

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 15738 - L2 Version 2
Chandra X-Ray Center

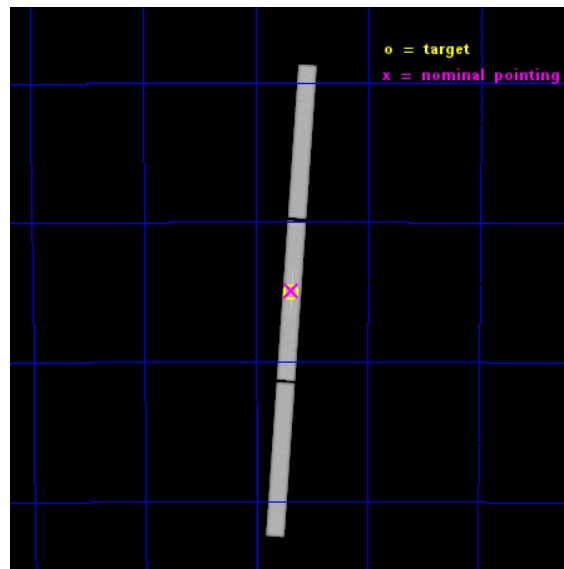
L2 Processing Date : Dec 10 2014

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1 Front

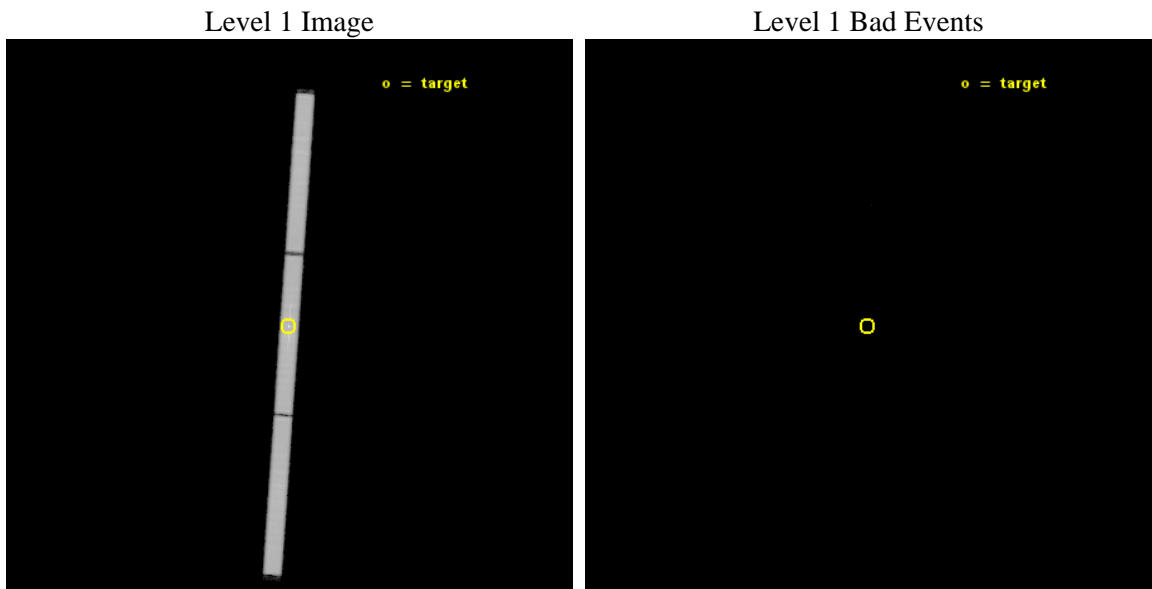
| | | |
|----------|--|---------------------------------------|
| seq_num | 300322 | Sequence number |
| obs_id | 15738 | Observation id |
| title | A Fermi/LAT Trigger of Grating Observations of One Bright Nova in Outburst | Proposal title |
| observer | Regents' Professor Sumner Starrfield | Principal investigator |
| object | V745 Sco | Source name |
| ra_targ | 268.842792 | Observer's specified target RA [deg] |
| dec_targ | -33.249581 | Observer's specified target Dec [deg] |
| ra_nom | 268.8424435831 | Nominal RA [deg] |
| dec_nom | -33.244849439152 | Nominal Dec [deg] |
| roll_nom | 94.038100025761 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 32422.033034563 | [s] |
| livetime | 32236.696265562 | Ontime multiplied by DTCOR |
| l2events | 1530932 | Number of level 2 events |



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|----------------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 32312.601000 | [s] Scheduled observation exposure time |
| ascdsver | 10.3.1 | Processing system revision | ontime | 32422.033034563 | [s] |
| caldsver | 4.6.4 | | l1events | 2109703 | Number of level 1 events |
| date | 2014-12-10T13:54:24 | Date and time of file creation | tgmethod | TGDETECT | Method used to create src1a file |
| revision | 2 | Processing version of data | zo_pos | (32761.00, 32637.81) | src1a sky pixel position |

2.1.3 Events

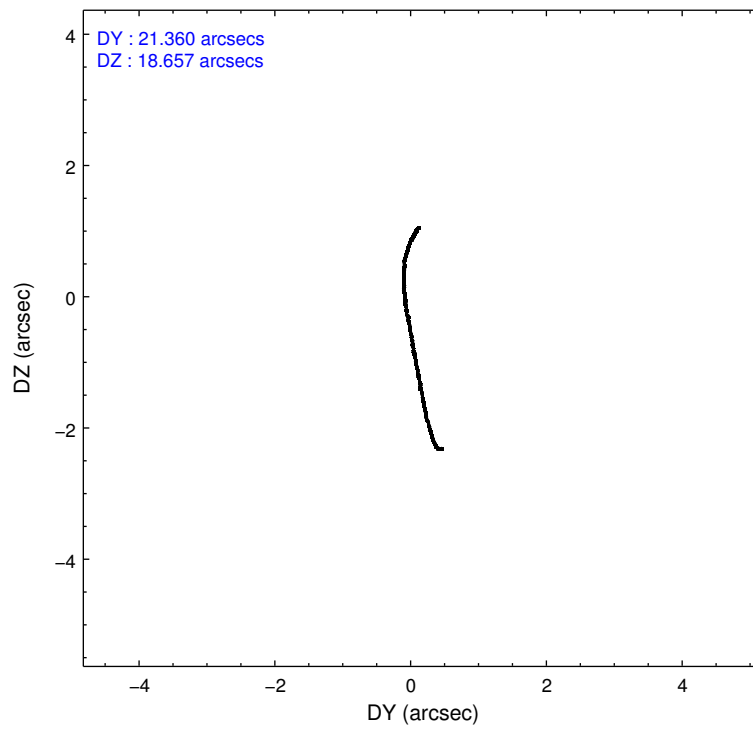
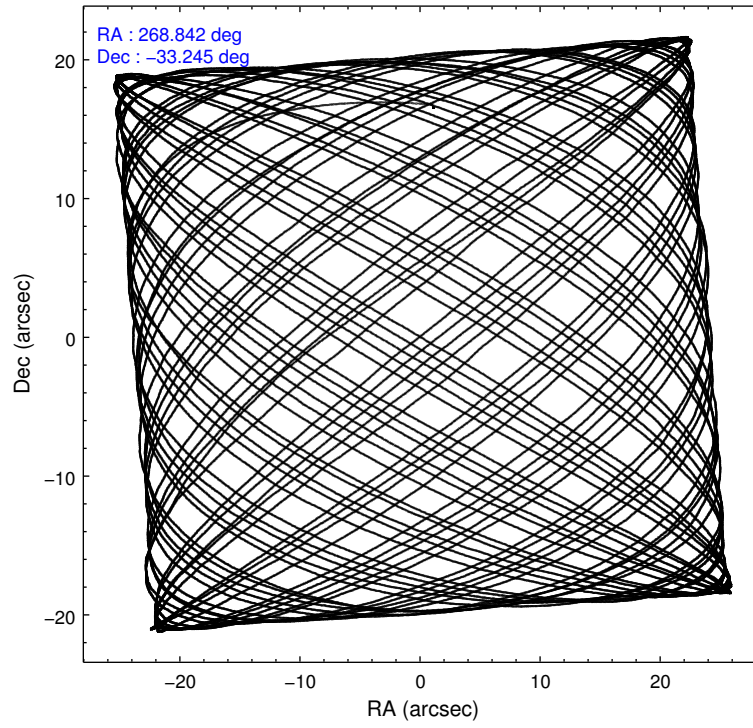
Level 1 Events

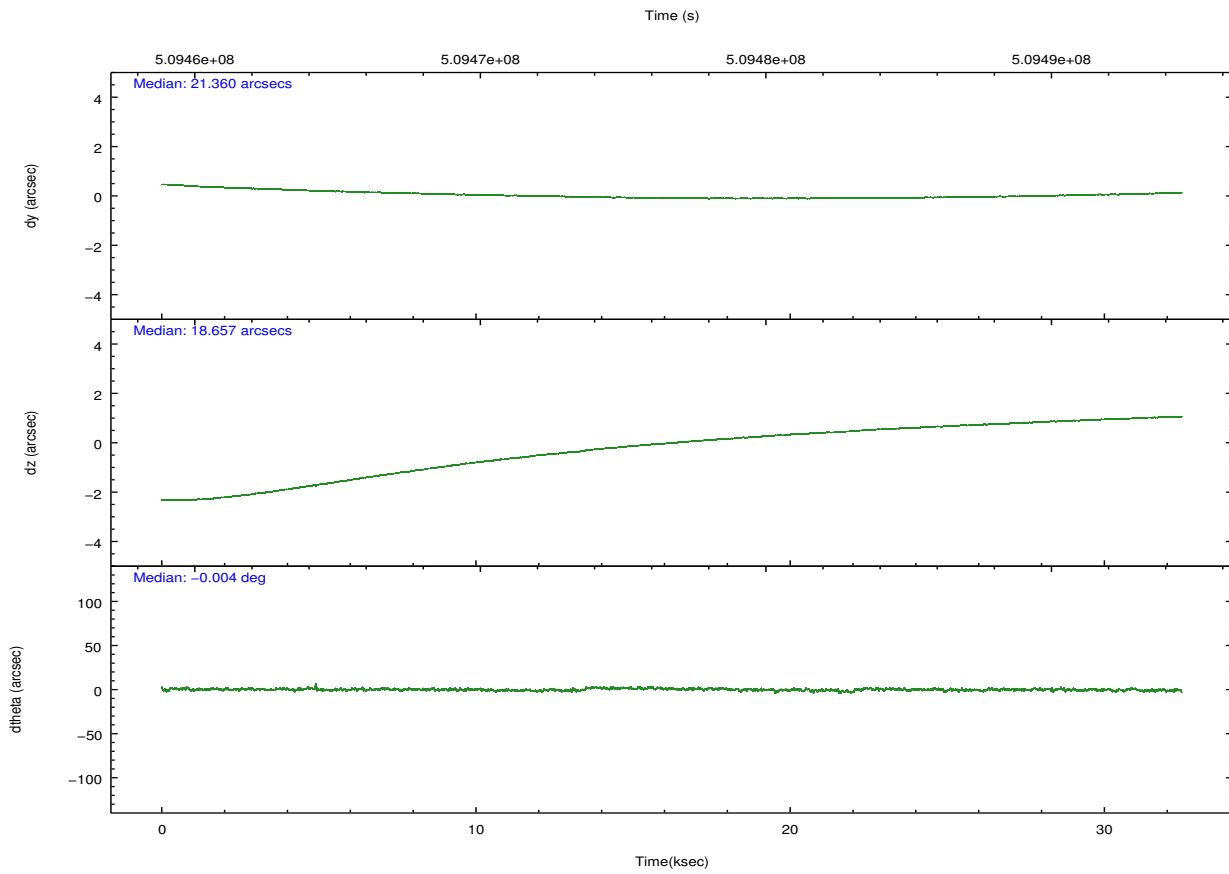
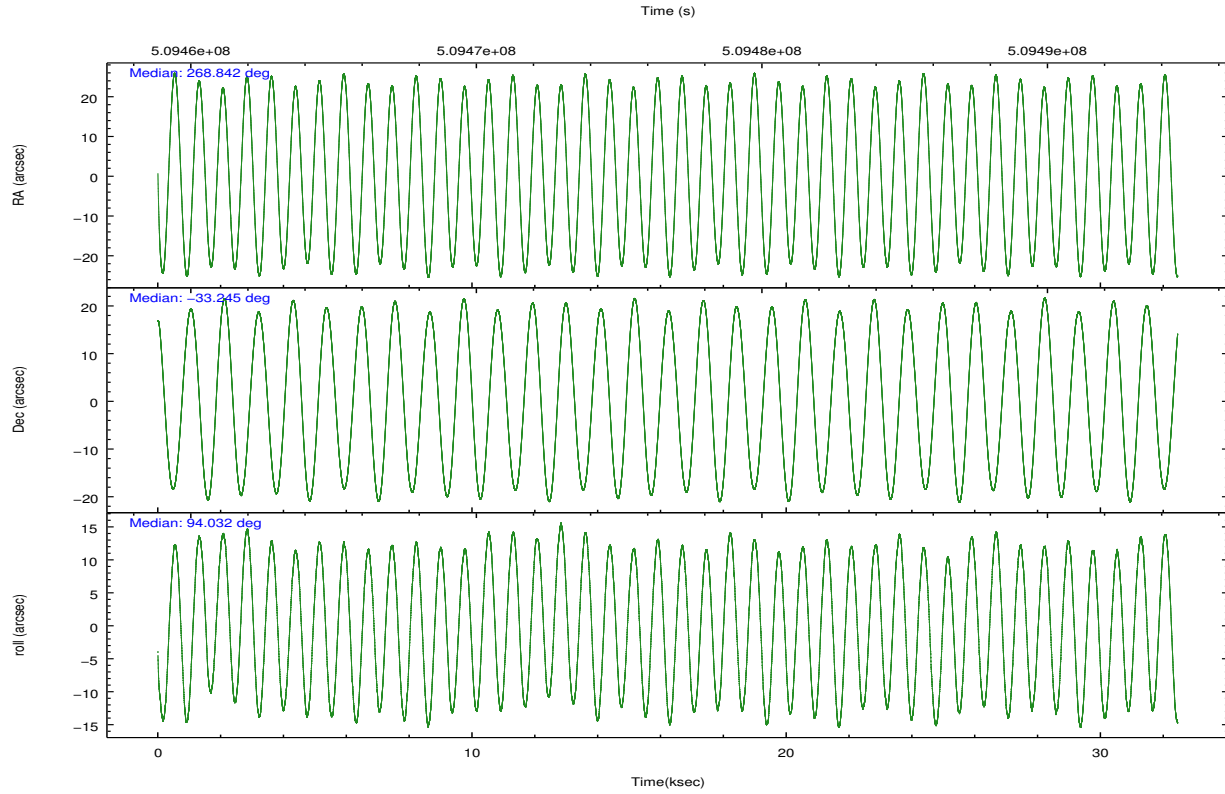
| | segment 1 | segment 2 | segment 3 |
|-----------------|------------------|------------------|------------------|
| level 1 events | 696363 | 712508 | 700832 |
| rejected events | 21989 | 21847 | 22363 |
| rejected % | 3% | 3% | 3% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|------------------------------|-----------|---------|
| Instrument | HRC | HRC | Obspar format version number | 7 | 7 |
| Detector | HRC-S | HRC-S | | | |
| Grating | LETG | LETG | | | |
| Data mode | OBSERVING | OBSERVING | Obspar file type | PREDICTED | ACTUAL |
| Observation mode | POINTING | POINTING | | | |
| [deg] Pointing RA | 268.863082 | 268.8424435831022 | Obspar update status | NONE | UPDATED |
| [deg] Pointing Dec | -33.267775 | -33.24484943915249 | | | |
| [deg] Pointing Roll | 93.982086 | 94.03810002576144 | | | |
| [mm] SIM focus pos | -1.429586 | -1.428180813131781 | | | |
| [mm] SIM defocus | 0.1037507710433287 | 0.1051558262725154 | | | |
| [mm] SIM translation stage pos | 250.455976 | 250.4635187648994 | | | |
| [mm] SIM translation stage offset | 0 | -0.007540371344731511 | | | |
| [s] Observation start time (MET) | 509460610.184000 | 509459419.14354 | | | |
| Observation start date | 2014-02-22T12:49:03 | 2014-02-22T12:30:19 | | | |
| [s] Observation end time (MET) | 509492923.184000 | 509492941.77039 | | | |
| Observation end date | 2014-02-22T21:47:36 | 2014-02-22T21:49:01 | | | |

2.3 Aspect





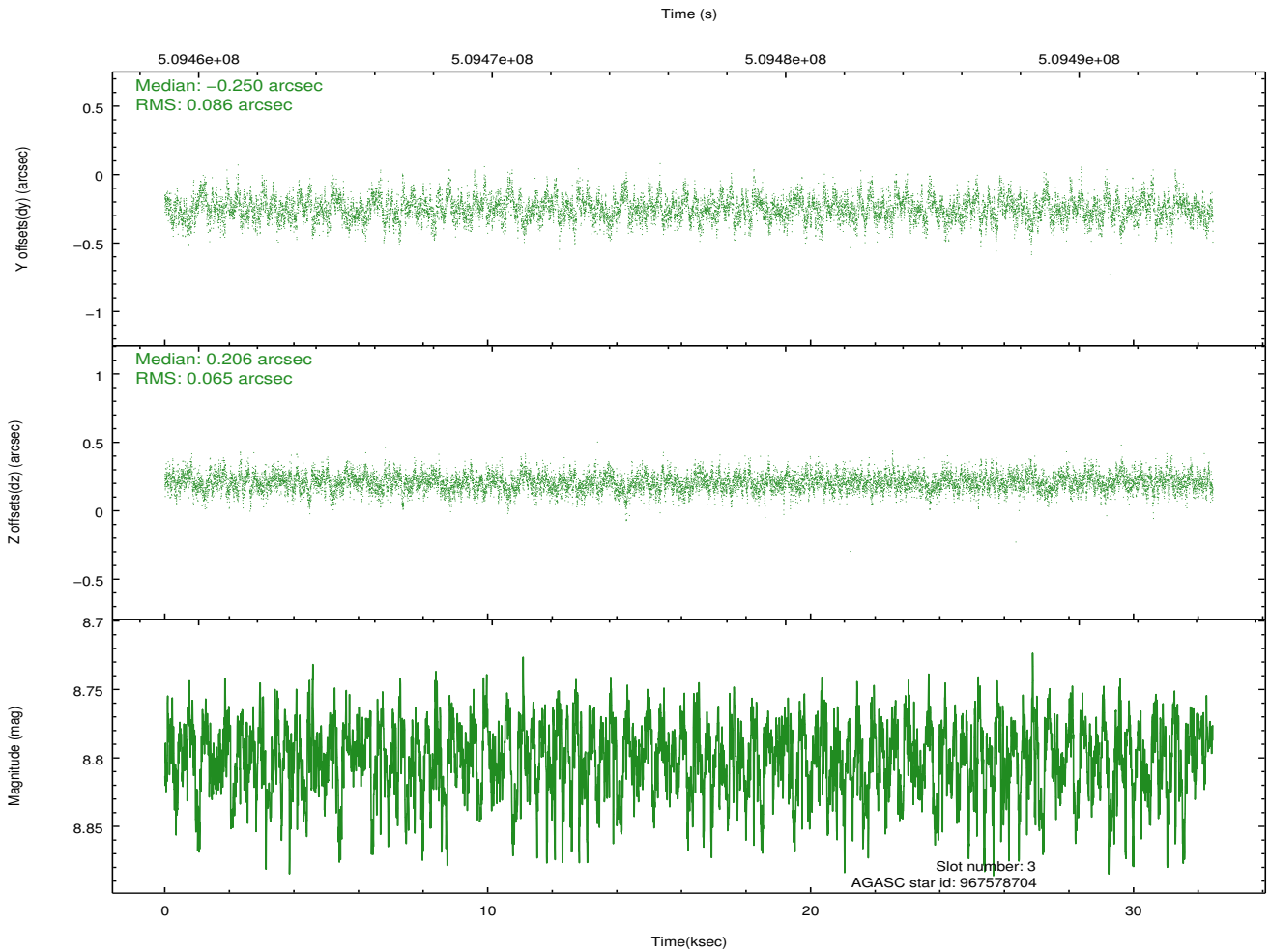
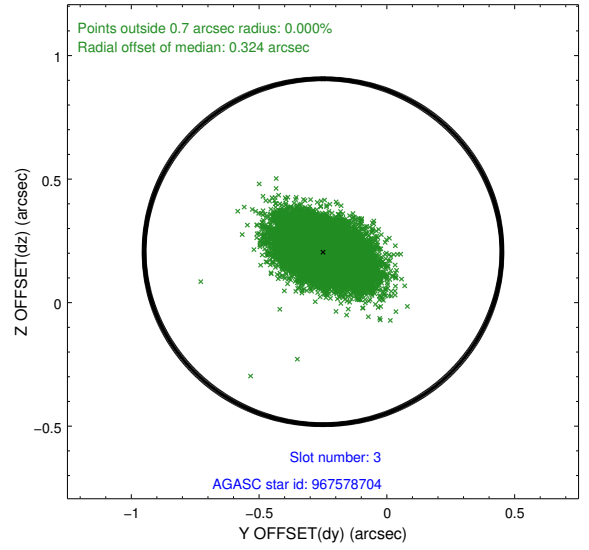
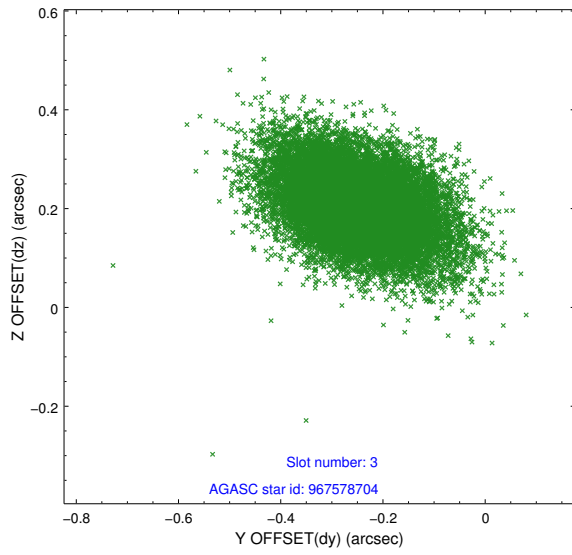
Slot Statistics

| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | | HRC-S-1 | 7.01 | 7916 | -0.091 | -0.164 | 0.008 | 0.013 | 0.000000 | 0.000000 | -1176.14 | -467.32 |
| 1 | FID | | HRC-S-2 | 6.99 | 7916 | 0.215 | -0.134 | 0.016 | 0.025 | 0.000000 | 0.000000 | 1223.70 | -459.94 |
| 2 | FID | | HRC-S-4 | 6.96 | 7915 | 0.278 | -0.006 | 0.018 | 0.027 | 0.000000 | 0.000000 | 1222.63 | 564.92 |
| 3 | GUIDE | used | 967578704 | 8.80 | 15826 | -0.250 | 0.206 | 0.111 | 0.195 | 269.523439 | -32.757865 | 1686.56 | -2120.94 |
| 4 | GUIDE | used | 967582656 | 8.01 | 15824 | -0.119 | 0.450 | 0.088 | 0.143 | 269.593497 | -32.909675 | 1125.74 | -2290.62 |
| 5 | GUIDE | used | 968104512 | 8.71 | 15831 | 0.317 | -0.433 | 0.091 | 0.152 | 268.190357 | -33.844560 | -1937.88 | 2150.83 |
| 6 | GUIDE | used | 967580064 | 8.55 | 15827 | -0.213 | -0.076 | 0.089 | 0.147 | 269.044722 | -32.587064 | 2406.05 | -719.35 |
| 7 | GUIDE | used | 968110992 | 8.08 | 15832 | 0.257 | -0.143 | 0.090 | 0.152 | 268.673148 | -33.905496 | -2250.64 | 725.36 |

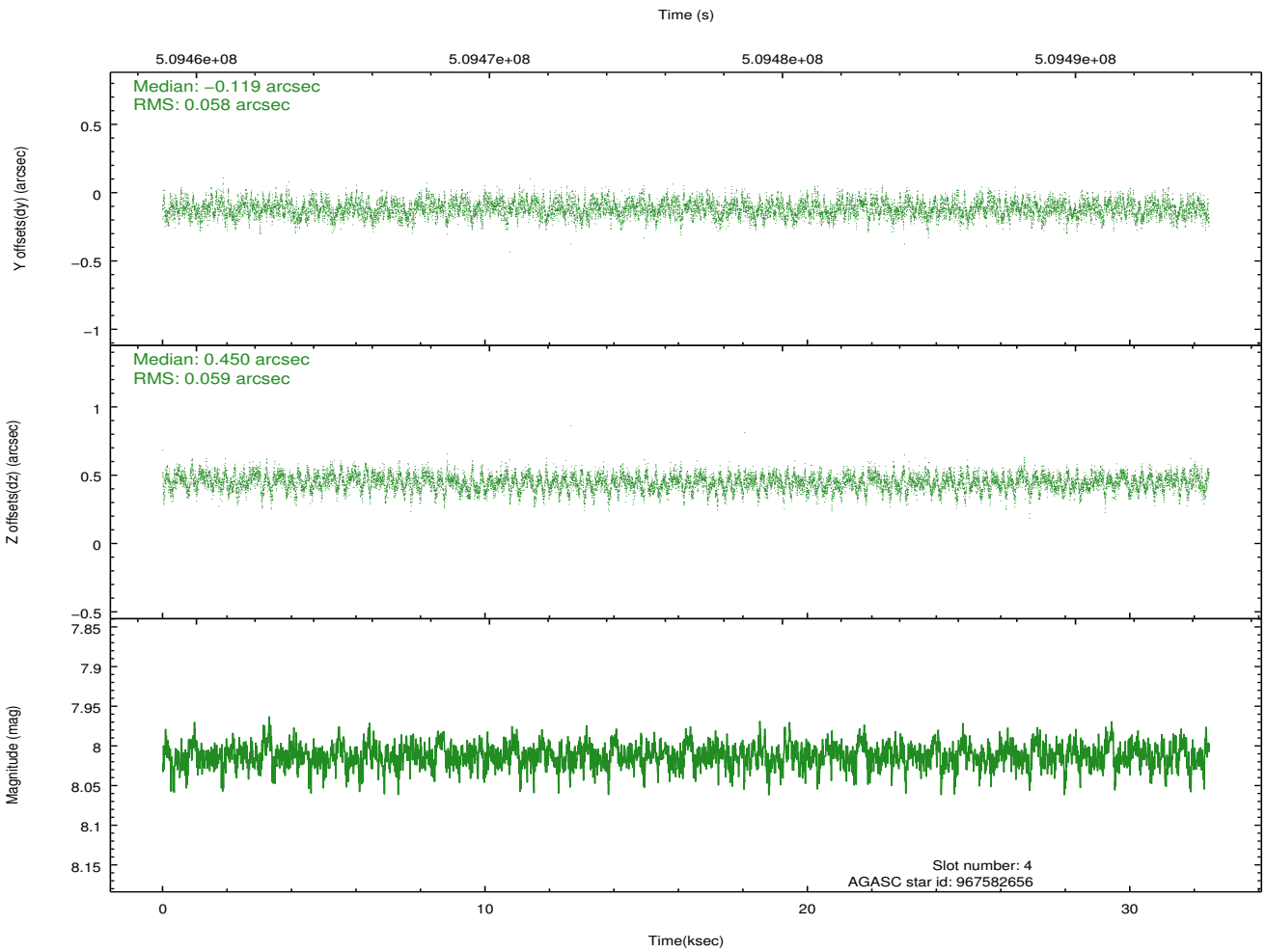
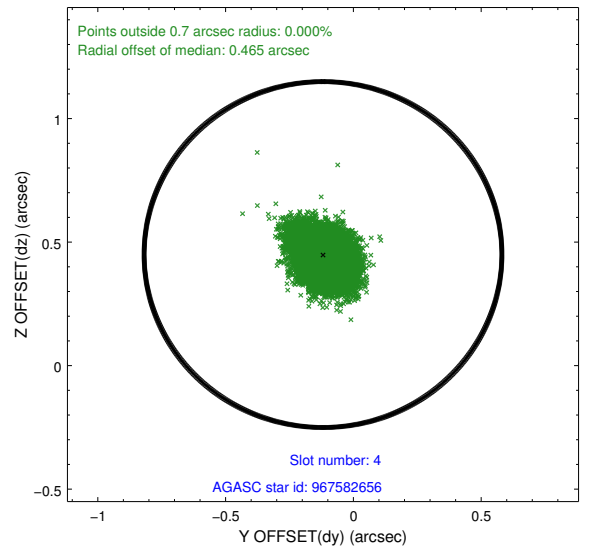
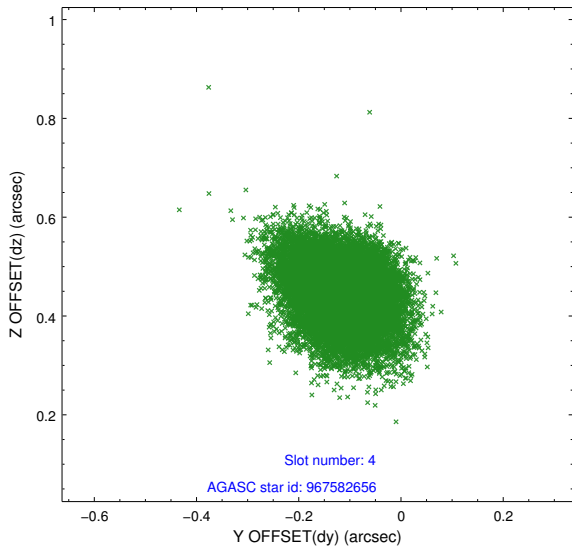
∞

2.4 Star Slots

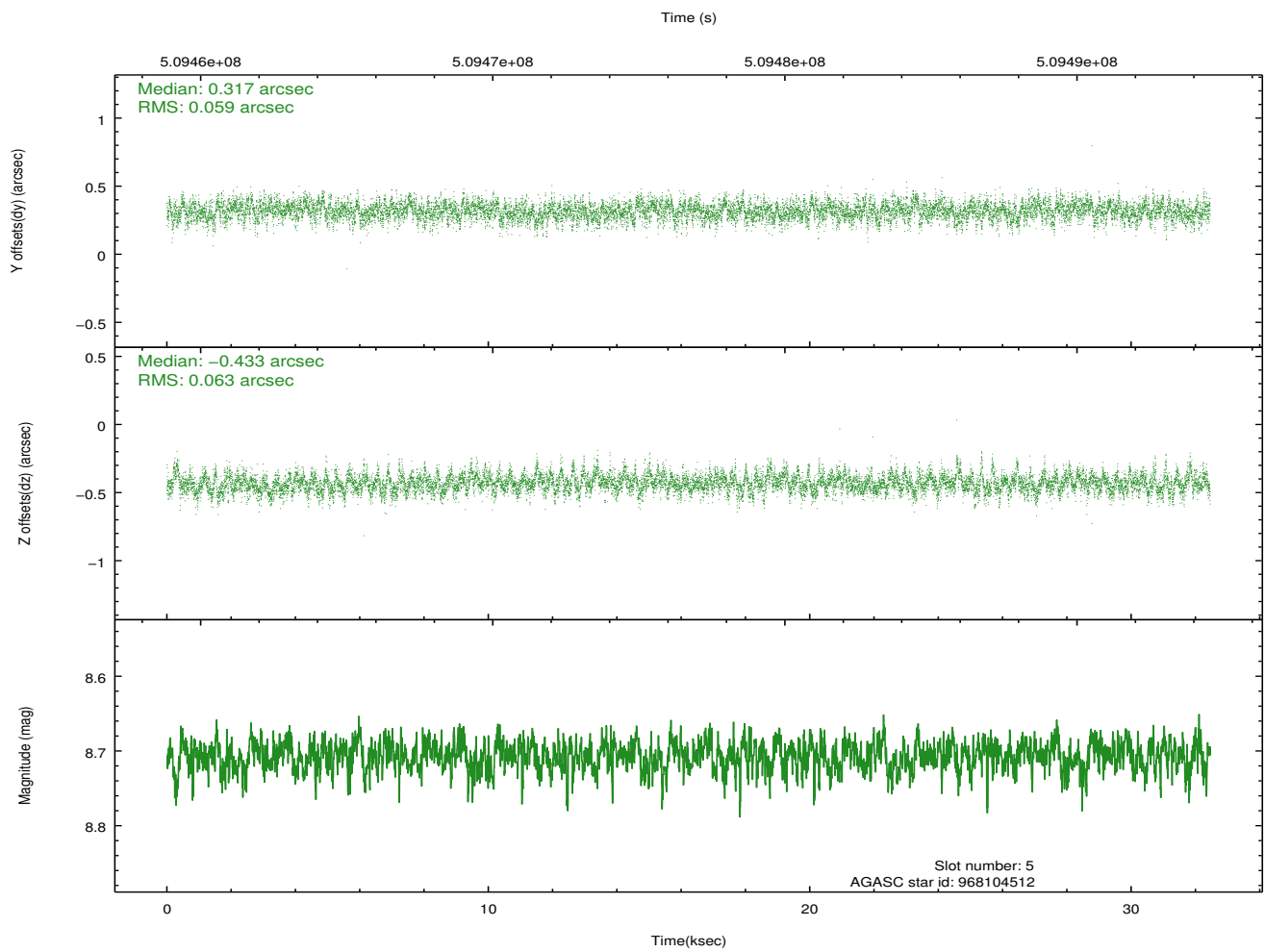
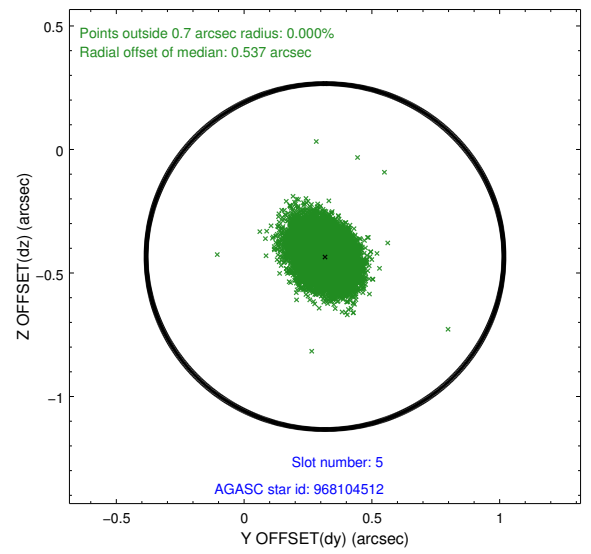
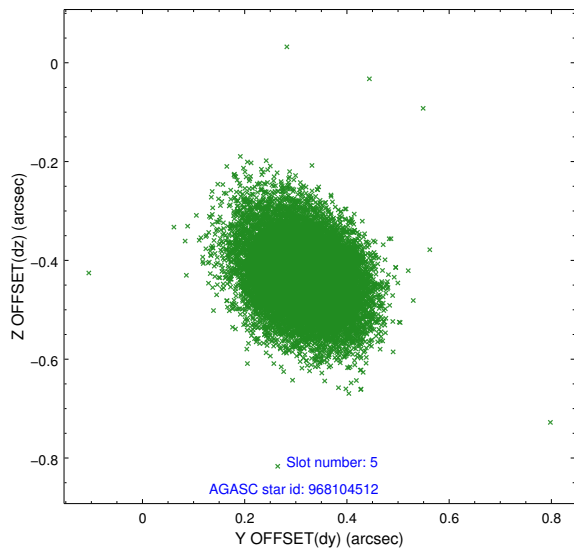
2.4.1 Slot 3



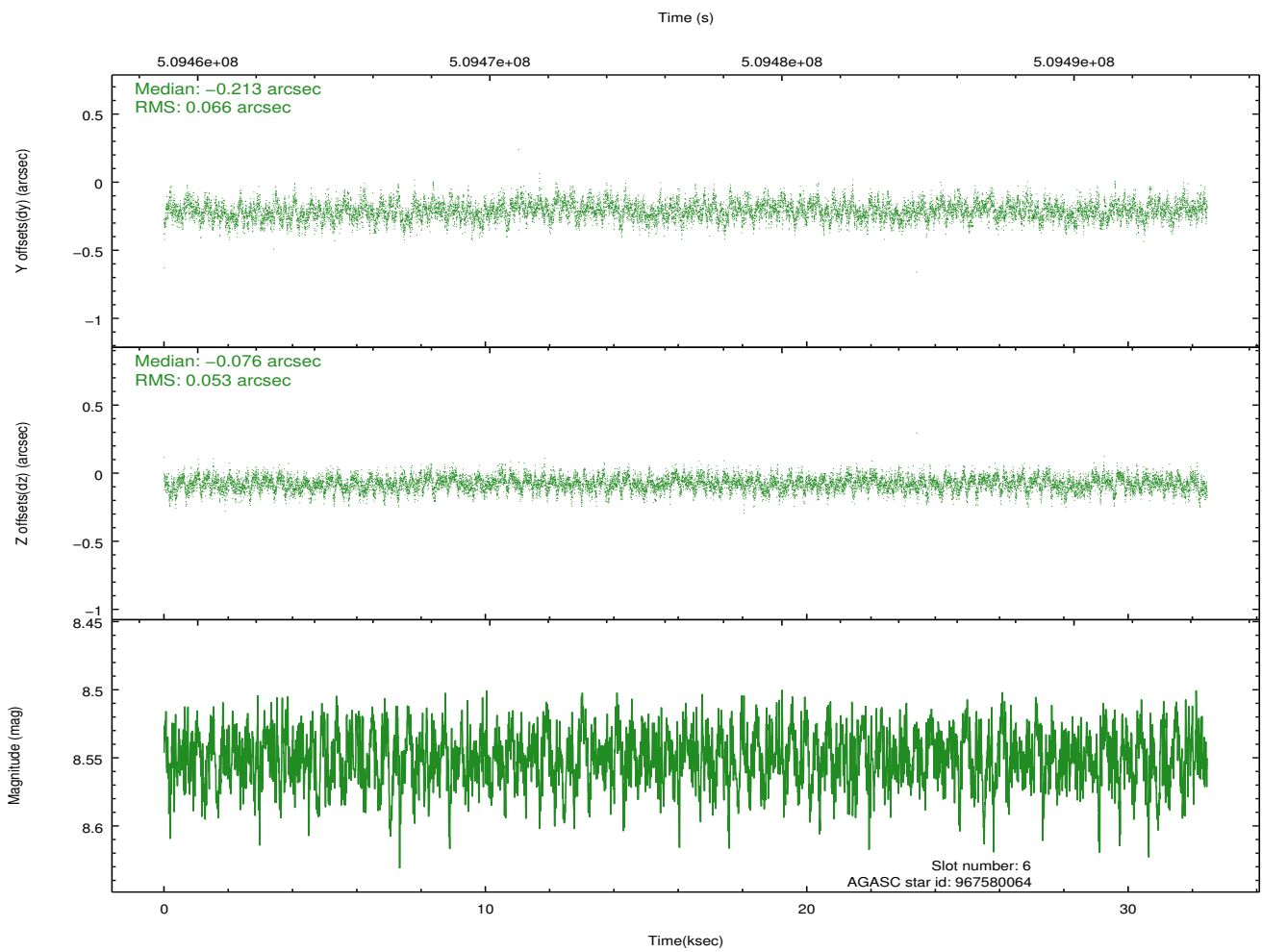
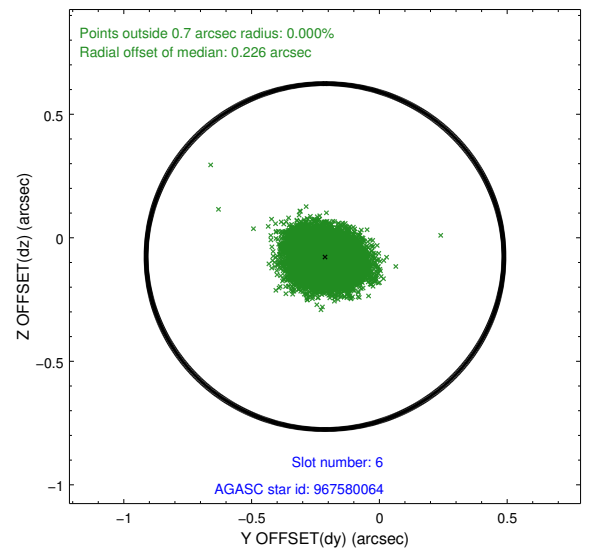
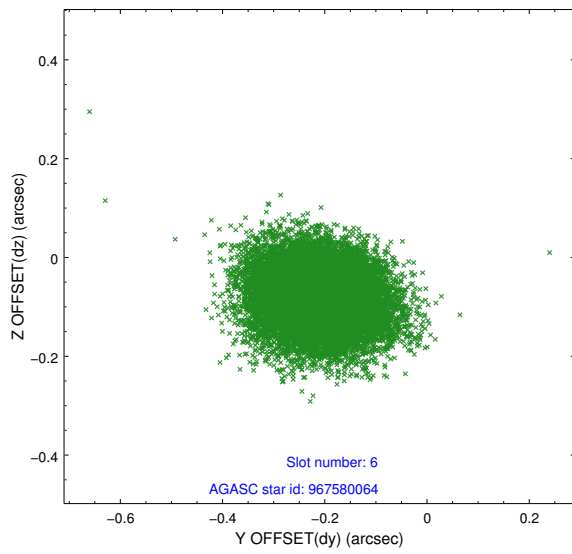
2.4.2 Slot 4



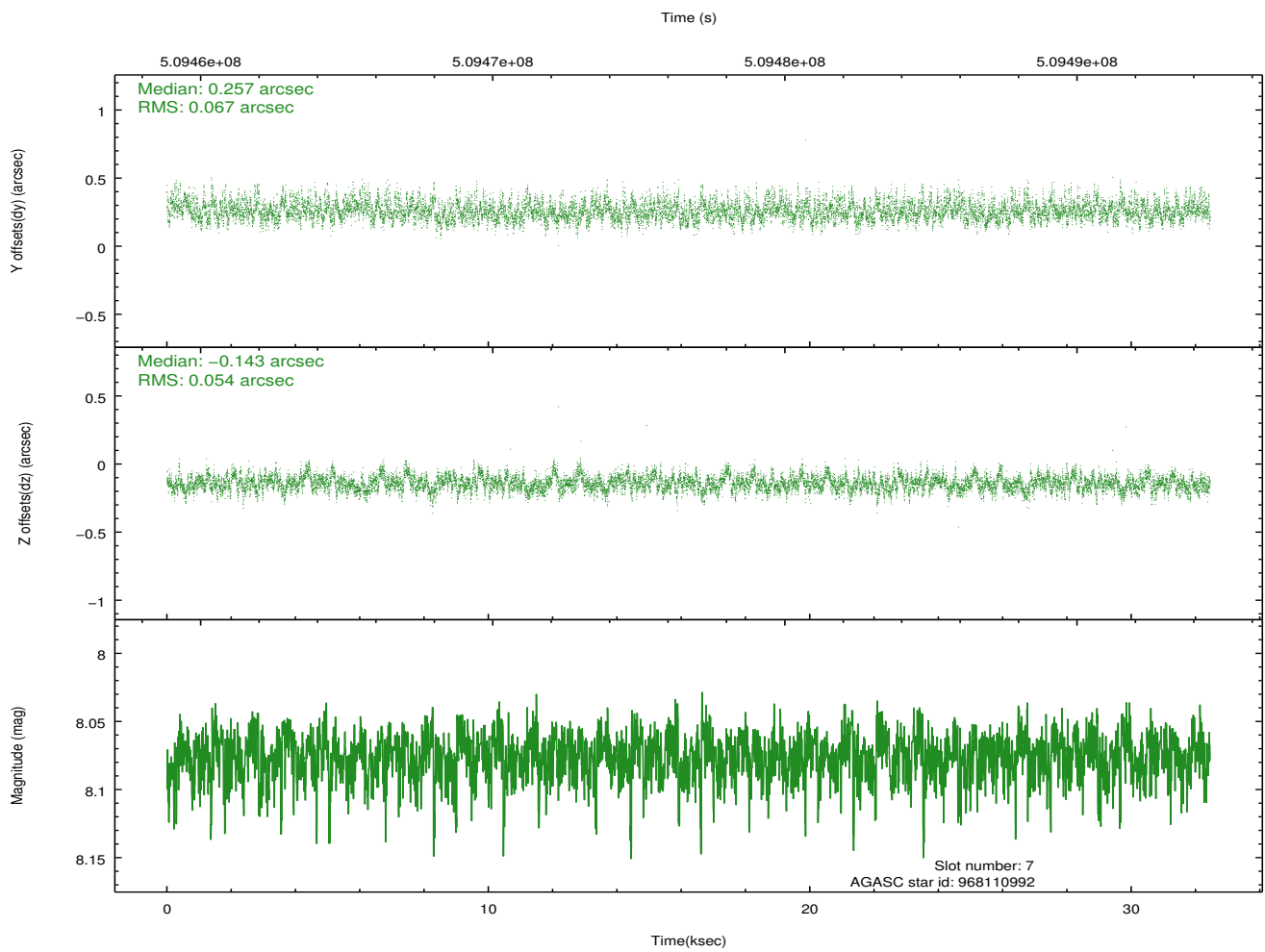
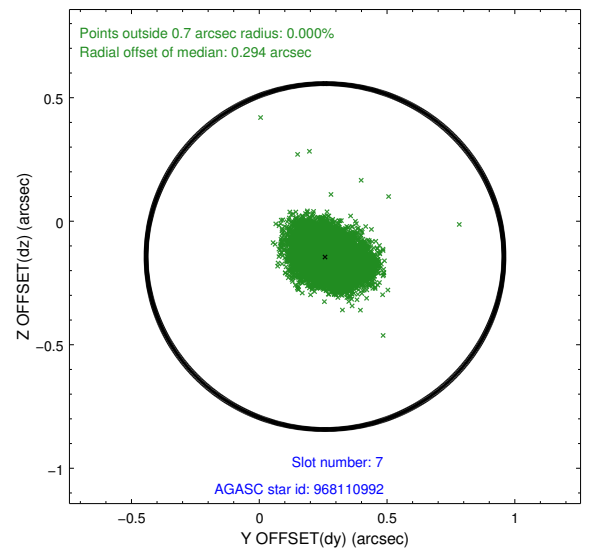
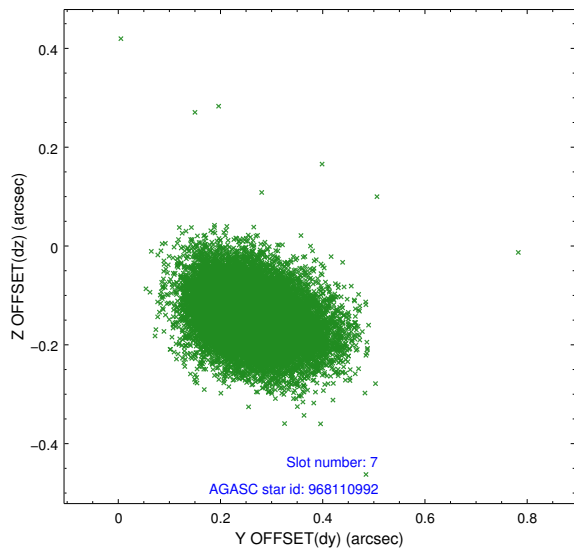
2.4.3 Slot 5



2.4.4 Slot 6

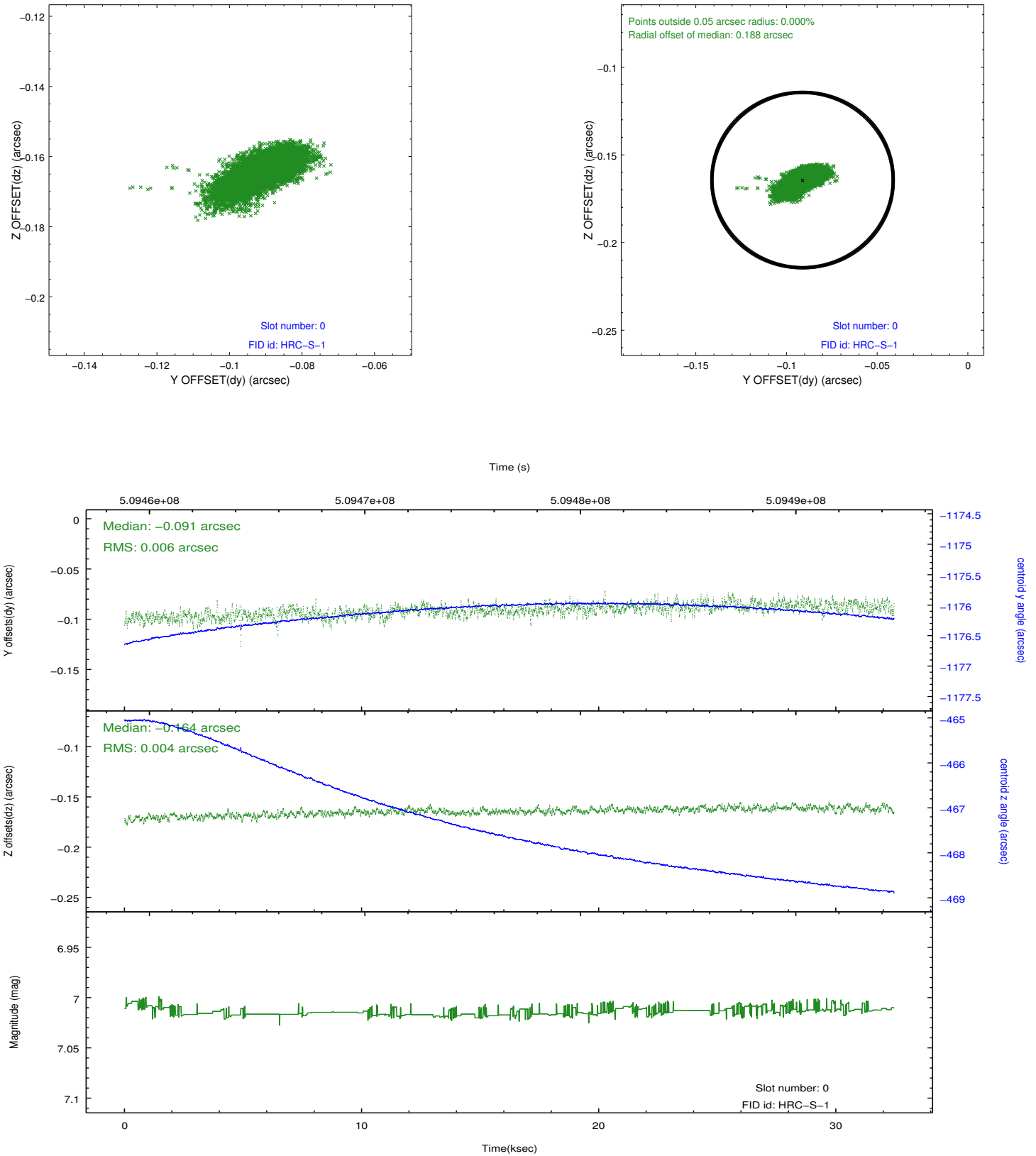


2.4.5 Slot 7

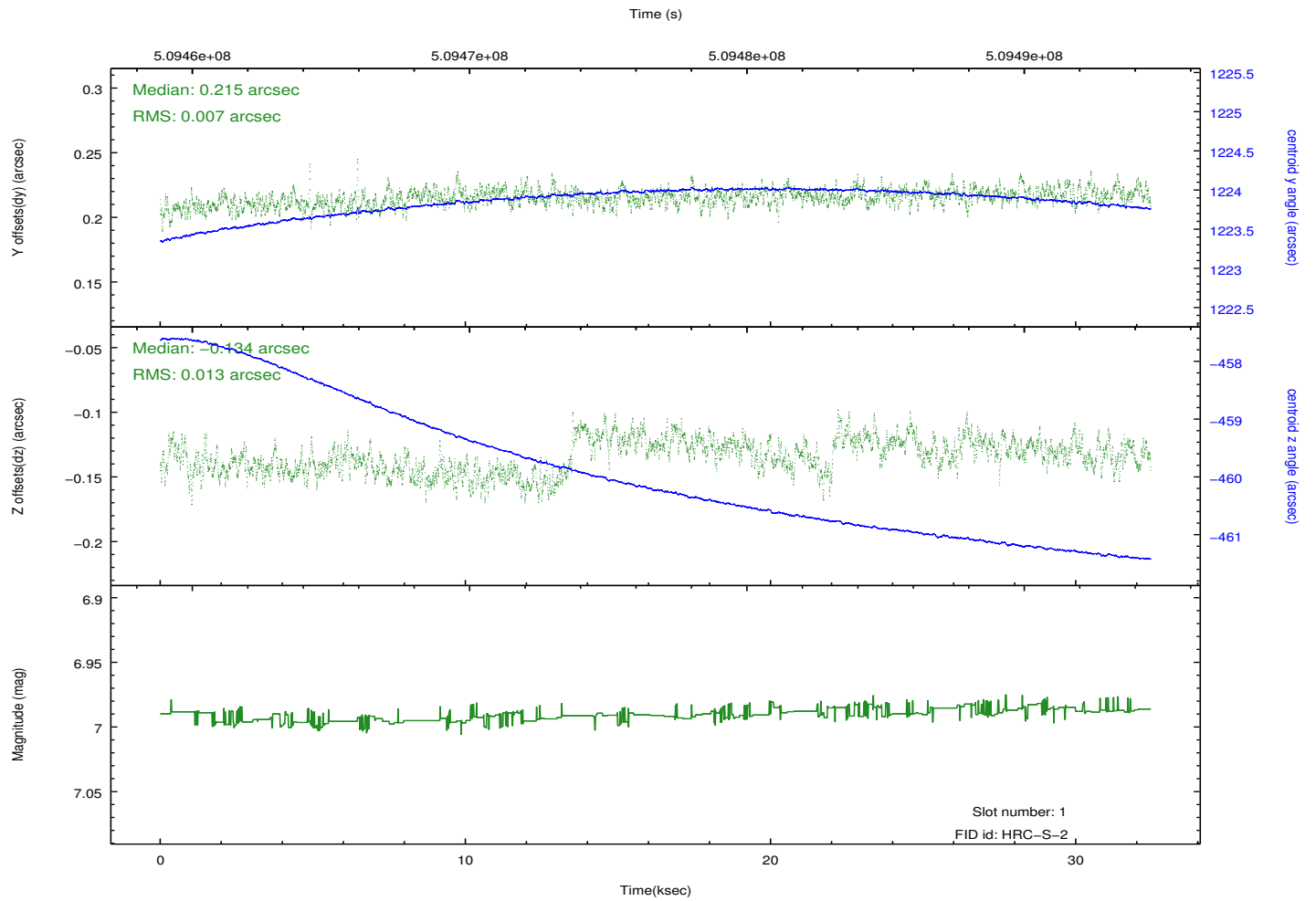
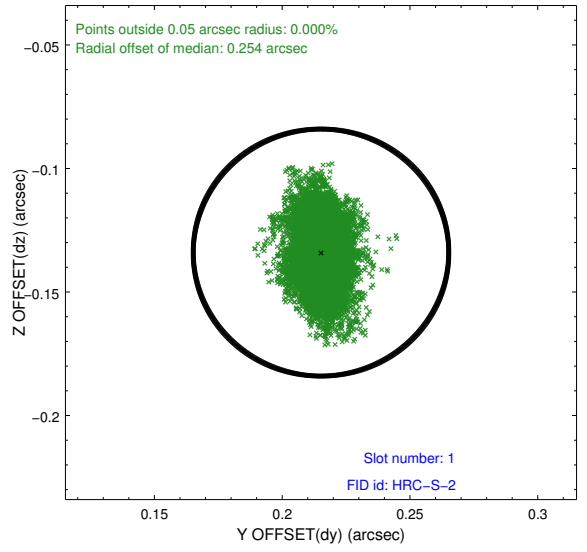
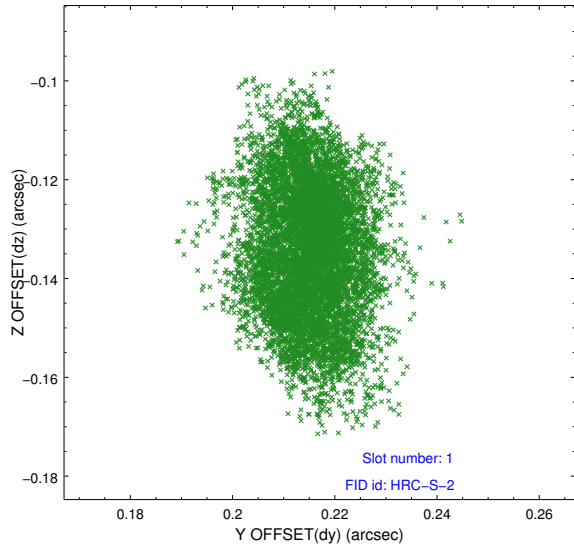


2.5 FID Slots

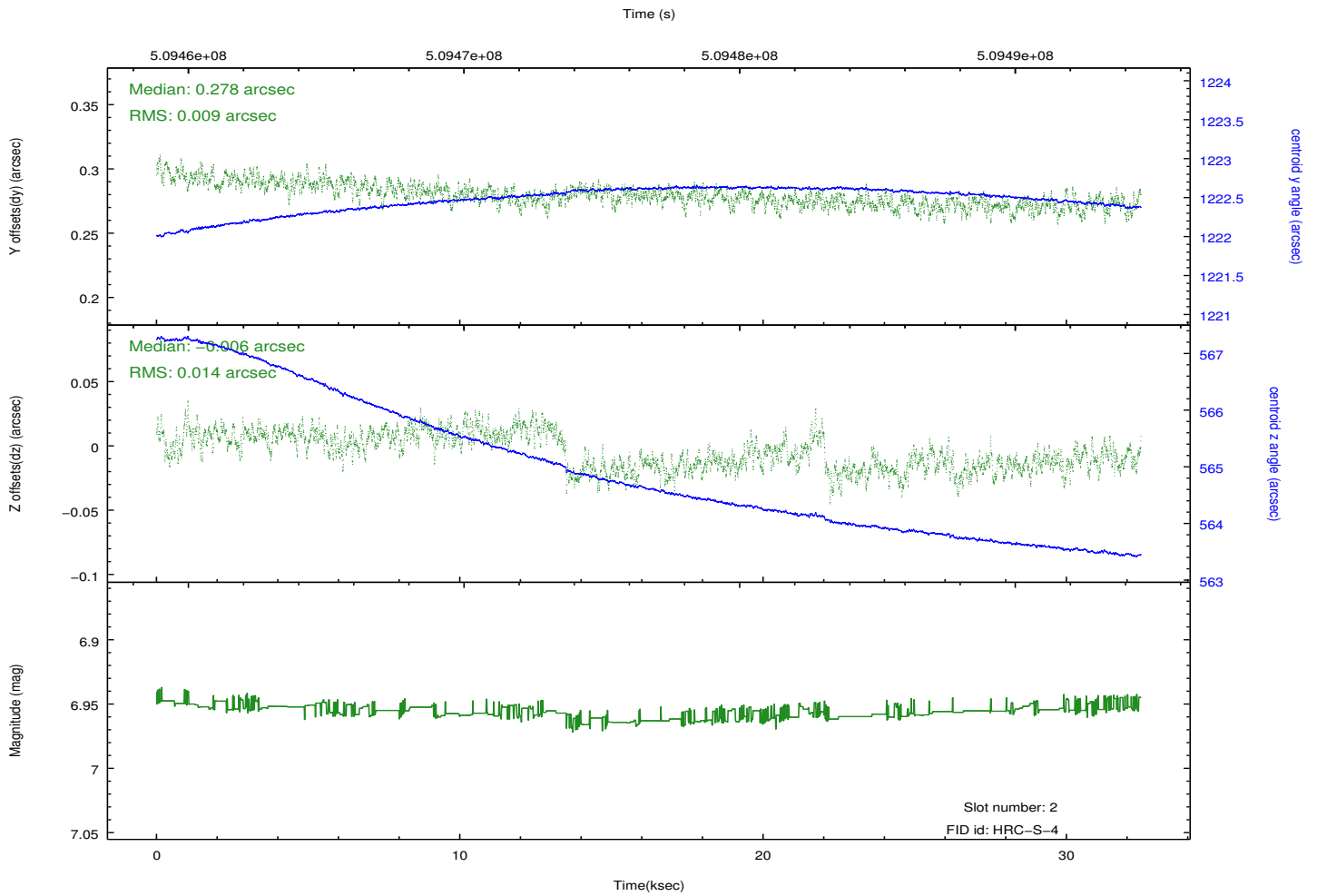
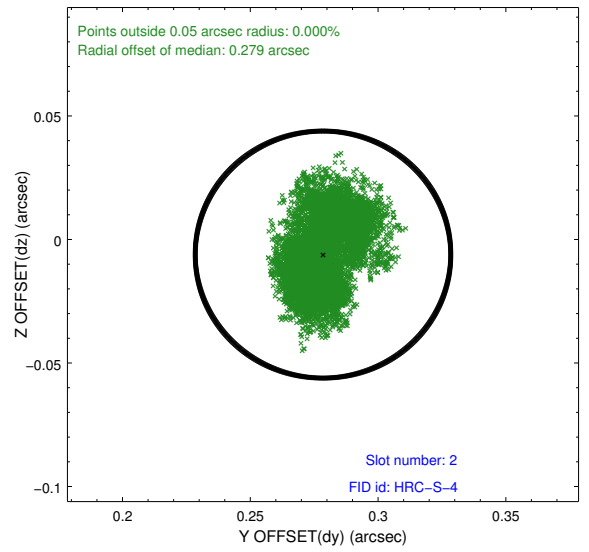
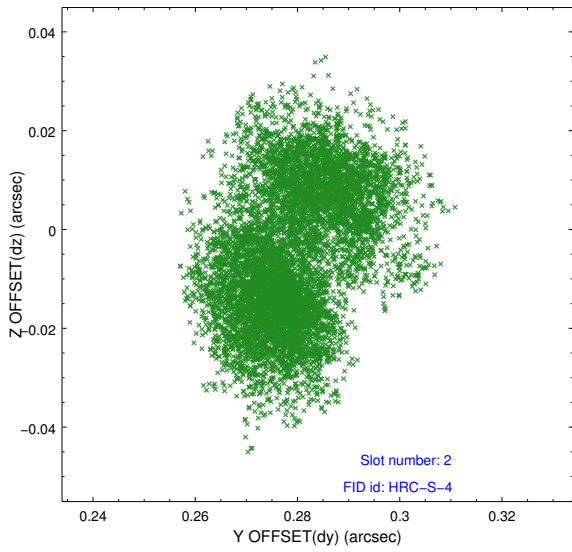
2.5.1 Slot 0



2.5.2 Slot 1

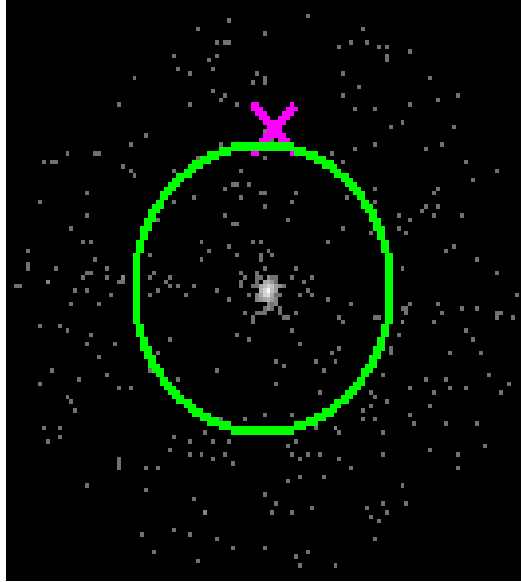


2.5.3 Slot 2

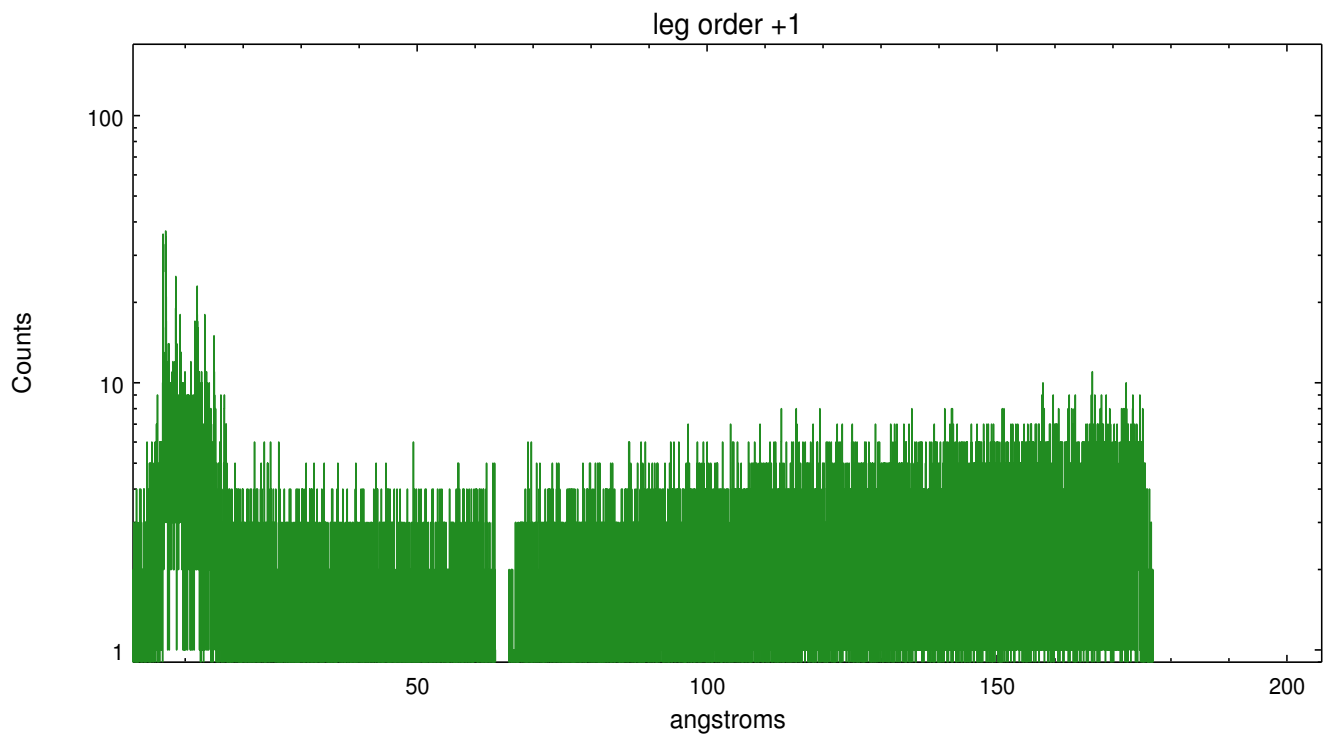
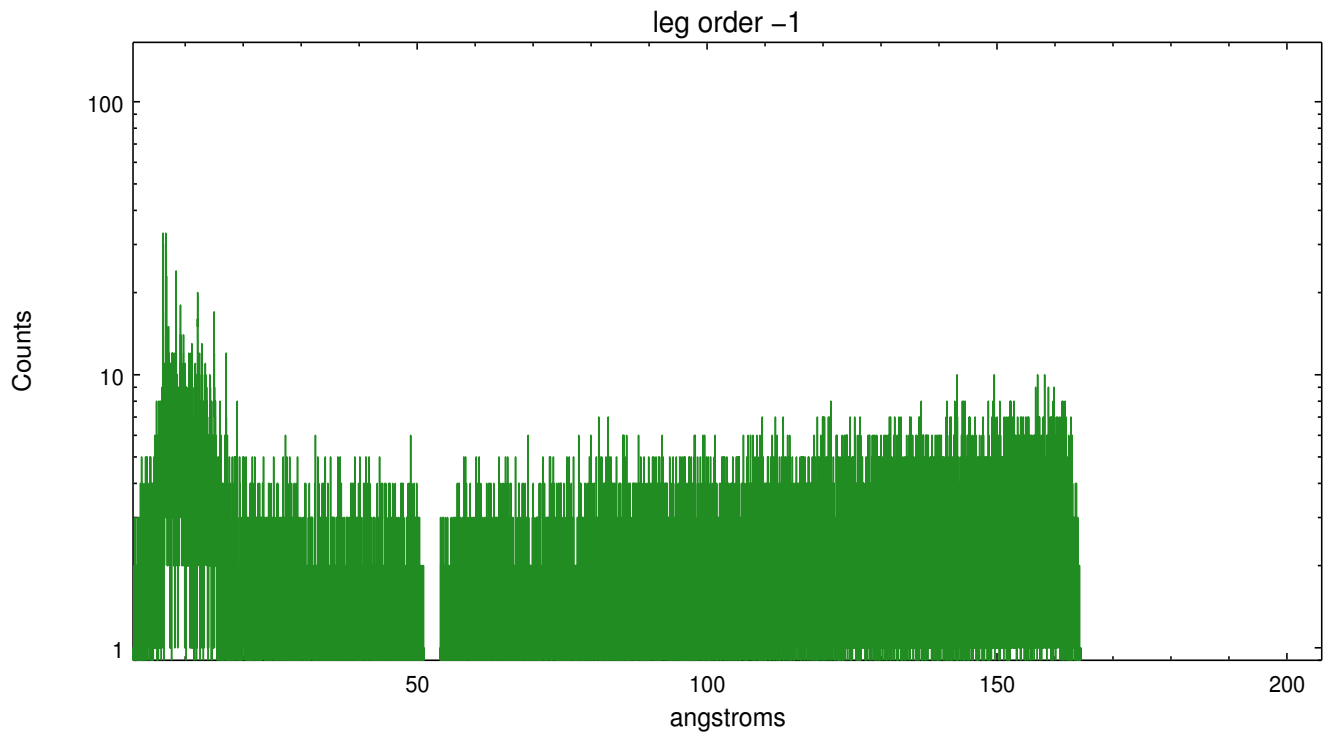


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2015.11.20 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 32.422033034563 |

A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.