

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 727 - L2 Version 3
Chandra X-Ray Center

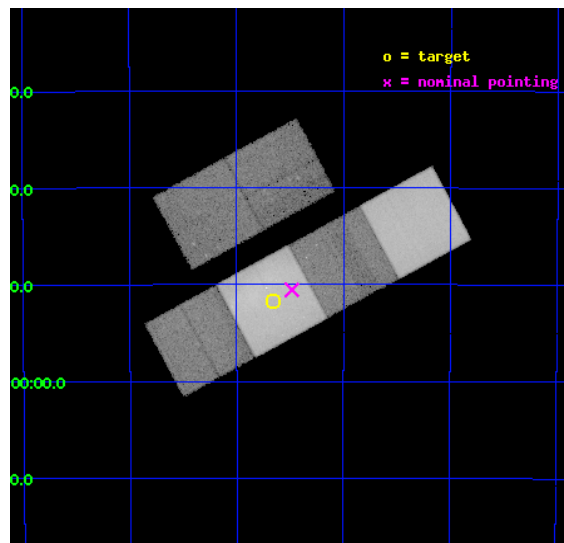
L2 Processing Date : Sep 1 2012

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1 Front

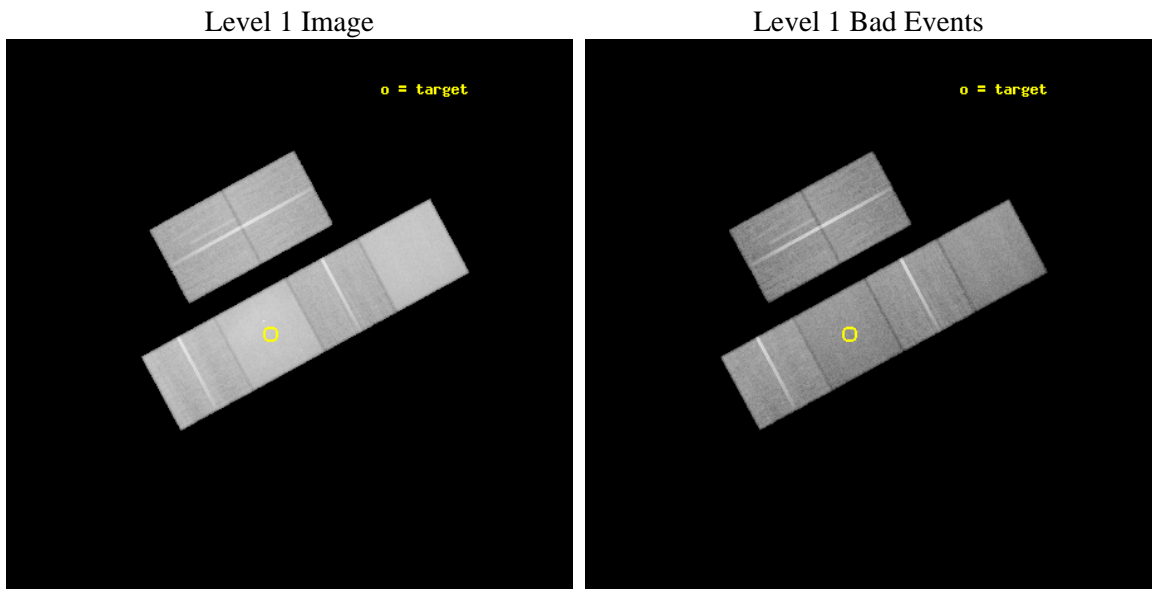
| | | |
|----------|-------------------------------------------------------------------------|---------------------------------------------|
| seq_num | 500023 | Sequence number |
| obs_id | 727 | Observation id |
| title | SPATIAL STRUCTURE OF THE SHRAPNEL INJECTED FROM THE SUPERNOVA EXPLOSION | Proposal title |
| observer | PROFESSOR HIROSHI TSUNEMI | Principal investigator |
| object | VELA SHRAPNEL A | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 134.415833 | Observer's specified target RA [deg] |
| dec_targ | -41.863 | Observer's specified target Dec [deg] |
| ra_nom | 134.37070032046 | Nominal RA [deg] |
| dec_nom | -41.842641222205 | Nominal Dec [deg] |
| roll_nom | 151.52264146394 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 46651.611624792 | Sum of GTIs [s] |
| livetime | 46060.880828171 | Livetime [s] |
| ontime2 | 46651.652664796 | Sum of GTIs [s] |
| ontime3 | 46651.488504797 | Sum of GTIs [s] |
| ontime5 | 46648.329654485 | Sum of GTIs [s] |
| ontime6 | 46651.529544801 | Sum of GTIs [s] |
| ontime7 | 46651.611624792 | Sum of GTIs [s] |
| ontime8 | 46644.965464547 | Sum of GTIs [s] |
| l2events | 691462 | Number of level 2 events |



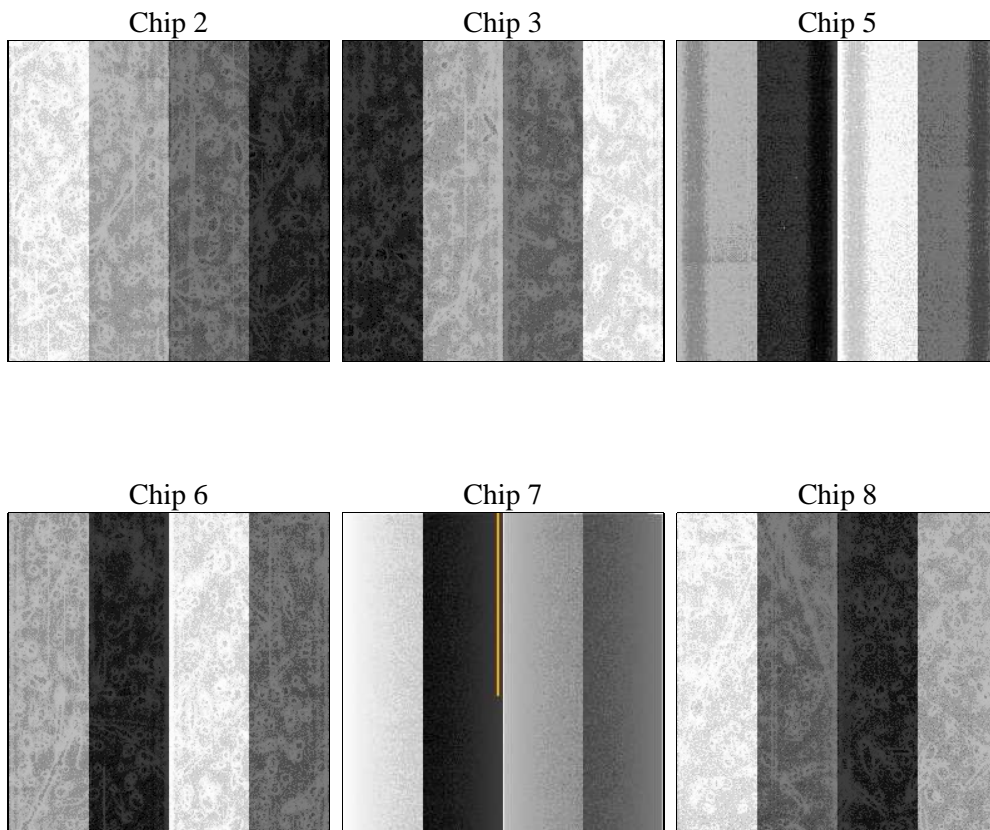
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|-----------------------------------------|
| obi_num | 0 | Obi number | sched_exp_time | 46900.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 46651.611624792 | Sum of GTIs [s] |
| caldbver | 4.5.1.1 | | ontime2 | 46651.652664796 | Sum of GTIs [s] |
| date | 2012-09-01T04:52:55 | Date and time of file creation | ontime3 | 46651.488504797 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 46648.329654485 | Sum of GTIs [s] |
| | | | ontime6 | 46651.529544801 | Sum of GTIs [s] |
| | | | ontime7 | 46651.611624792 | Sum of GTIs [s] |
| | | | ontime8 | 46644.965464547 | Sum of GTIs [s] |
| | | | l1events | 2184200 | Number of level 1 events |

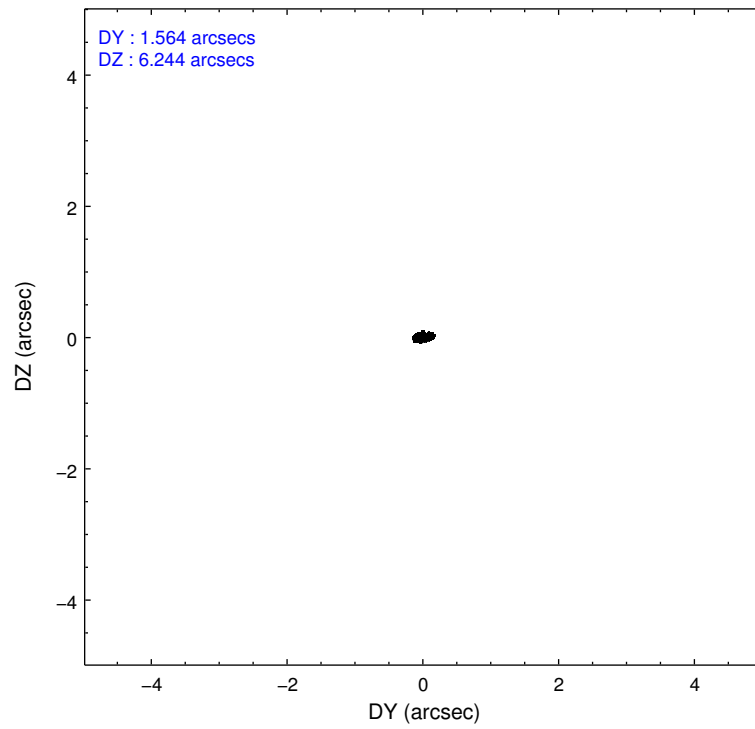
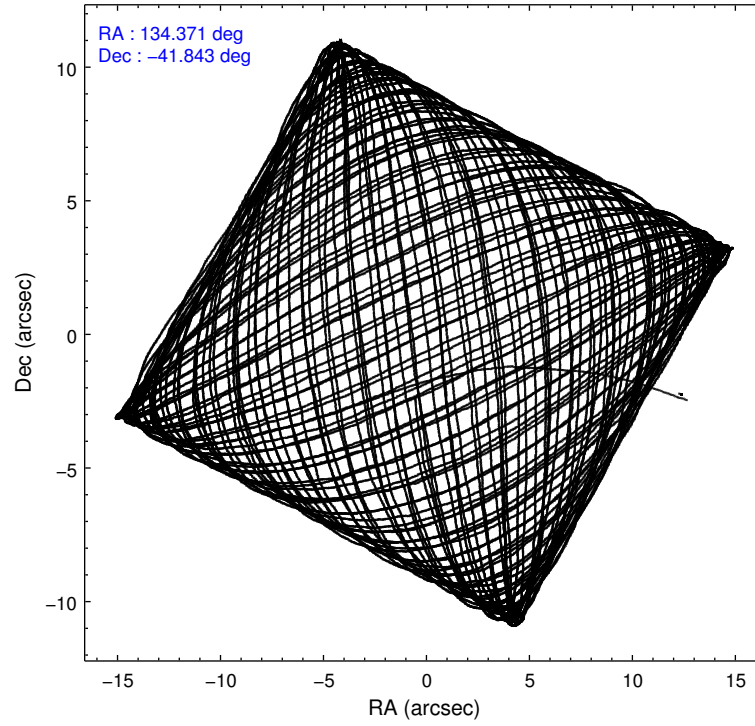
2.1.4 Events

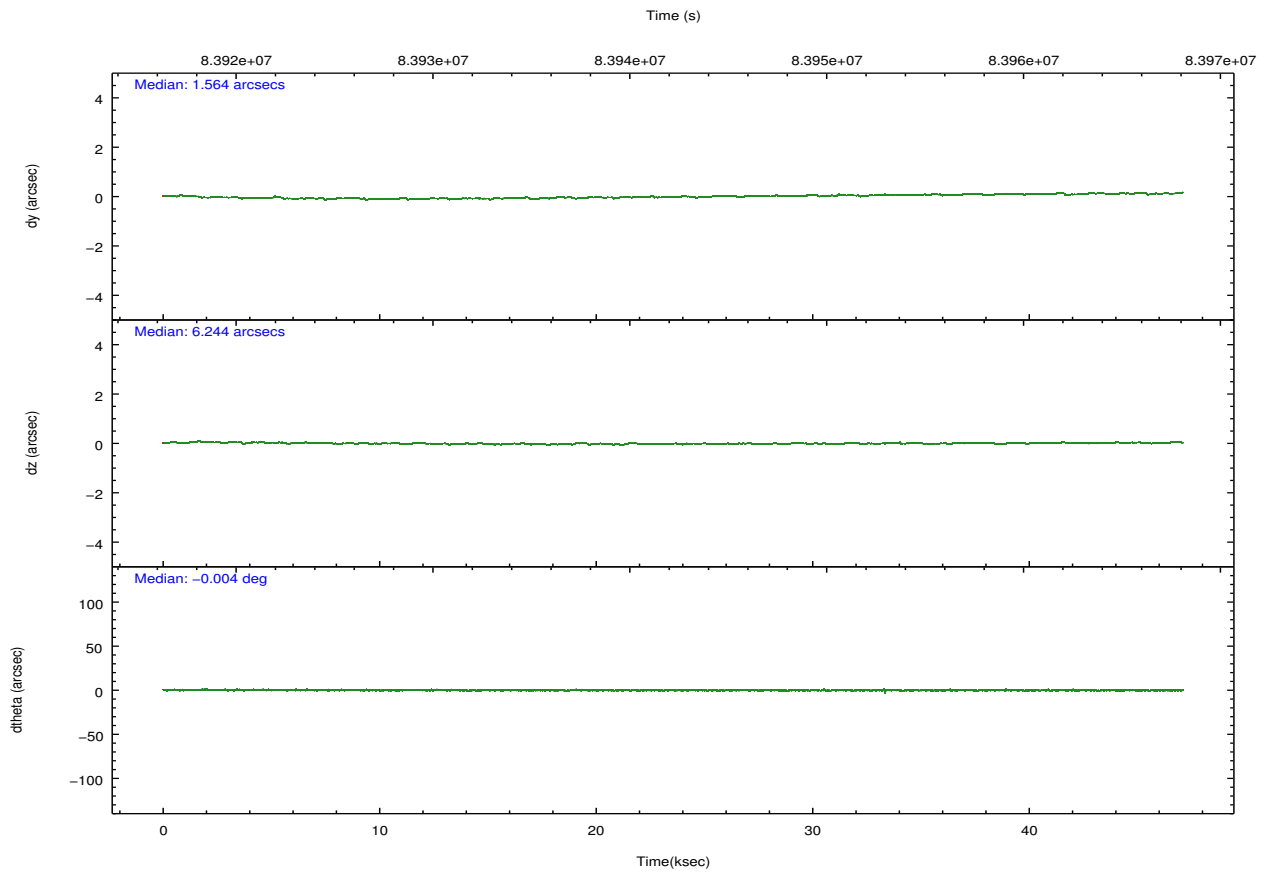
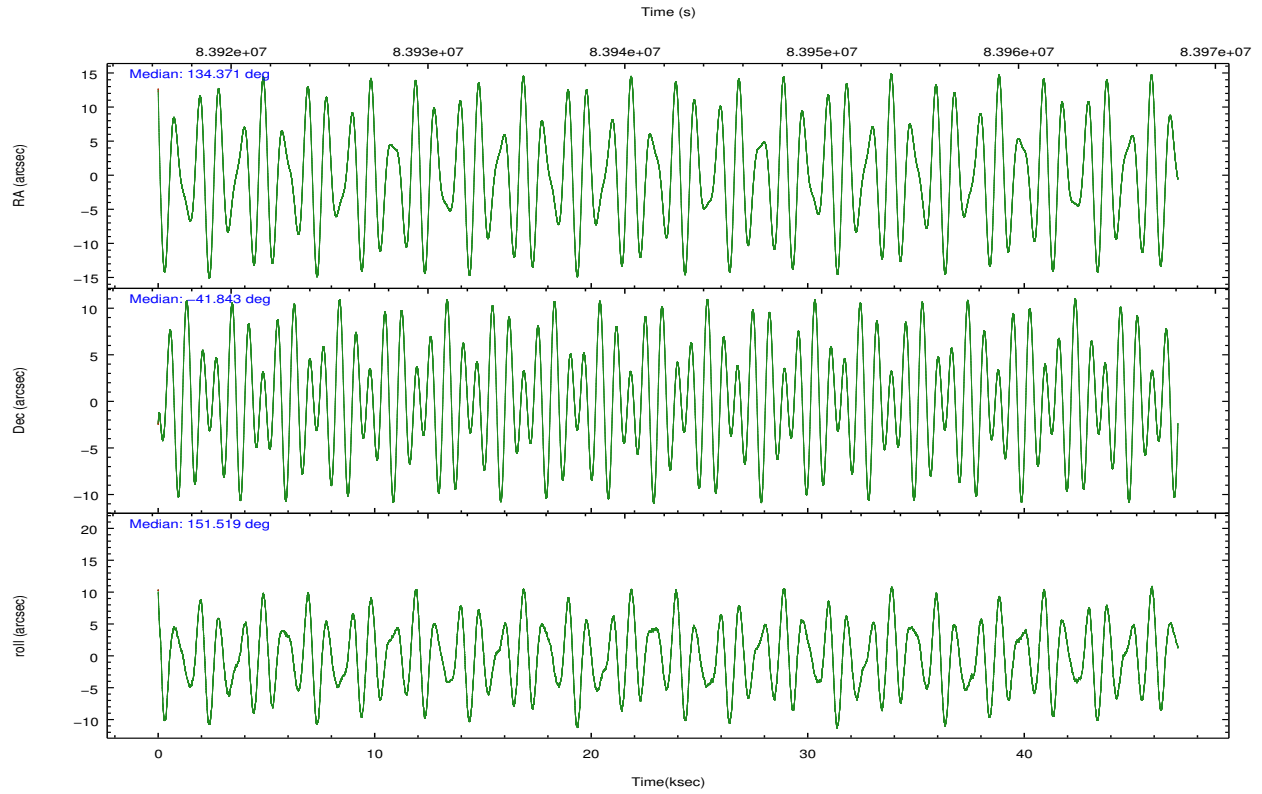
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 287569 | 272507 | 475863 | 292664 | 501352 | 354245 | grade 0 events | 15405 | 16213 | 32597 | 20750 | 48179 | 27926 |
| rejected events | 253679 | 238022 | 210793 | 251515 | 200785 | 278625 | | 5% | 5% | 6% | 7% | 9% | 7% |
| rejected % | 88% | 87% | 44% | 85% | 40% | 78% | grade 1 events | 113 | 133 | 419 | 131 | 322 | 239 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 7449 | 6865 | 75215 | 7811 | 59427 | 15660 |
| | | | | | | | | 2% | 2% | 15% | 2% | 11% | 4% |
| | | | | | | | grade 3 events | 2884 | 2953 | 14761 | 3233 | 27132 | 7648 |
| | | | | | | | | 1% | 1% | 3% | 1% | 5% | 2% |
| | | | | | | | grade 4 events | 2782 | 3055 | 14618 | 3227 | 26721 | 7059 |
| | | | | | | | | 0% | 1% | 3% | 1% | 5% | 1% |
| | | | | | | | grade 5 events | 9139 | 9855 | 30382 | 11113 | 33819 | 14149 |
| | | | | | | | | 3% | 3% | 6% | 3% | 6% | 3% |
| | | | | | | | grade 6 events | 5372 | 5404 | 127907 | 6132 | 139138 | 17333 |
| | | | | | | | | 1% | 1% | 26% | 2% | 27% | 4% |
| | | | | | | | grade 7 events | 244425 | 228029 | 179964 | 240267 | 166614 | 264231 |
| | | | | | | | | 84% | 83% | 37% | 82% | 33% | 74% |

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 | 134.407435 | 134.3707003204561 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -41.841743 | -41.84264122220463 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 151.390526 | 151.5226414639382 | [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) | 83918846.184000 | 83918040.267749 | | | |
| Observation start date | 2000-08-29T06:46:22 | 2000-08-29T06:34:00 | | | |
| [s] Observation end time (MET) | 83965746.184000 | 83966620.65707301 | | | |
| Observation end date | 2000-08-29T19:48:02 | 2000-08-29T20:03:40 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



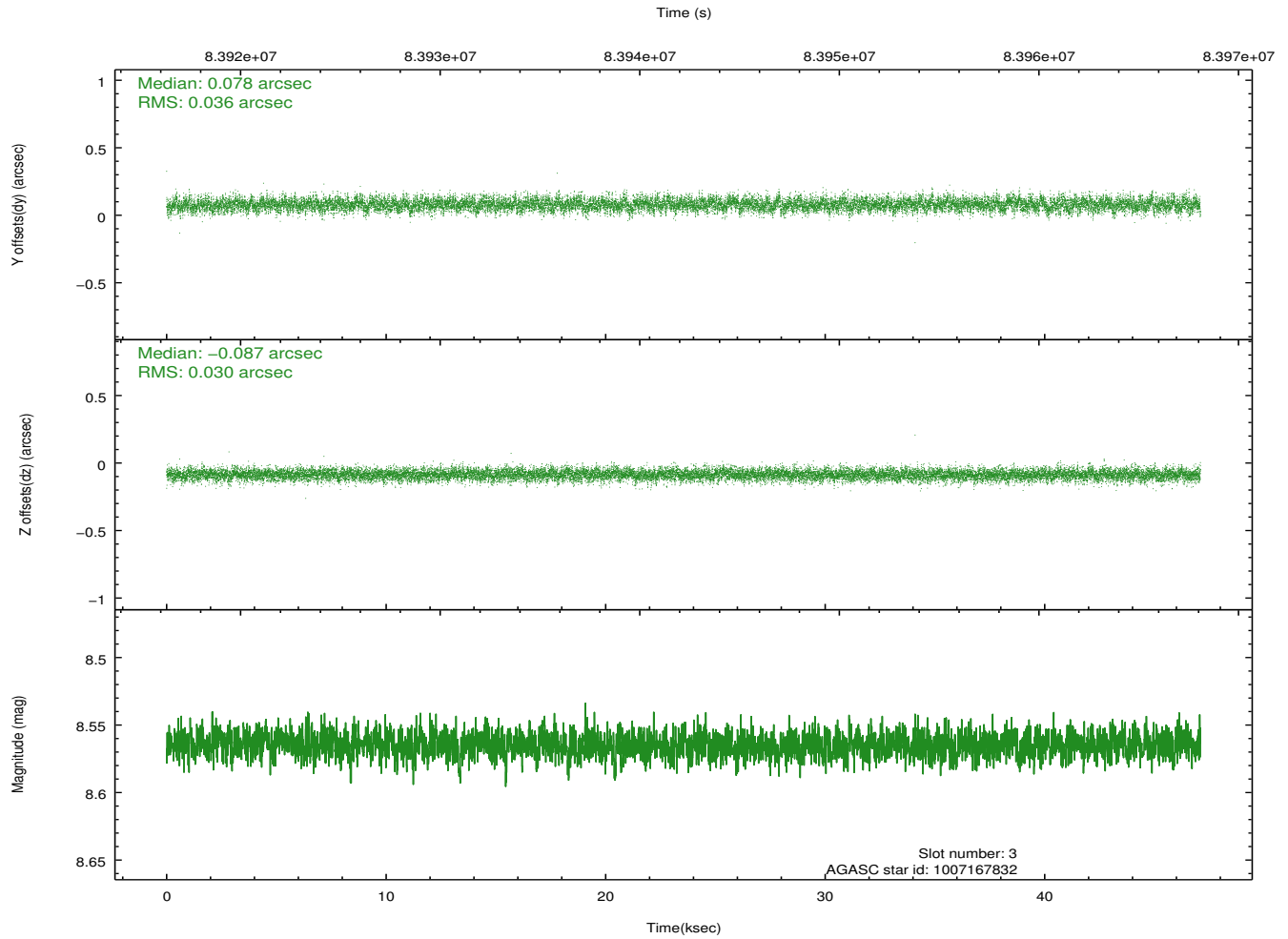
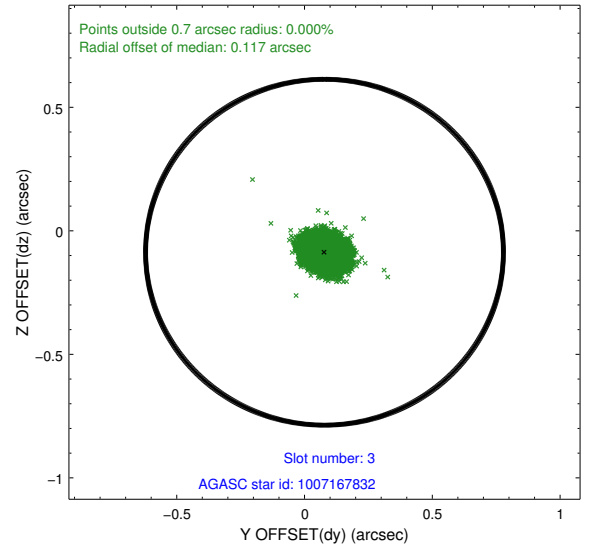
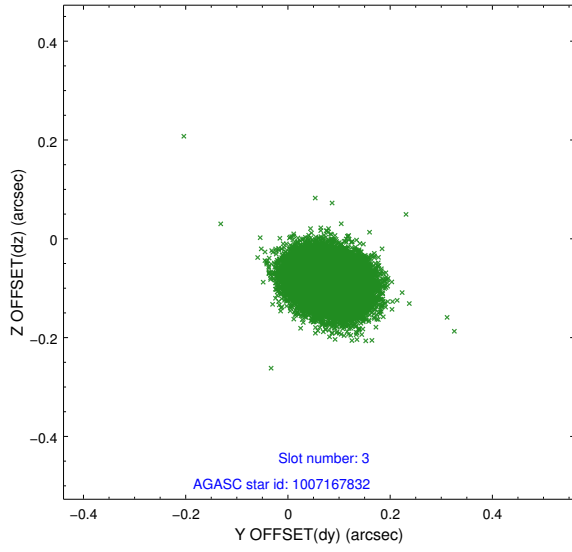


Slot Statistics

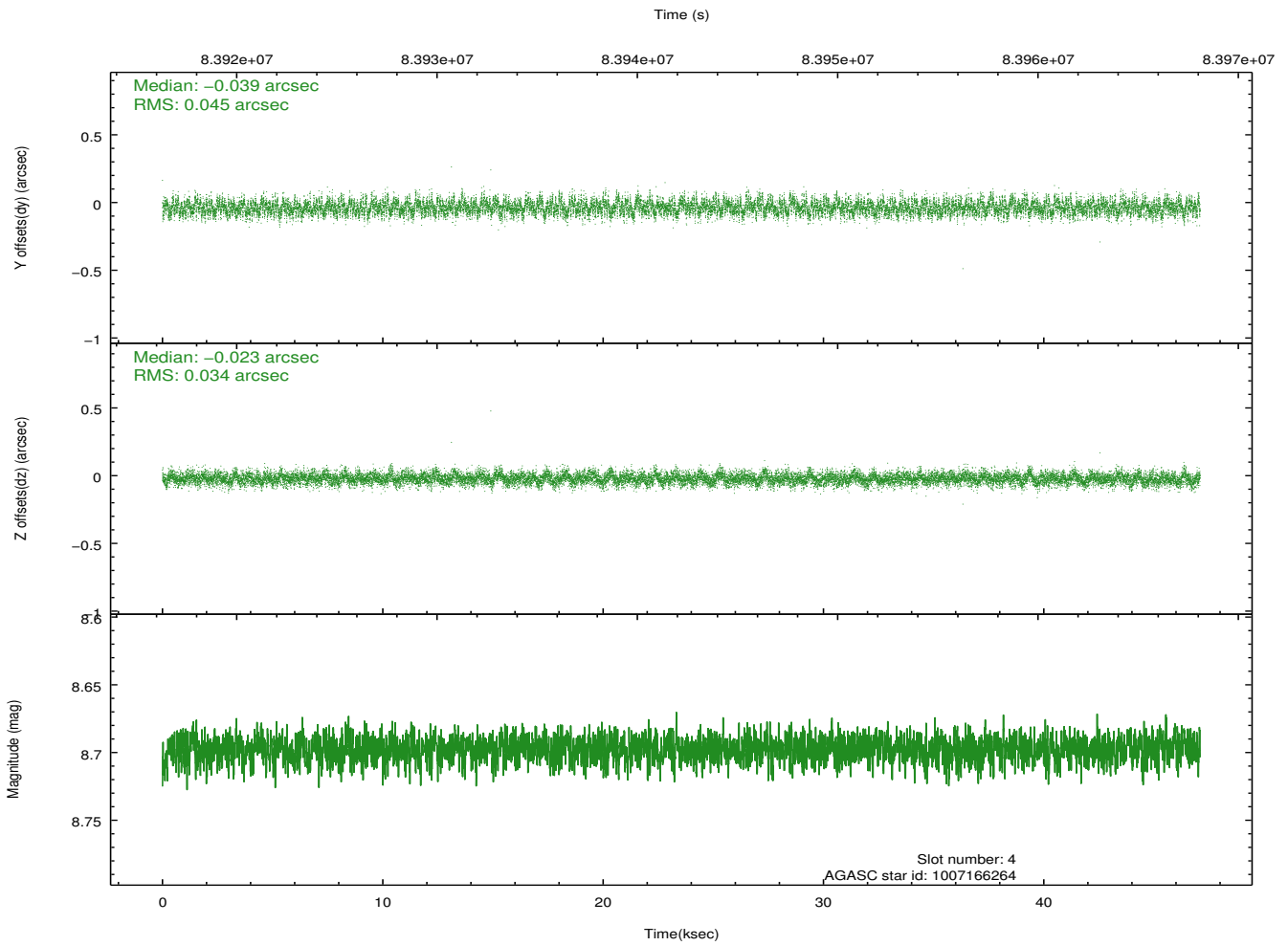
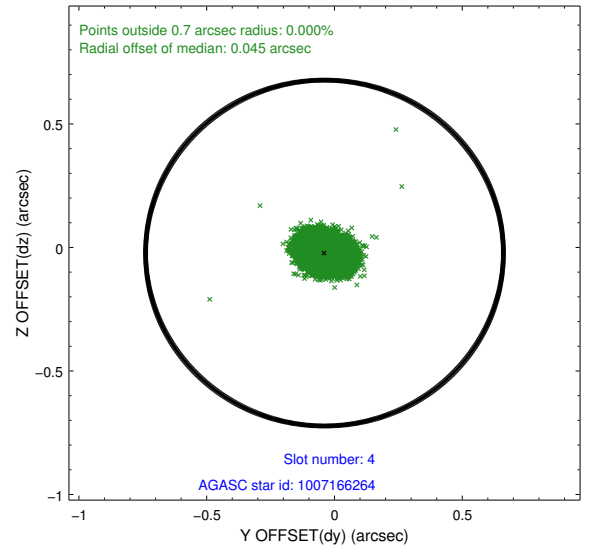
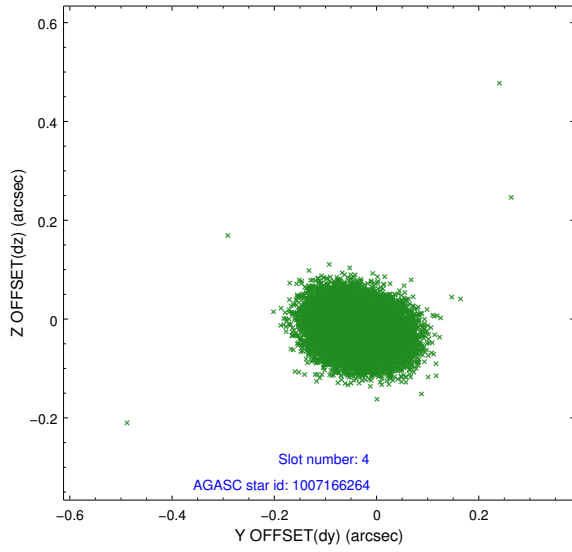
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 11487 | -0.030 | 0.010 | 0.007 | 0.012 | 0.000000 | 0.000000 | -754.20 | -1727.38 |
| 1 | FID | ACIS-S-4 | 7.21 | 11486 | -0.033 | 0.012 | 0.006 | 0.010 | 0.000000 | 0.000000 | 2159.08 | 181.12 |
| 2 | FID | ACIS-S-5 | 7.23 | 11486 | 0.032 | -0.013 | 0.006 | 0.011 | 0.000000 | 0.000000 | -1806.99 | 174.75 |
| 3 | GUIDE | 1007167832 | 8.56 | 22967 | 0.078 | -0.087 | 0.050 | 0.082 | 134.896670 | -42.234541 | -1823.71 | 620.52 |
| 4 | GUIDE | 1007166264 | 8.70 | 22967 | -0.039 | -0.023 | 0.059 | 0.097 | 133.519609 | -41.981542 | 1838.69 | 1590.85 |
| 5 | GUIDE | 1007299992 | 8.79 | 22959 | -0.078 | 0.020 | 0.060 | 0.099 | 135.528658 | -41.595420 | -2234.83 | -2206.32 |
| 6 | GUIDE | 1007164632 | 9.11 | 22966 | 0.019 | 0.064 | 0.070 | 0.115 | 133.982398 | -41.492579 | 1606.62 | -551.74 |
| 7 | GUIDE | 1007166840 | 9.22 | 22962 | 0.020 | 0.026 | 0.081 | 0.131 | 134.066276 | -42.158137 | 252.95 | 1437.94 |

2.4 Star Slots

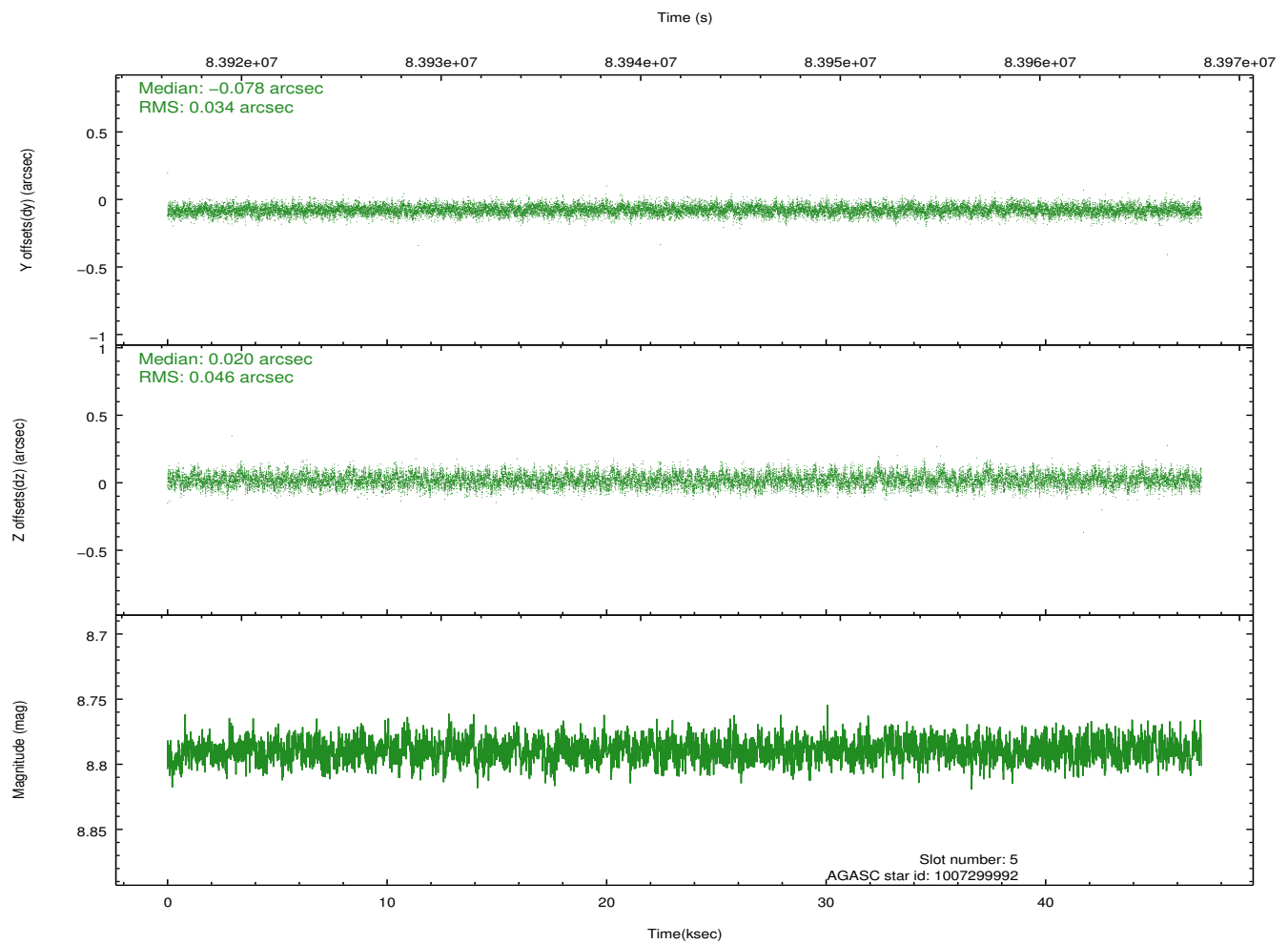
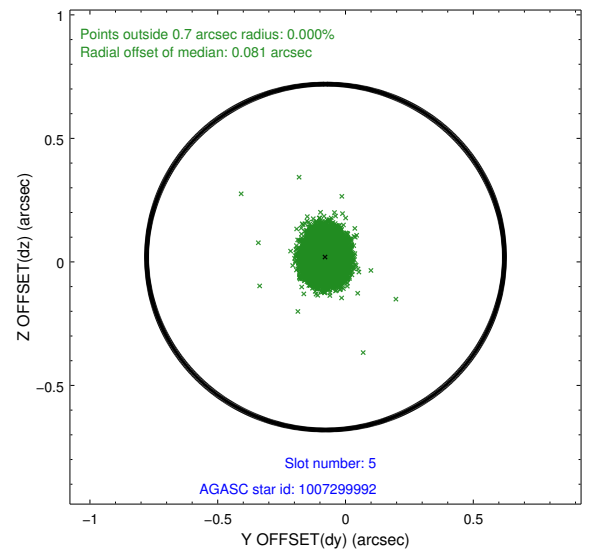
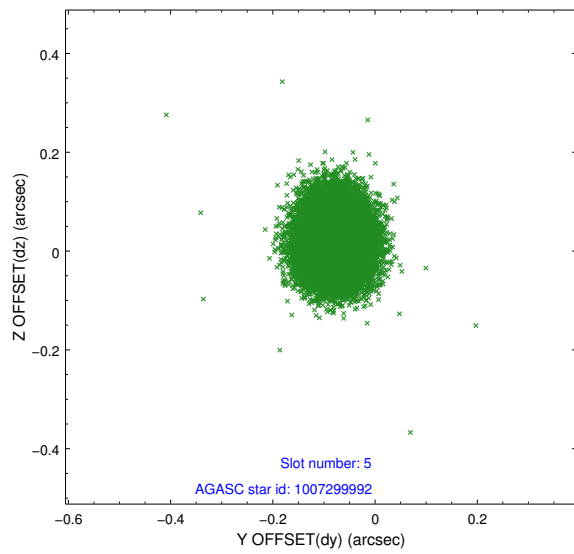
2.4.1 Slot 3



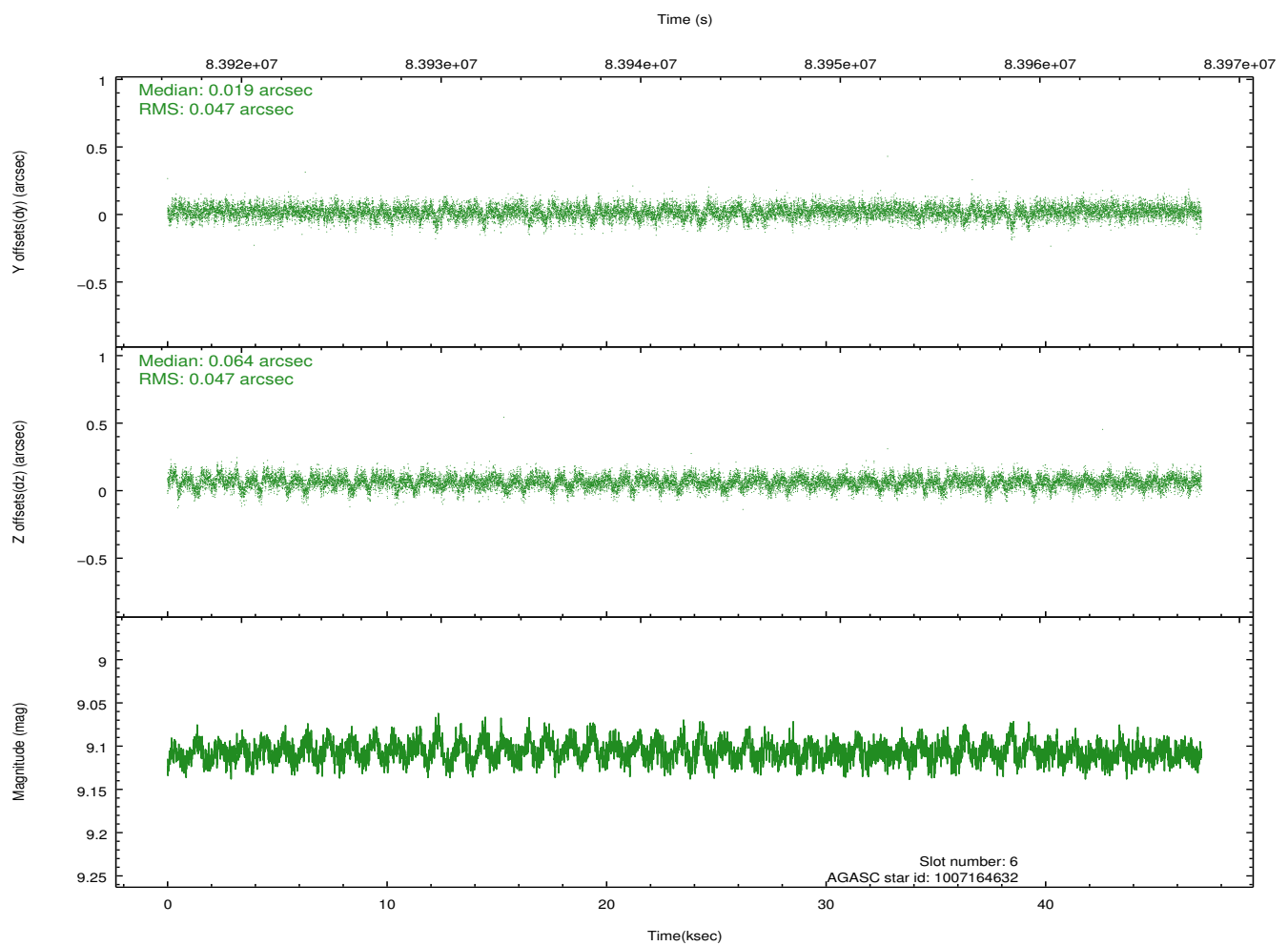
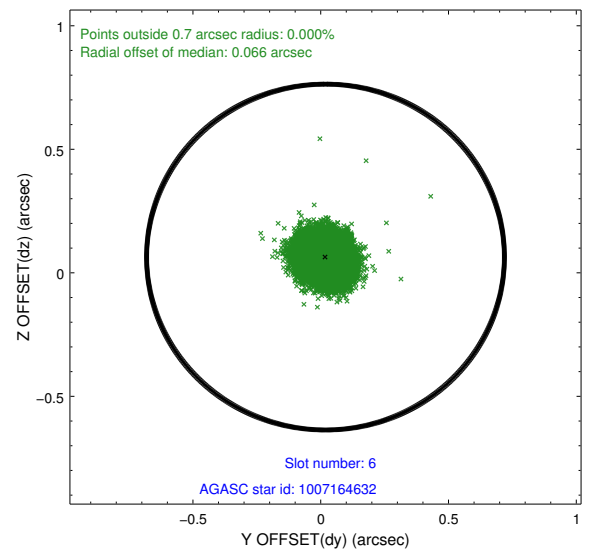
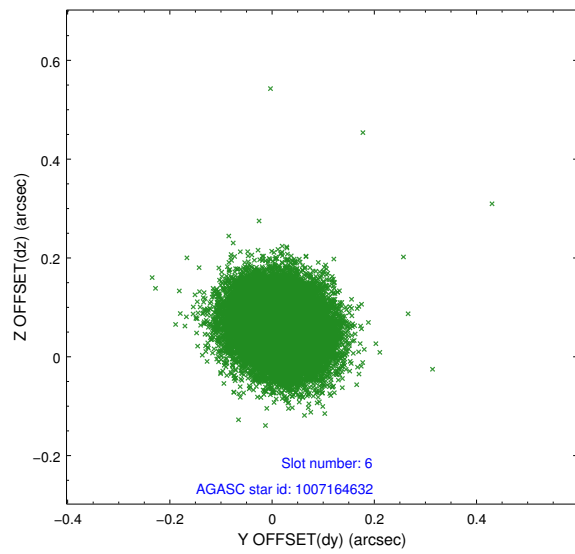
2.4.2 Slot 4



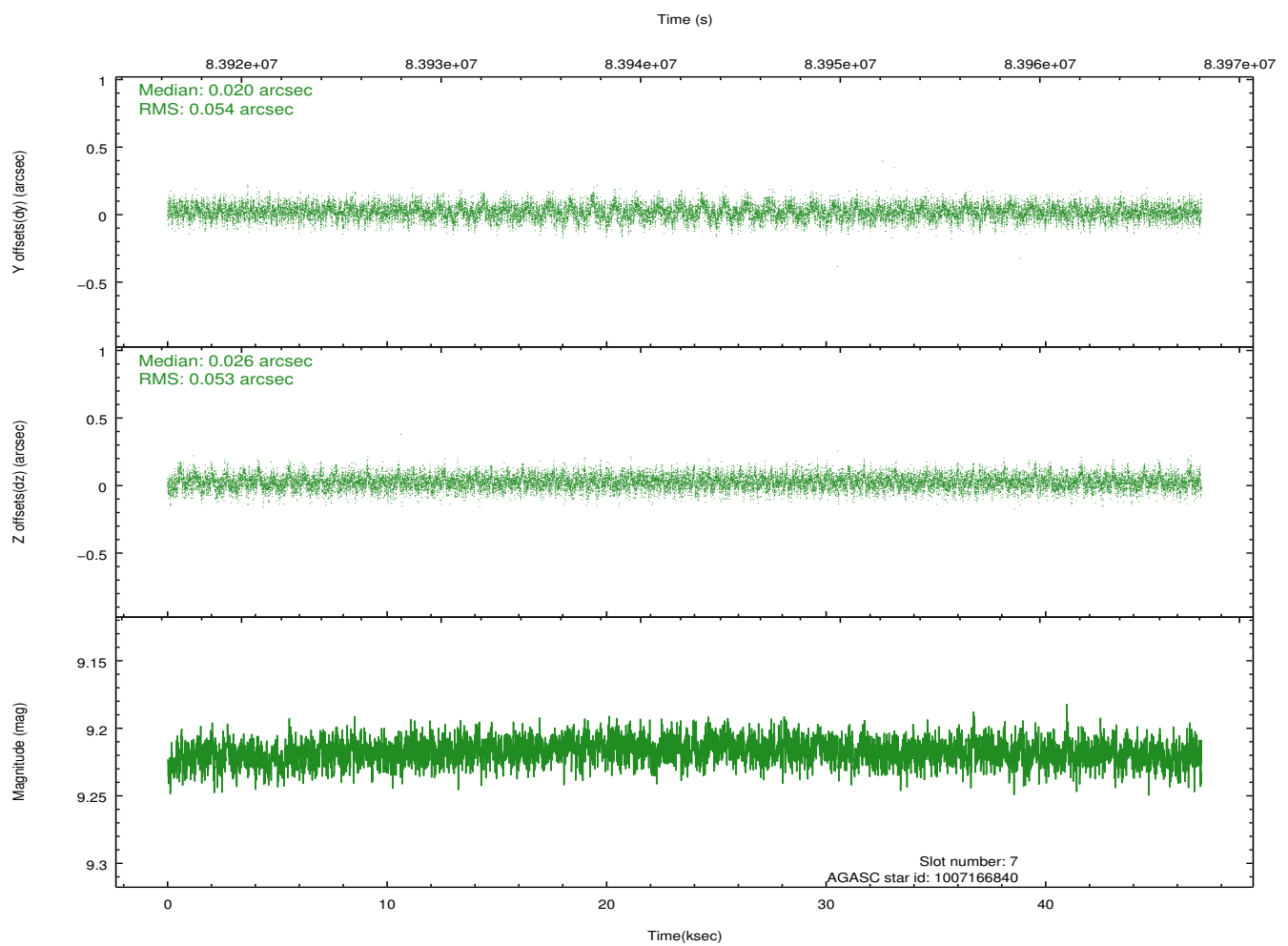
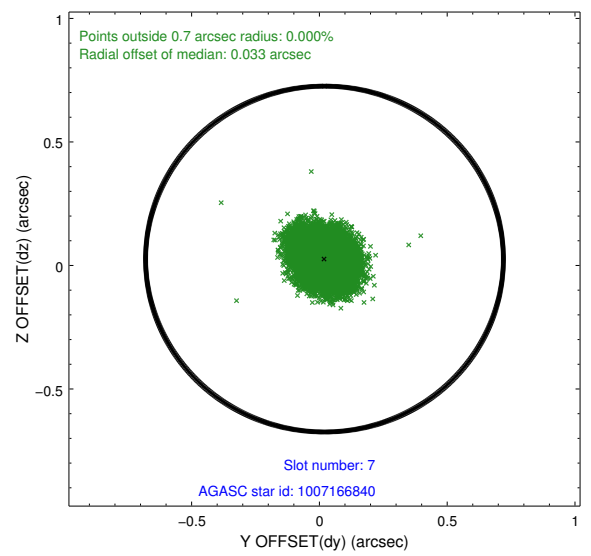
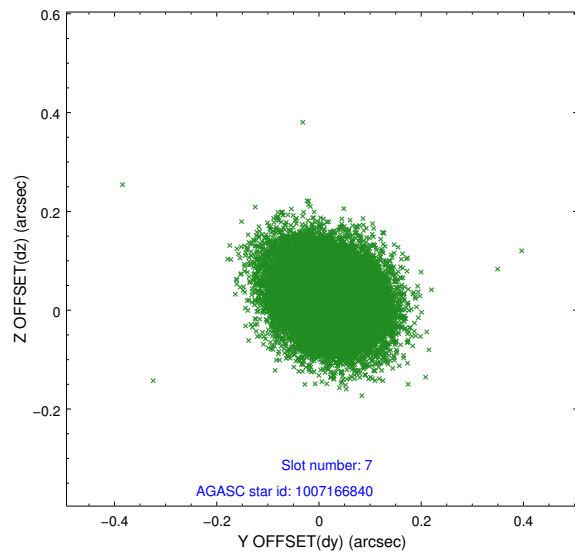
2.4.3 Slot 5



2.4.4 Slot 6

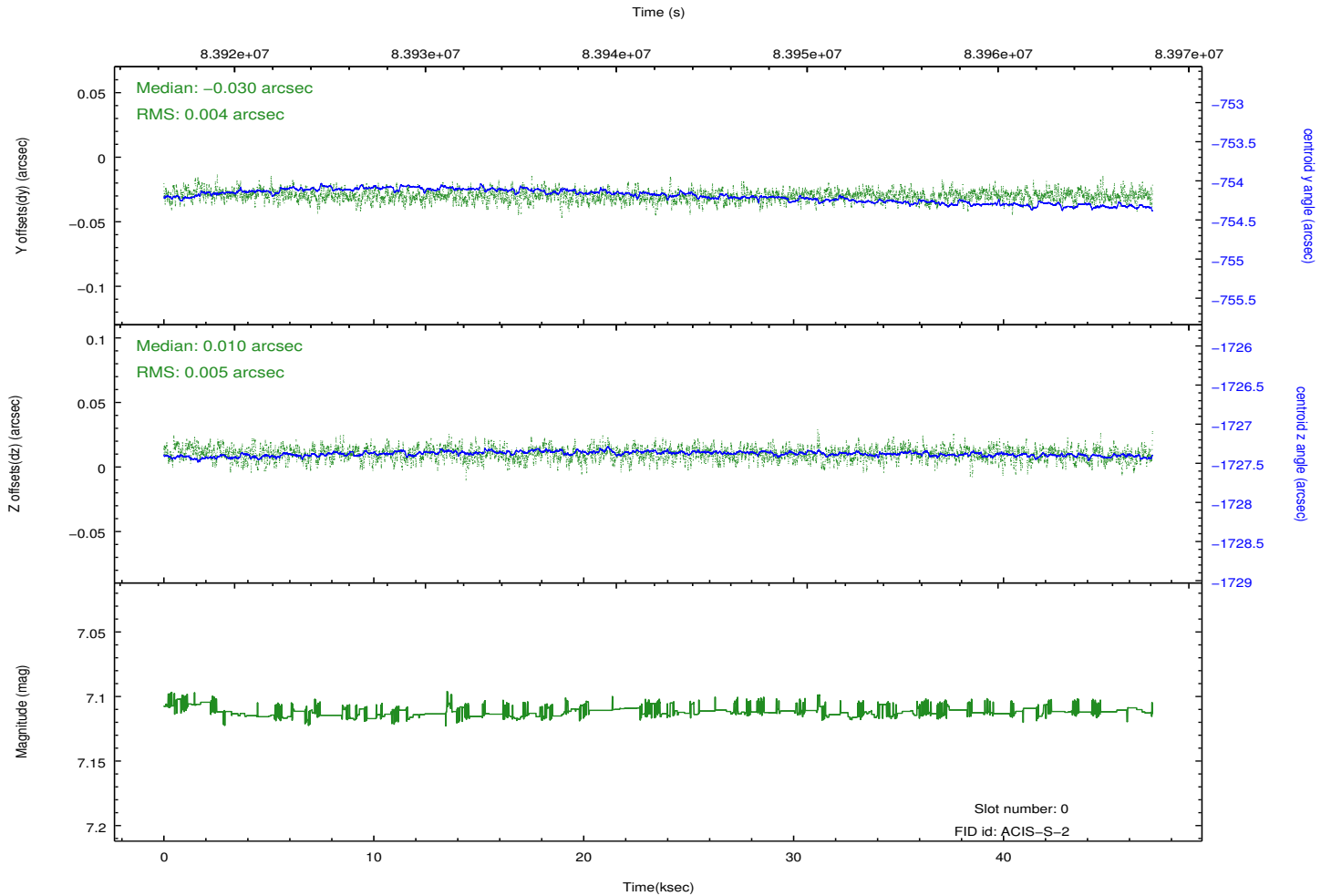
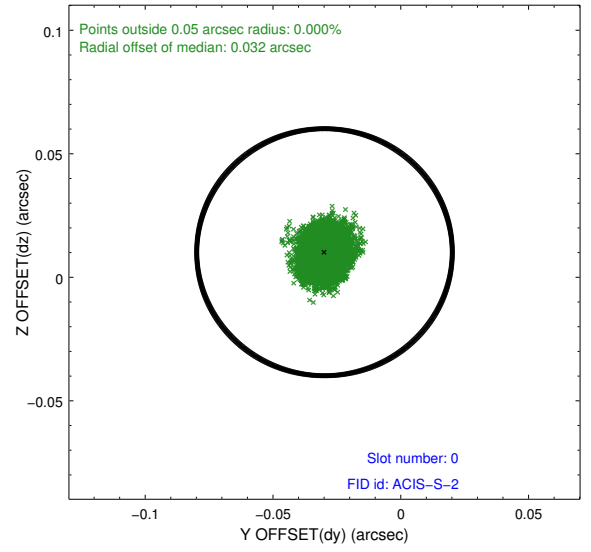
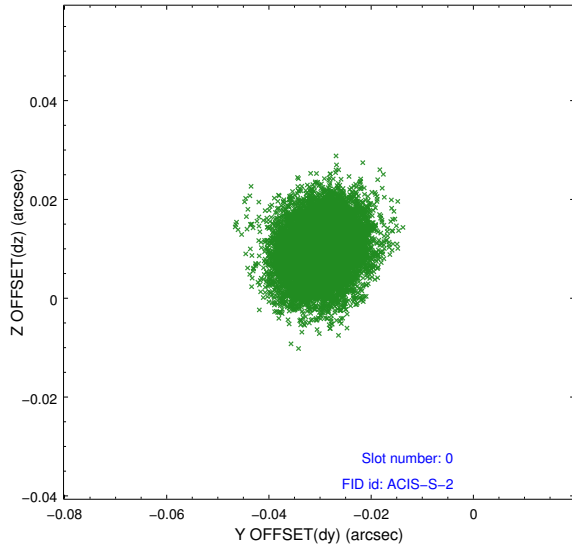


2.4.5 Slot 7

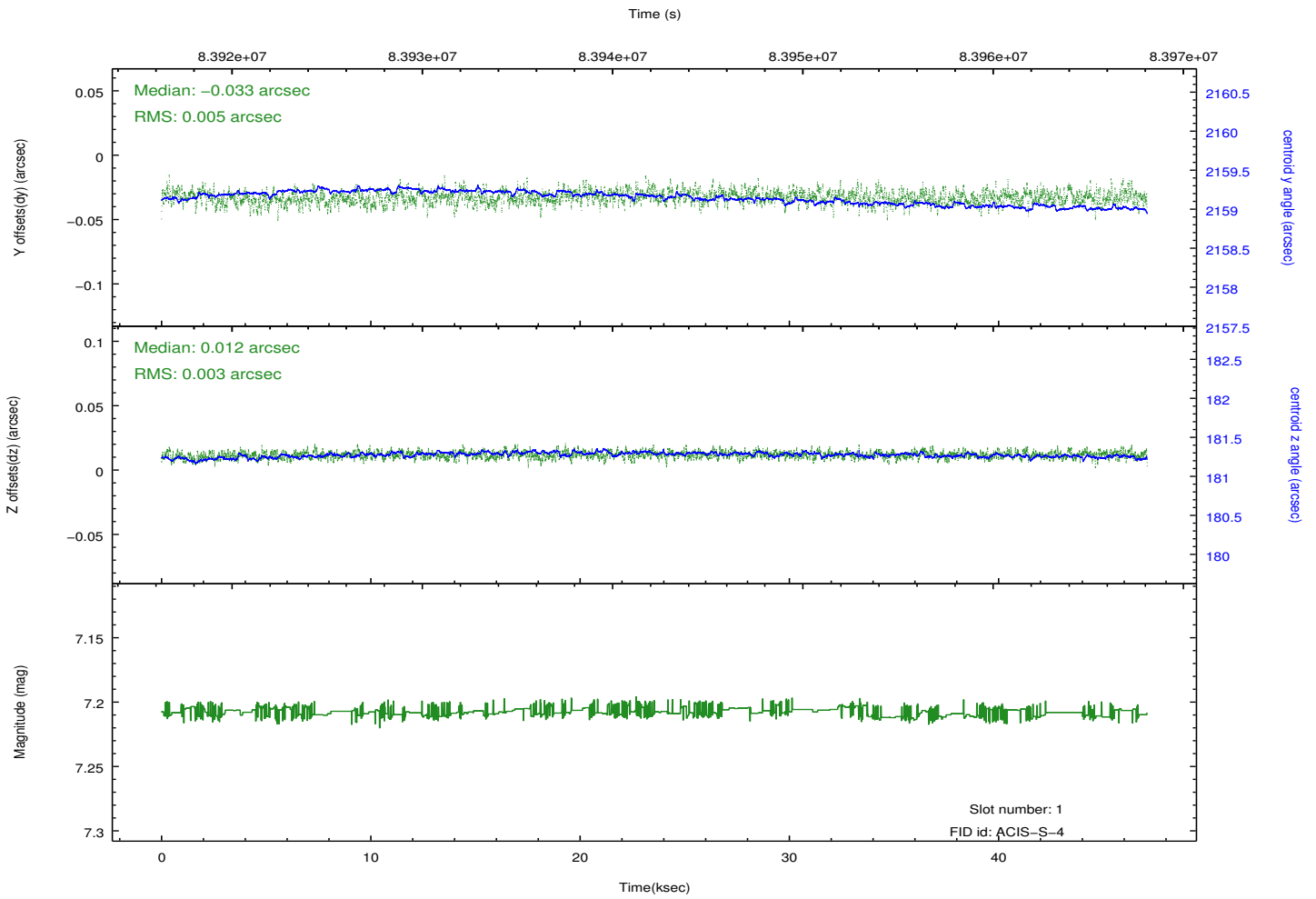
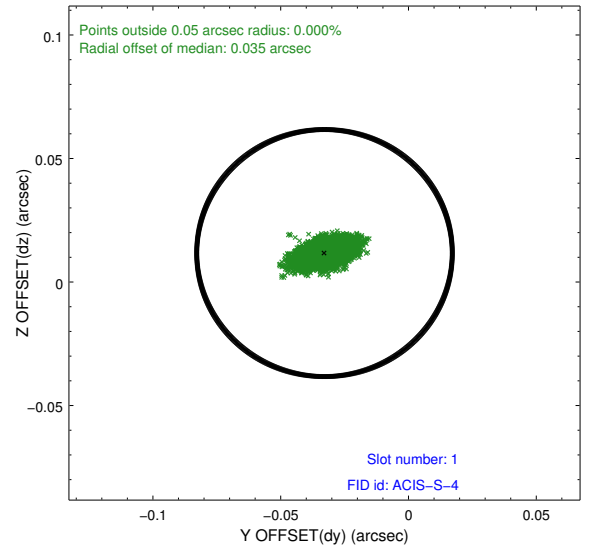
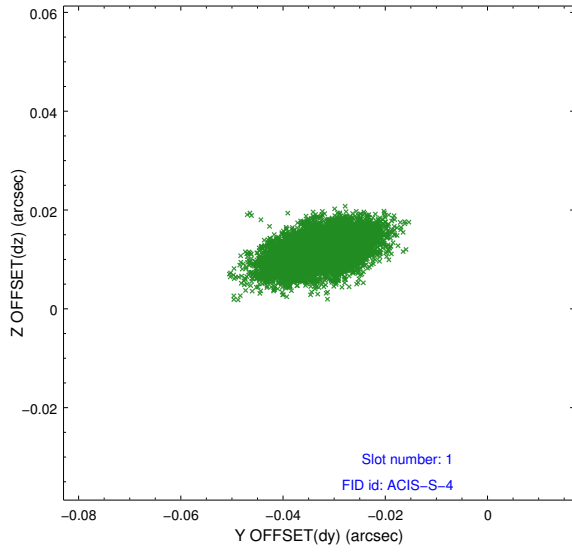


2.5 FID Slots

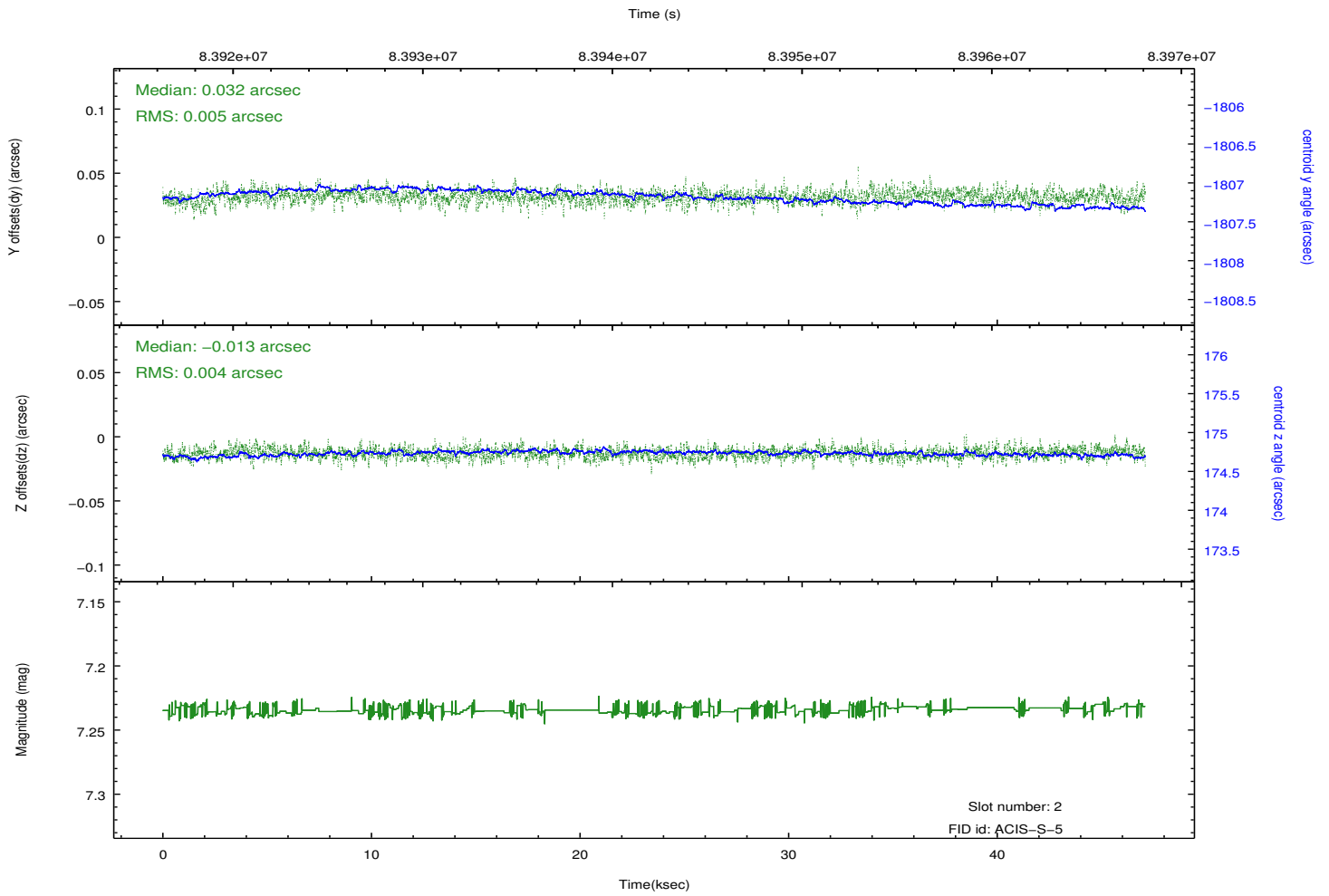
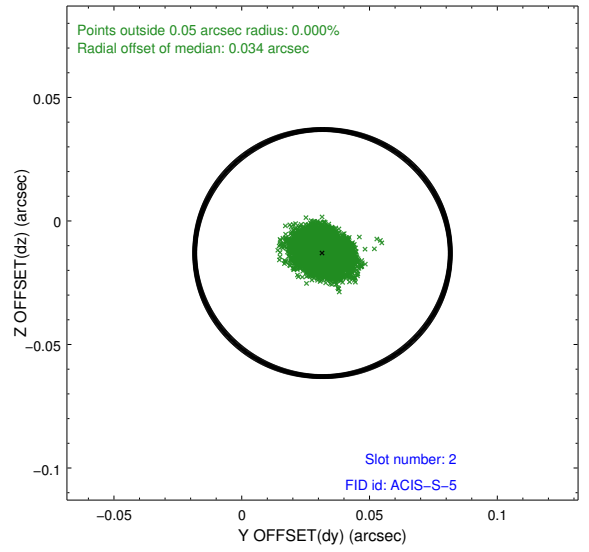
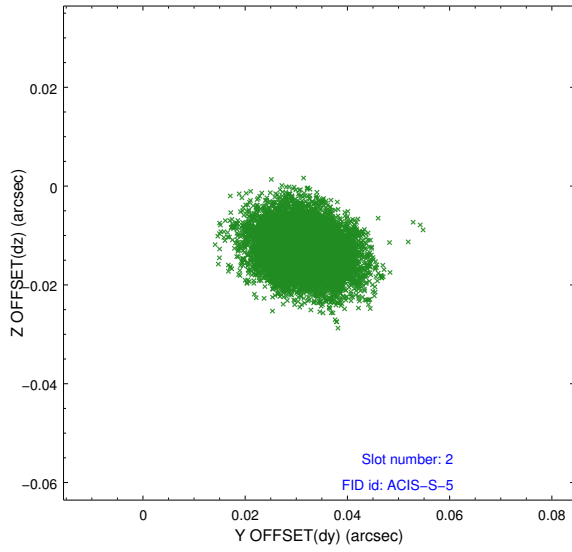
2.5.1 Slot 0



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) | 2012.09.09 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 46.652 |

A.2 Comments