

V&V Reference Report

L2 ASCDS Version : 7.6.8.1

Observation 3401 - L2 Version 001
Chandra X-Ray Center

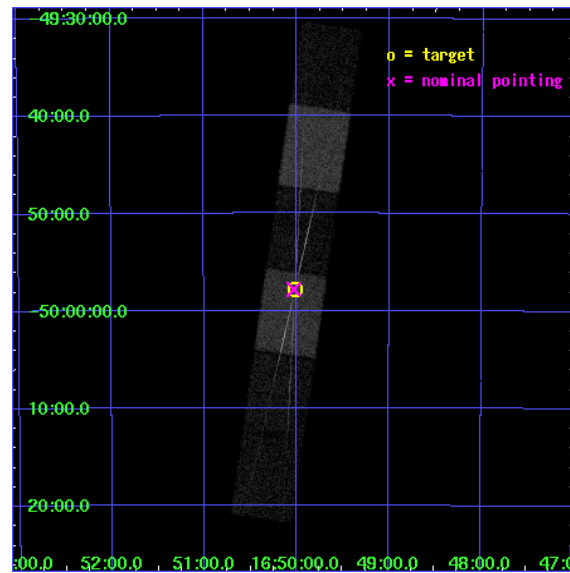
L2 Processing Date : Aug 31 2006

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1 Front

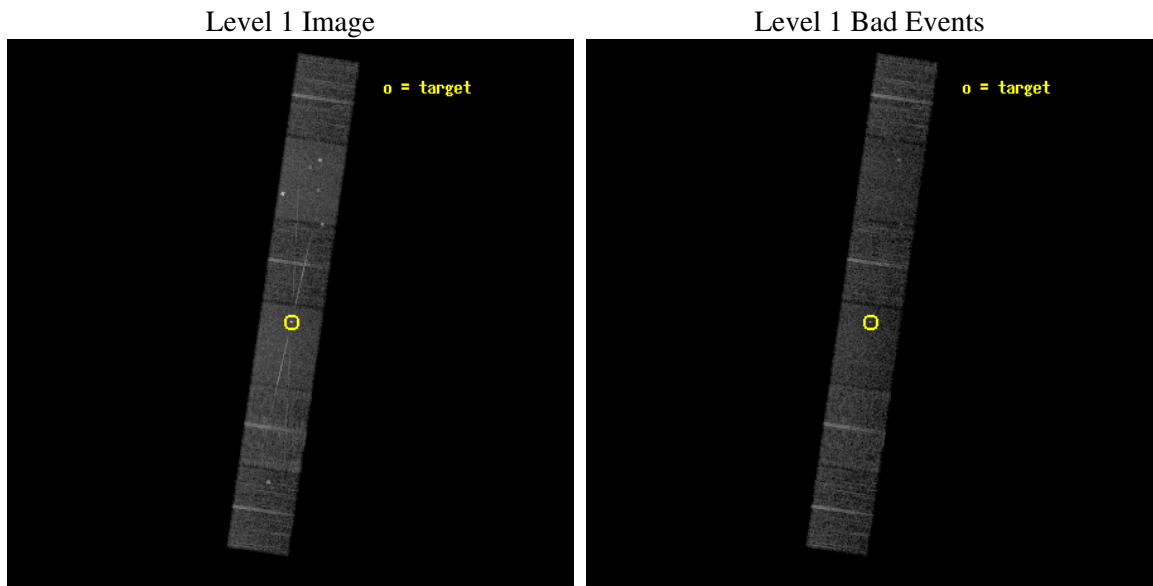
| | |
|----------|---|
| seq_num | 400211 |
| obs_id | 3401 |
| title | BLACK HOLE X-RAY TRANSIENTS DURING OUTBURST DECAY |
| observer | Dr. John Tomsick |
| object | XTE J1650-500 |
| dtcycle | 0 |
| cycle | P |
| ra_targ | 252.504167 |
| dec_targ | -49.9625 |
| ra_nom | 252.50709376182 |
| dec_nom | -49.963672571593 |
| roll_nom | 98.28616277541 |
| revision | 2 |
| ontime | 9662.5 |
| livetime | 9506.4422441205 |
| ontime4 | 9662.5 |
| ontime5 | 9662.5 |
| ontime6 | 9662.5 |
| ontime7 | 9662.5 |
| ontime8 | 9662.5 |
| ontime9 | 9662.5 |
| l2events | 81476 |



2 OBI

2.1 OBI

2.1.1 Images

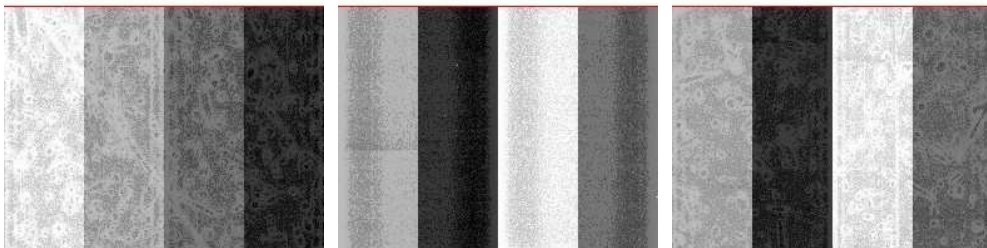


2.1.2 Bias

Chip 4

Chip 5

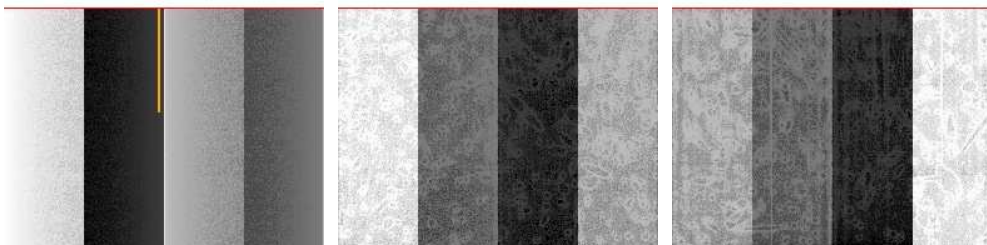
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 0 |
| ascdsver | 7.6.8.1 |
| caldsver | 3.2.3 |
| date | 2006-08-31T03:08:40 |
| revision | 2 |

| | |
|----------------|-----------------|
| sched_exp_time | 9500.000000 |
| ontime | 9665.9911398888 |
| ontime4 | 9665.9911398888 |
| ontime5 | 9665.9911398888 |
| ontime6 | 9665.9911099821 |
| ontime7 | 9665.9911398888 |
| ontime8 | 9665.9911099821 |
| ontime9 | 9665.9911099821 |
| l1events | 349714 |

2.1.4 Events

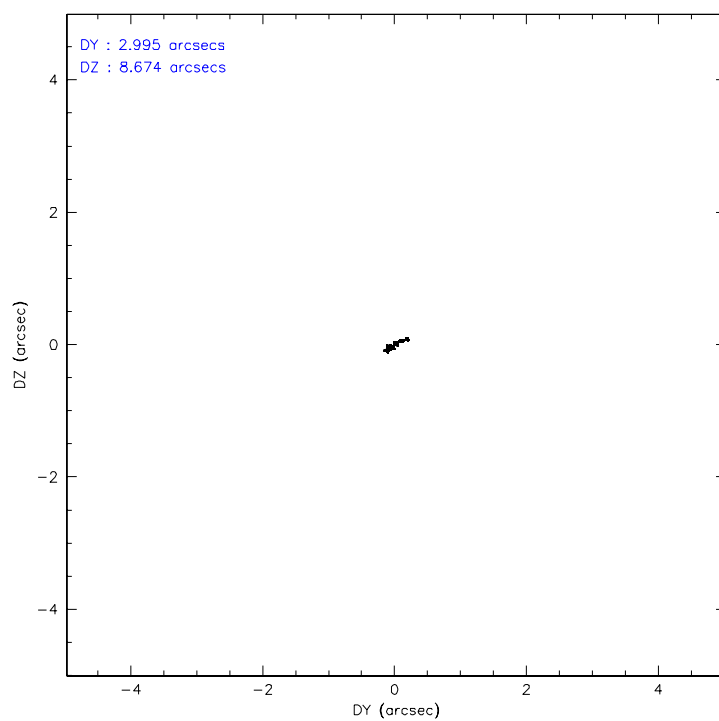
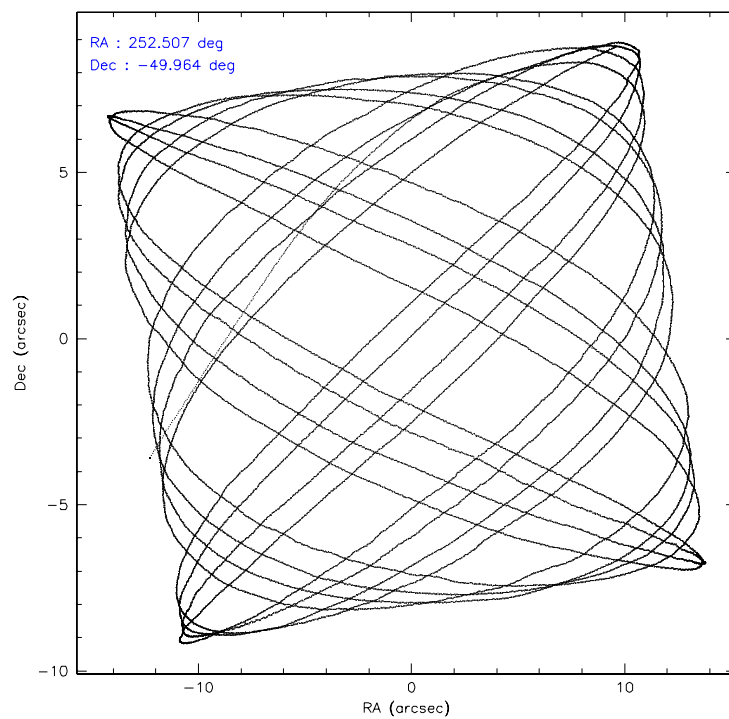
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 52630 | 69528 | 49655 | 66916 | 62735 | 48250 |
| rejected events | 46576 | 36307 | 40729 | 37365 | 48100 | 41637 |
| rejected % | 88% | 52% | 82% | 55% | 76% | 86% |

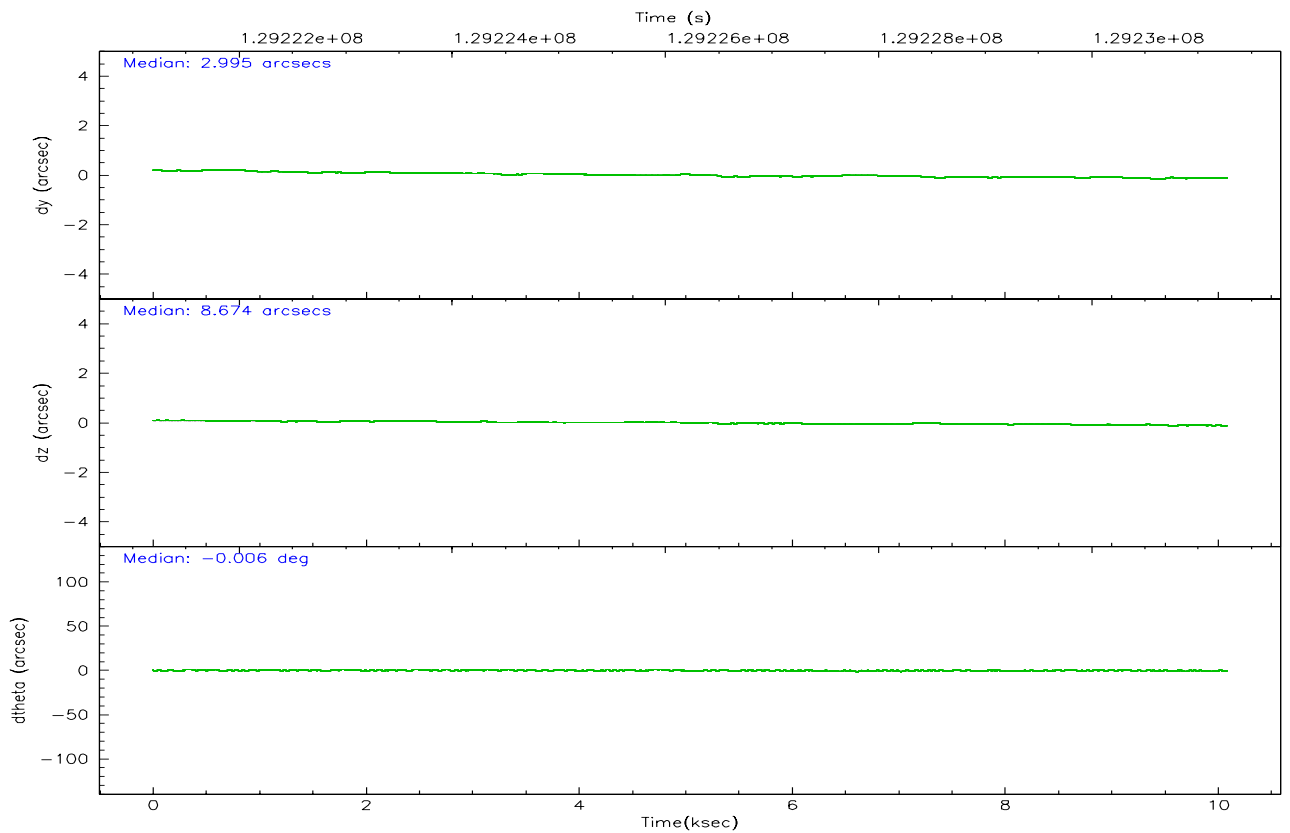
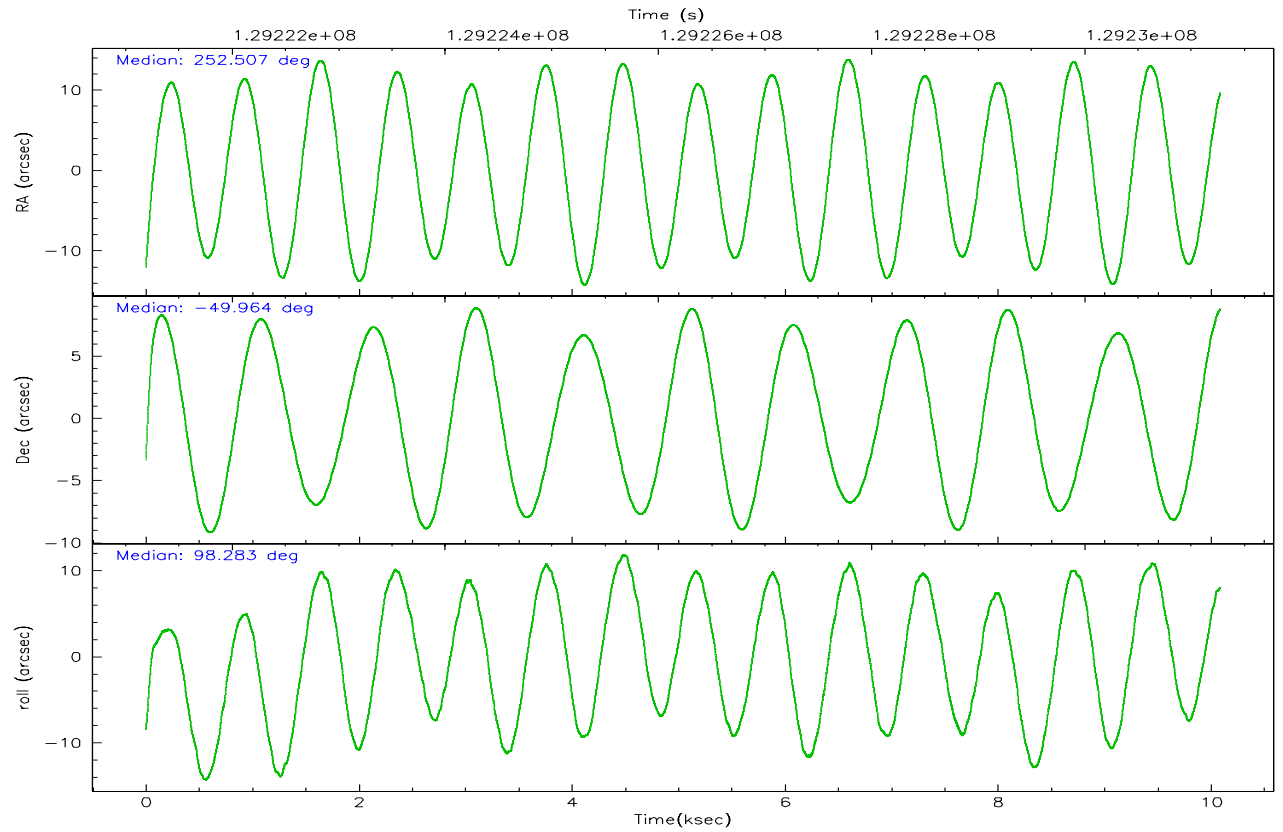
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|----------------|-------|-------|-------|-------|-------|-------|
| grade 0 events | 2497 | 5488 | 4889 | 2480 | 5044 | 3131 |
| | 4% | 7% | 9% | 3% | 8% | 6% |
| grade 1 events | 22 | 333 | 27 | 68 | 32 | 24 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 1407 | 9466 | 1547 | 7282 | 3071 | 1124 |
| | 2% | 13% | 3% | 10% | 4% | 2% |
| grade 3 events | 575 | 900 | 681 | 1987 | 1522 | 643 |
| | 1% | 1% | 1% | 2% | 2% | 1% |
| grade 4 events | 538 | 833 | 682 | 1972 | 1447 | 595 |
| | 1% | 1% | 1% | 2% | 2% | 1% |
| grade 5 events | 1680 | 3378 | 1987 | 4542 | 2461 | 2116 |
| | 3% | 4% | 4% | 6% | 3% | 4% |
| grade 6 events | 1041 | 16557 | 1132 | 15845 | 3560 | 1123 |
| | 1% | 23% | 2% | 23% | 5% | 2% |
| grade 7 events | 44870 | 32573 | 38710 | 32740 | 45598 | 39494 |
| | 85% | 46% | 77% | 48% | 72% | 81% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 6 | 6 |
| Detector | ACIS-456789 | ACIS-456789 | Obspar file type | PREDICTED | ACTUAL |
| Grating | HETG | HETG | Obspar update status | NONE | UPDATED |
| Data mode | FAINT | FAINT | On-chip summing requested | N | N |
| Observation mode | POINTING | POINTING | Subarray requested | CUSTOM | CUSTOM |
| Pointing RA | 252.533742 | 252.5070937618191 | Subarray start row | 1 | 1 |
| Pointing Dec | -49.984861 | -49.96367257159303 | Subarray row count | 774 | 774 |
| Pointing Roll | 98.149942 | 98.28616277540976 | Alternating exposures requested | N | N |
| SIM focus pos (mm) | -0.684267 | -0.6828225247311905 | Primary exposure time | 0.000000 | 2.5 |
| SIM defocus (mm) | 0 | 0.001444936568705701 | | | |
| SIM translation stage pos (mm) | -187.132523 | -187.1254020033014 | | | |
| SIM translation stage offset (mm) | -3 | -3.007120579706367 | | | |
| Observation start time | 129221776.184000 | 129220609.70718 | | | |
| Observation start date | 2002-02-04T14:55:12 | 2002-02-04T14:36:49 | | | |
| Observation end time | 129231276.184000 | 129231623.33263 | | | |
| Observation end date | 2002-02-04T17:33:32 | 2002-02-04T17:40:23 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



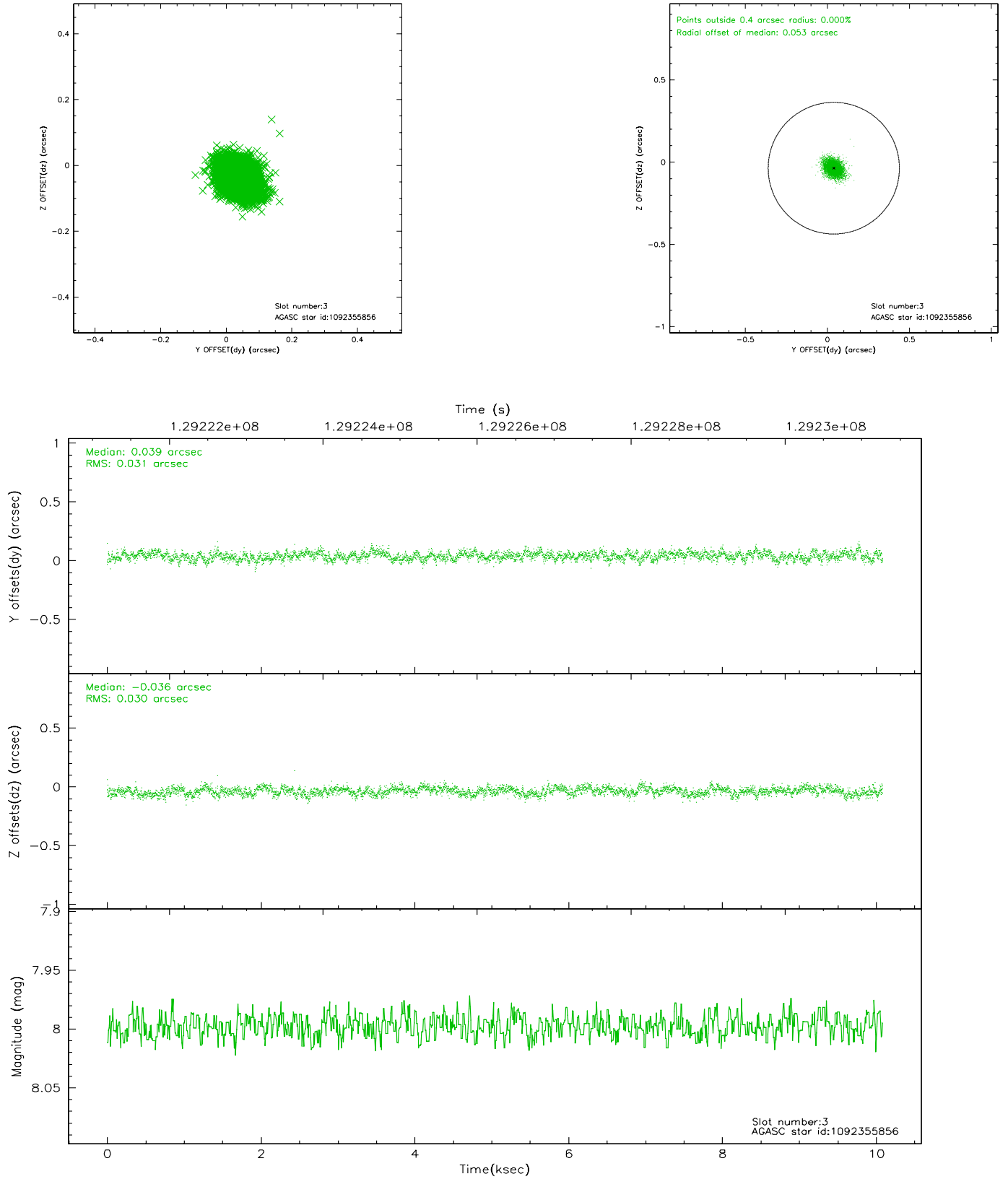


Slot Statistics

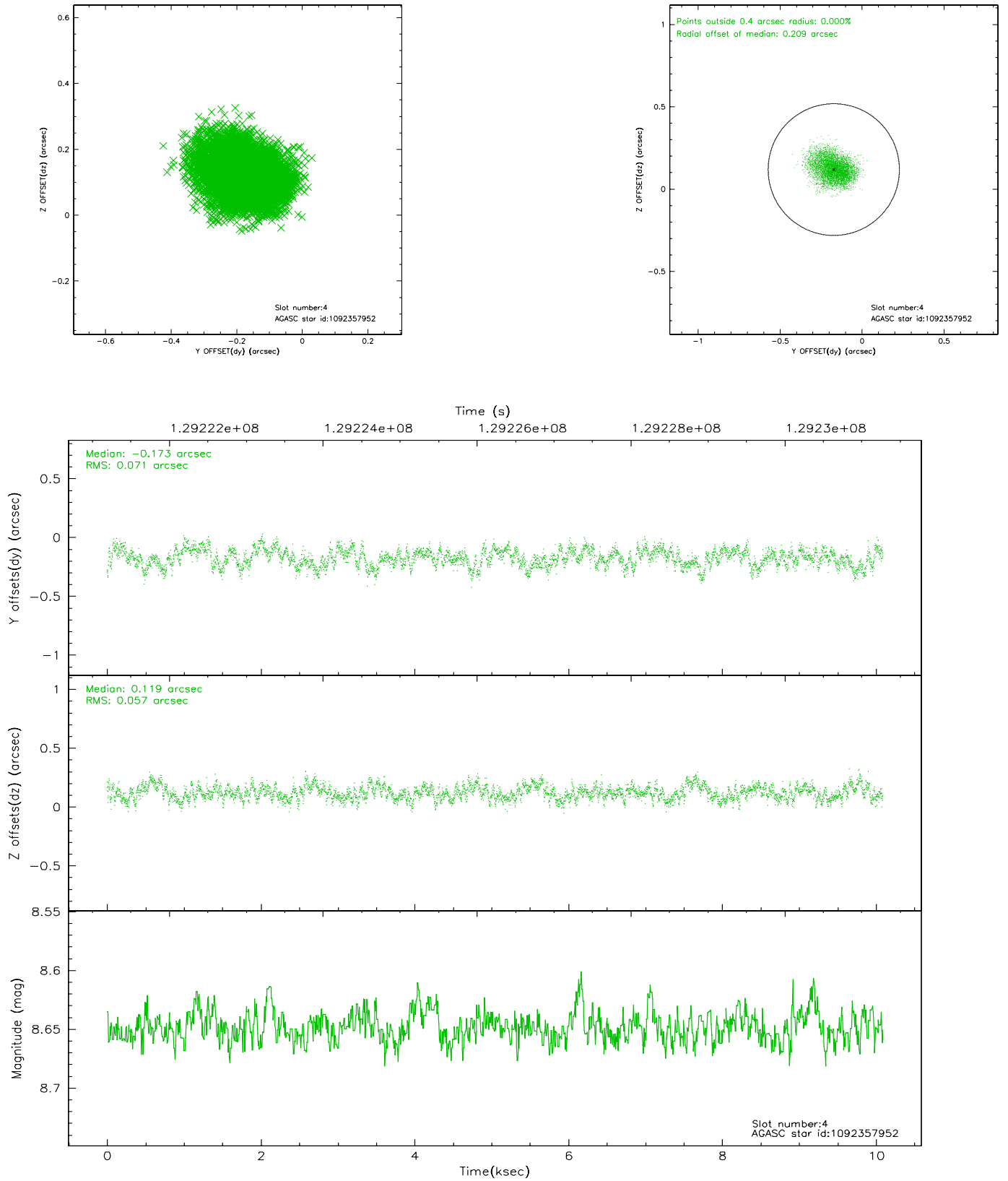
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-S-1 | 7.19 | 2460 | -0.017 | 0.015 | 0.007 | 0.013 | 0.000000 | 0.000000 | 940.58 | -1787.58 |
| 1 | FID | ACIS-S-5 | 7.24 | 2458 | 0.032 | 0.006 | 0.008 | 0.013 | 0.000000 | 0.000000 | -1808.07 | 109.39 |
| 2 | FID | ACIS-S-6 | 7.37 | 2460 | -0.036 | -0.009 | 0.007 | 0.010 | 0.000000 | 0.000000 | 405.55 | 753.94 |
| 3 | GUIDE | 1092355856 | 8.00 | 4920 | 0.039 | -0.036 | 0.046 | 0.075 | 252.380362 | -50.402230 | -1437.92 | 561.06 |
| 4 | GUIDE | 1092357952 | 8.65 | 4919 | -0.173 | 0.119 | 0.098 | 0.156 | 252.624295 | -49.307047 | 2384.66 | -556.24 |
| 5 | GUIDE | 1092356392 | 8.24 | 4916 | -0.216 | -0.192 | 0.061 | 0.094 | 252.320454 | -49.578691 | 1517.47 | 285.14 |
| 6 | GUIDE | 1092487776 | 8.58 | 4920 | 0.073 | 0.176 | 0.080 | 0.130 | 253.418062 | -50.236939 | -1198.57 | -1885.42 |
| 7 | GUIDE | 1092359864 | 8.90 | 4916 | 0.281 | -0.068 | 0.061 | 0.101 | 252.576059 | -50.620094 | -2277.56 | 227.67 |

2.4 Star Slots

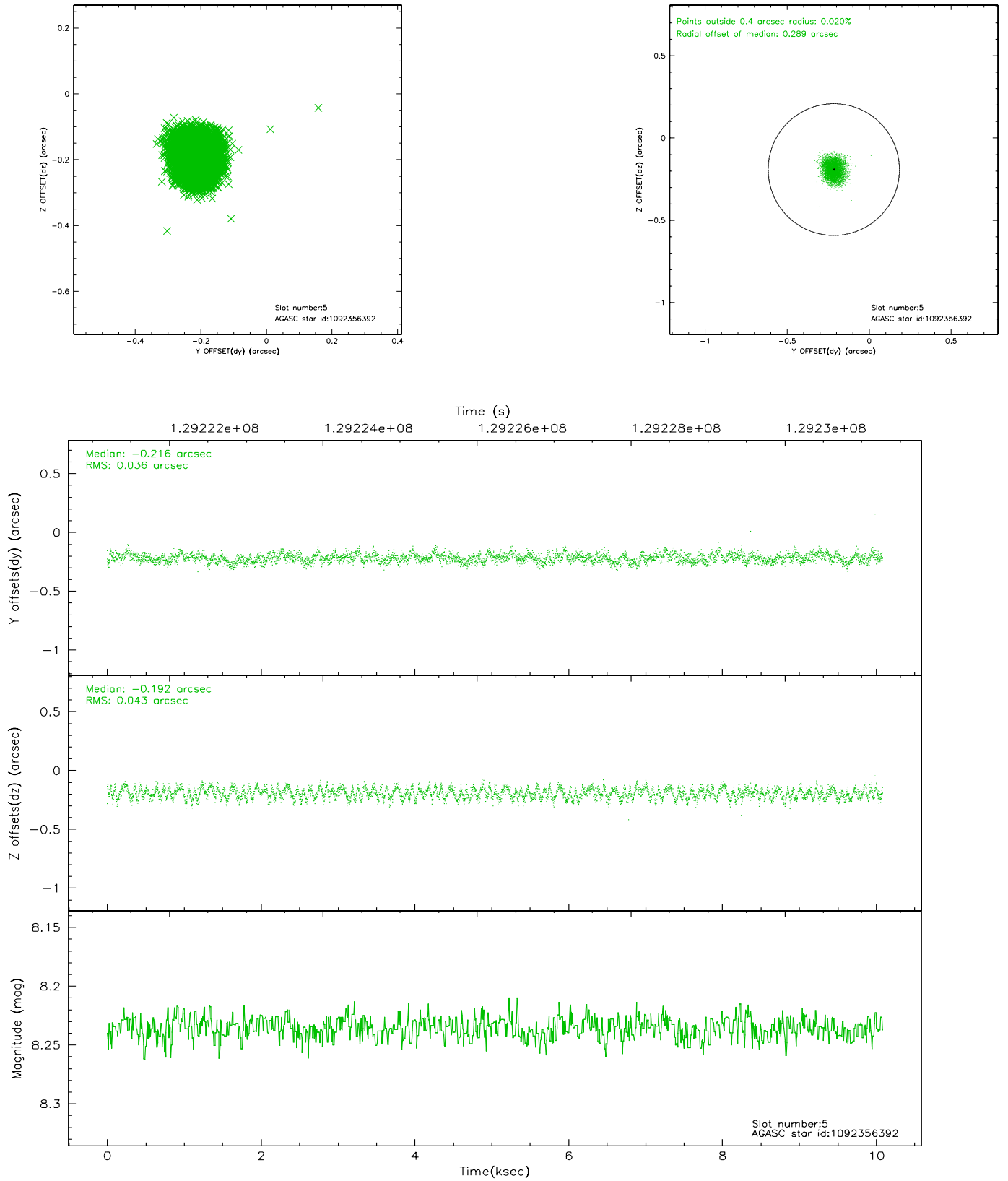
2.4.1 Slot 3



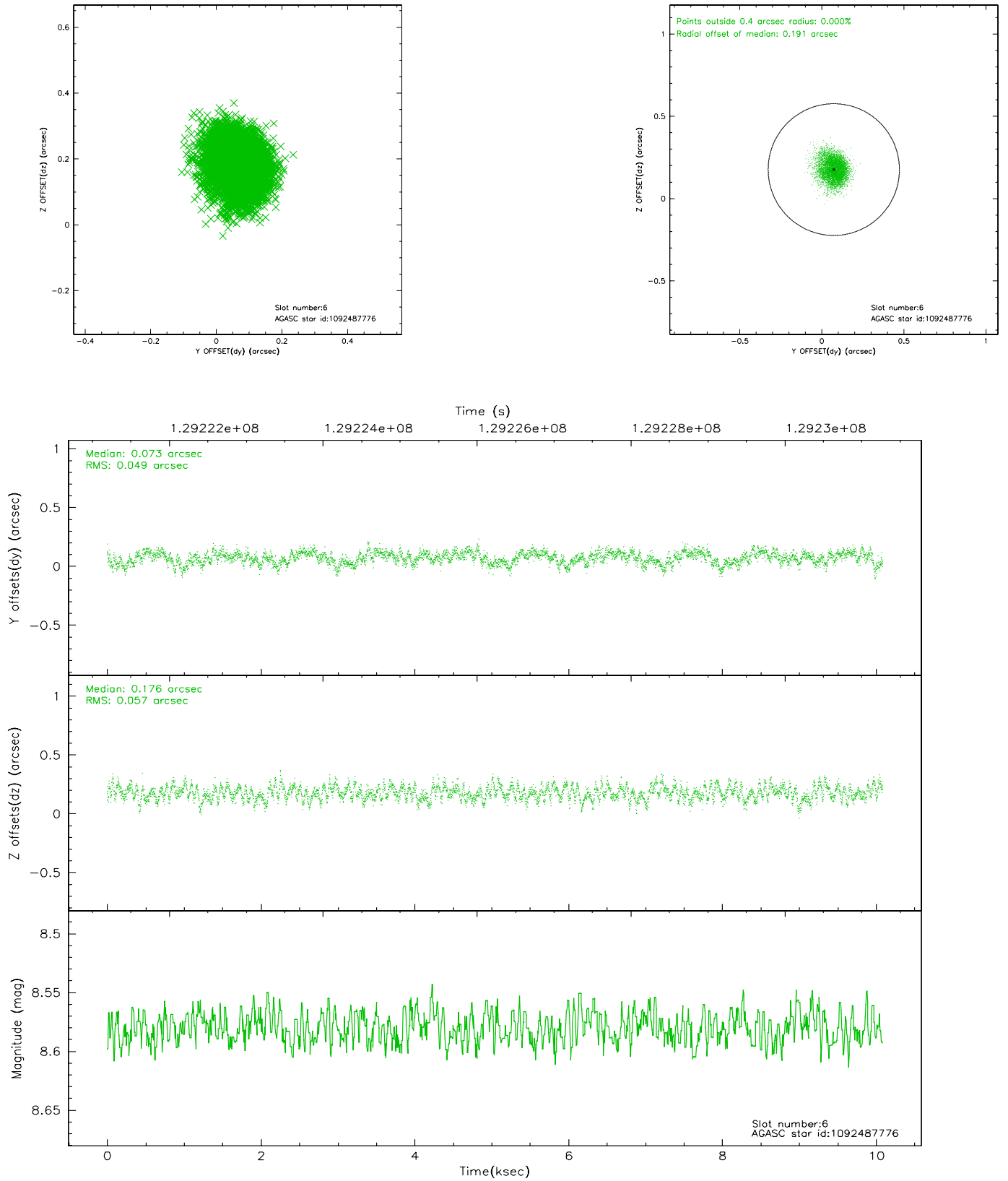
2.4.2 Slot 4



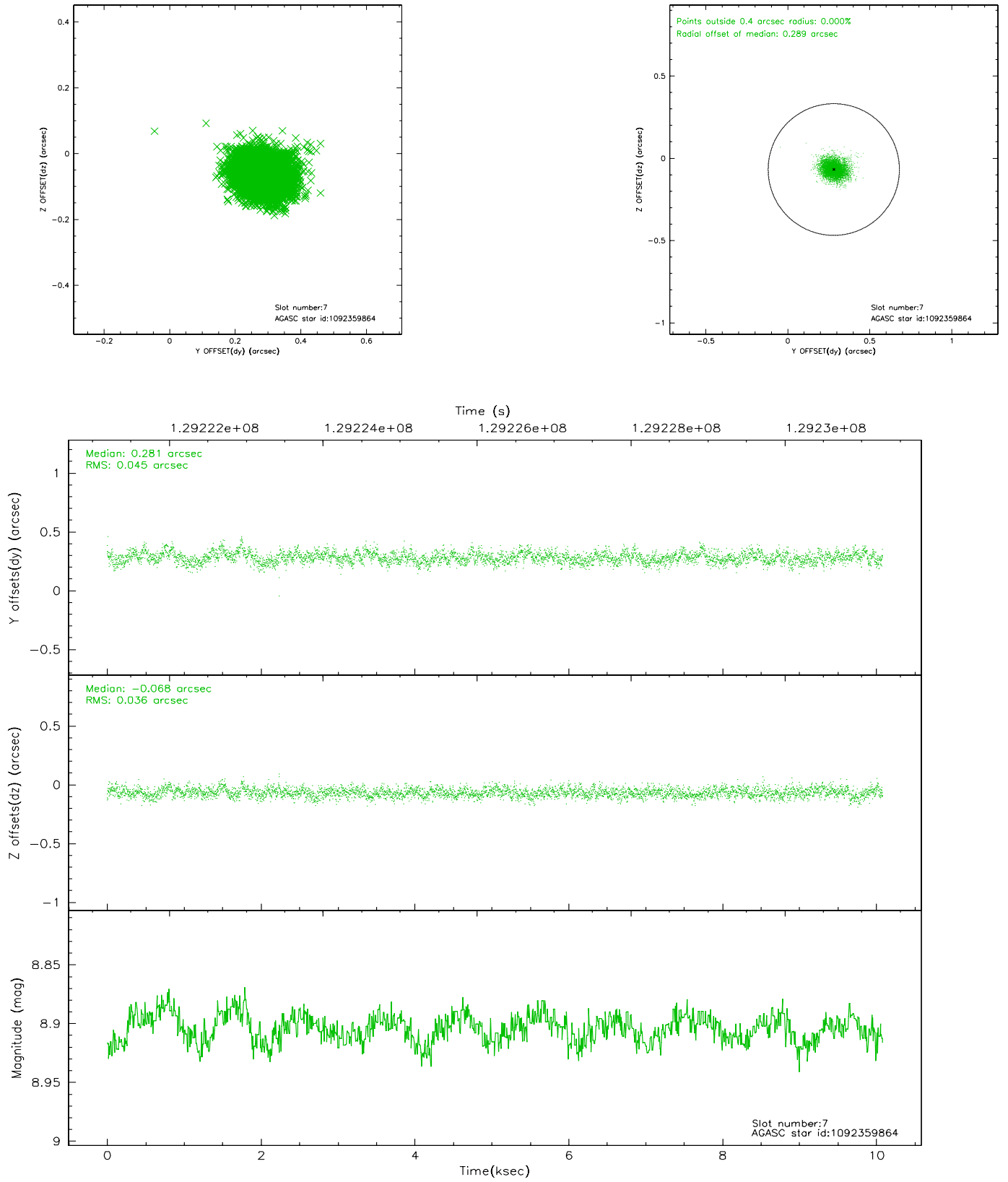
2.4.3 Slot 5



2.4.4 Slot 6

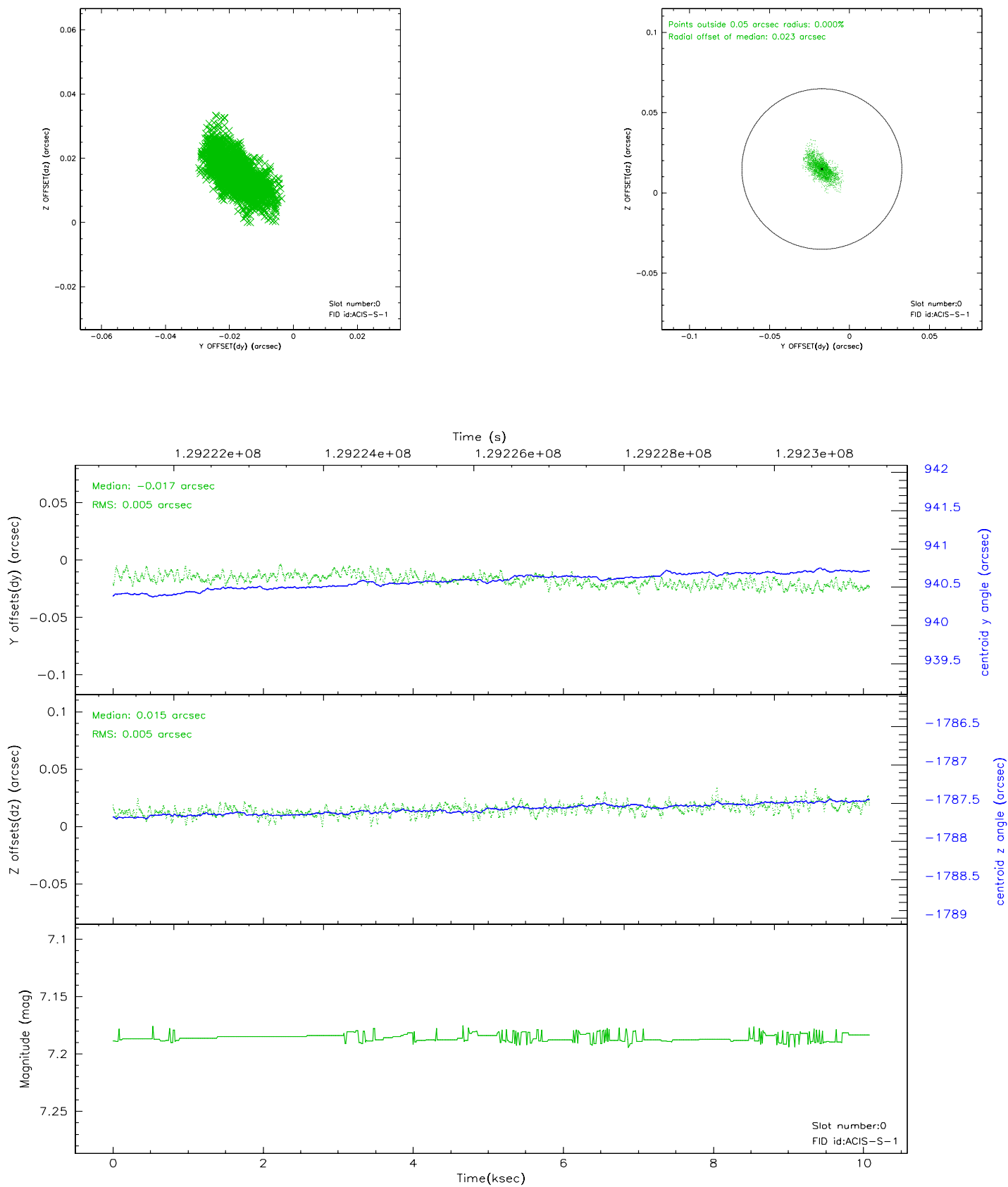


2.4.5 Slot 7

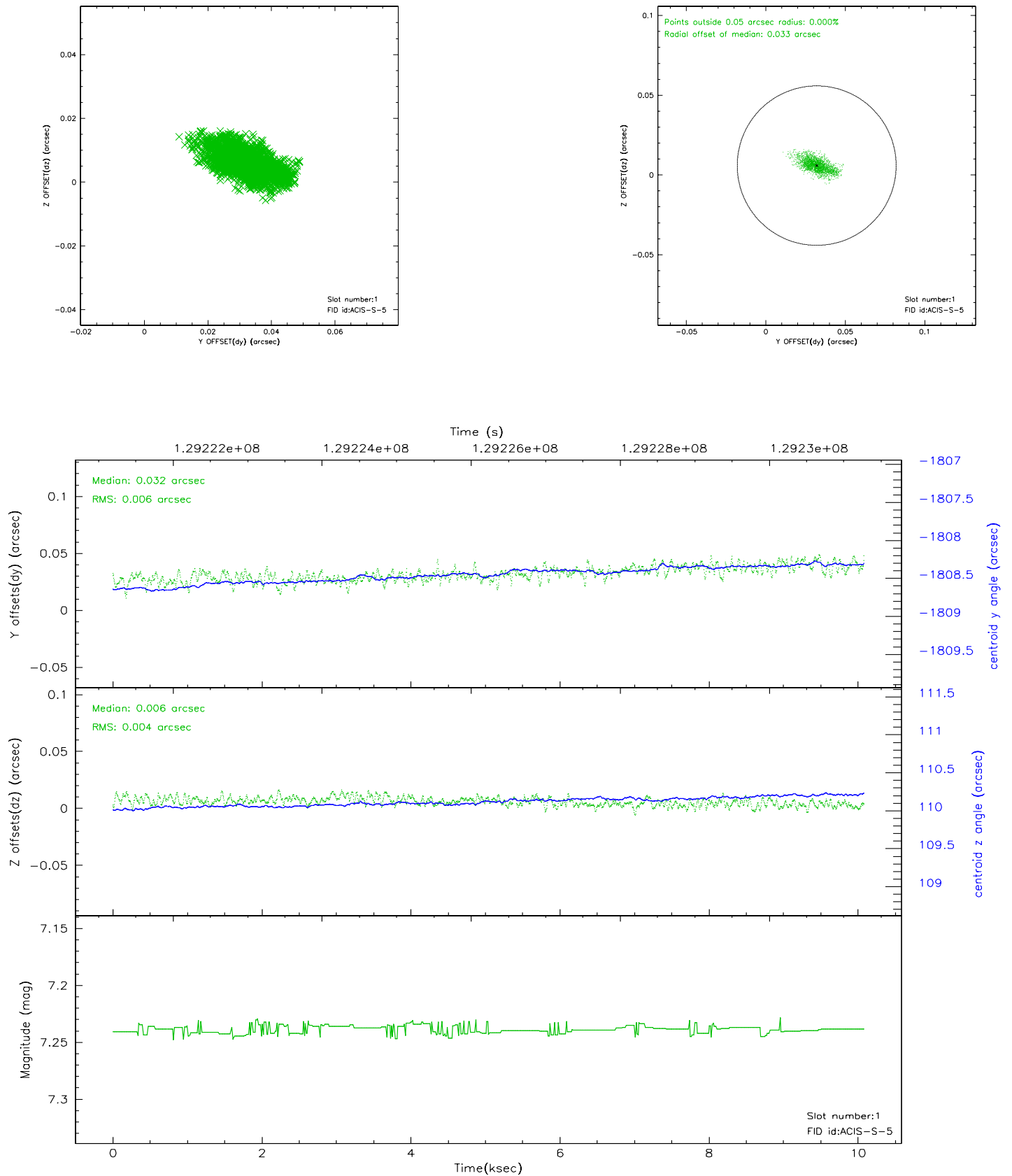


2.5 FID Slots

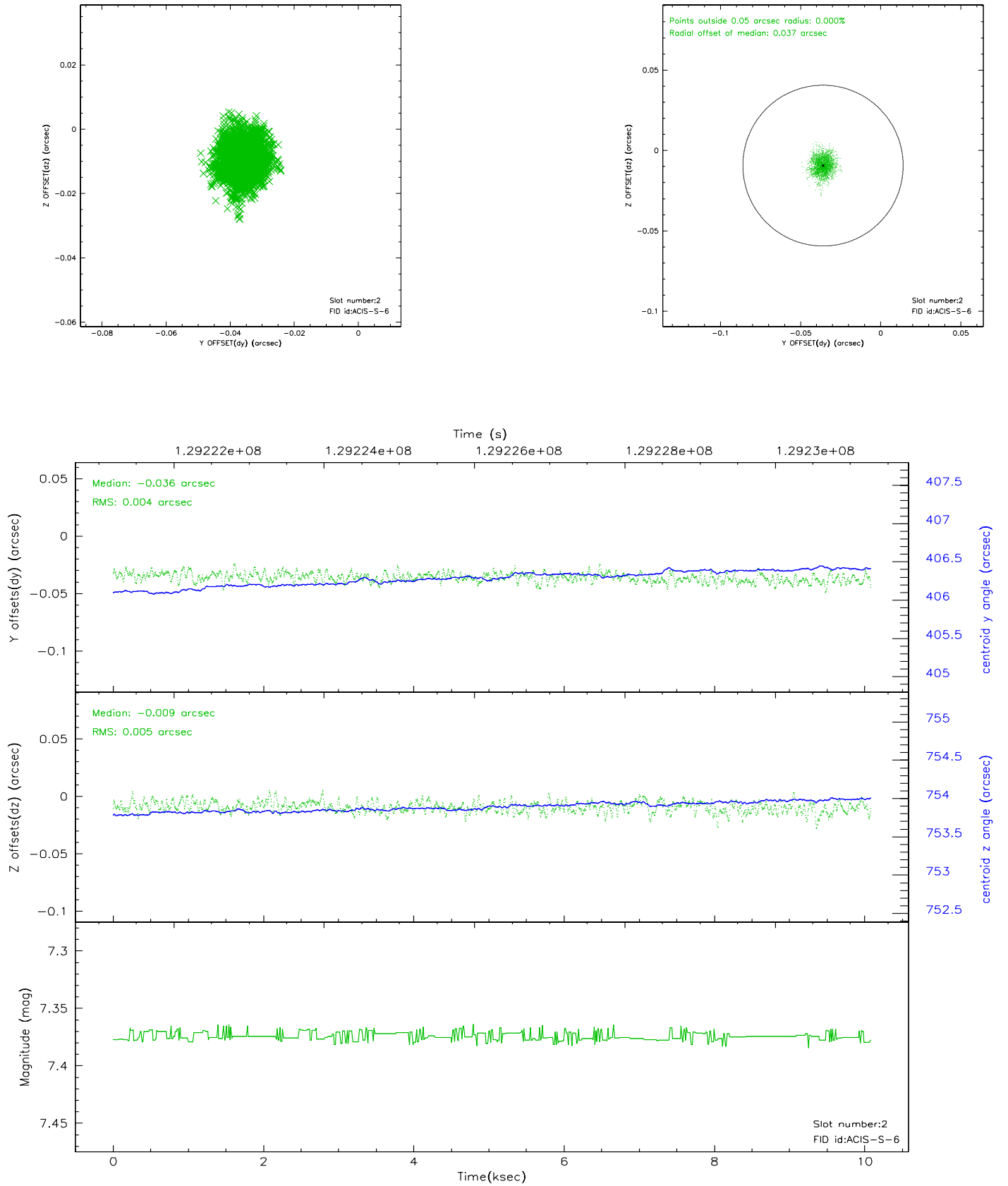
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

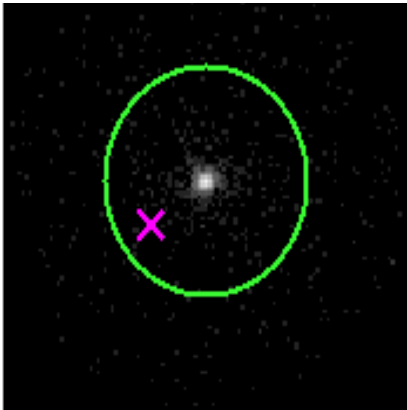


3 Gratings

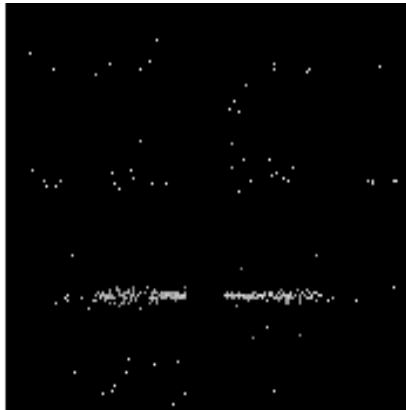
3.1 HEG Arm



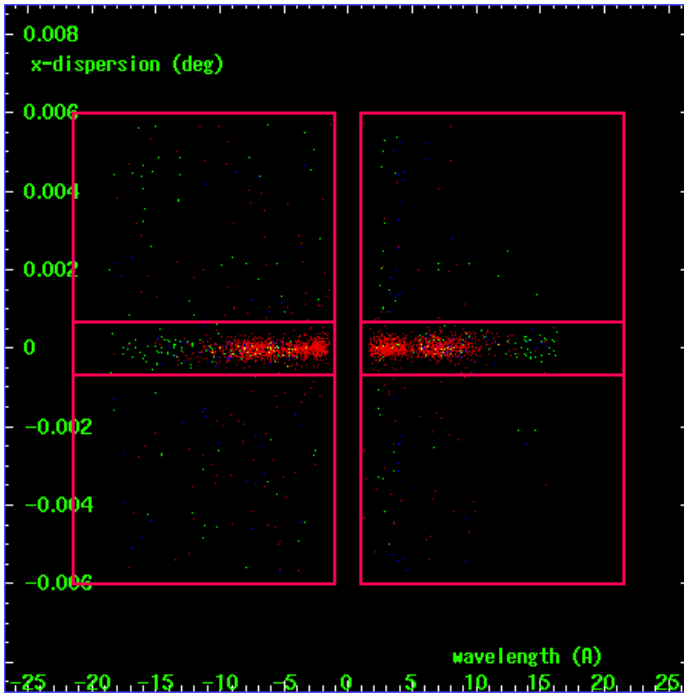
HEG Order Sort 123



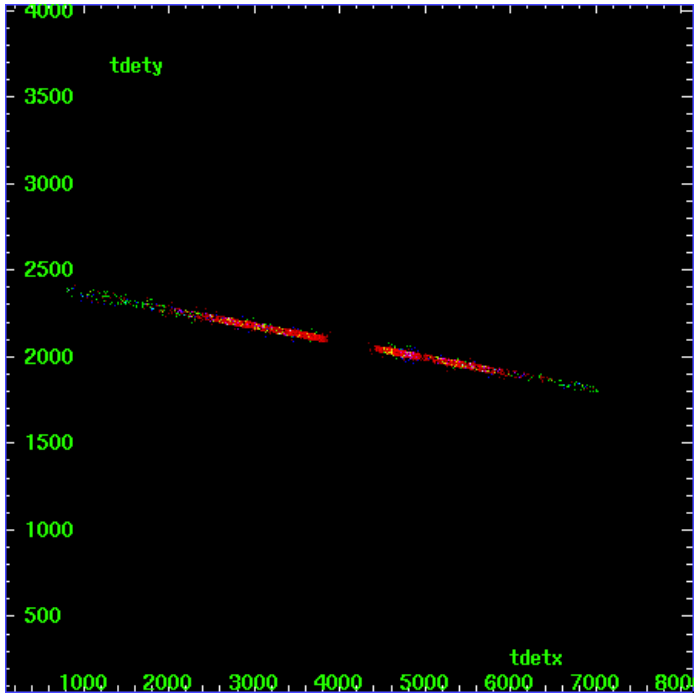
HEG Zero Order



HEG Order Sort ALL

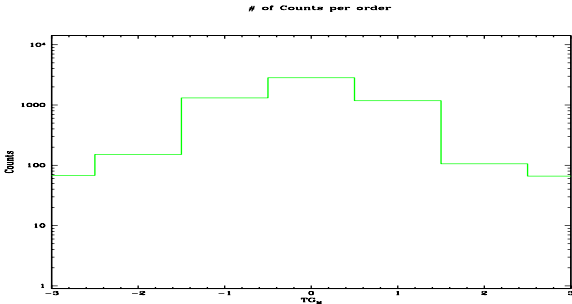


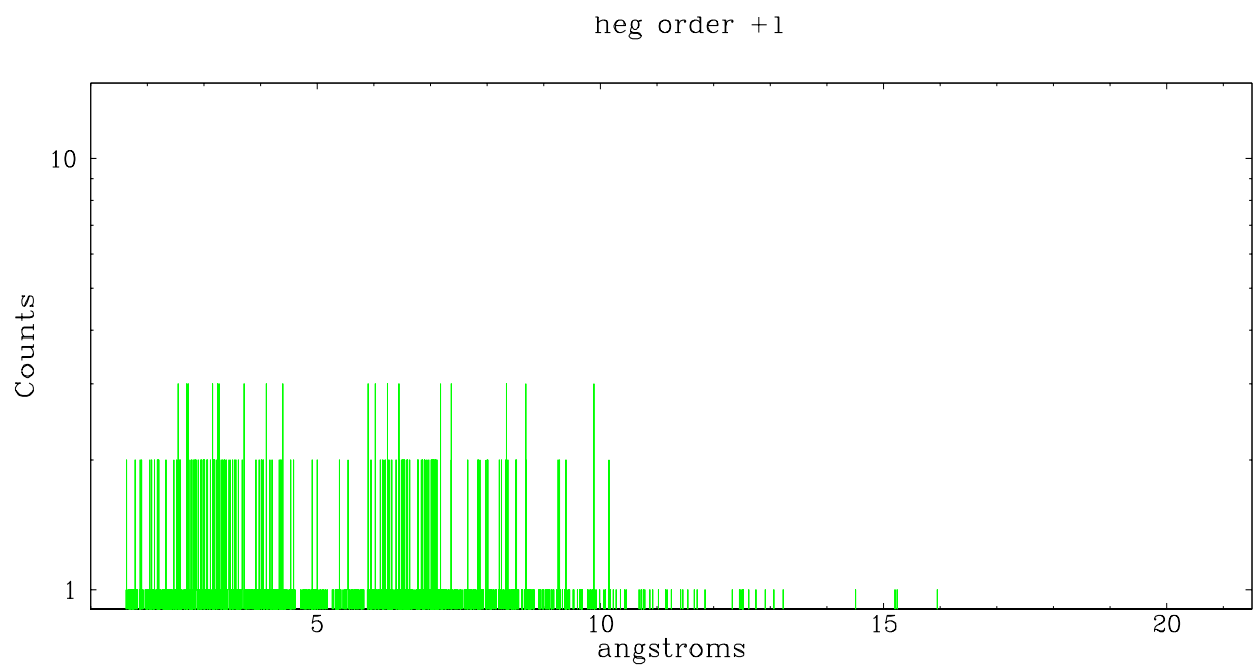
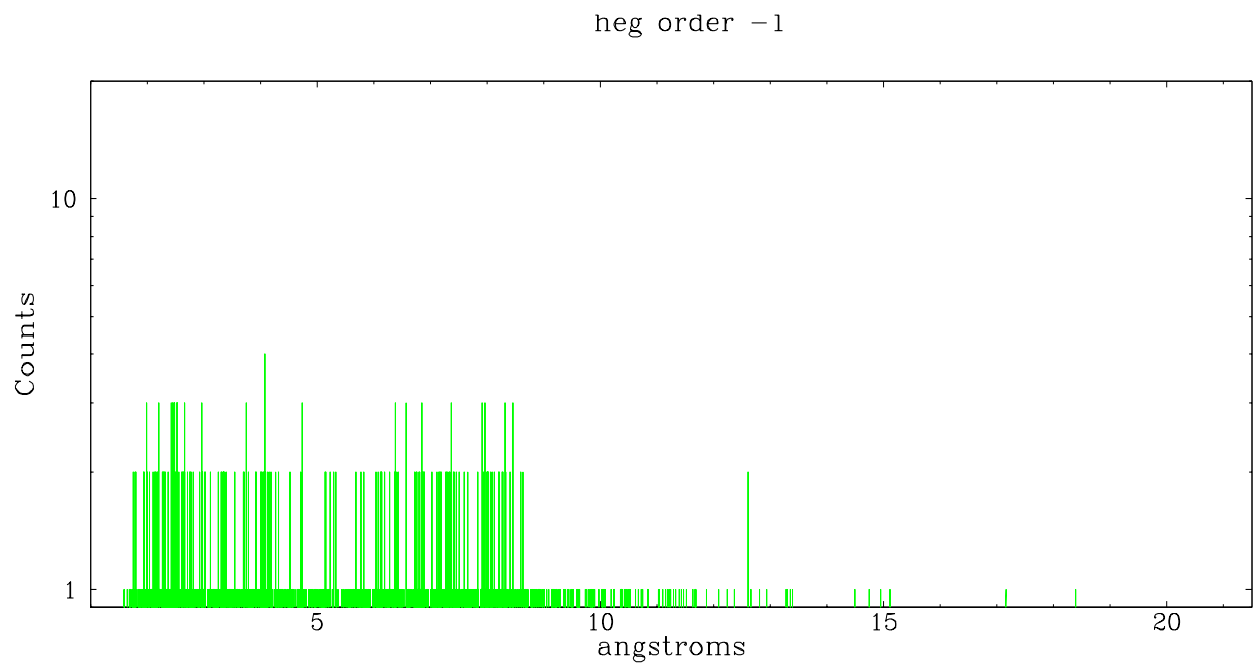
Spot Image HEG



Full Detector HEG

| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|-------------|-------------|-------------|------------|------------|------------|------------|
| Events | 68 | 151 | 1310 | 2821 | 1176 | 106 | 66 |

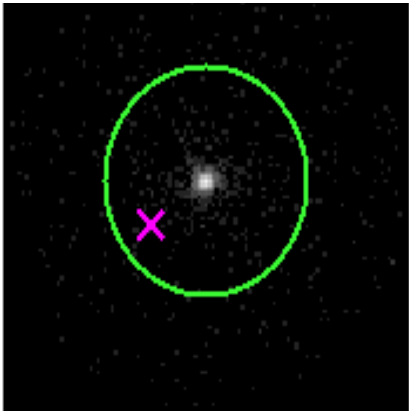




3.2 MEG Arm



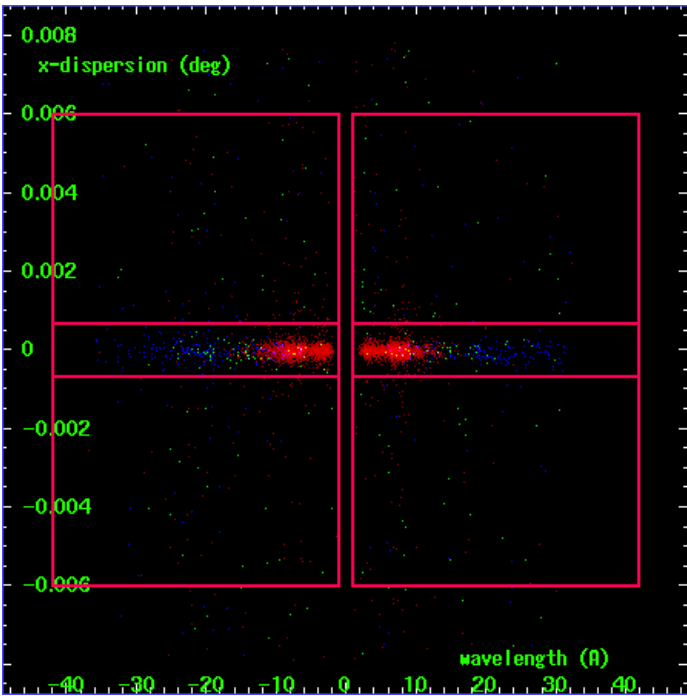
MEG Order Sort 123



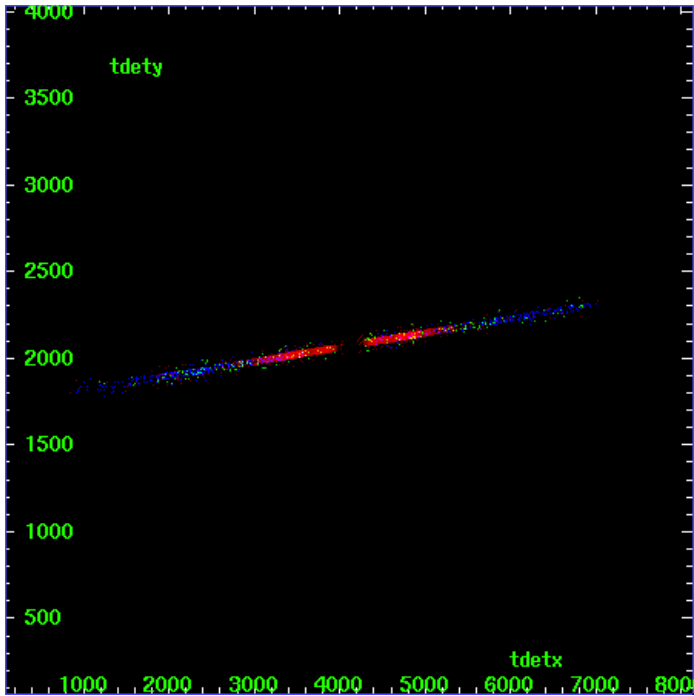
MEG Zero Order



MEG Order Sort ALL

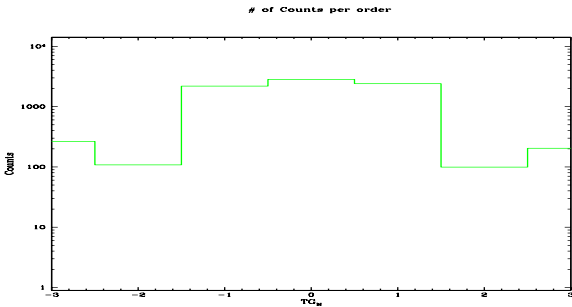


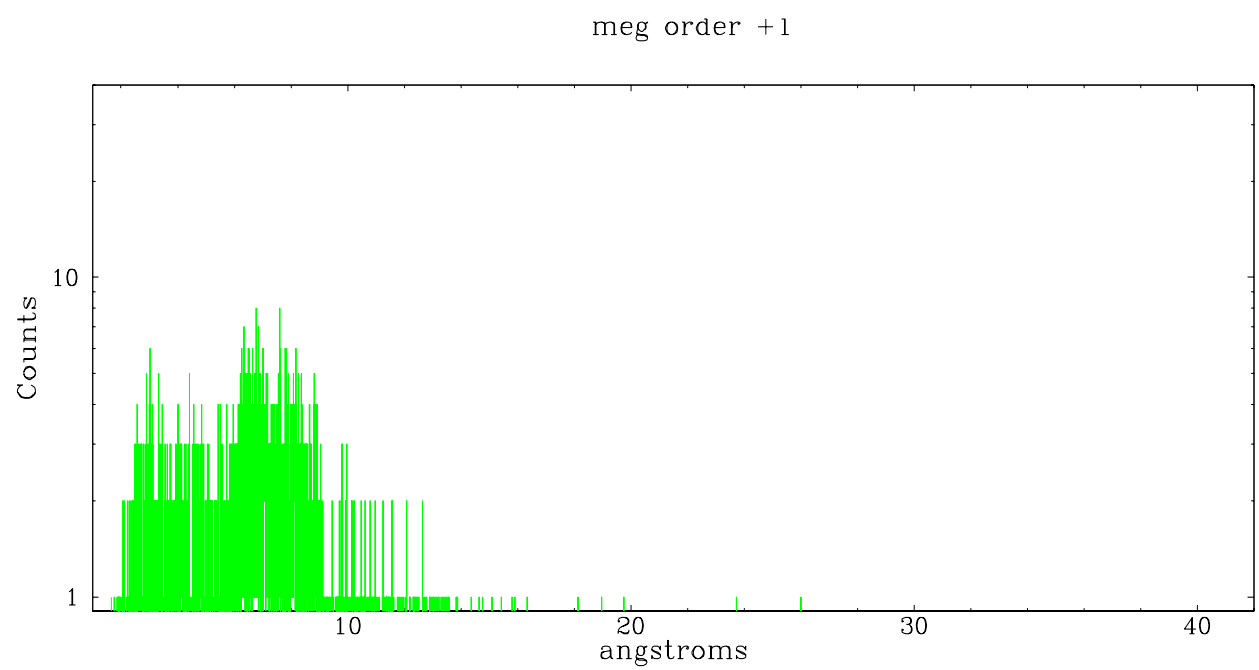
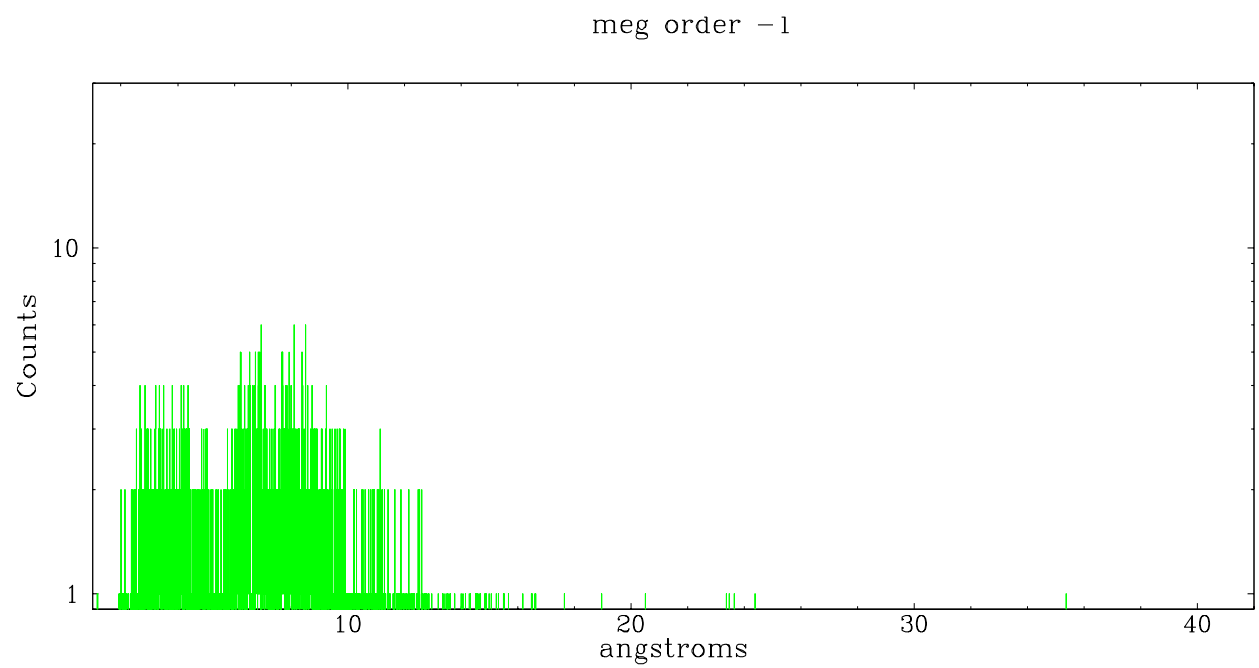
Spot Image MEG



Full Detector MEG

| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|-------------|-------------|-------------|------------|------------|------------|------------|
| Events | 266 | 108 | 2191 | 2821 | 2406 | 99 | 204 |





A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2006.08.31 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 9.665 |

A.2 Comments

Monitor constraint not met: follows obs3400 by 11 days