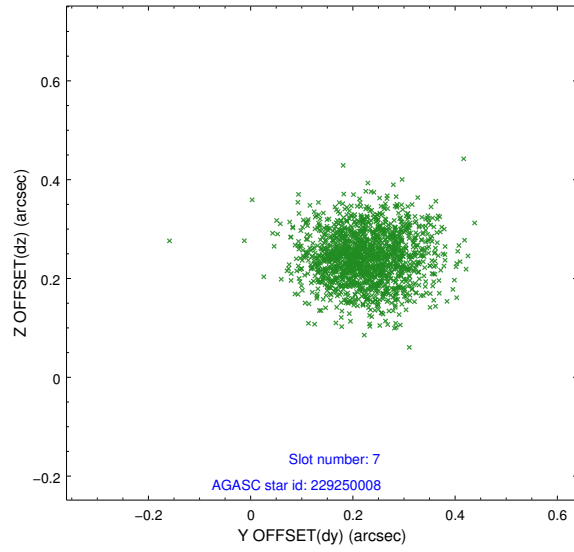
2.4.3 Slot 5



2.4.4 Slot 6

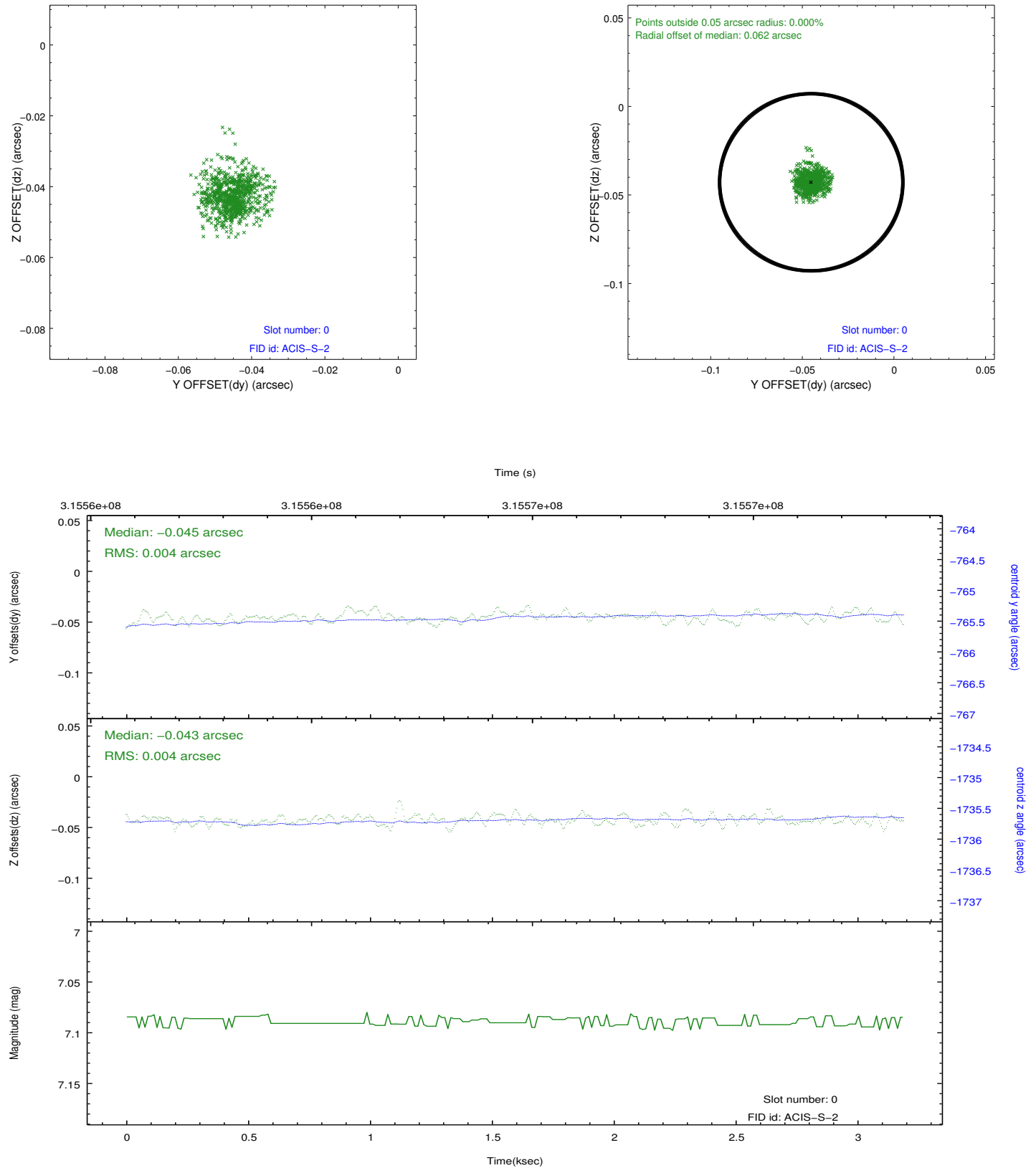


2.4.5 Slot 7

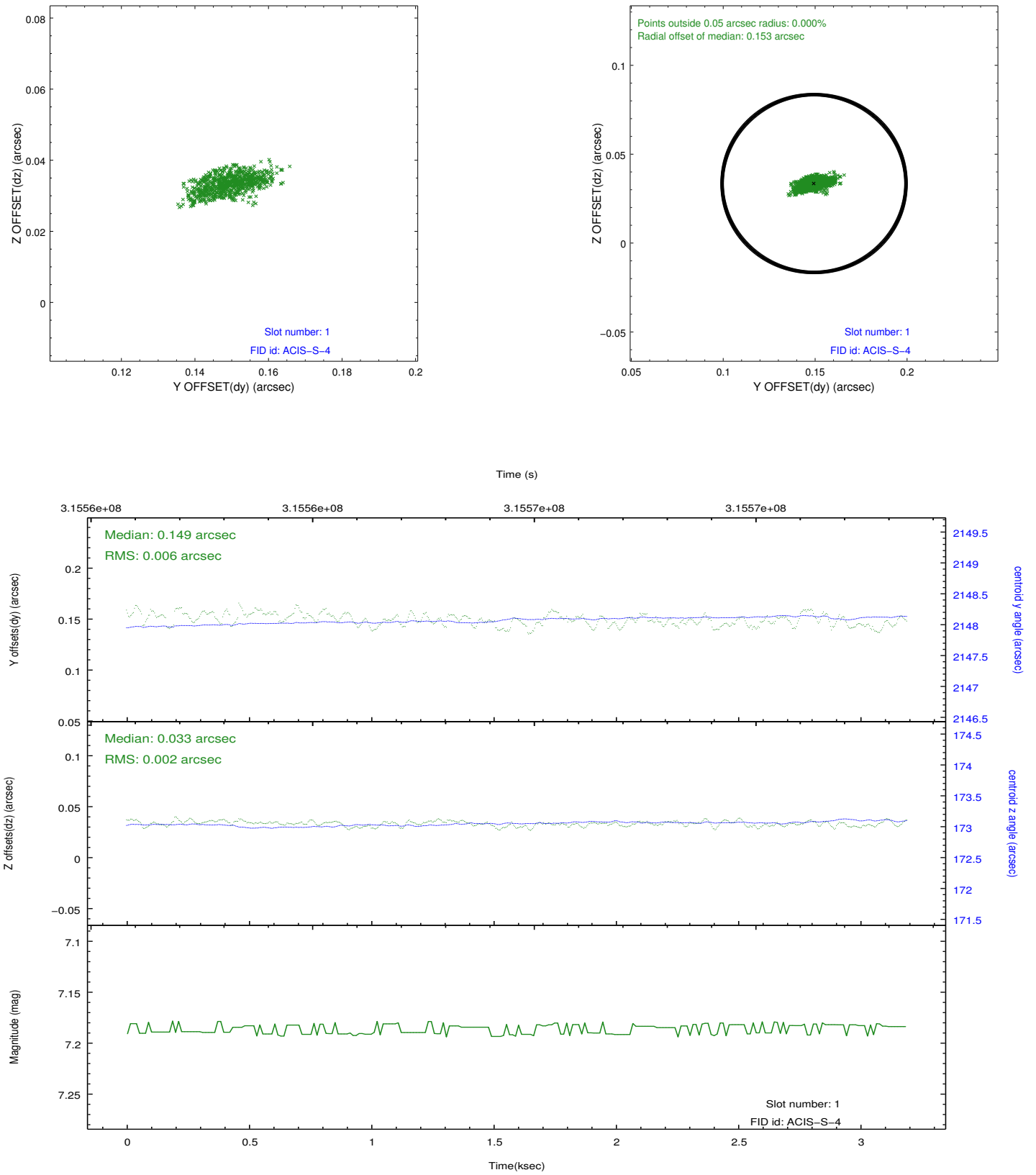


2.5 FID Slots

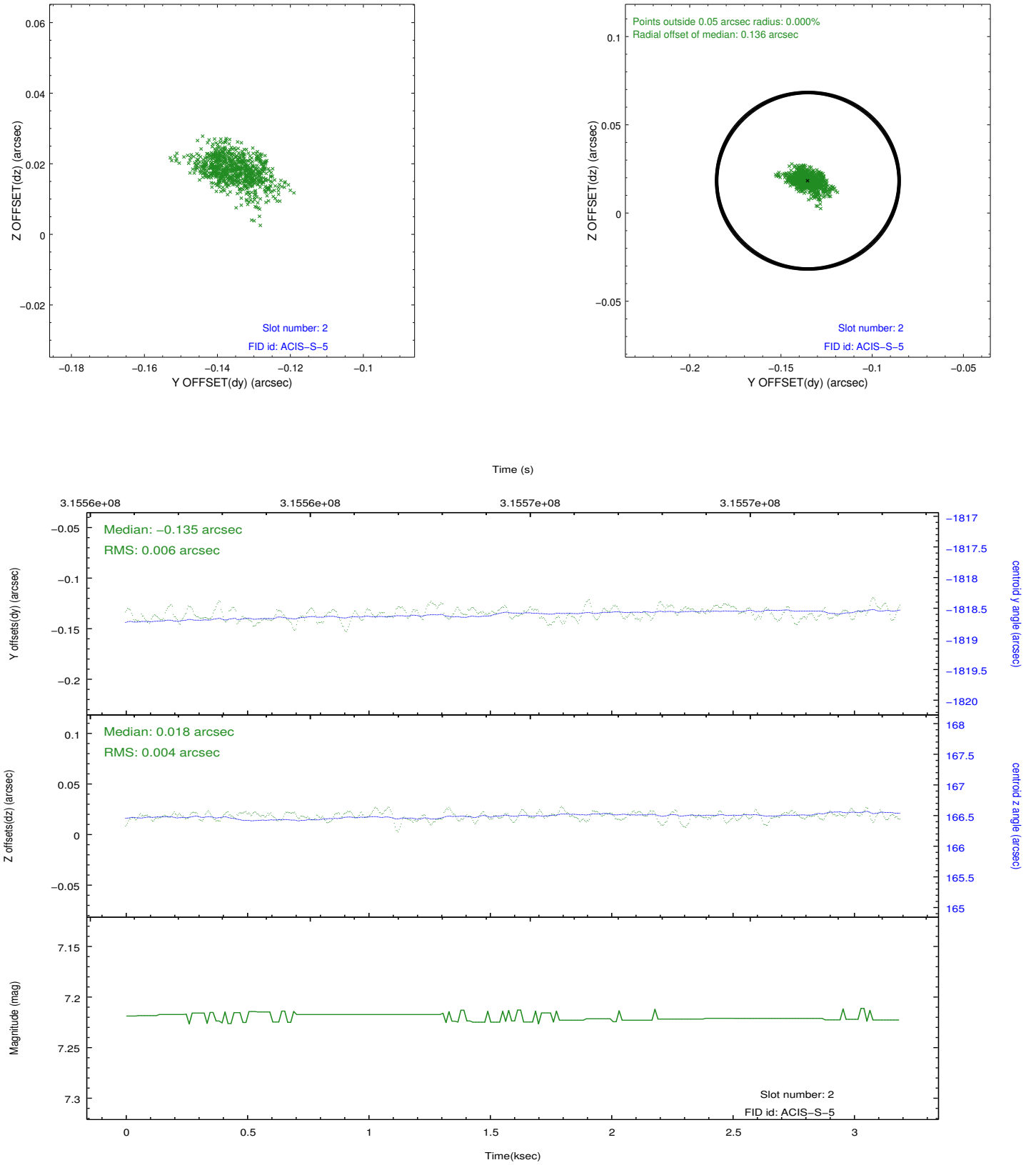
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2012.05.09 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 3.19039998 |

A.2 Comments

Window preference met.