

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 3934 - L2 Version 3
Chandra X-Ray Center

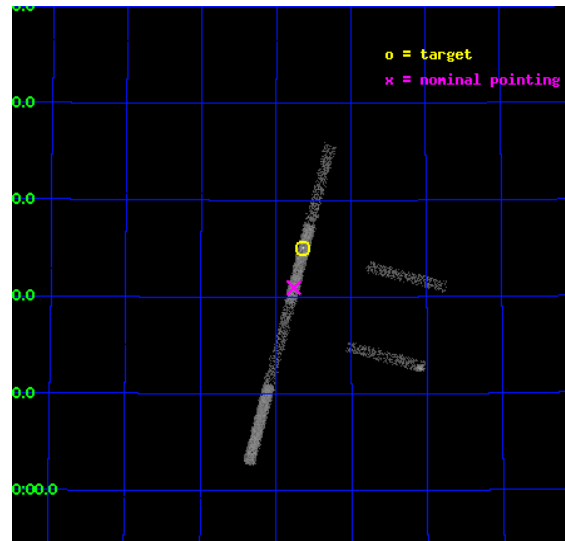
L2 Processing Date : Nov 3 2012

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1 Front

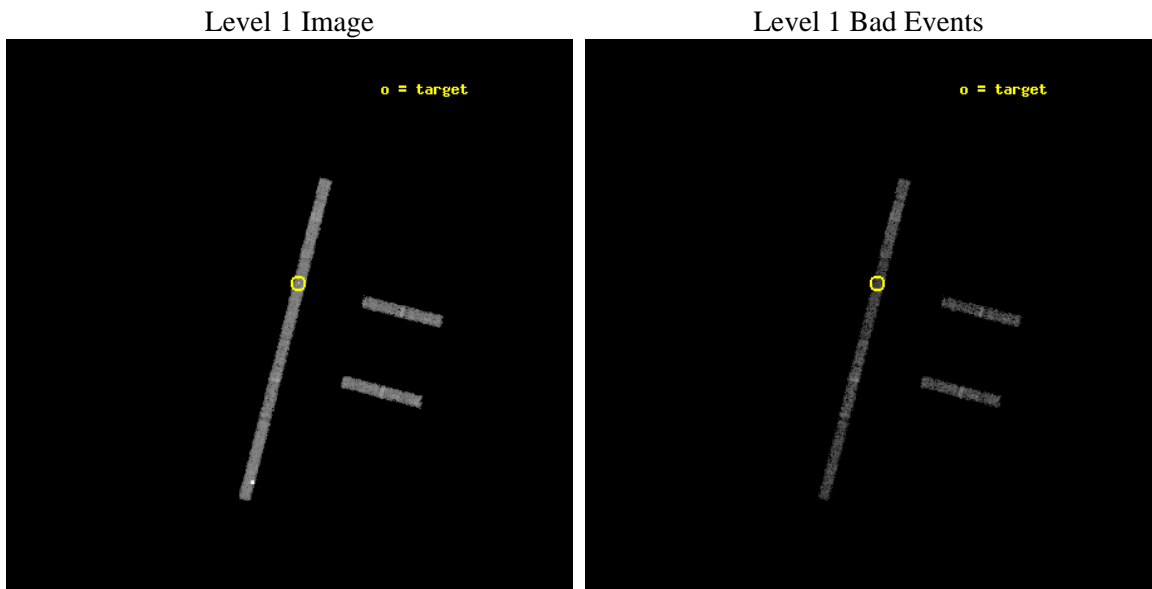
| | | |
|----------|---|---|
| seq_num | 600308 | Sequence number |
| obs_id | 3934 | Observation id |
| title | PROBING THE SPECTRAL VARIABILITY OF THE ULTRALUMINOUS X-RAY SOURCE NGC 5204 X-1 | Proposal title |
| observer | Dr Timothy Roberts | Principal investigator |
| object | NGC 5204 X-1 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 202.410833 | Observer's specified target RA [deg] |
| dec_targ | 58.418333 | Observer's specified target Dec [deg] |
| ra_nom | 202.4411476579 | Nominal RA [deg] |
| dec_nom | 58.349404941759 | Nominal Dec [deg] |
| roll_nom | 284.45196364731 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 5015.4999145865 | Sum of GTIs [s] |
| livetime | 4737.7333750008 | Livetime [s] |
| ontime2 | 5015.4999145865 | Sum of GTIs [s] |
| ontime3 | 5015.4999145865 | Sum of GTIs [s] |
| ontime5 | 5015.4999145865 | Sum of GTIs [s] |
| ontime6 | 5015.4999145865 | Sum of GTIs [s] |
| ontime7 | 5015.4999145865 | Sum of GTIs [s] |
| ontime8 | 5015.4999145865 | Sum of GTIs [s] |
| l2events | 7906 | Number of level 2 events |



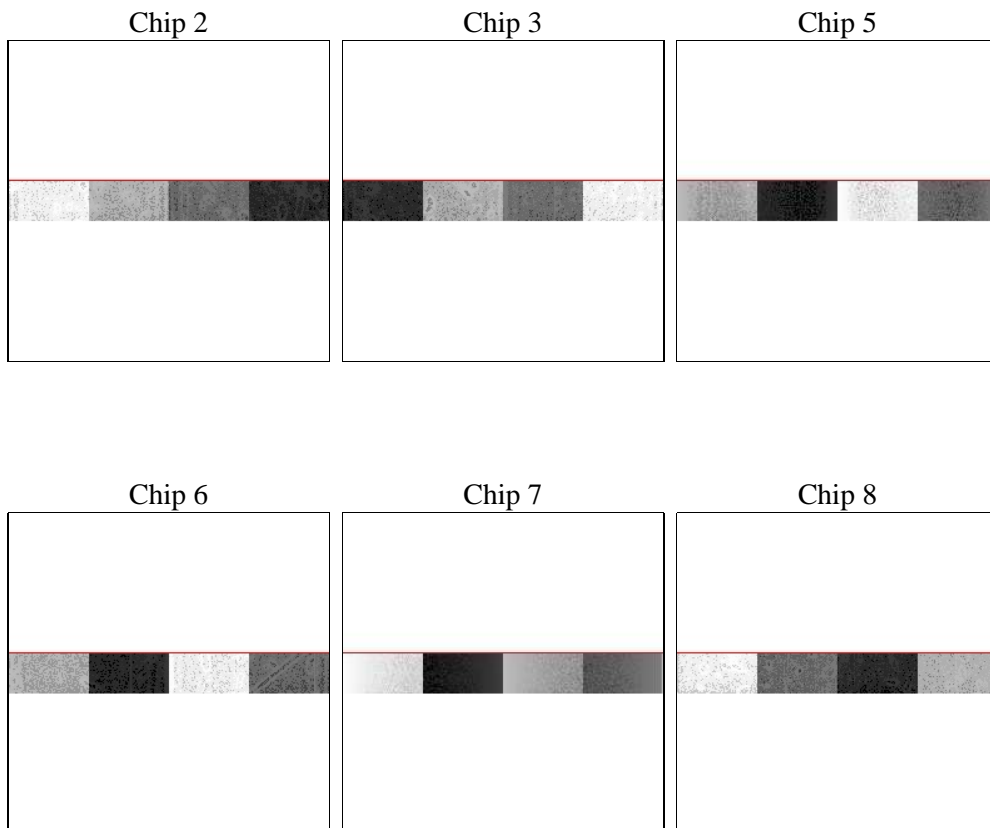
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 4863.599000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 5015.4999145865 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime2 | 5015.4999145865 | Sum of GTIs [s] |
| date | 2012-11-03T14:23:28 | Date and time of file creation | ontime3 | 5015.4999145865 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 5015.4999145865 | Sum of GTIs [s] |
| | | | ontime6 | 5015.4999145865 | Sum of GTIs [s] |
| | | | ontime7 | 5015.4999145865 | Sum of GTIs [s] |
| | | | ontime8 | 5015.4999145865 | Sum of GTIs [s] |
| | | | l1events | 51738 | Number of level 1 events |

2.1.4 Events

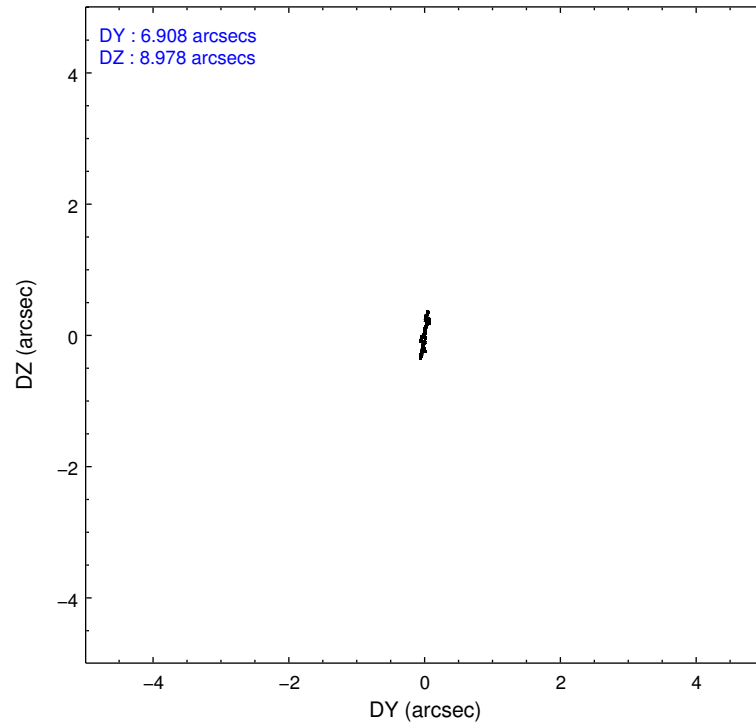
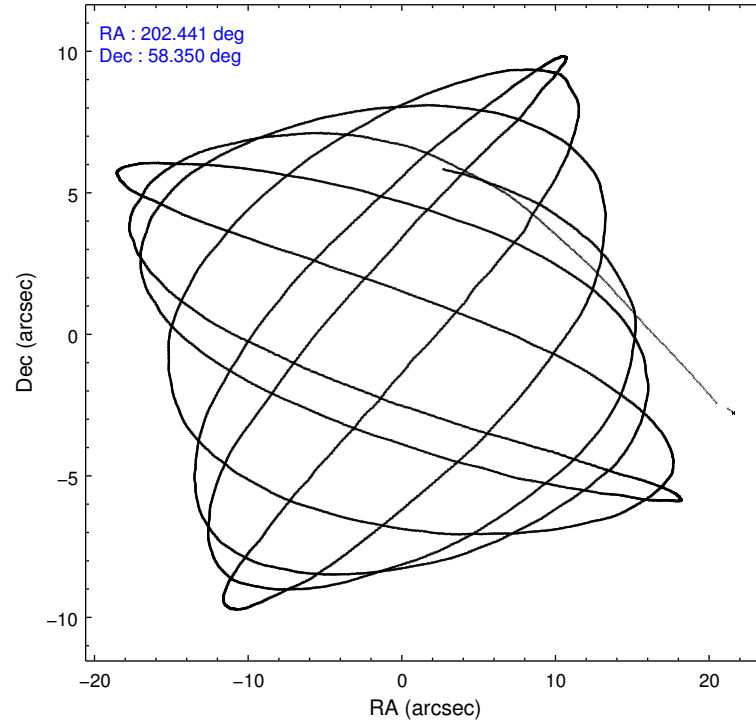
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 6856 | 5850 | 15600 | 6796 | 7759 | 8877 |
| rejected events | 6108 | 5297 | 6113 | 6164 | 4595 | 7444 |
| rejected % | 89% | 90% | 39% | 90% | 59% | 83% |

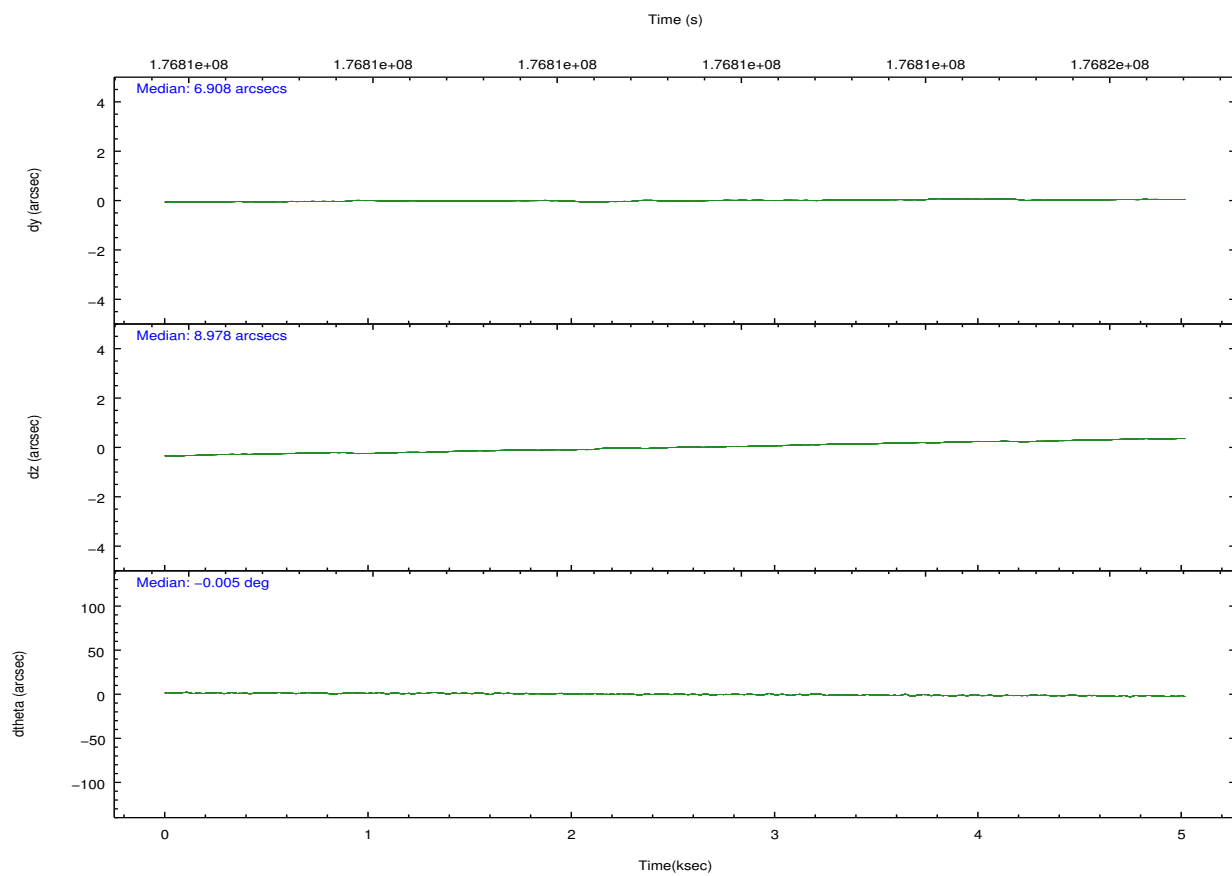
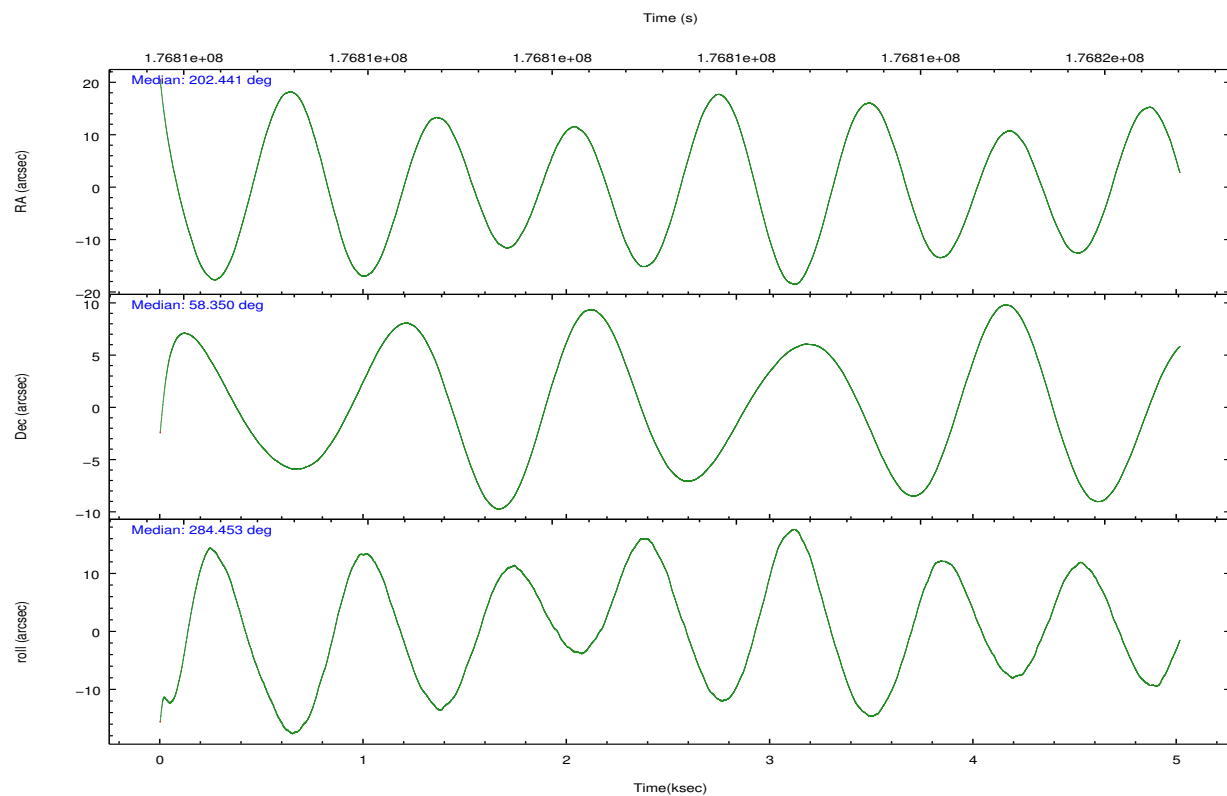
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 410 | 266 | 5862 | 283 | 563 | 479 |
| | 5% | 4% | 37% | 4% | 7% | 5% |
| grade 1 events | 3 | 3 | 31 | 0 | 8 | 6 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 127 | 84 | 3461 | 132 | 782 | 375 |
| | 1% | 1% | 22% | 1% | 10% | 4% |
| grade 3 events | 124 | 108 | 238 | 97 | 396 | 198 |
| | 1% | 1% | 1% | 1% | 5% | 2% |
| grade 4 events | 101 | 108 | 317 | 128 | 387 | 175 |
| | 1% | 1% | 2% | 1% | 4% | 1% |
| grade 5 events | 190 | 192 | 661 | 217 | 636 | 272 |
| | 2% | 3% | 4% | 3% | 8% | 3% |
| grade 6 events | 114 | 105 | 1721 | 126 | 1612 | 498 |
| | 1% | 1% | 11% | 1% | 20% | 5% |
| grade 7 events | 5787 | 4984 | 3309 | 5813 | 3375 | 6874 |
| | 84% | 85% | 21% | 85% | 43% | 77% |

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 | 202.404214 | 202.4411476578967 | Subarray requested | CUSTOM | 1/8 |
| [deg] Pointing Dec | 58.368587 | 58.34940494175918 | Subarray start row | 449 | 449 |
| [deg] Pointing Roll | 284.326746 | 284.4519636473111 | Subarray row count | 128 | 128 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | Alternating exposures requested | N | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | [s] Primary exposure time | 0.000000 | 0.7 |
| [mm] SIM translation stage pos | -190.132523 | -190.1425803651734 | | | |
| [mm] SIM translation stage offset | 0 | 0.01005778216563158 | | | |
| [s] Observation start time (MET) | 176810284.184000 | 176808980.09697 | | | |
| Observation start date | 2003-08-09T09:57:00 | 2003-08-09T09:36:20 | | | |
| [s] Observation end time (MET) | 176815147.184000 | 176815461.68475 | | | |
| Observation end date | 2003-08-09T11:18:03 | 2003-08-09T11:24:21 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



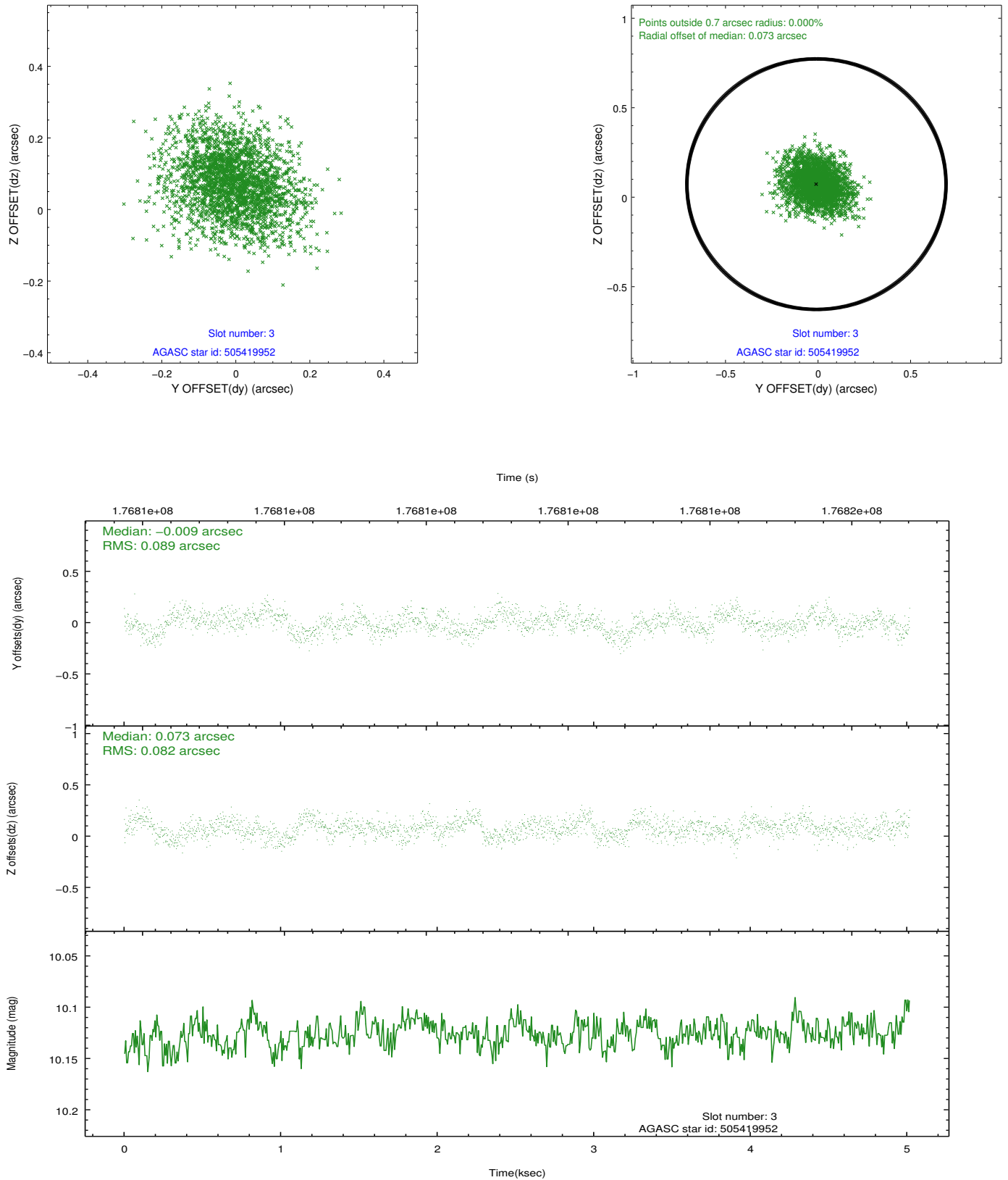


Slot Statistics

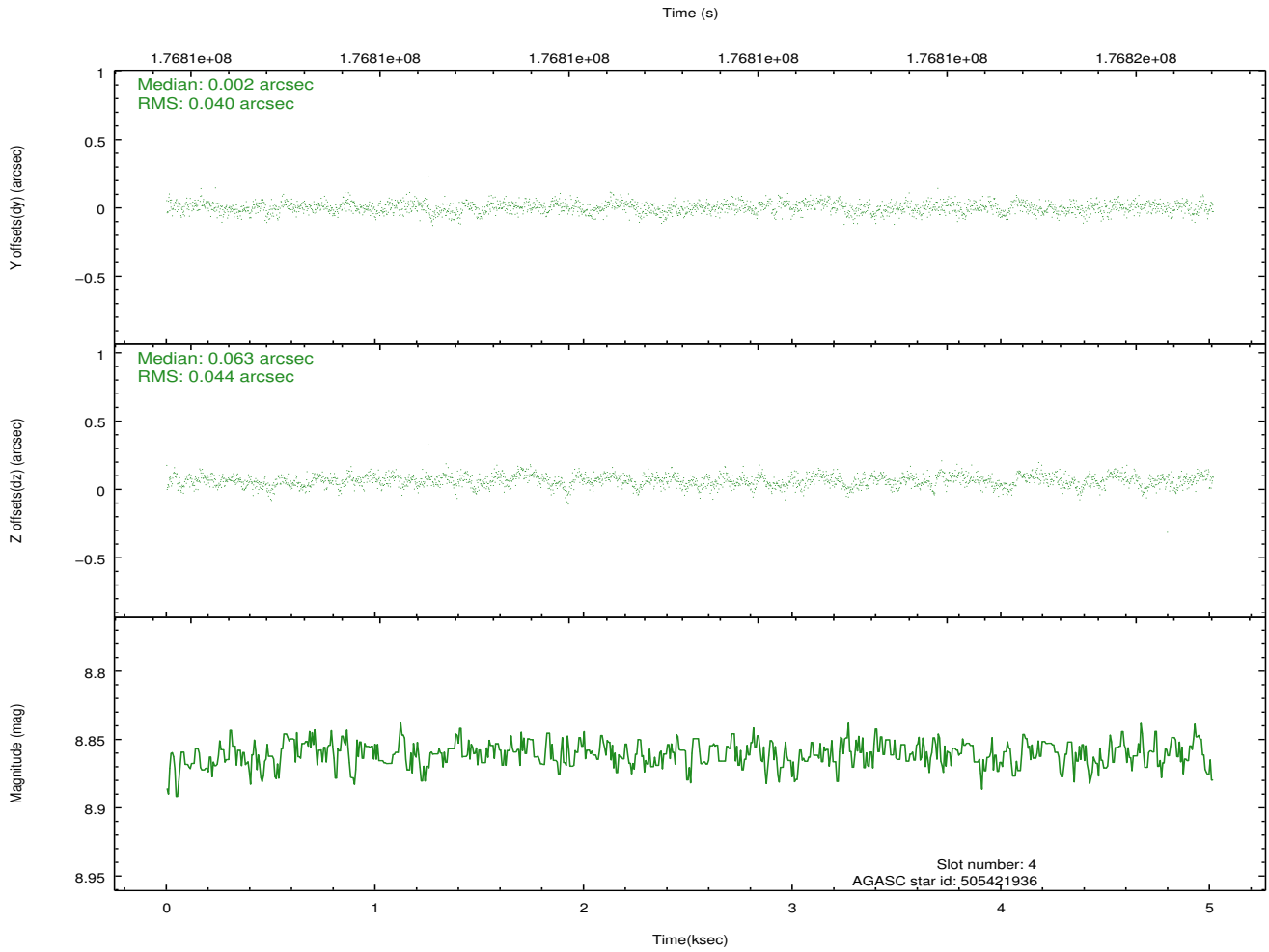
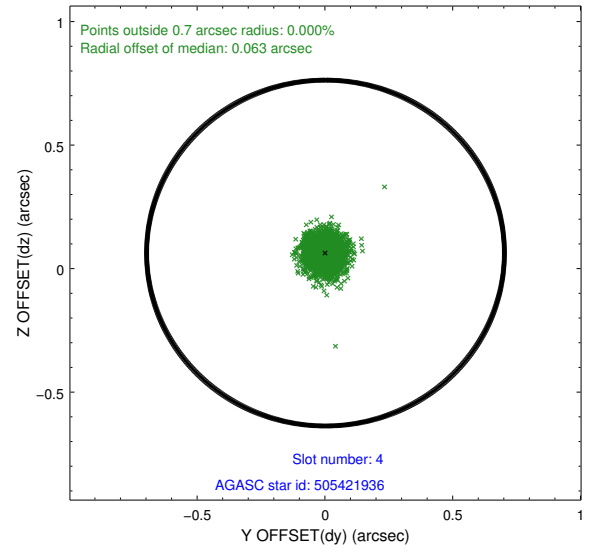
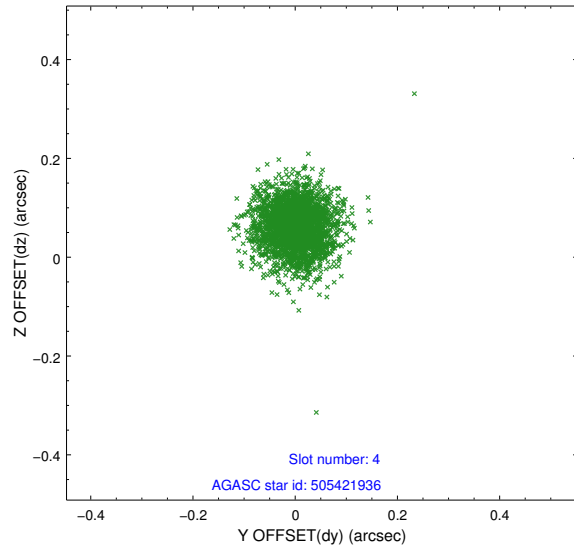
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|-------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-1 | 7.18 | 1224 | 0.049 | -0.025 | 0.011 | 0.017 | 0.000000 | 0.000000 | 936.40 | -1725.81 |
| 1 | FID | ACIS-S-5 | 7.23 | 1224 | -0.061 | 0.045 | 0.009 | 0.014 | 0.000000 | 0.000000 | -1812.00 | 170.60 |
| 2 | FID | ACIS-S-6 | 7.35 | 1224 | -0.009 | -0.009 | 0.009 | 0.013 | 0.000000 | 0.000000 | 400.63 | 815.85 |
| 3 | GUIDE | 505419952 | 10.13 | 2447 | -0.009 | 0.073 | 0.128 | 0.213 | 201.880700 | 58.804366 | -1764.72 | -556.51 |
| 4 | GUIDE | 505421936 | 8.86 | 2448 | 0.002 | 0.063 | 0.062 | 0.102 | 201.854843 | 57.887820 | 1412.47 | -1445.99 |
| 5 | GUIDE | 505421968 | 8.19 | 2448 | 0.050 | -0.028 | 0.058 | 0.092 | 202.022601 | 58.209270 | 375.81 | -843.26 |
| 6 | GUIDE | 505422344 | 8.62 | 2448 | 0.012 | -0.040 | 0.065 | 0.103 | 202.767077 | 57.846963 | 1990.48 | 209.06 |
| 7 | GUIDE | 505418080 | 9.06 | 2447 | -0.058 | -0.070 | 0.075 | 0.120 | 201.533017 | 58.898788 | -2259.15 | -1094.66 |

2.4 Star Slots

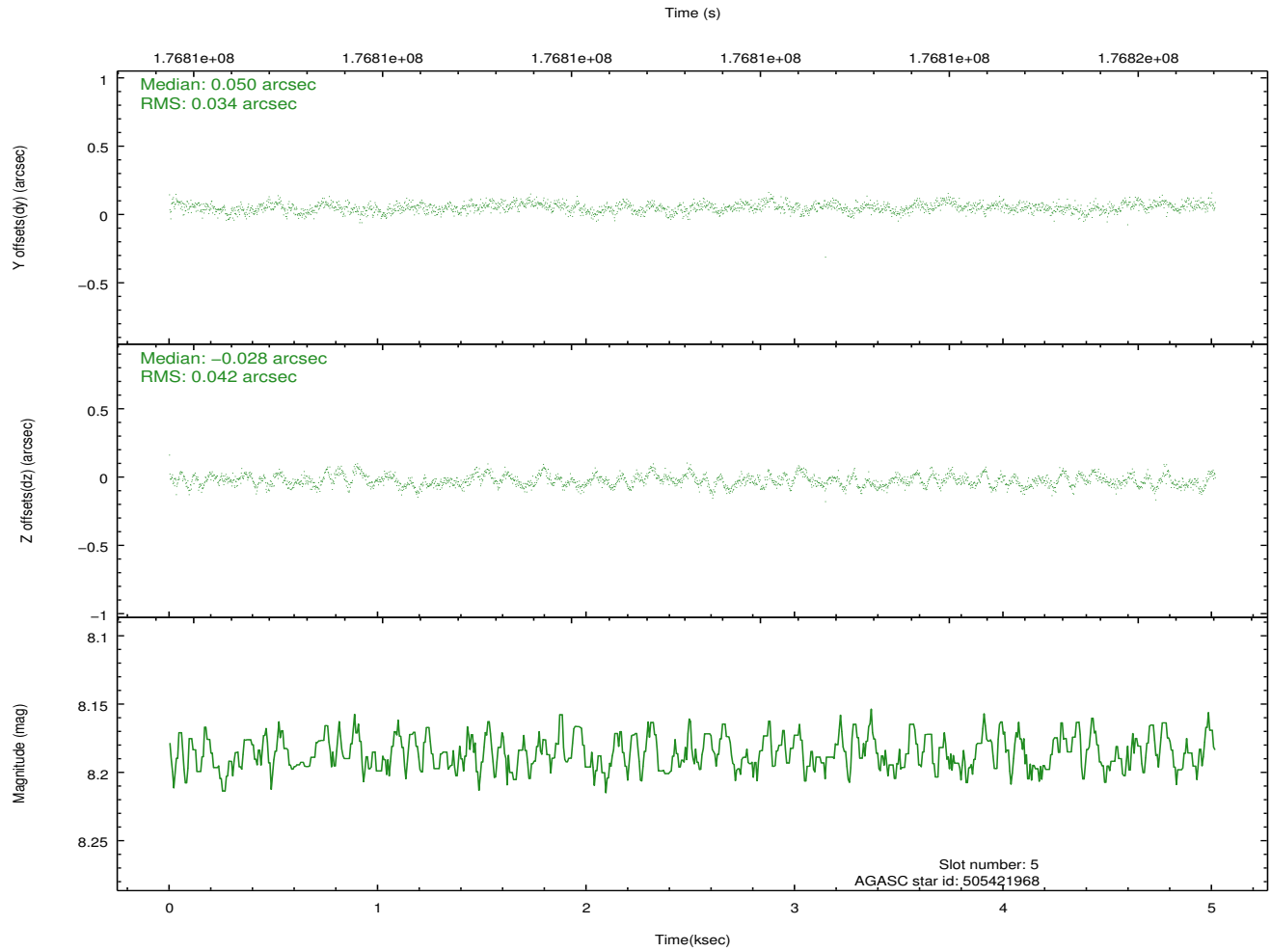
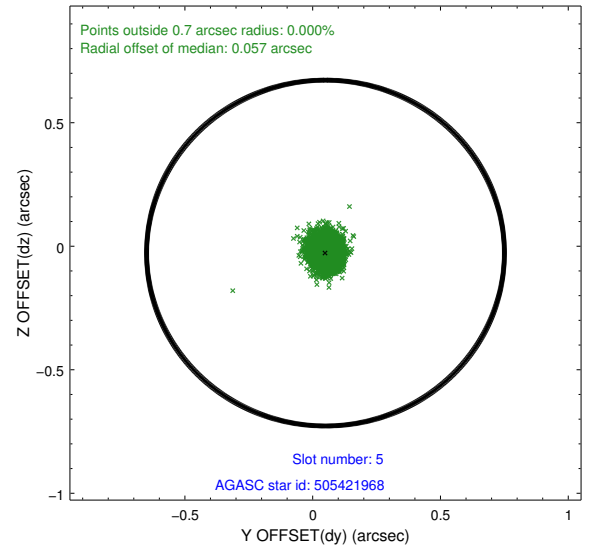
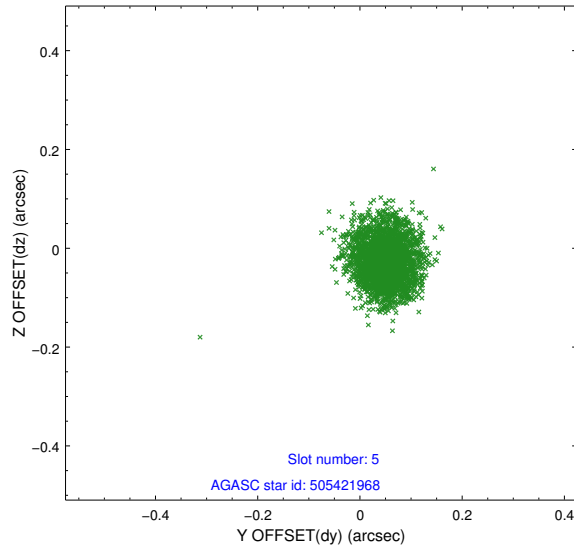
2.4.1 Slot 3



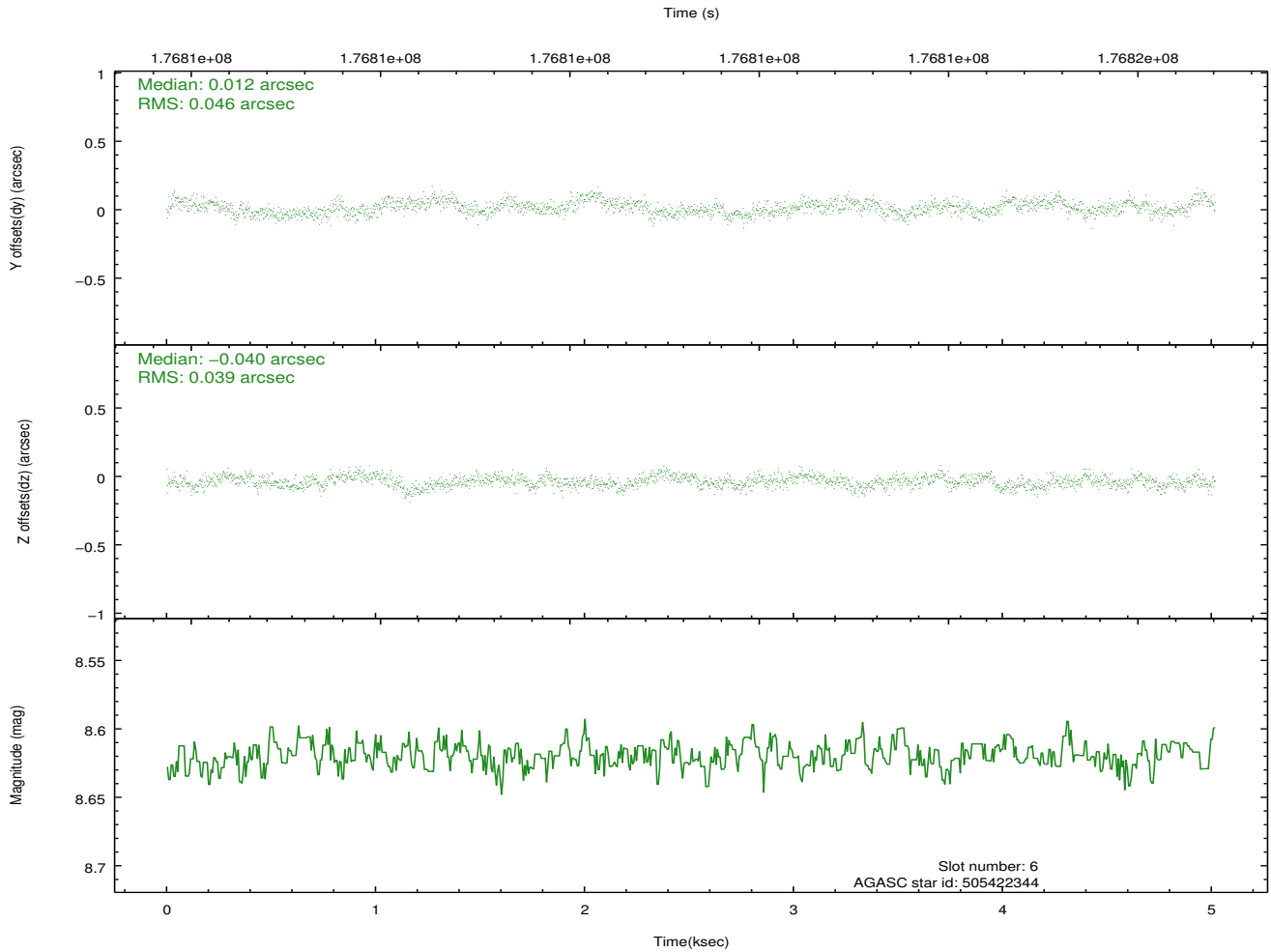
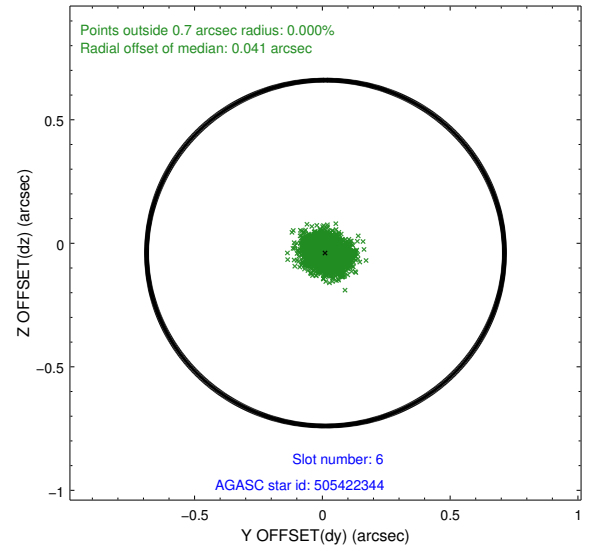
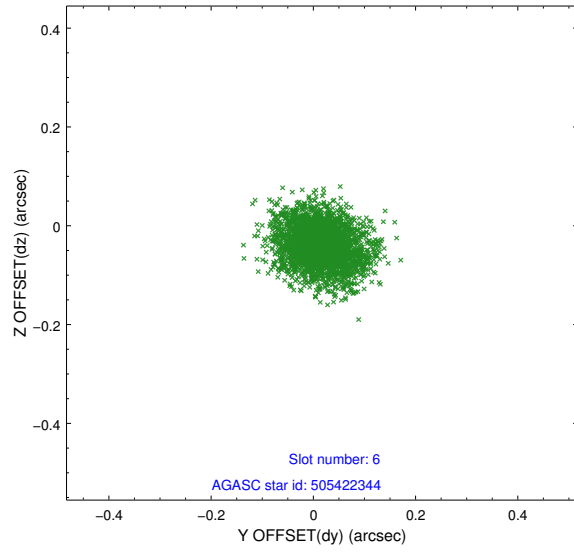
2.4.2 Slot 4



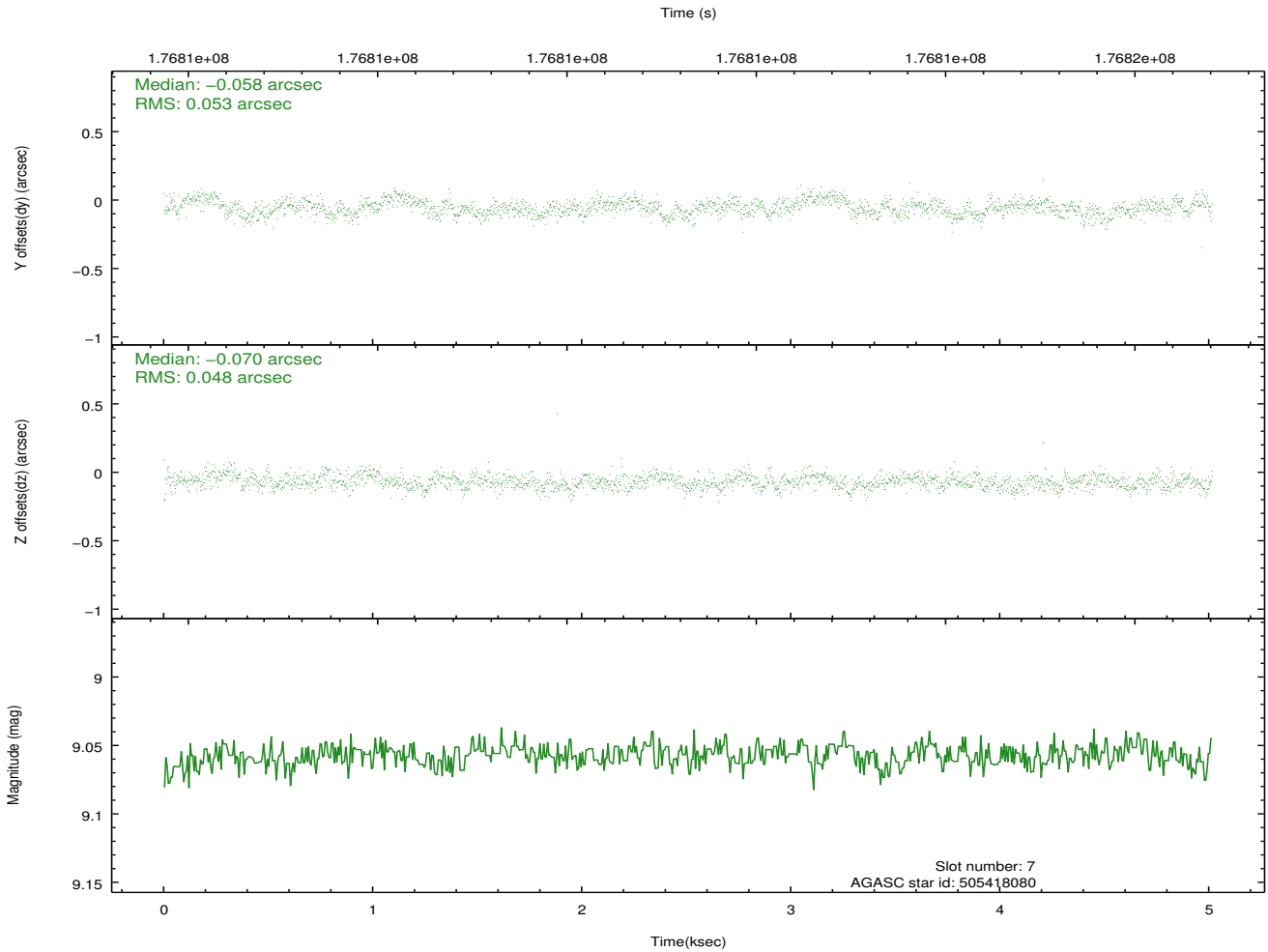
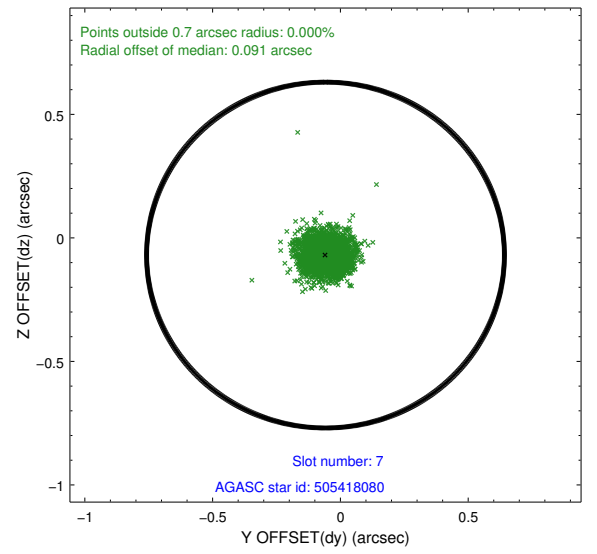
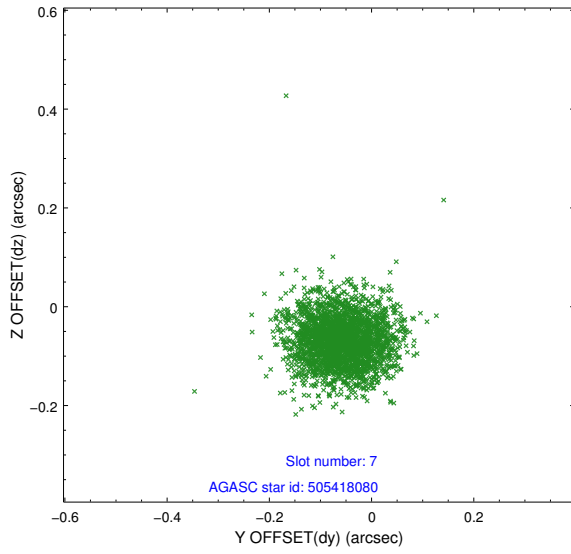
2.4.3 Slot 5



2.4.4 Slot 6

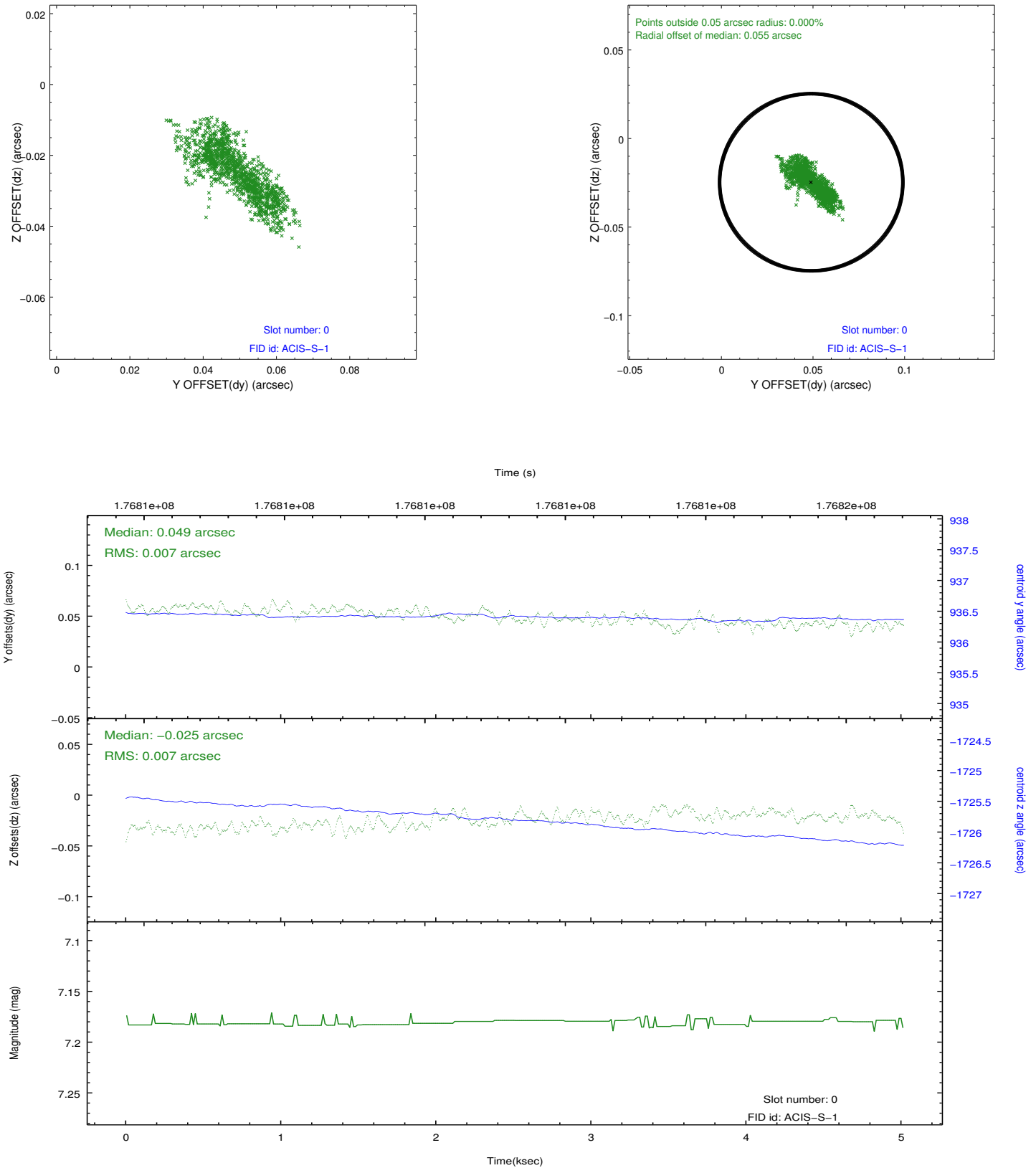


2.4.5 Slot 7

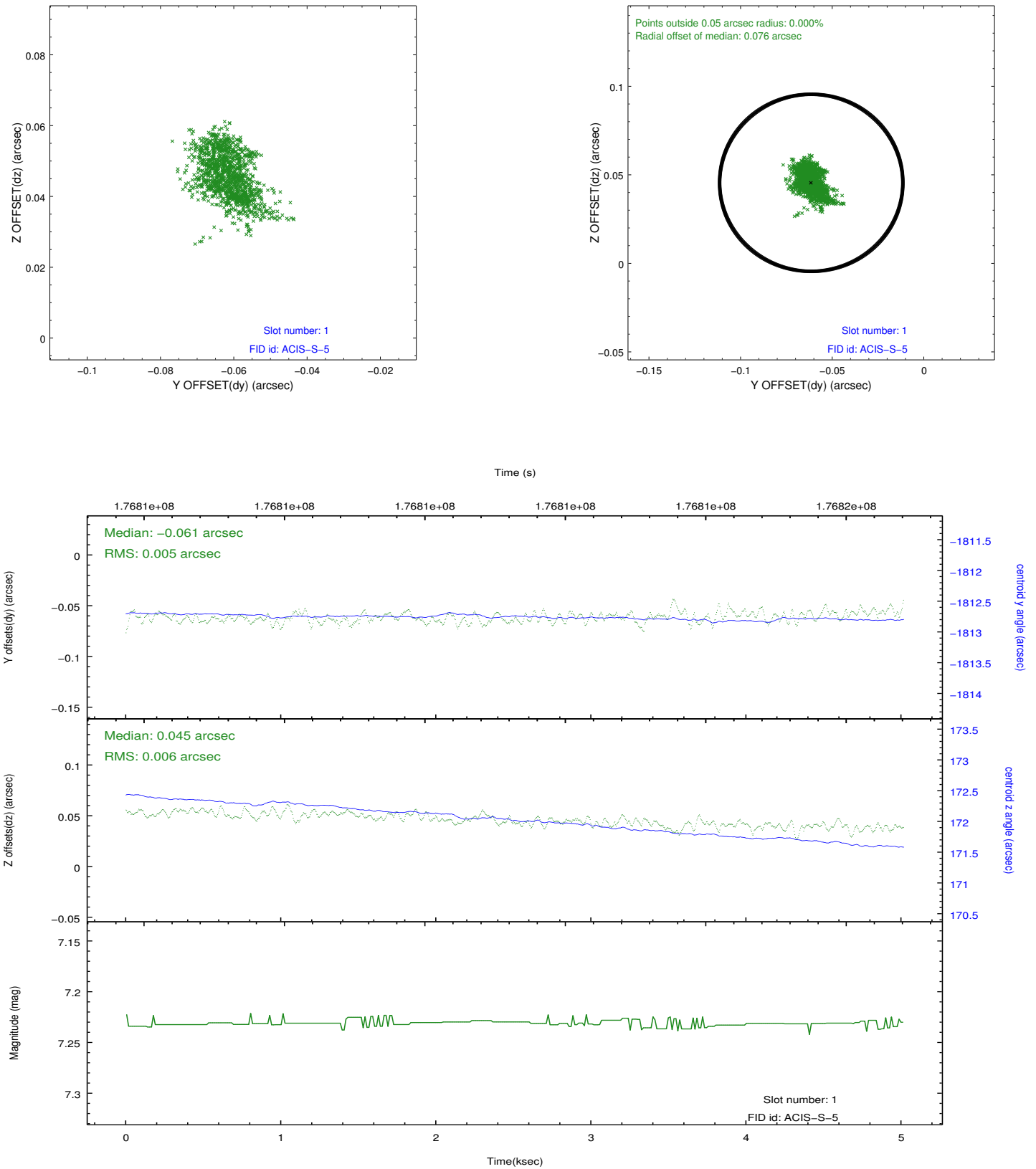


2.5 FID Slots

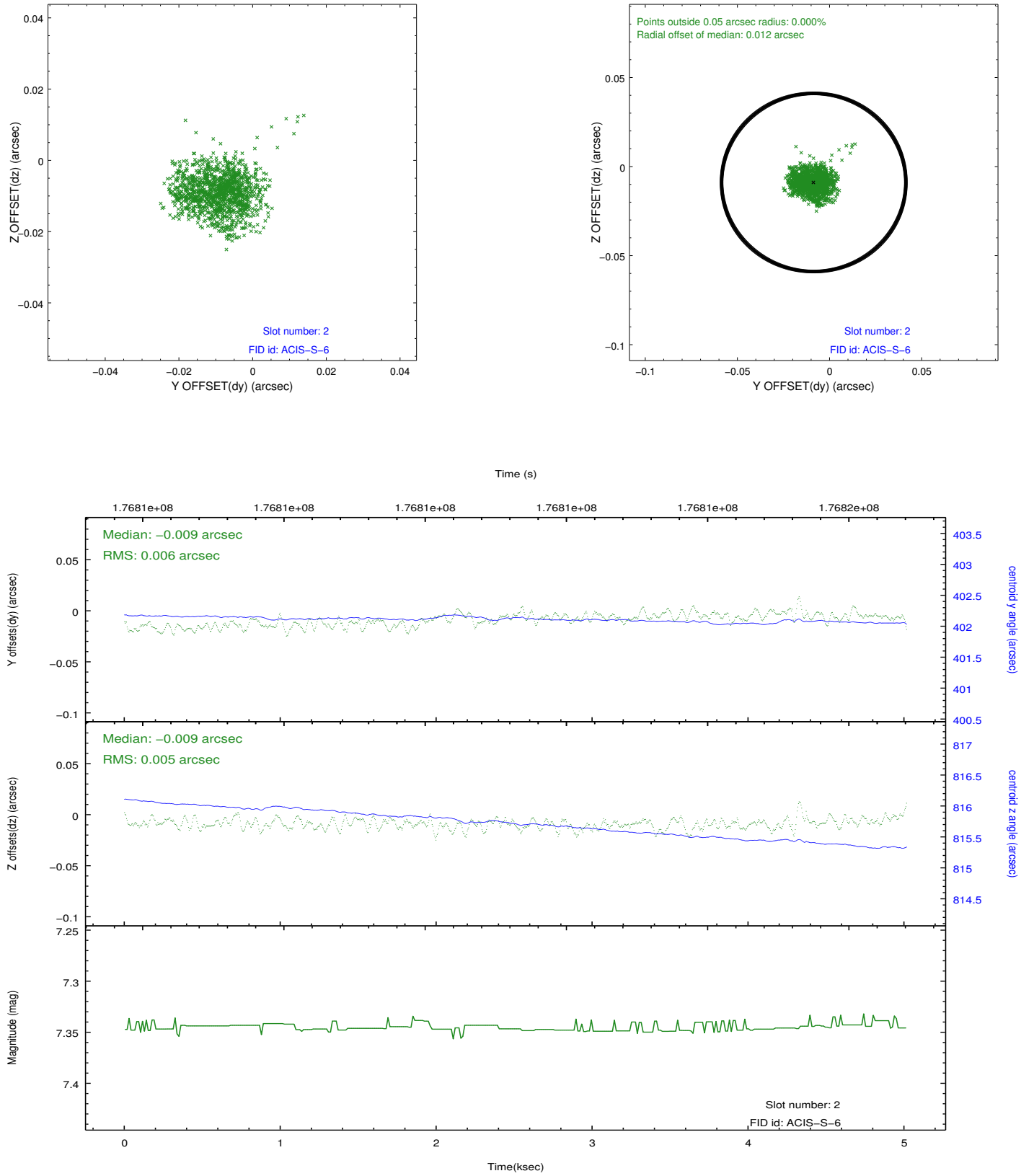
2.5.1 Slot 0



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) | 2012.11.28 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 5.015 |

A.2 Comments

Monitor constraint met.