

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 3721 - L2 Version 001
Chandra X-Ray Center

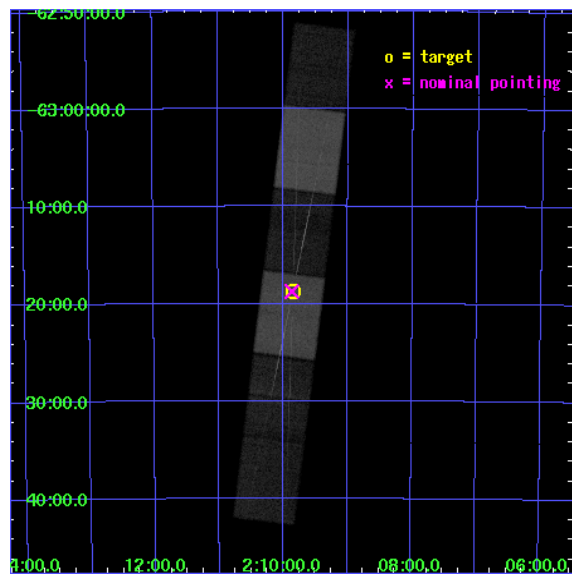
L2 Processing Date : Sep 26 2006

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1 Front

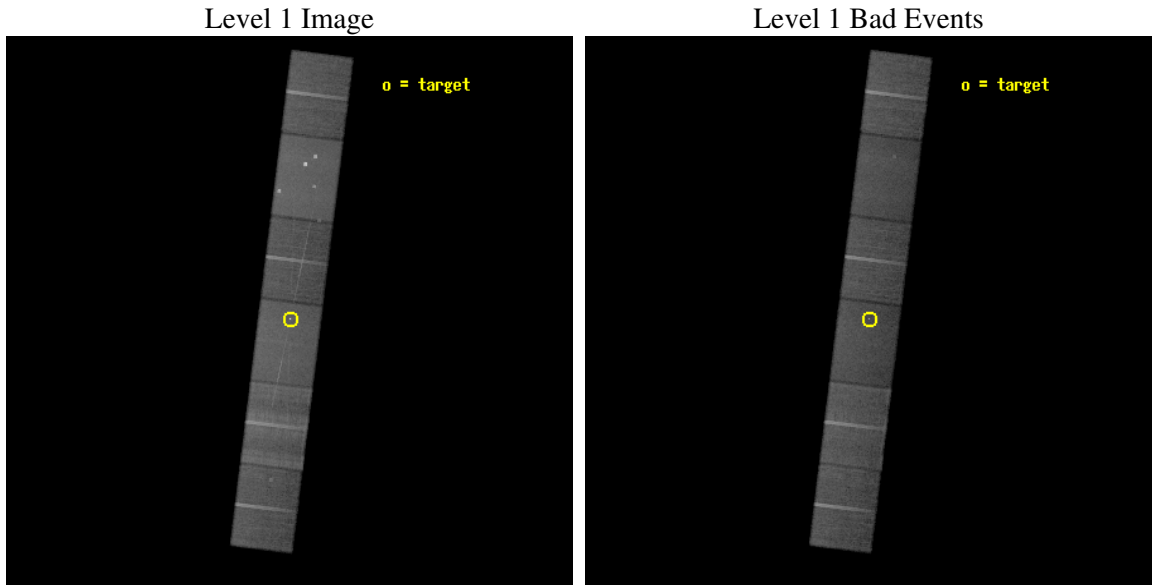
| | |
|----------|--|
| seq_num | 300071 |
| obs_id | 3721 |
| title | BOUNDARY LAYERS AND HOT FLOWS IN QUIESCENT DWARF NOVAE |
| observer | DR. JOHN RAYMOND |
| object | WX HYI |
| dtcycle | 0 |
| cycle | P |
| ra_targ | 32.461667 |
| dec_targ | -63.311194 |
| ra_nom | 32.465792134414 |
| dec_nom | -63.312437905489 |
| roll_nom | 97.109059261571 |
| revision | 3 |
| ontime | 49160.0 |
| livetime | 48366.023360514 |
| ontime4 | 49154.918019652 |
| ontime5 | 49160.0 |
| ontime6 | 49160.0 |
| ontime7 | 49160.0 |
| ontime8 | 49154.918009639 |
| ontime9 | 49160.0 |
| l2events | 399791 |



2 OBI

2.1 OBI

2.1.1 Images

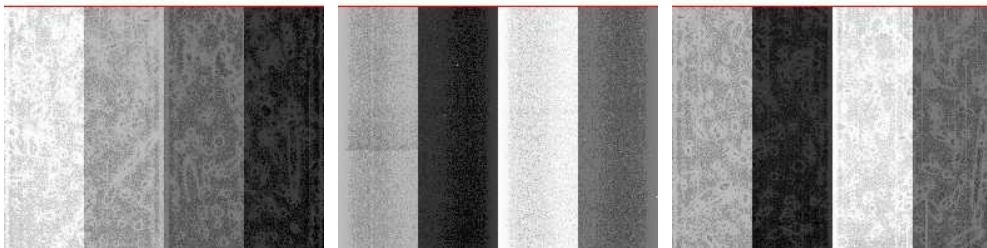


2.1.2 Bias

Chip 4

Chip 5

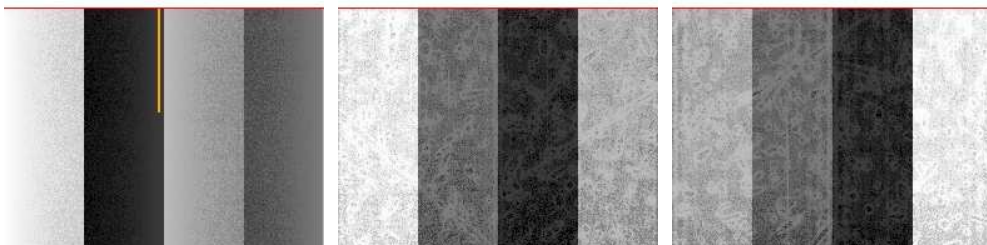
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 0 |
| ascdsver | 7.6.9 |
| caldsver | 3.2.3 |
| date | 2006-09-26T15:36:02 |
| revision | 3 |

| | |
|----------------|-----------------|
| sched_exp_time | 49000.000000 |
| ontime | 49806.334497988 |
| ontime4 | 49801.252487749 |
| ontime5 | 49808.8755081 |
| ontime6 | 49808.8755081 |
| ontime7 | 49806.334497988 |
| ontime8 | 49803.793517739 |
| ontime9 | 49808.8755081 |
| l1events | 1814603 |

2.1.4 Events

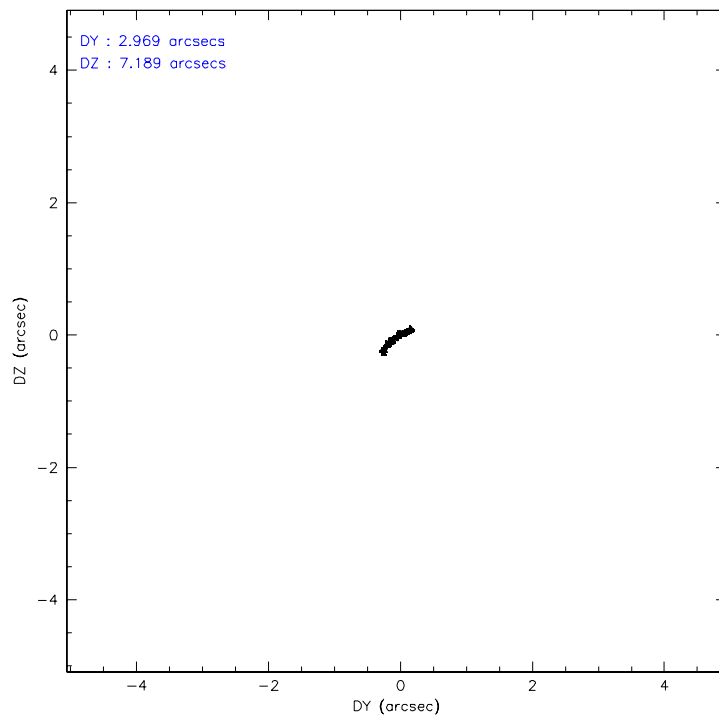
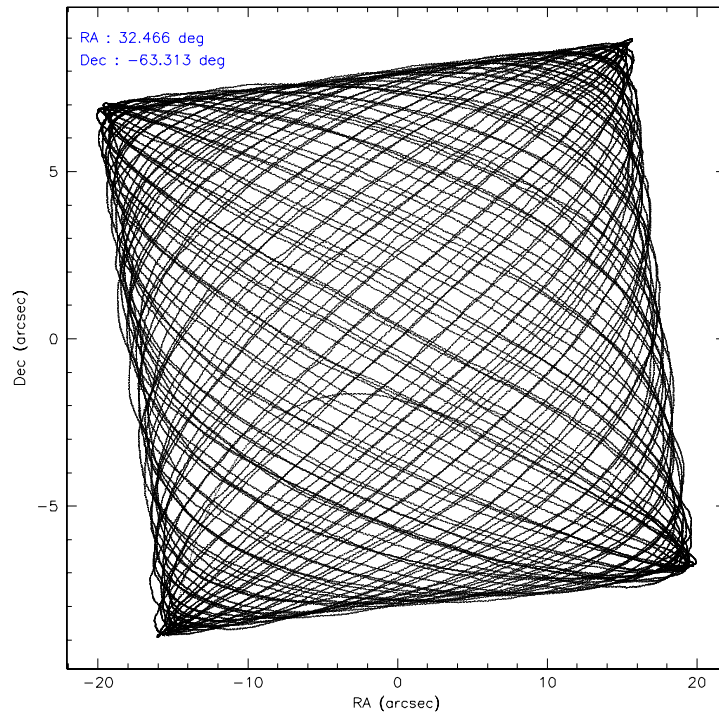
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 272813 | 362030 | 251276 | 324331 | 356879 | 247274 |
| rejected events | 237192 | 191144 | 214925 | 188651 | 253254 | 213608 |
| rejected % | 86% | 52% | 85% | 58% | 70% | 86% |

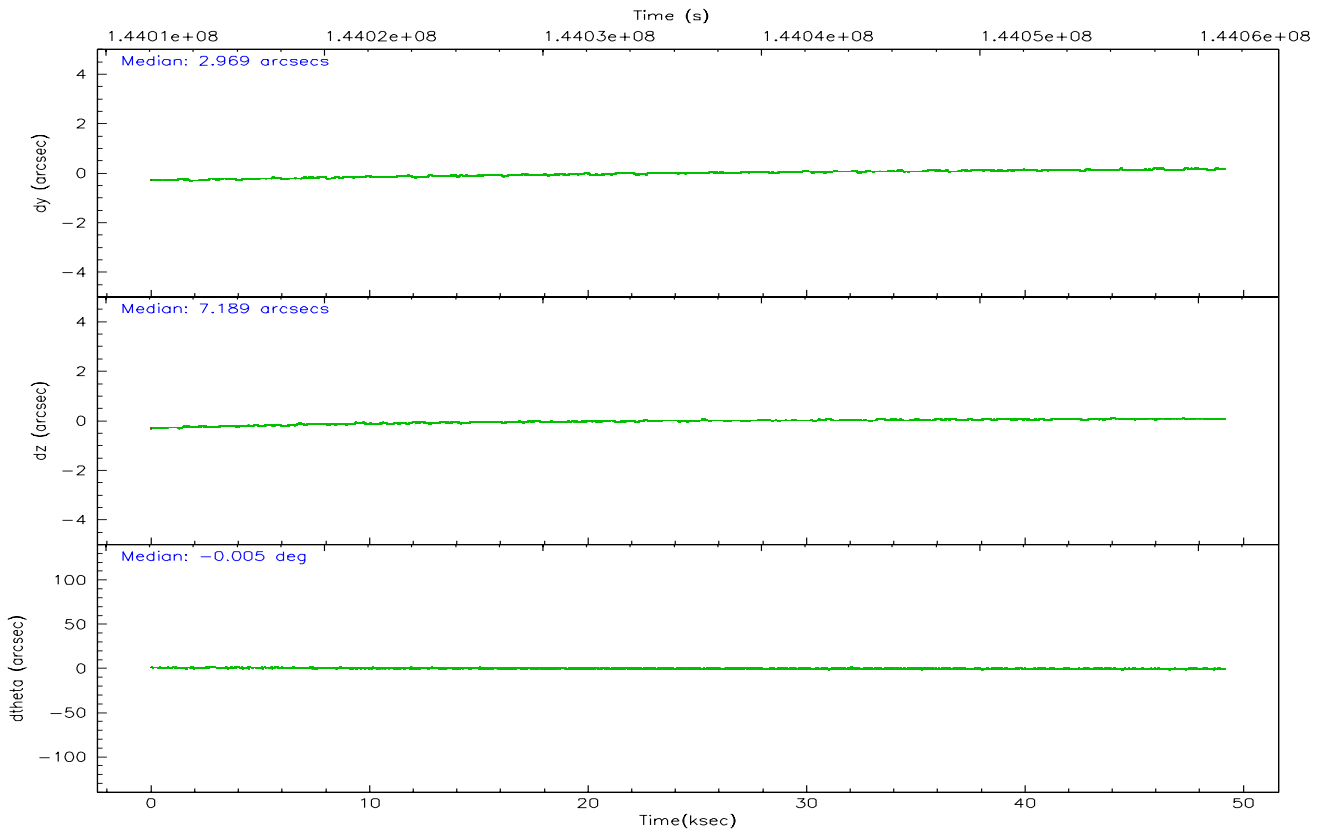
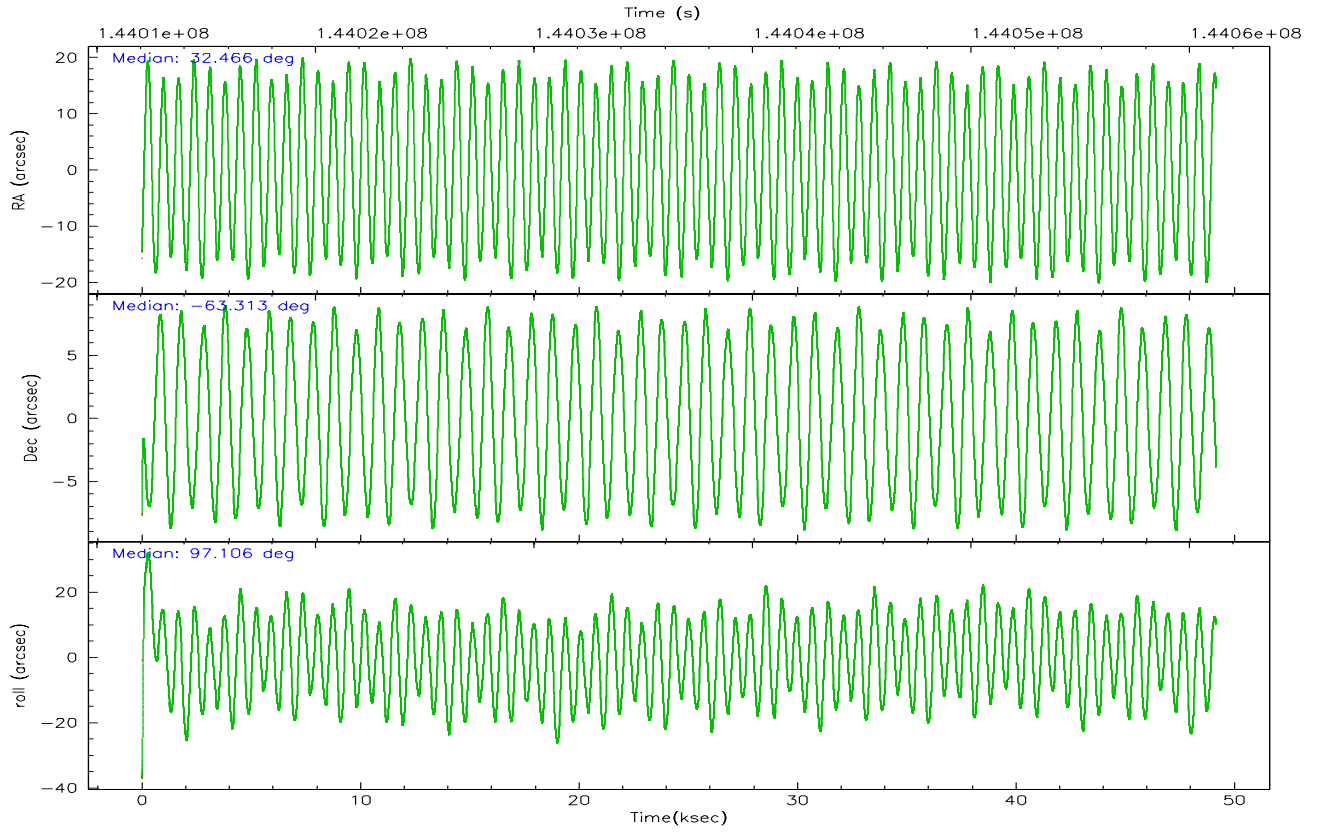
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|----------------|--------|--------|--------|--------|--------|--------|
| grade 0 events | 14987 | 29285 | 16539 | 10040 | 31708 | 14502 |
| | 5% | 8% | 6% | 3% | 8% | 5% |
| grade 1 events | 138 | 728 | 112 | 252 | 242 | 127 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 9025 | 47946 | 7368 | 33793 | 19913 | 6807 |
| | 3% | 13% | 2% | 10% | 5% | 2% |
| grade 3 events | 3108 | 4443 | 3358 | 8907 | 13584 | 3205 |
| | 1% | 1% | 1% | 2% | 3% | 1% |
| grade 4 events | 3031 | 4162 | 3157 | 8439 | 12193 | 3041 |
| | 1% | 1% | 1% | 2% | 3% | 1% |
| grade 5 events | 8694 | 17203 | 10191 | 22786 | 13737 | 10385 |
| | 3% | 4% | 4% | 7% | 3% | 4% |
| grade 6 events | 5975 | 87545 | 6375 | 76205 | 27828 | 6605 |
| | 2% | 24% | 2% | 23% | 7% | 2% |
| grade 7 events | 227855 | 170718 | 204176 | 163909 | 237674 | 202602 |
| | 83% | 47% | 81% | 50% | 66% | 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 | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| Pointing RA | 32.503016 | 32.46579213441429 | Subarray requested | CUSTOM | CUSTOM |
| Pointing Dec | -63.333933 | -63.31243790548915 | Subarray start row | 1 | 1 |
| Pointing Roll | 96.985703 | 97.10905926157102 | Subarray row count | 774 | 774 |
| SIM focus pos (mm) | -0.684267 | -0.6828225247311905 | Alternating exposures requested | N | N |
| SIM defocus (mm) | 0 | 0.001444936568705701 | Primary exposure time | 0.000000 | 2.5 |
| SIM translation stage pos (mm) | -187.132523 | -187.1228876879999 | | | |
| SIM translation stage offset (mm) | -3 | -3.009634895007935 | | | |
| Observation start time | 144012234.184000 | 144010951.84693 | | | |
| Observation start date | 2002-07-25T19:22:50 | 2002-07-25T19:02:31 | | | |
| Observation end time | 144061234.184000 | 144061794.41152 | | | |
| Observation end date | 2002-07-26T08:59:30 | 2002-07-26T09:09:54 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



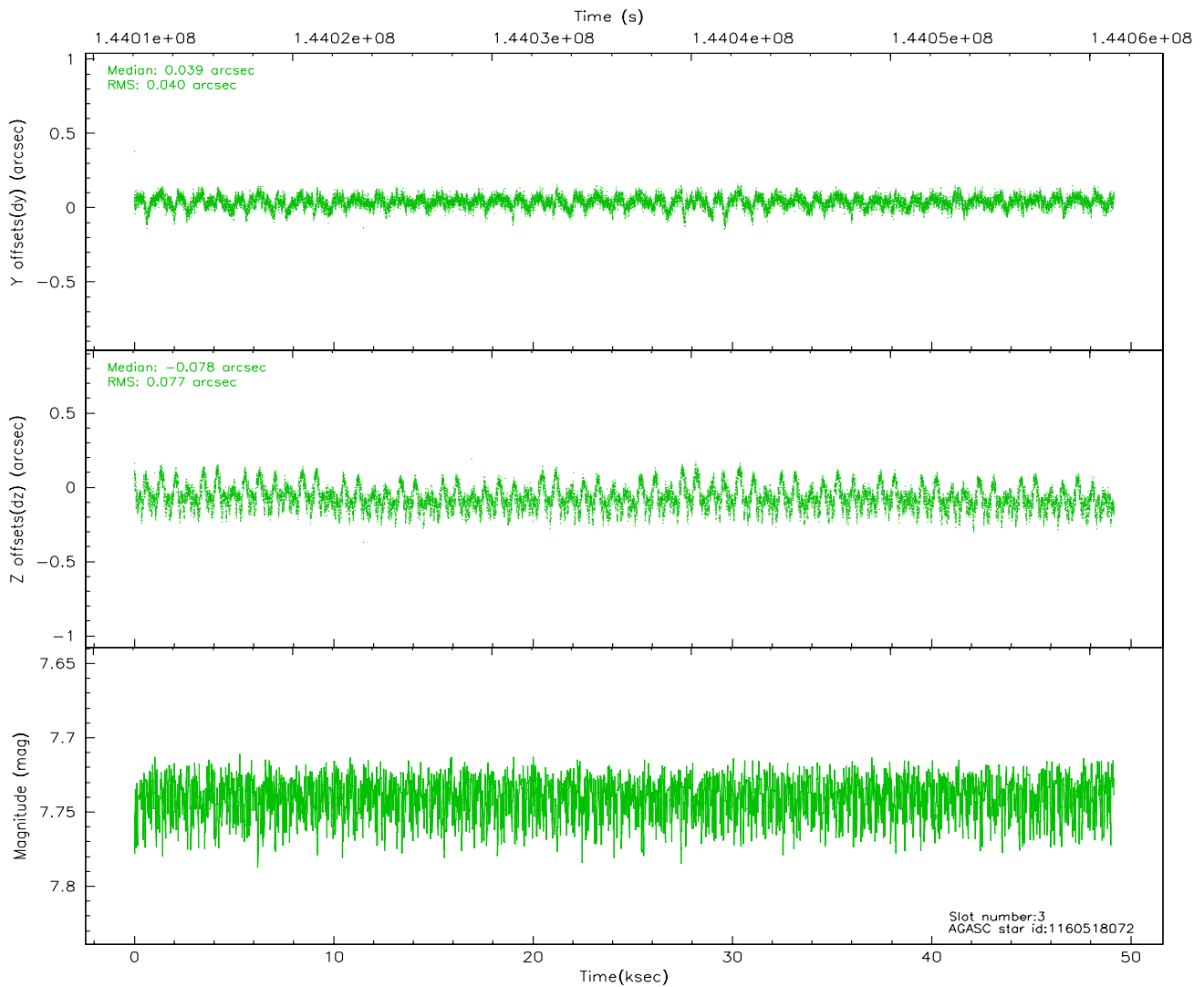
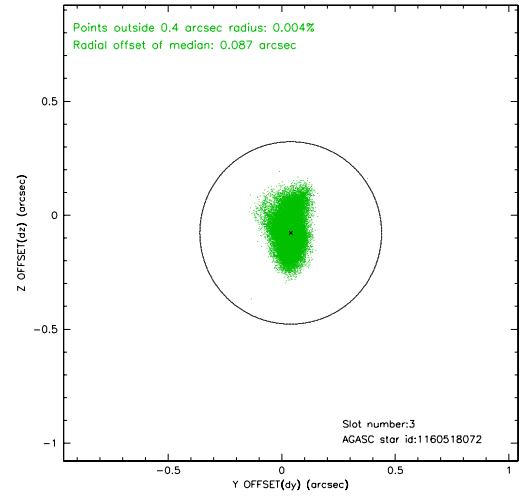
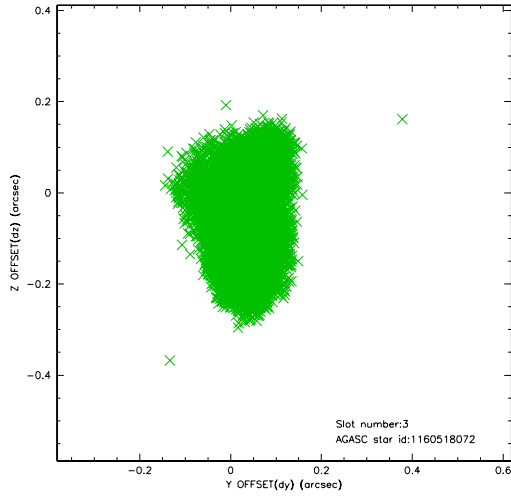


Slot Statistics

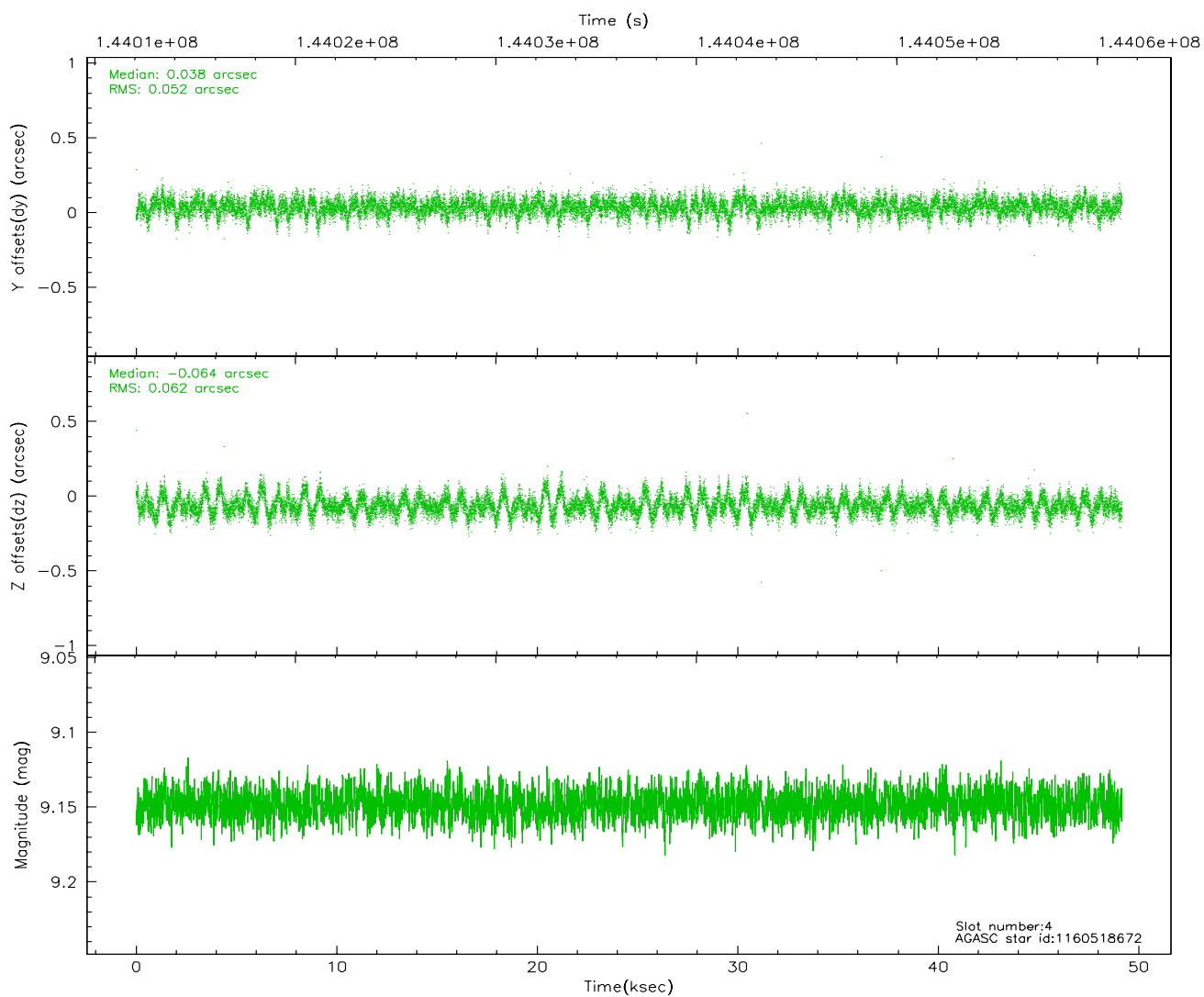
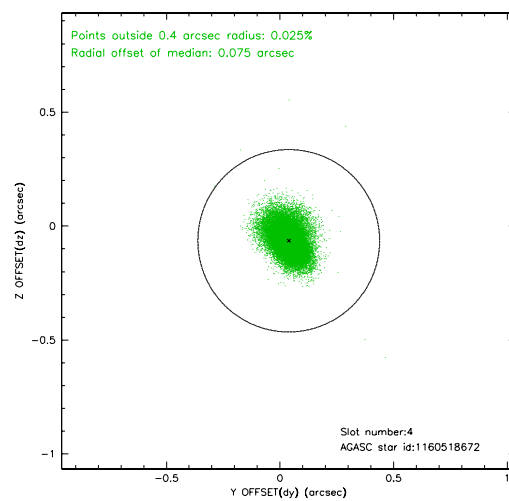
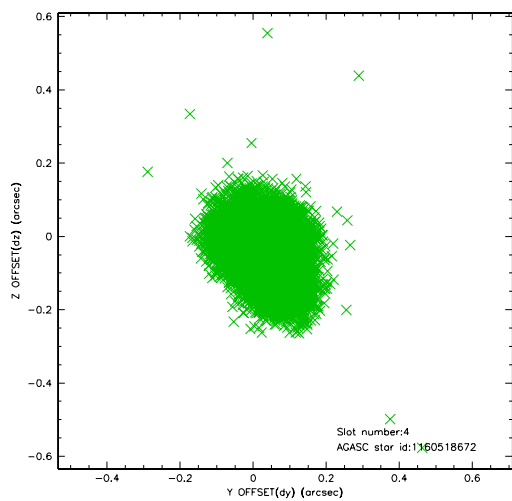
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|-------|-------|--------|--------|-------|-------|-----------|------------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.10 | 11992 | -0.036 | -0.017 | 0.008 | 0.013 | 0.000000 | 0.000000 | -755.40 | -1790.49 |
| 1 | FID | ACIS-S-4 | 7.20 | 11991 | -0.024 | 0.022 | 0.009 | 0.017 | 0.000000 | 0.000000 | 2157.88 | 118.07 |
| 2 | FID | ACIS-S-5 | 7.23 | 11989 | 0.030 | 0.003 | 0.009 | 0.014 | 0.000000 | 0.000000 | -1808.22 | 111.66 |
| 3 | GUIDE | 1160518072 | 7.74 | 23983 | 0.039 | -0.078 | 0.091 | 0.159 | 33.556814 | -63.795689 | -1866.85 | -1458.08 |
| 4 | GUIDE | 1160518672 | 9.15 | 23972 | 0.038 | -0.064 | 0.084 | 0.144 | 32.819727 | -63.027692 | 1030.48 | -646.39 |
| 5 | GUIDE | 1160520576 | 9.09 | 23977 | -0.063 | 0.041 | 0.104 | 0.166 | 33.609078 | -62.969004 | 1068.98 | -1952.95 |
| 6 | GUIDE | 1160519176 | 10.03 | 23908 | 0.090 | -0.049 | 0.131 | 0.220 | 33.426947 | -63.226869 | 190.21 | -1531.84 |
| 7 | GUIDE | 1160517488 | 10.25 | 23942 | -0.120 | 0.195 | 0.265 | 0.540 | 32.712813 | -63.694832 | -1330.52 | -173.16 |

2.4 Star Slots

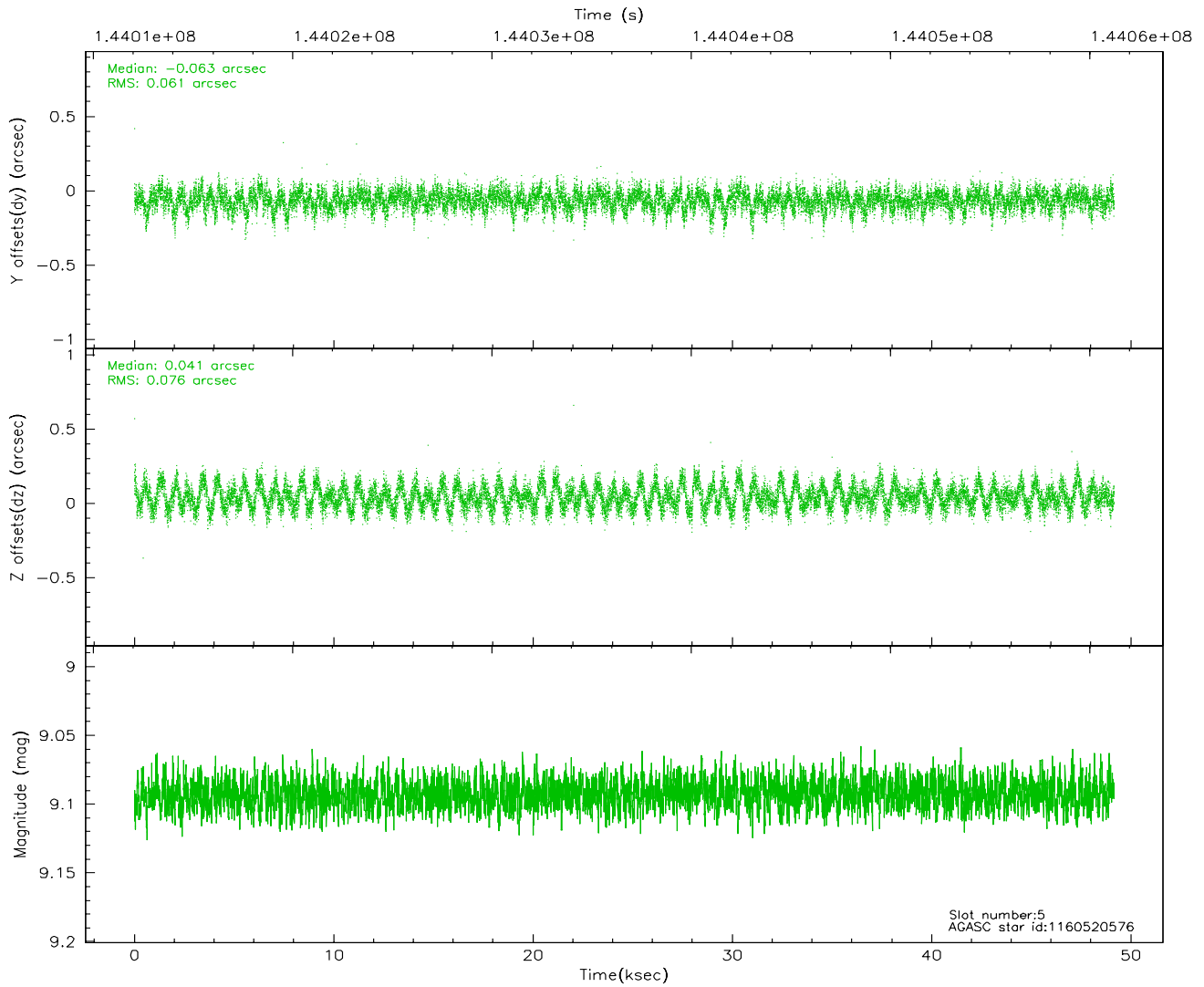
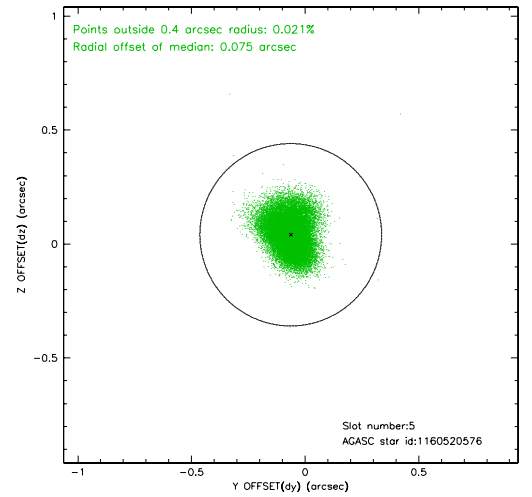
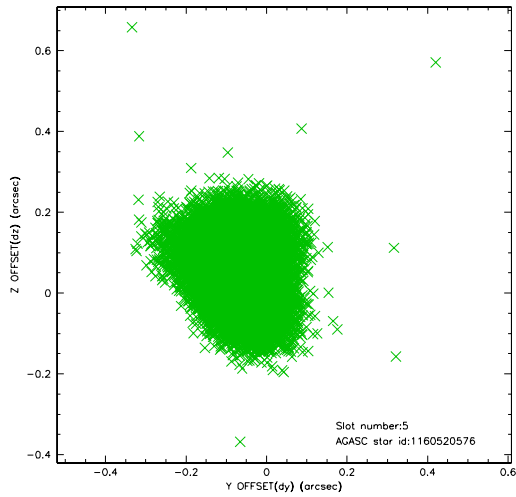
2.4.1 Slot 3



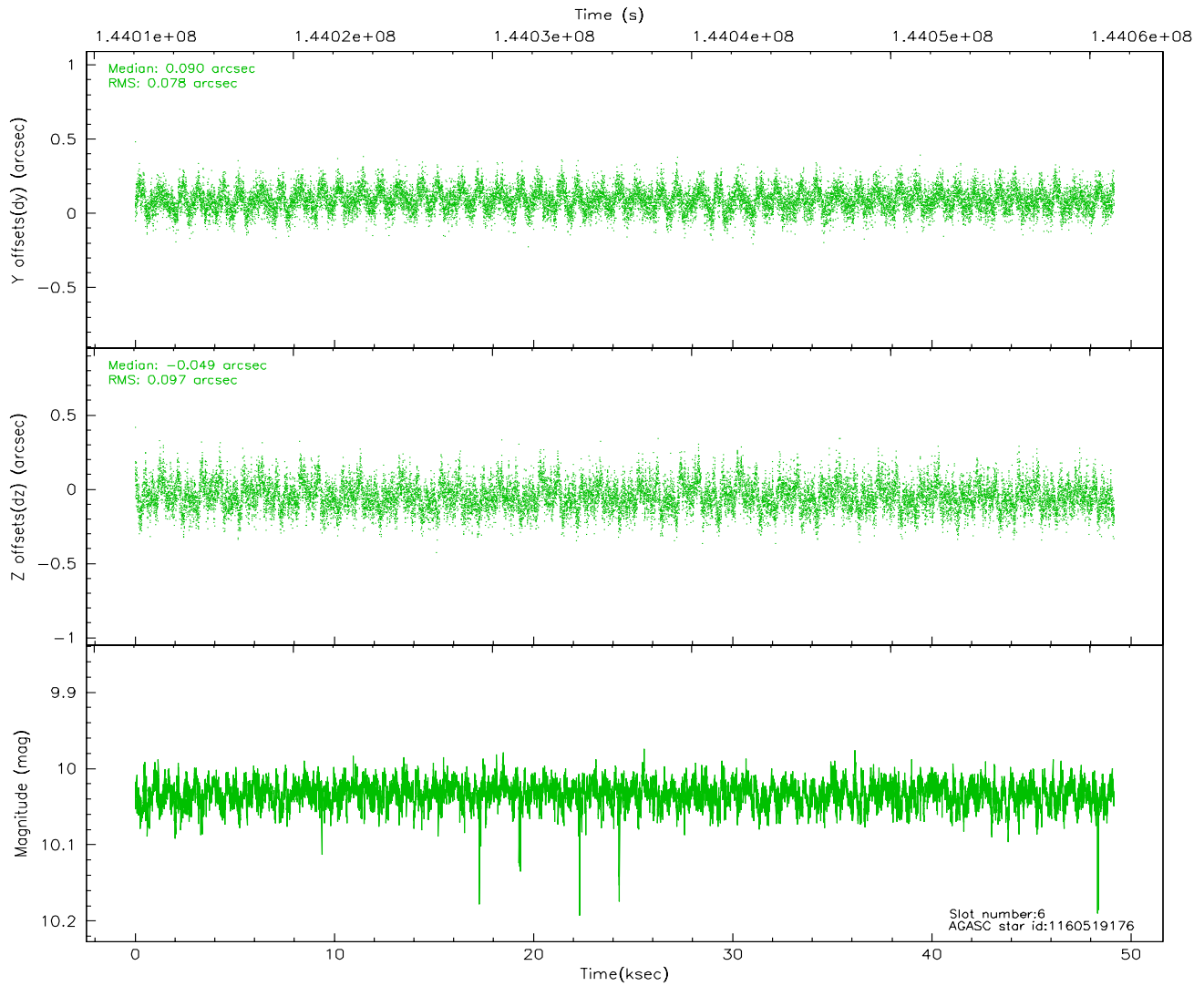
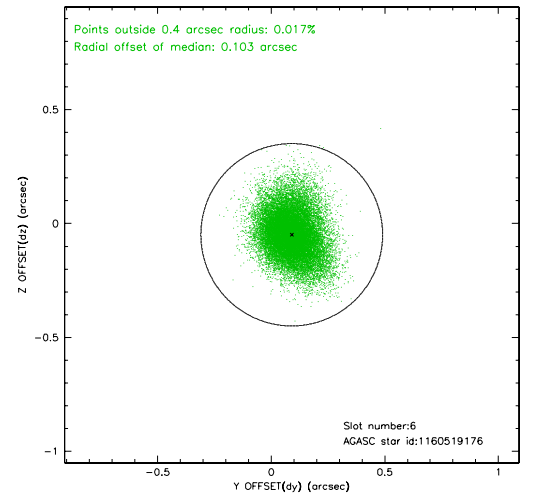
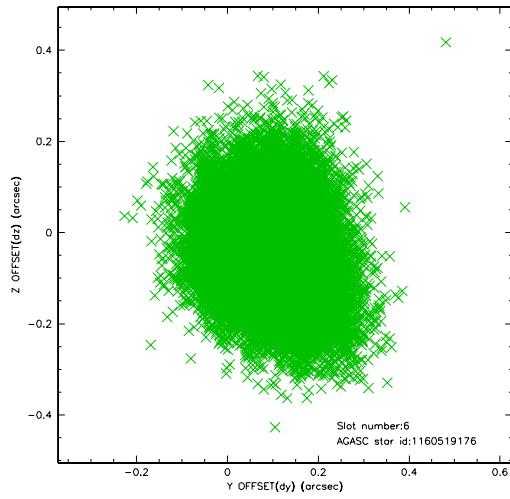
2.4.2 Slot 4



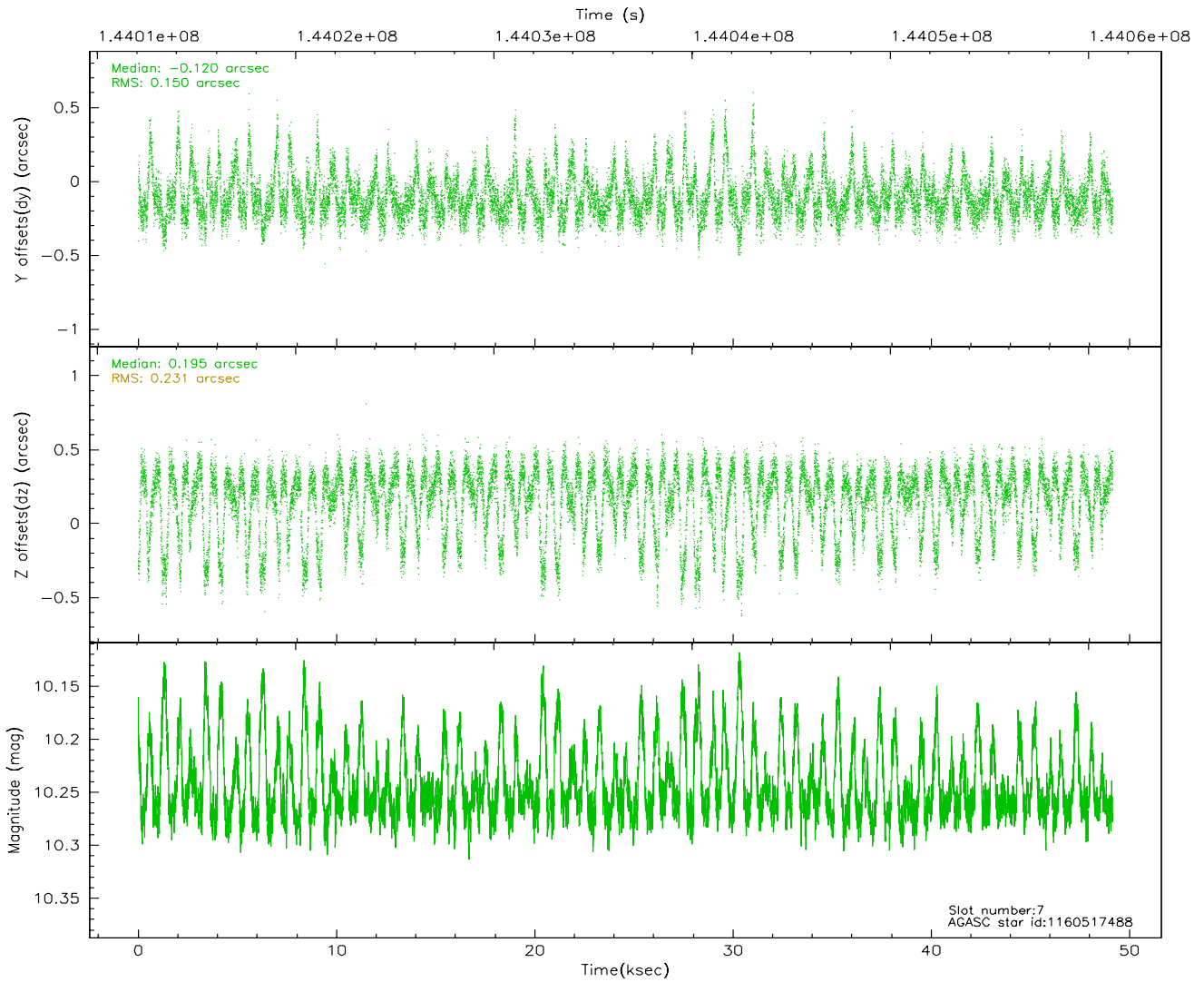
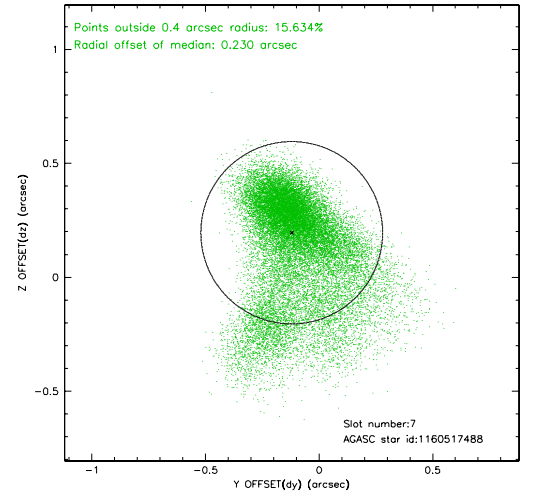
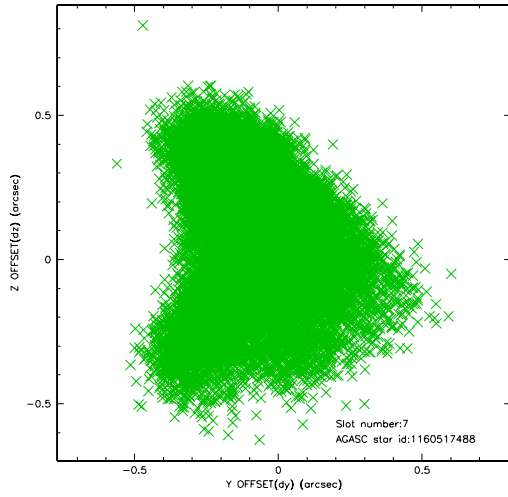
2.4.3 Slot 5



2.4.4 Slot 6

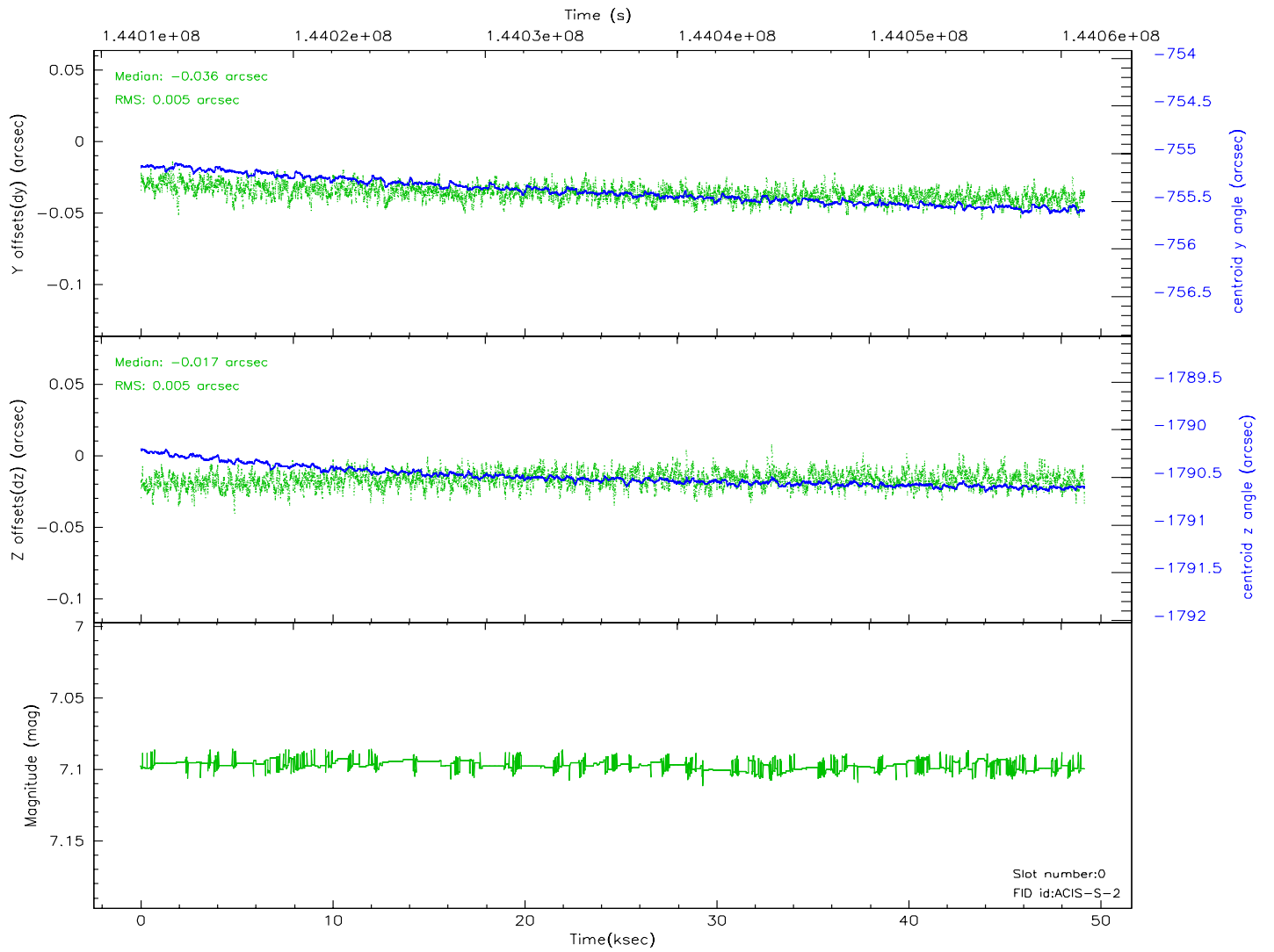
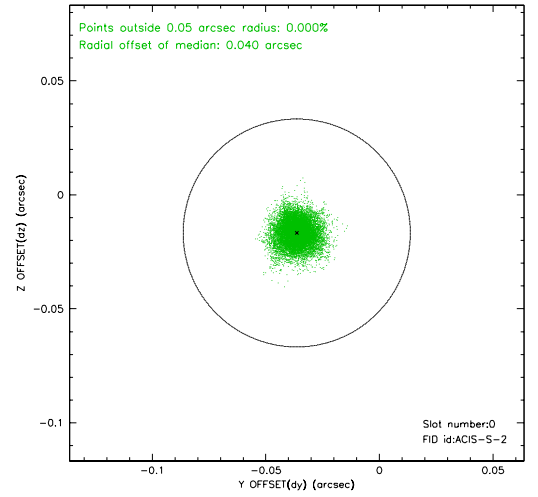
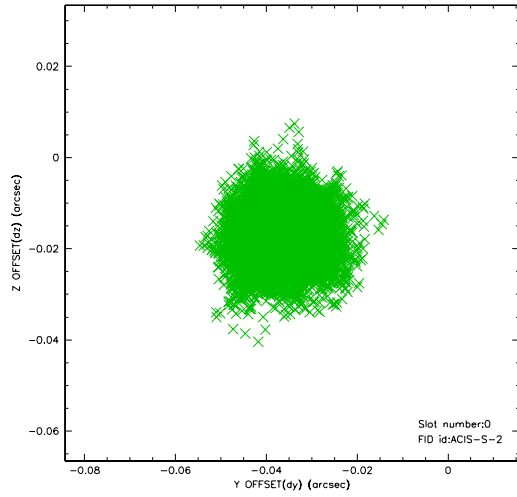


2.4.5 Slot 7

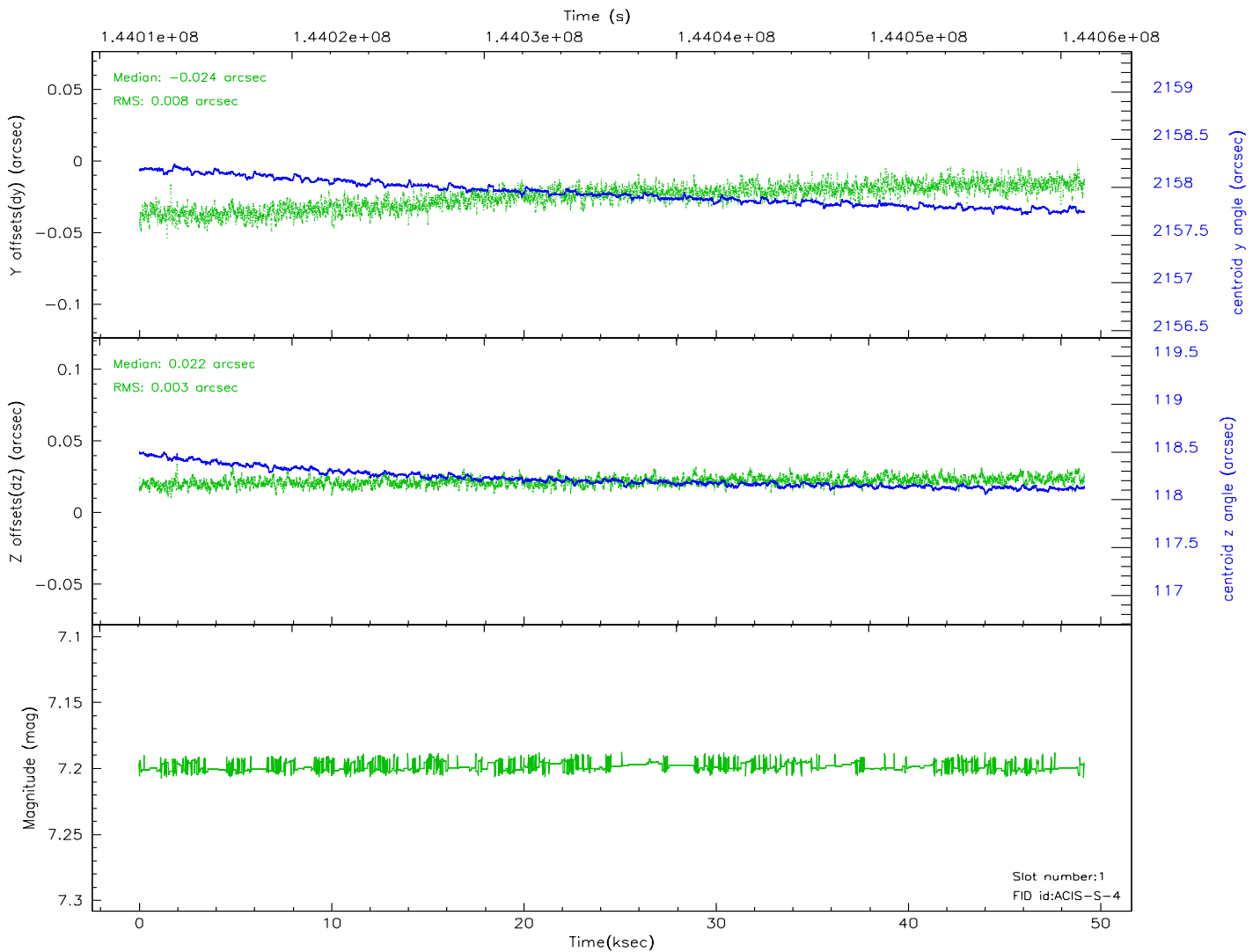
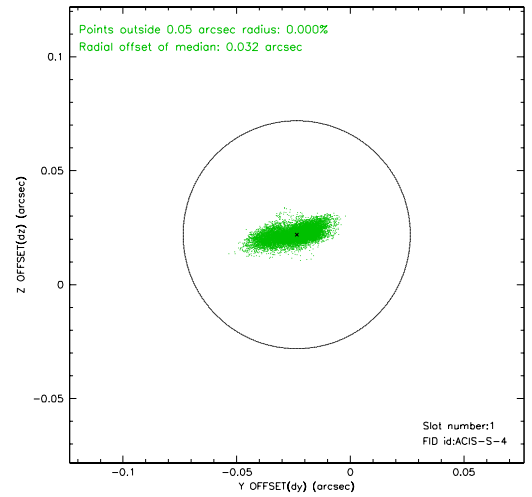
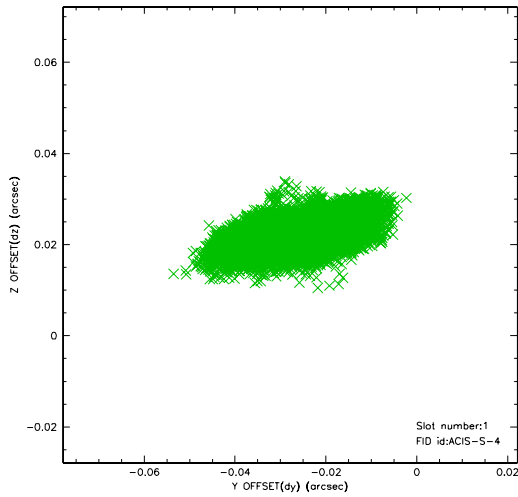


2.5 FID Slots

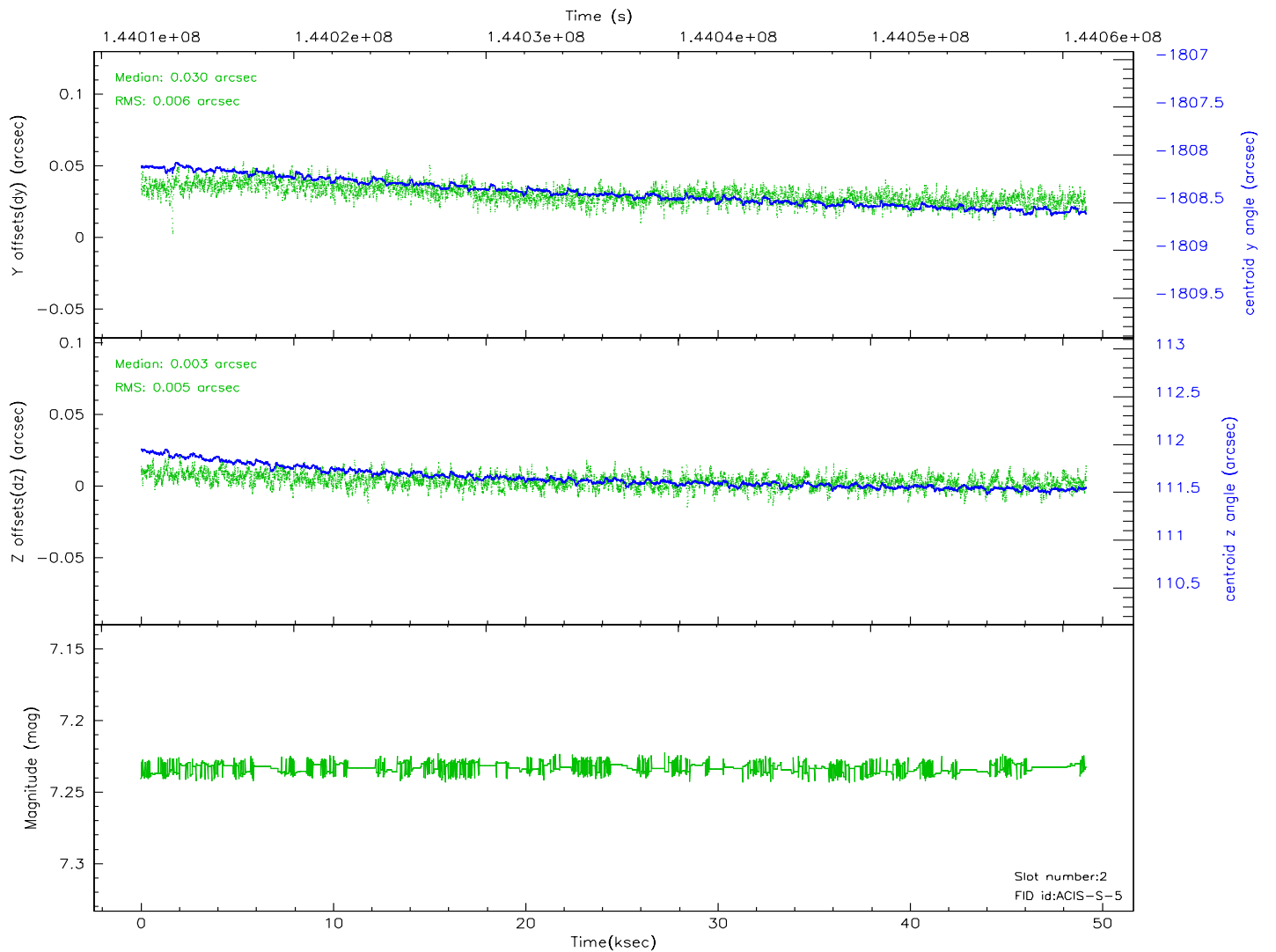
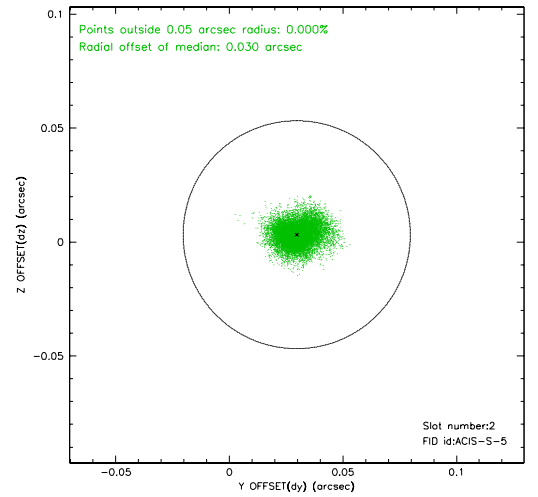
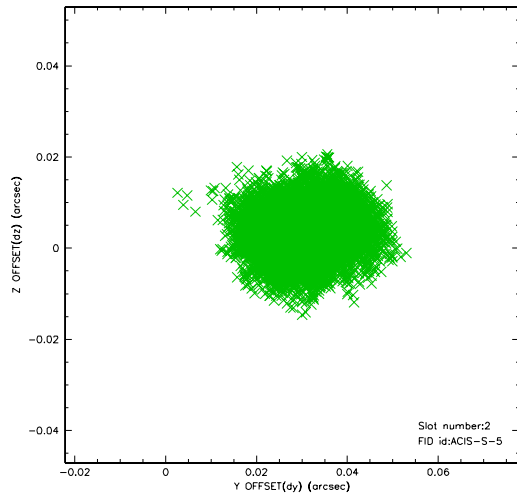
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

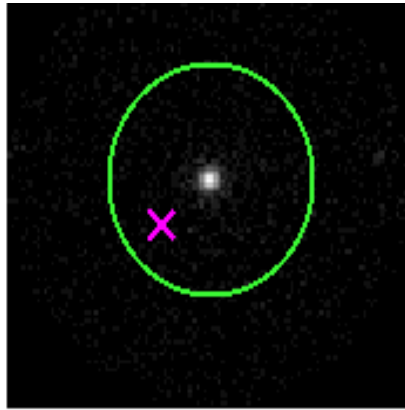


3 Gratings

3.1 HEG Arm



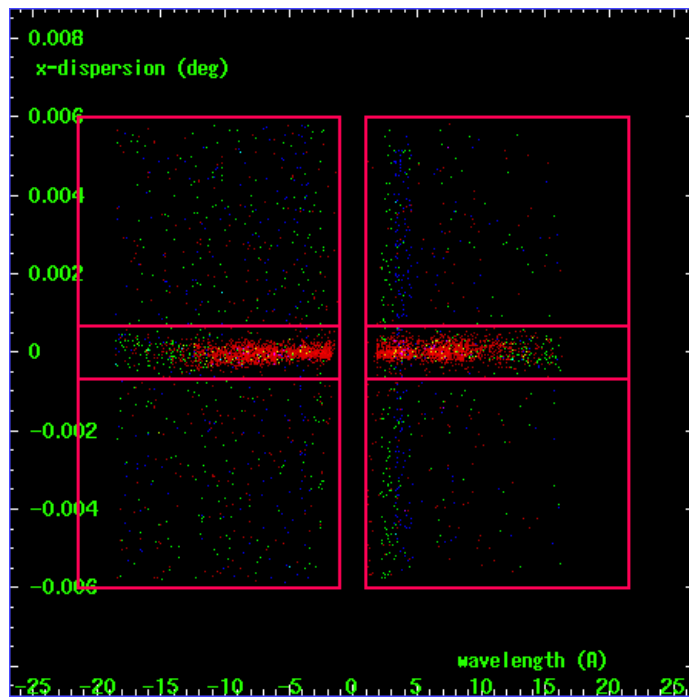
HEG Order Sort 123



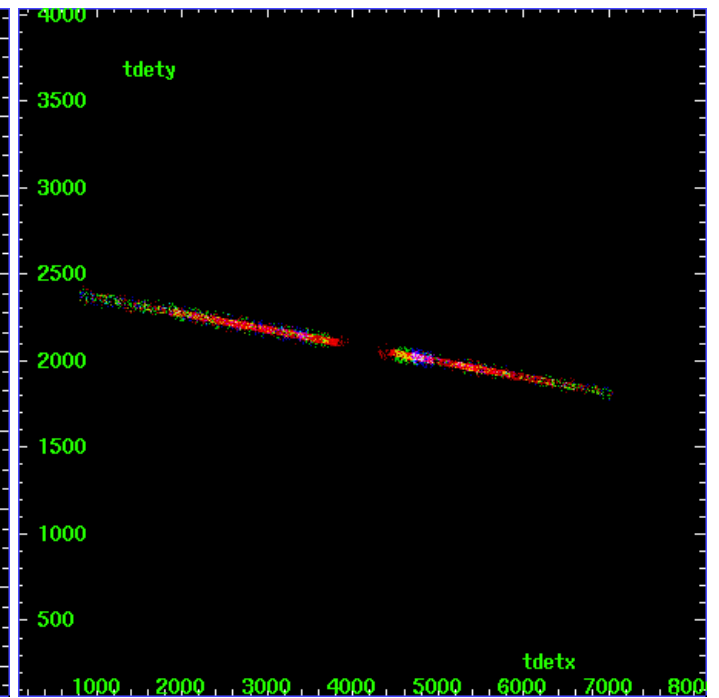
HEG Zero Order



HEG Order Sort ALL

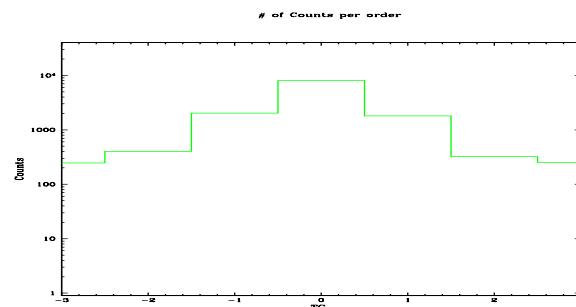


Spot Image HEG

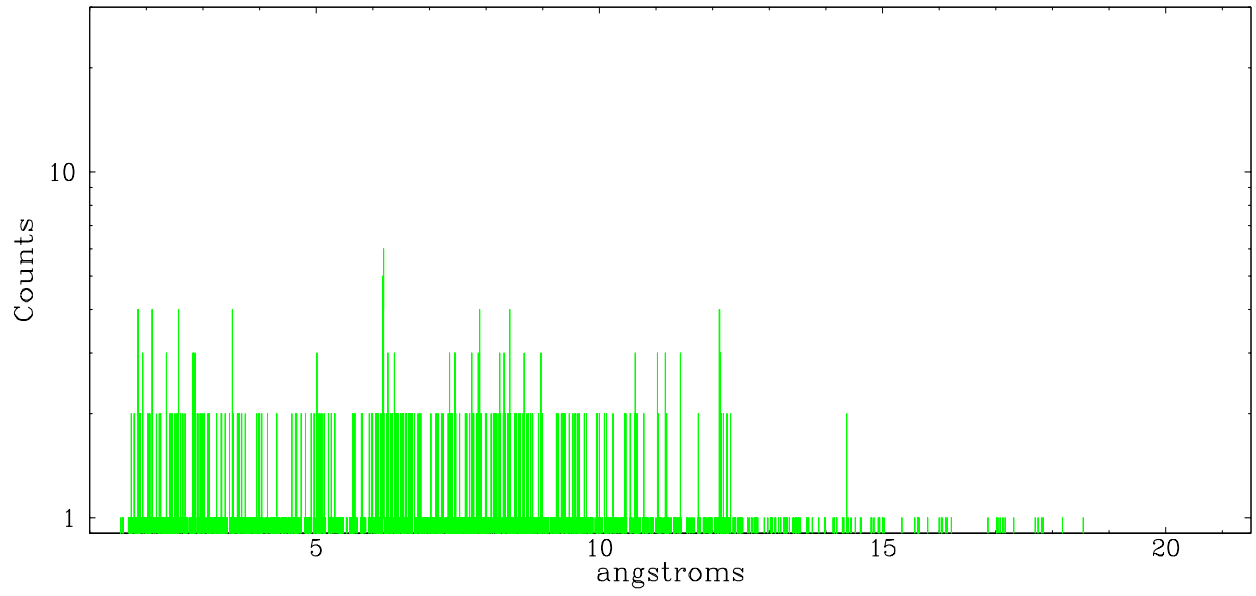


Full Detector HEG

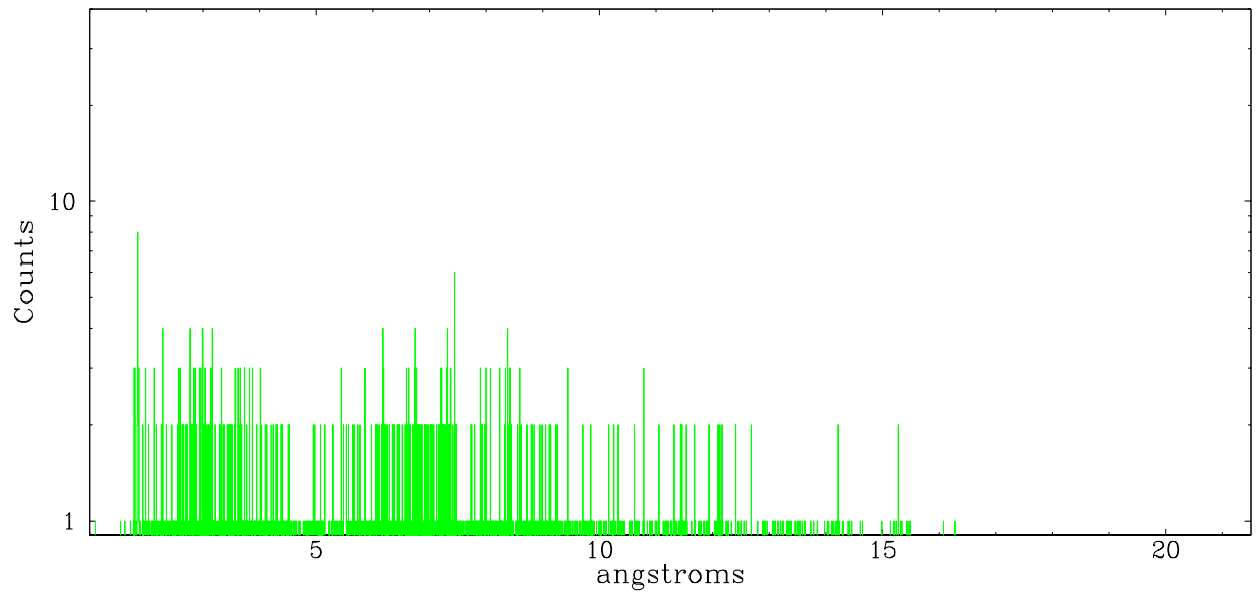
| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|----------|----------|----------|---------|---------|---------|---------|
| Events | 246 | 401 | 2027 | 8001 | 1808 | 323 | 253 |



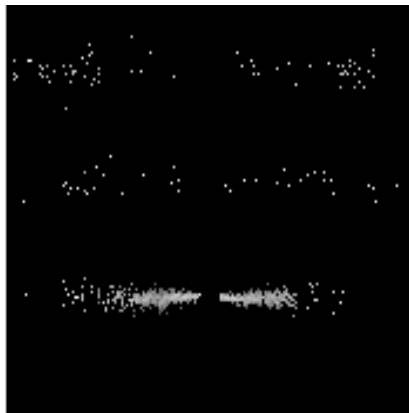
heg order -1



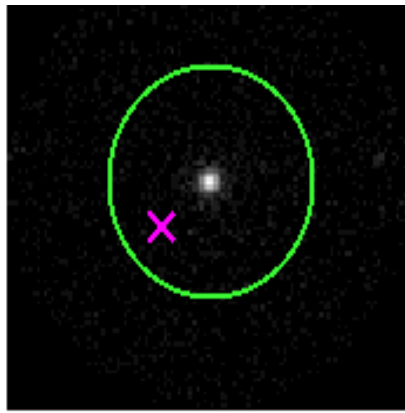
heg order +1



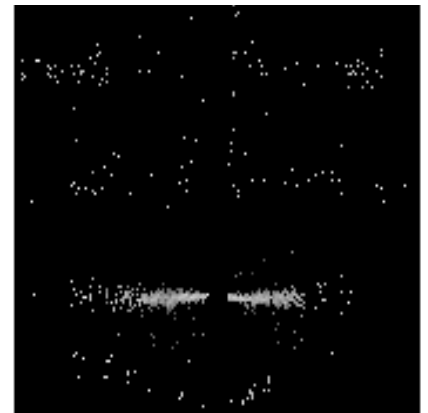
3.2 MEG Arm



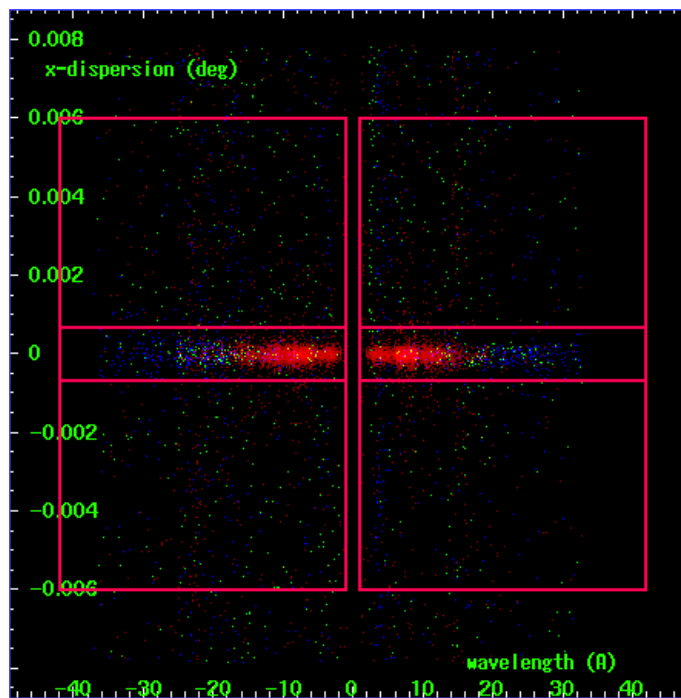
MEG Order Sort 123



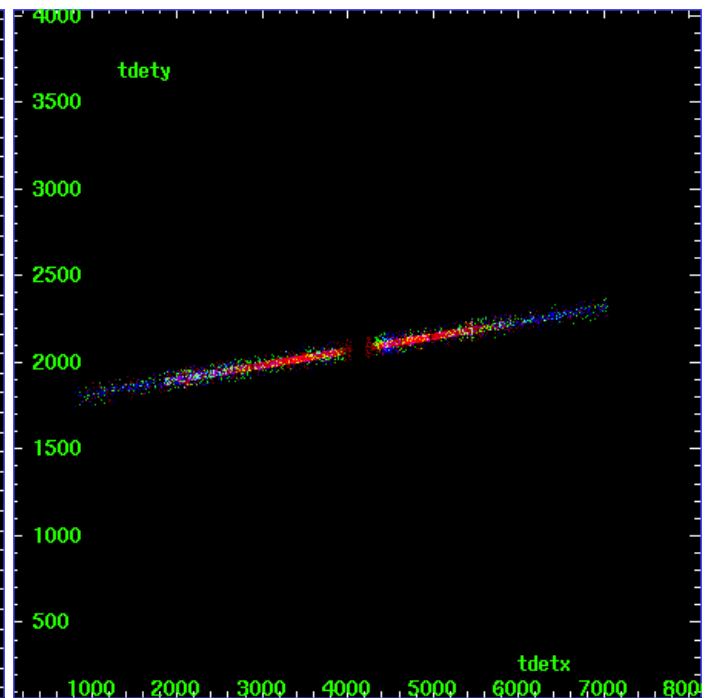
MEG Zero Order



MEG Order Sort ALL

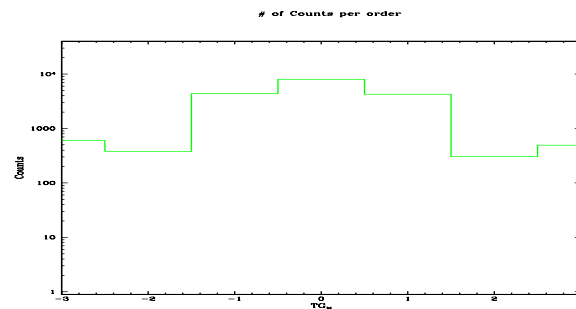


Spot Image MEG

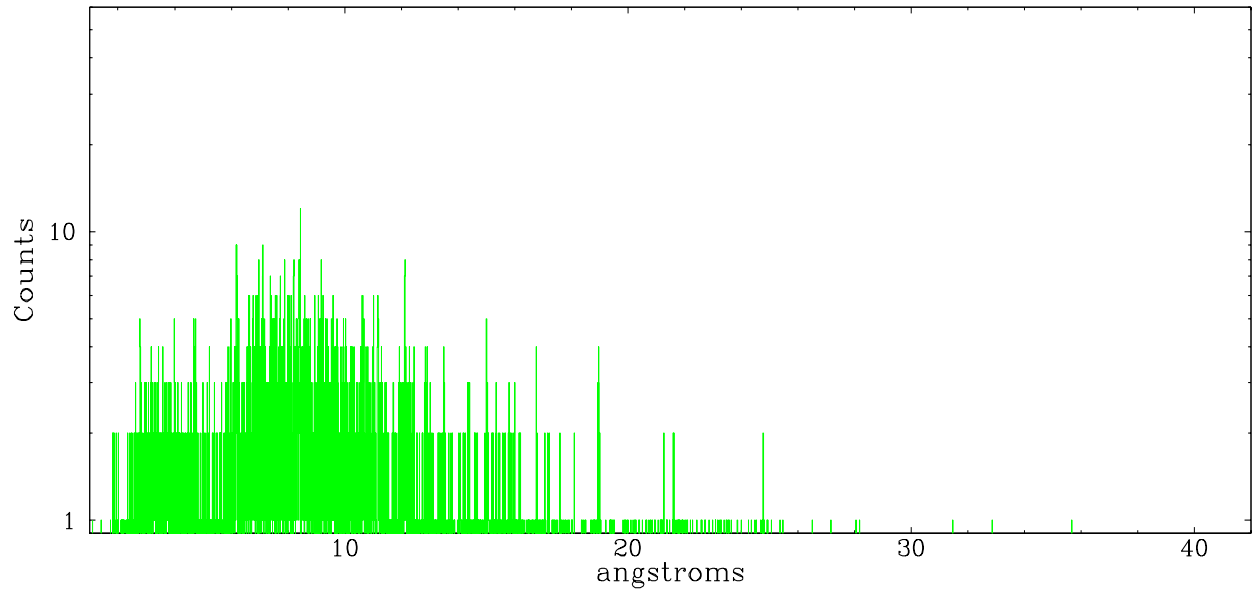


Full Detector MEG

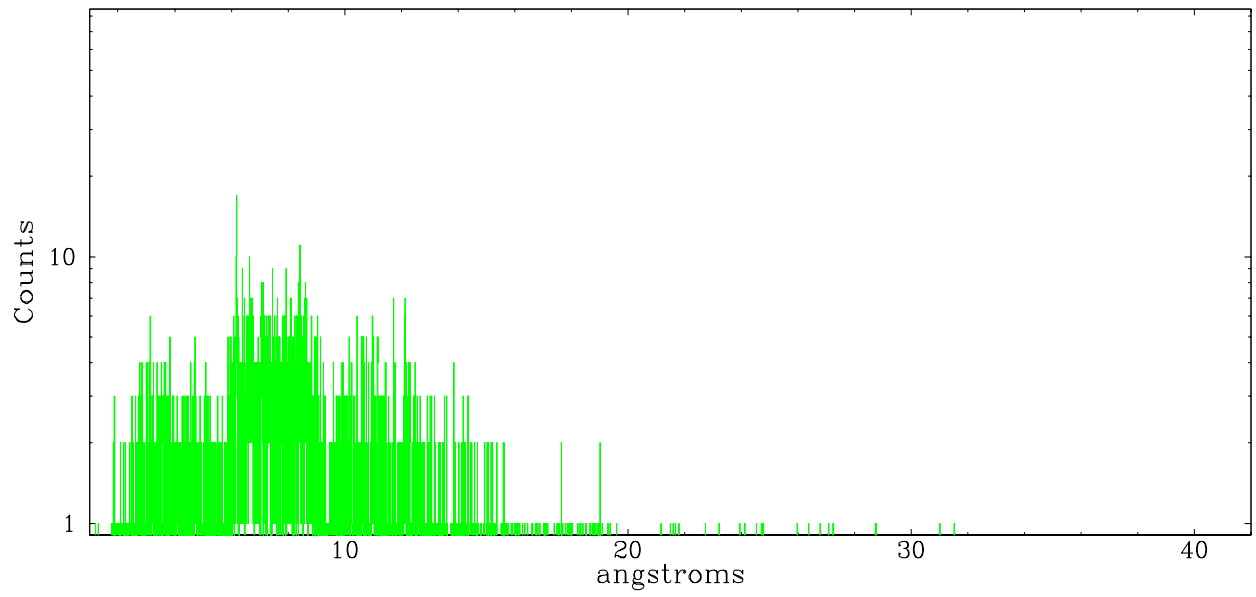
| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|-------------|-------------|-------------|------------|------------|------------|------------|
| Events | 600 | 380 | 4351 | 8001 | 4252 | 304 | 495 |



meg order -1



meg order +1



A Summary

A.1 Status

| | |
|----------------------------|-------------|
| V&V Scientist | Joy Nichols |
| V&V Date (YYYY-MM-DD) | 2006.09.27 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 49.16 |

A.2 Comments

Star in slot 7 has an RMS deviation of the z offset > 0.200000 arcsec. This amount of deviation is not expected to degrade the aspect solution and the star in slot 7 was included in the solution.