

V&V Reference Report

L2 ASCDS Version : 7.6.7.2

Observation 4914 - L2 Version 001
Chandra X-Ray Center

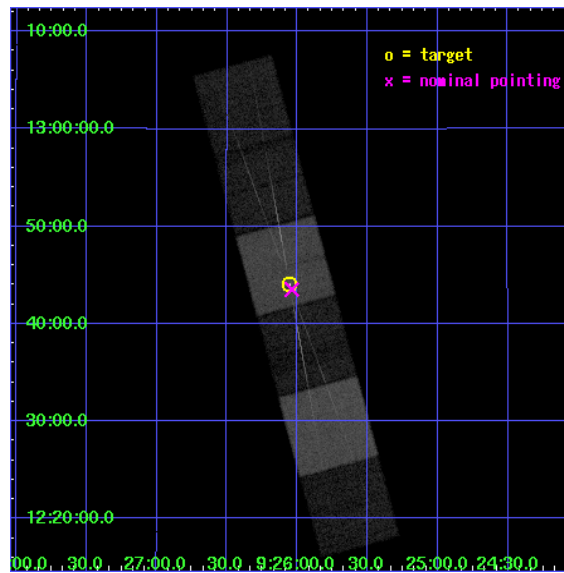
L2 Processing Date : May 29 2006

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1 Front

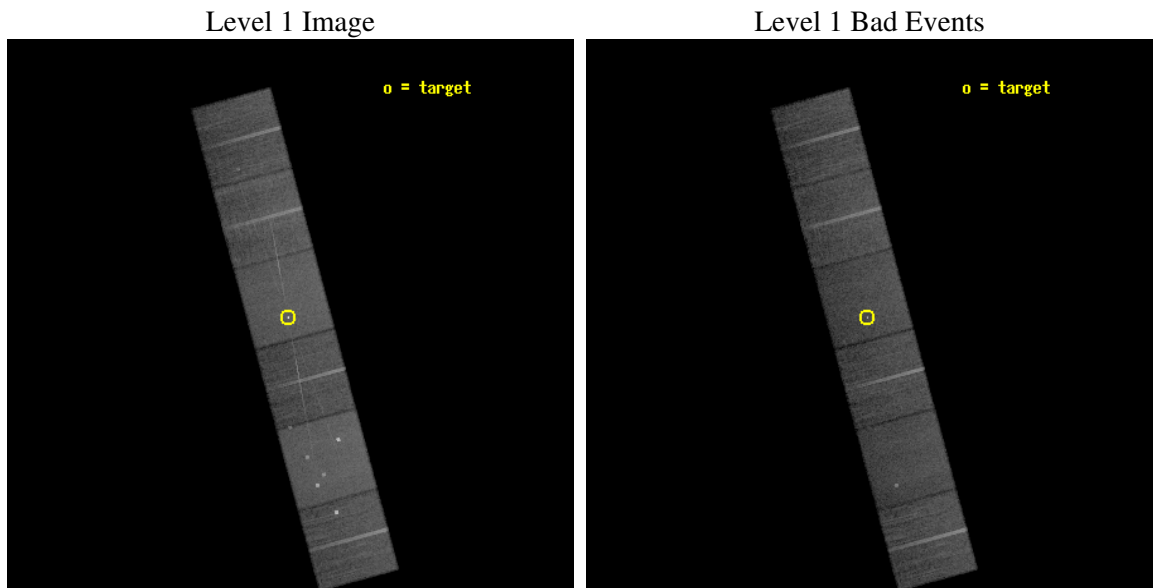
| | |
|----------|---|
| seq_num | 700995 |
| obs_id | 4914 |
| title | Evolution of Active Galaxies: Exploring the NLS1-Starburst Connection |
| observer | Dr. Peter Predehl |
| object | Mrk 705 |
| dtcycle | 0 |
| cycle | P |
| ra_targ | 141.51375 |
| dec_targ | 12.734444 |
| ra_nom | 141.50951430838 |
| dec_nom | 12.725691527372 |
| roll_nom | 254.86627102358 |
| revision | 2 |
| ontime | 21257.599920809 |
| livetime | 20988.423390822 |
| ontime4 | 21257.599920809 |
| ontime5 | 21257.599920809 |
| ontime6 | 21254.35901016 |
| ontime7 | 21257.599920809 |
| ontime8 | 21254.358920604 |
| ontime9 | 21257.599920809 |
| l2events | 249112 |



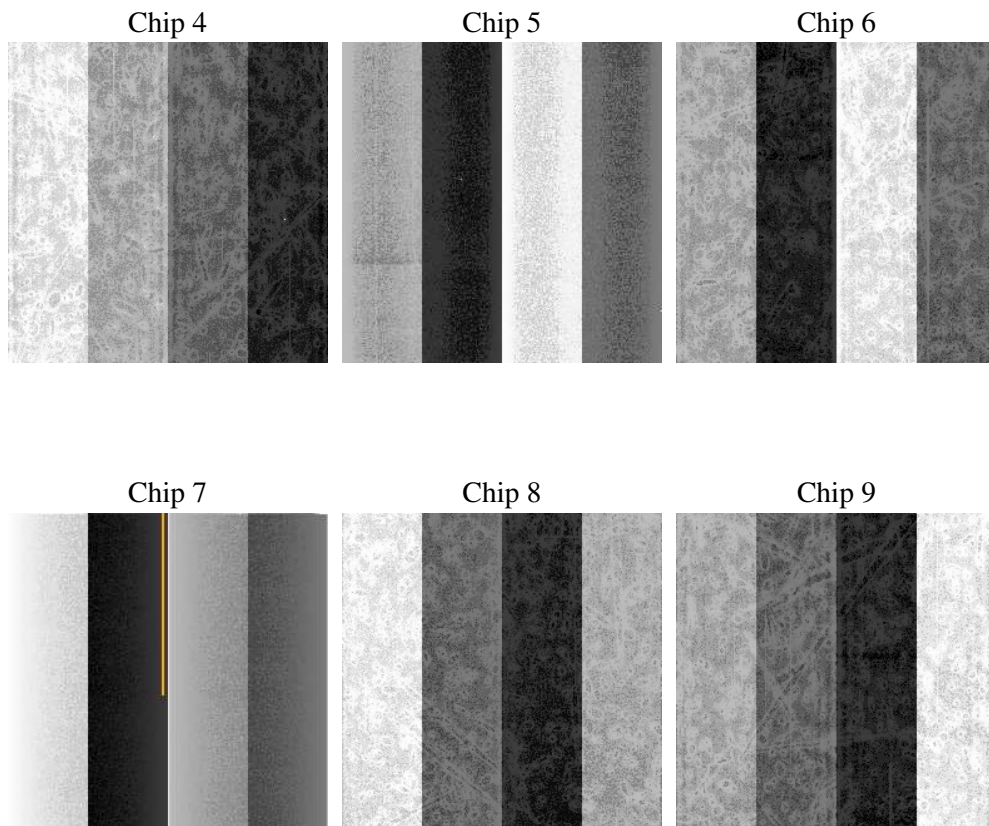
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 0 |
| ascdsver | 7.6.7.2 |
| caldsver | 3.2.2 |
| date | 2006-05-29T15:47:04 |
| revision | 2 |

| | |
|----------------|-----------------|
| sched_exp_time | 21420.824000 |
| ontime | 21264.270893753 |
| ontime4 | 21264.270893753 |
| ontime5 | 21264.270893753 |
| ontime6 | 21261.029983103 |
| ontime7 | 21264.270893753 |
| ontime8 | 21261.029893547 |
| ontime9 | 21264.270893753 |
| l1events | 1082539 |

2.1.4 Events

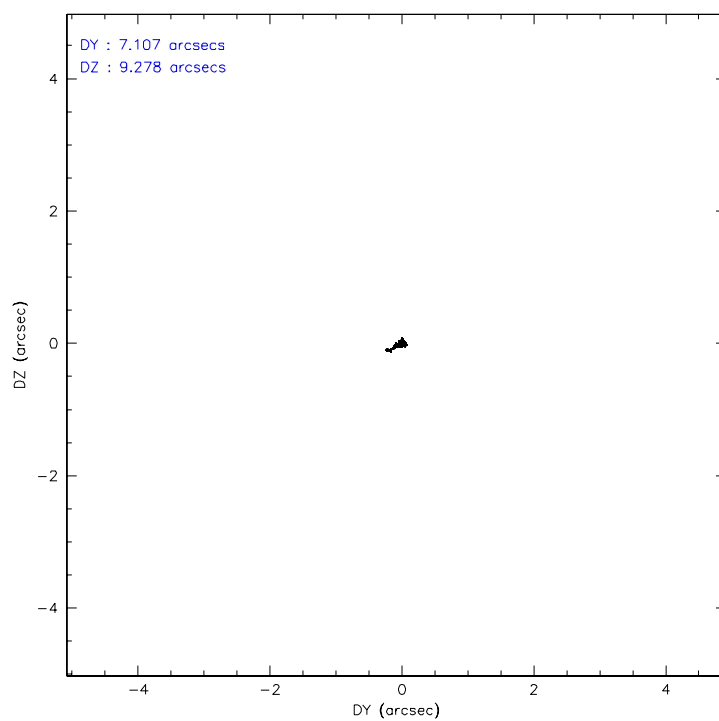
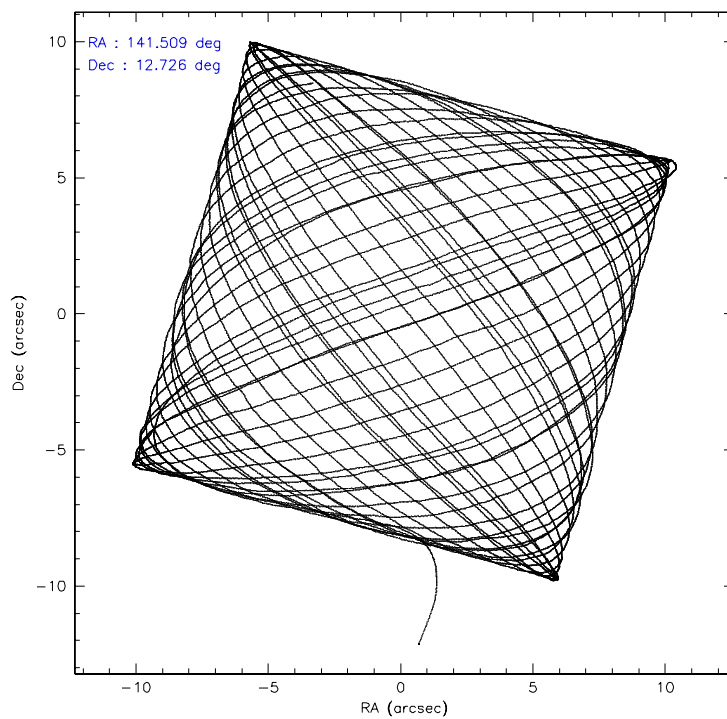
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 166682 | 223393 | 153991 | 205064 | 187247 | 146162 |
| rejected events | 140802 | 121964 | 130754 | 122435 | 144654 | 124917 |
| rejected % | 84% | 54% | 84% | 59% | 77% | 85% |

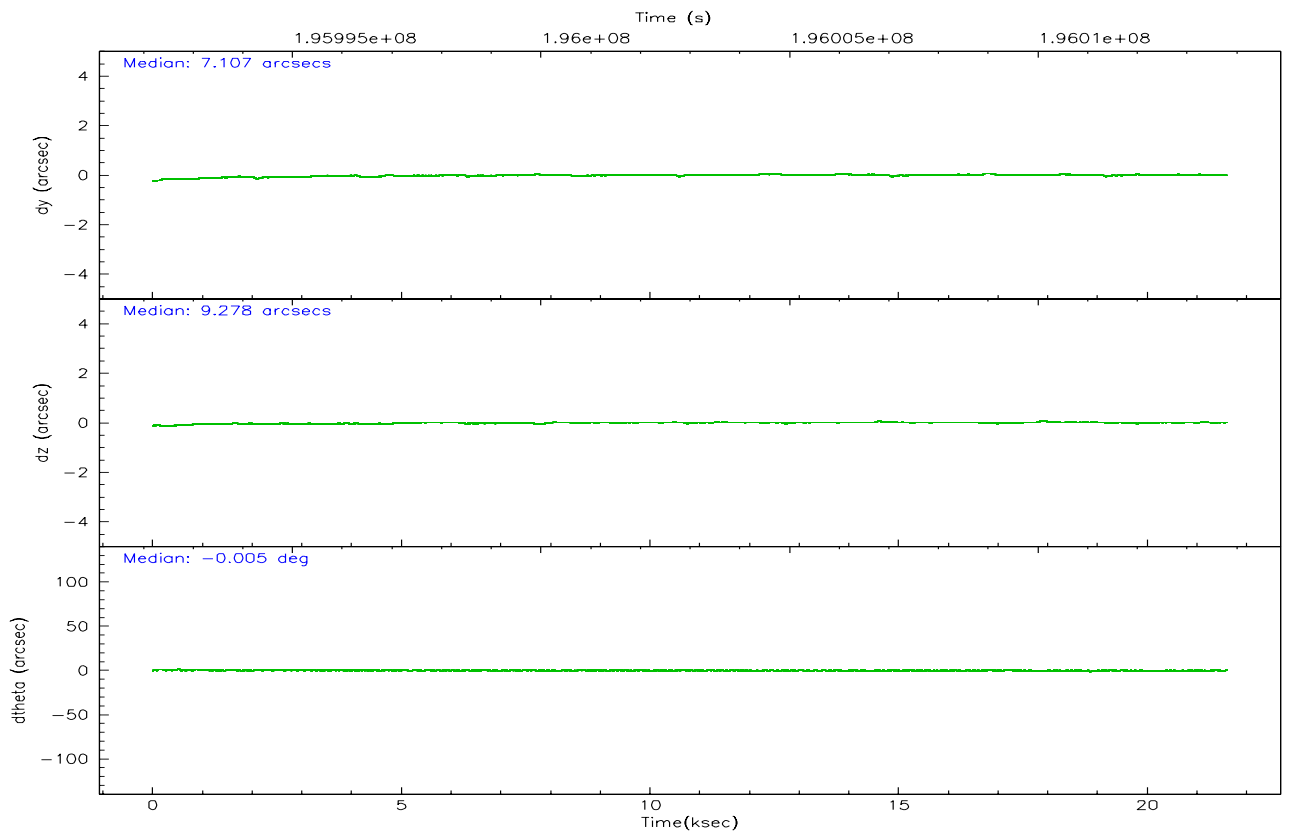
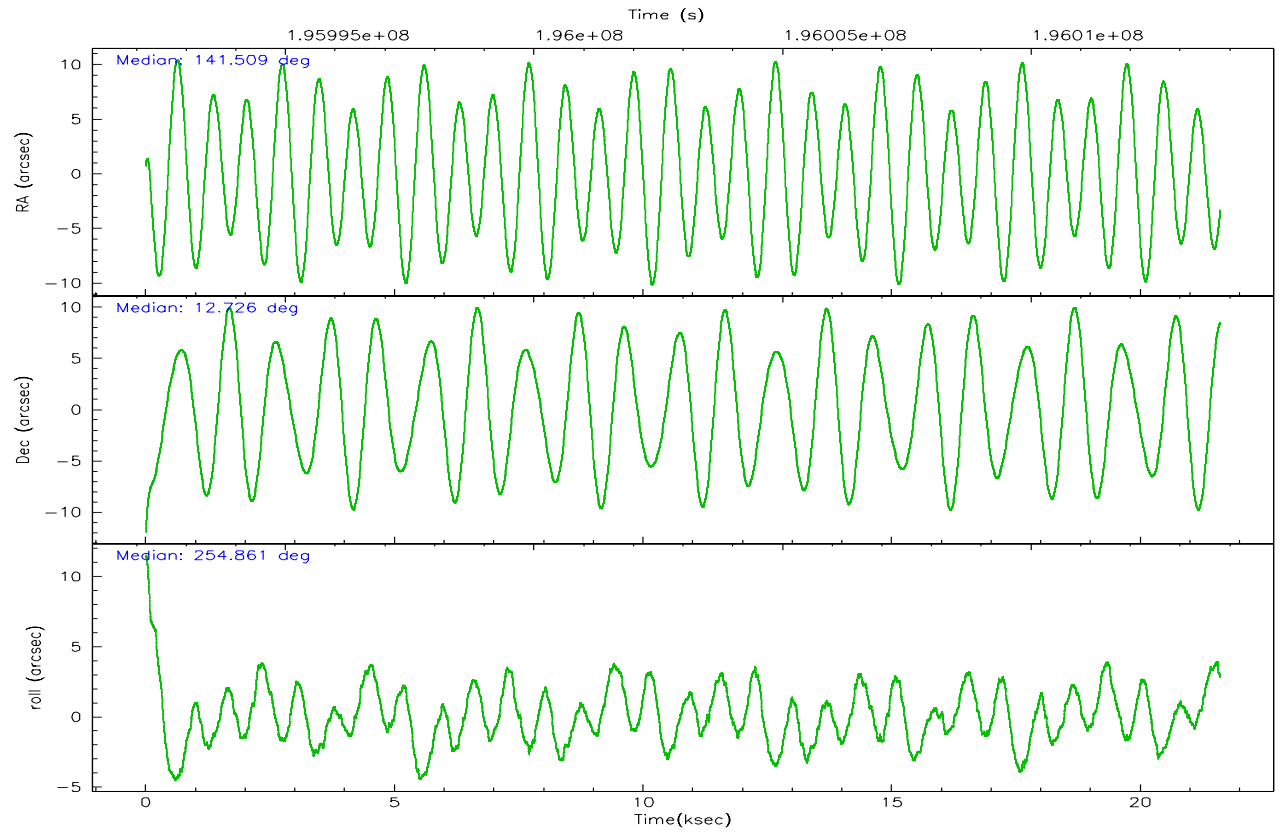
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|----------------|--------|--------|--------|--------|--------|--------|
| grade 0 events | 14563 | 11484 | 10834 | 5809 | 15457 | 9601 |
| | 8% | 5% | 7% | 2% | 8% | 6% |
| grade 1 events | 177 | 219 | 83 | 201 | 120 | 94 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 4092 | 30793 | 4330 | 20382 | 8668 | 3826 |
| | 2% | 13% | 2% | 9% | 4% | 2% |
| grade 3 events | 2046 | 2235 | 1961 | 4552 | 4277 | 1965 |
| | 1% | 1% | 1% | 2% | 2% | 1% |
| grade 4 events | 1932 | 1973 | 1995 | 4313 | 4206 | 1881 |
| | 1% | 0% | 1% | 2% | 2% | 1% |
| grade 5 events | 6401 | 10691 | 6542 | 13497 | 8823 | 7109 |
| | 3% | 4% | 4% | 6% | 4% | 4% |
| grade 6 events | 3256 | 54976 | 4120 | 47591 | 10002 | 3978 |
| | 1% | 24% | 2% | 23% | 5% | 2% |
| grade 7 events | 134215 | 111022 | 124126 | 108719 | 135694 | 117708 |
| | 80% | 49% | 80% | 53% | 72% | 80% |

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 | NONE | NONE |
| Pointing RA | 141.501993 | 141.509514308383 | Alternating exposures requested | N | N |
| Pointing Dec | 12.751916 | 12.72569152737204 | Primary exposure time | 0.000000 | 3.2 |
| Pointing Roll | 254.711299 | 254.8662710235786 | | | |
| SIM focus pos (mm) | -0.684267 | -0.6828225247311905 | | | |
| SIM defocus (mm) | 0 | 0.001444936568705701 | | | |
| SIM translation stage pos (mm) | -190.132523 | -190.1400660498719 | | | |
| SIM translation stage offset (mm) | 0 | 0.00754346686406393 | | | |
| Observation start time | 195992379.184000 | 195991344.96533 | | | |
| Observation start date | 2004-03-18T10:18:35 | 2004-03-18T10:02:24 | | | |
| Observation end time | 196013799.184000 | 196014114.31633 | | | |
| Observation end date | 2004-03-18T16:15:35 | 2004-03-18T16:21:54 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



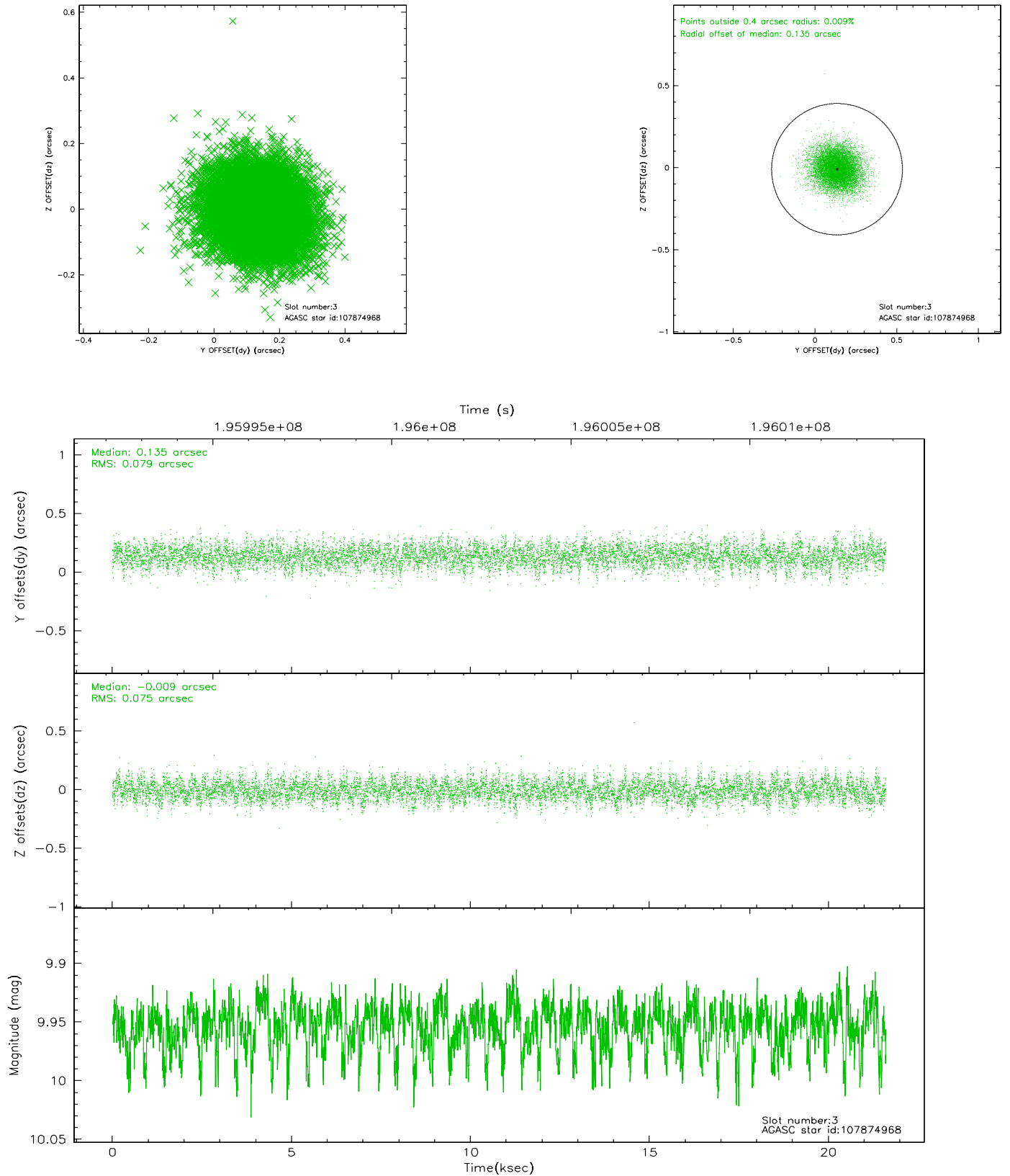


Slot Statistics

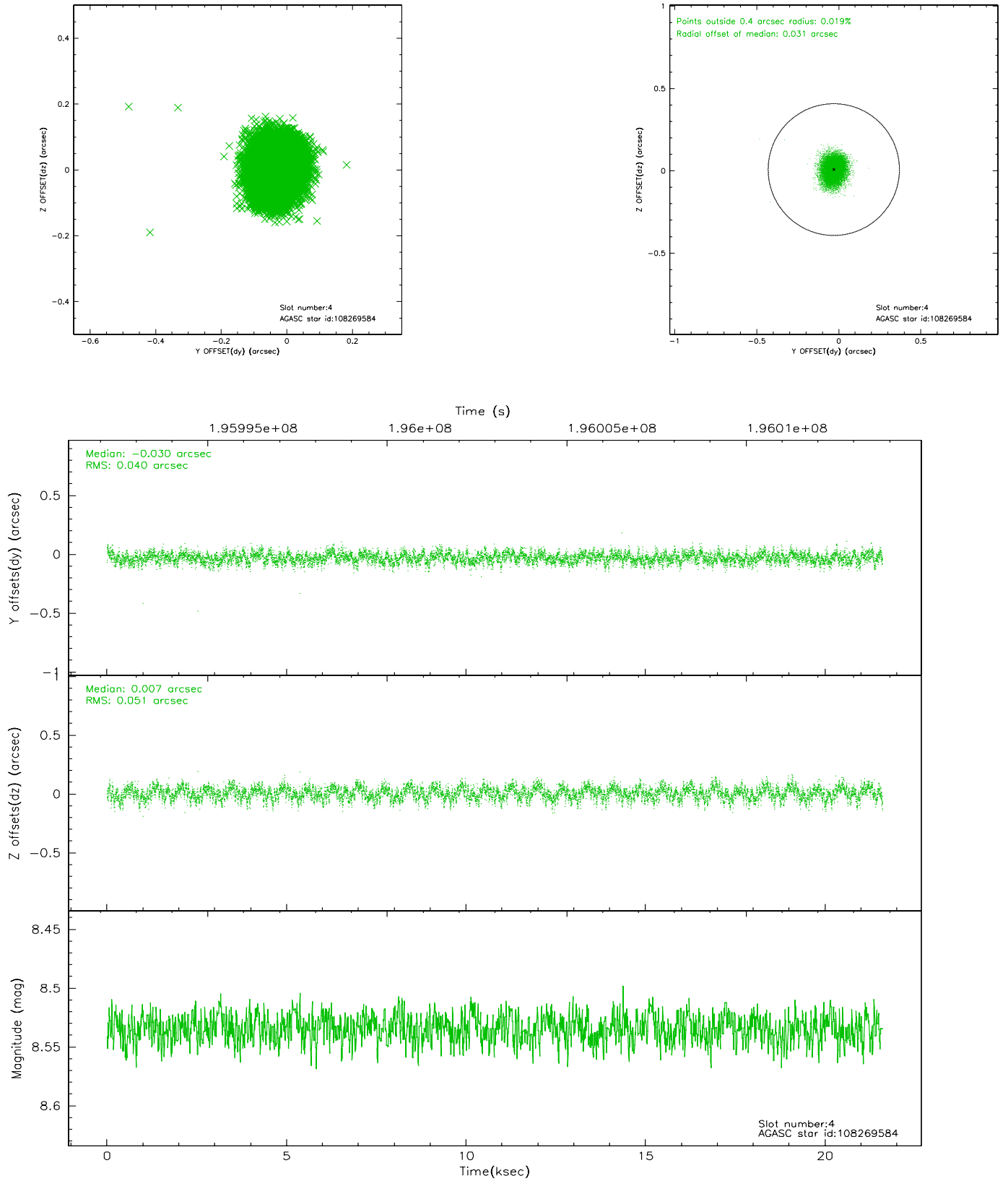
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.10 | 5269 | -0.019 | -0.001 | 0.007 | 0.011 | 0.000000 | 0.000000 | -759.84 | -1730.51 |
| 1 | FID | ACIS-S-4 | 7.20 | 5269 | 0.019 | 0.010 | 0.005 | 0.009 | 0.000000 | 0.000000 | 2153.38 | 177.85 |
| 2 | FID | ACIS-S-5 | 7.24 | 5268 | -0.031 | 0.000 | 0.006 | 0.011 | 0.000000 | 0.000000 | -1812.51 | 171.65 |
| 3 | GUIDE | 107874968 | 9.95 | 10533 | 0.135 | -0.009 | 0.115 | 0.188 | 141.308691 | 12.185415 | 2146.79 | -118.10 |
| 4 | GUIDE | 108269584 | 8.53 | 10533 | -0.030 | 0.007 | 0.070 | 0.110 | 141.684428 | 12.507889 | 678.70 | 850.39 |
| 5 | GUIDE | 108273032 | 9.08 | 10536 | 0.091 | 0.025 | 0.080 | 0.131 | 141.083954 | 12.520007 | 1192.16 | -1196.85 |
| 6 | GUIDE | 108273952 | 7.81 | 10539 | -0.063 | -0.023 | 0.065 | 0.107 | 142.111925 | 12.674985 | -299.37 | 2138.49 |
| 7 | GUIDE | 108274000 | 8.70 | 10533 | -0.134 | -0.001 | 0.077 | 0.123 | 141.000036 | 13.388222 | -1747.47 | -2300.09 |

2.4 Star Slots

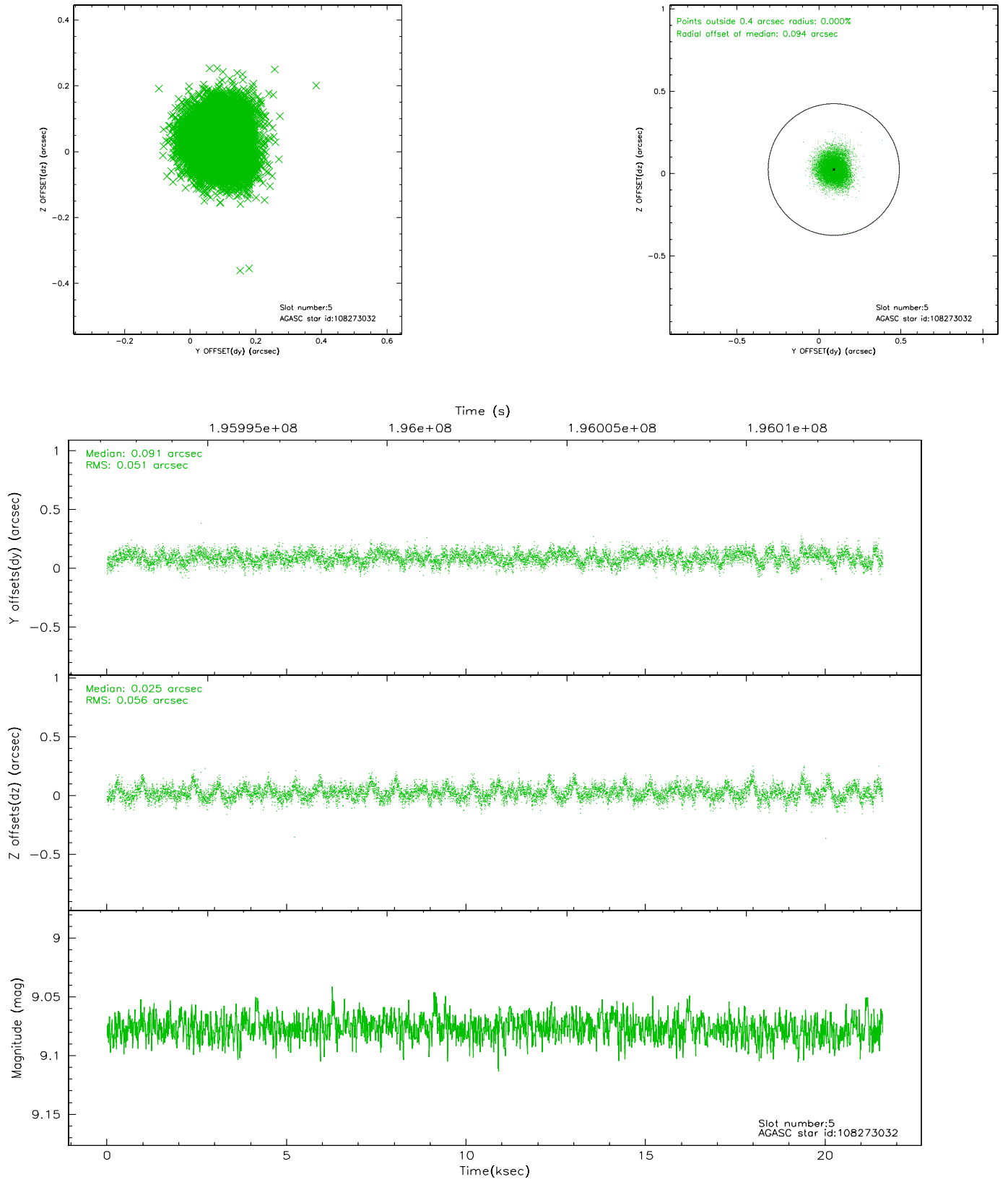
2.4.1 Slot 3



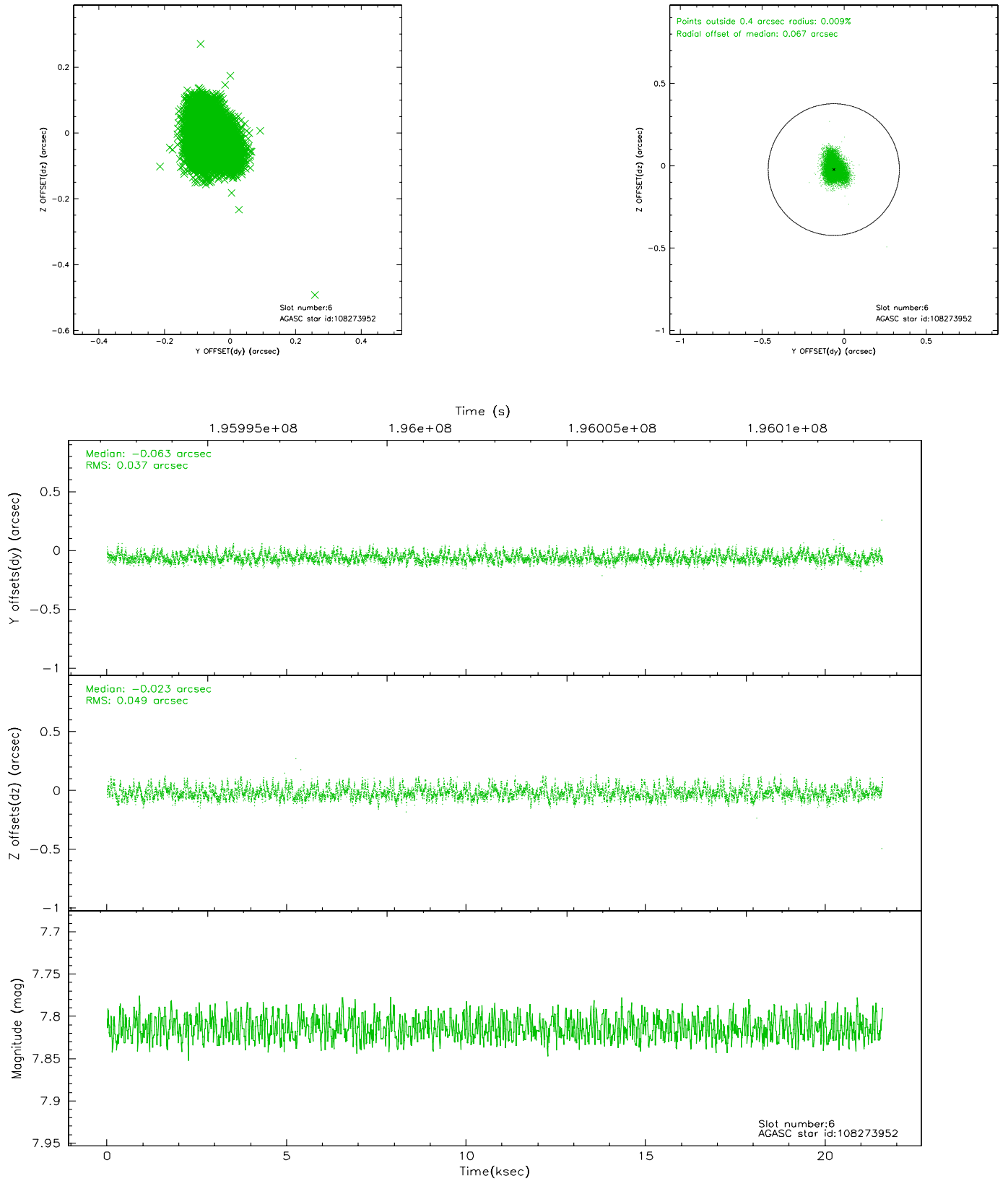
2.4.2 Slot 4



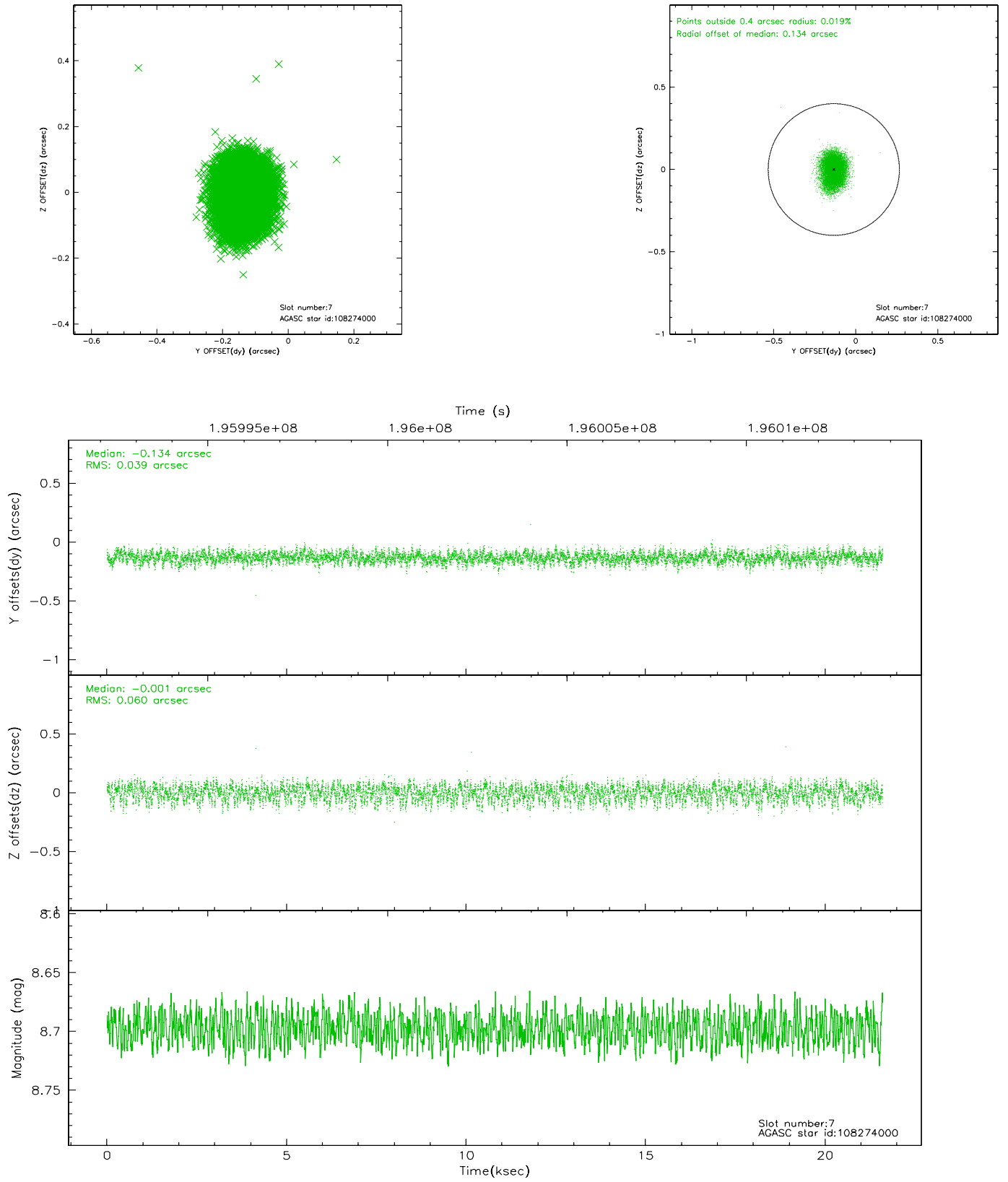
2.4.3 Slot 5



2.4.4 Slot 6

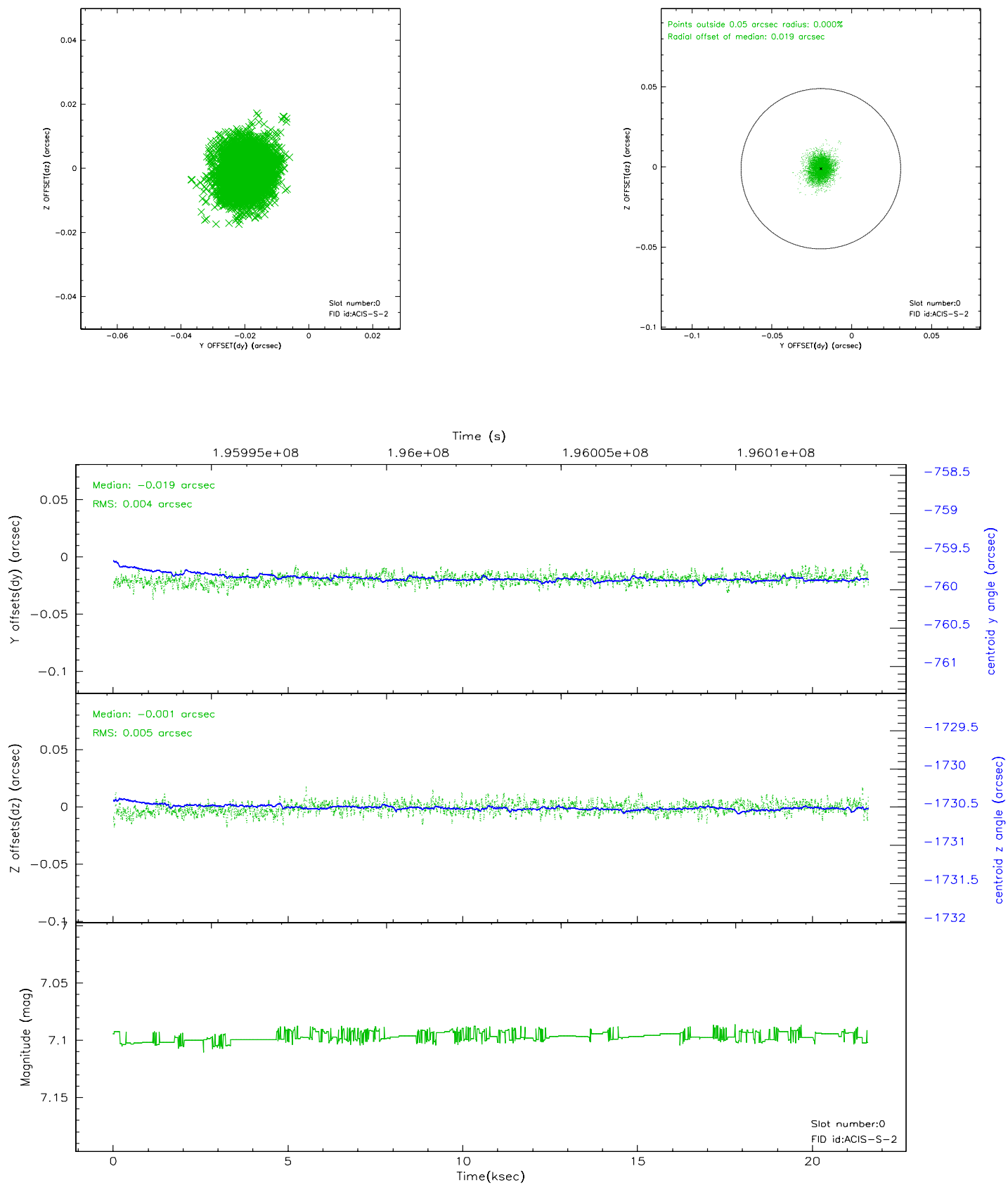


2.4.5 Slot 7

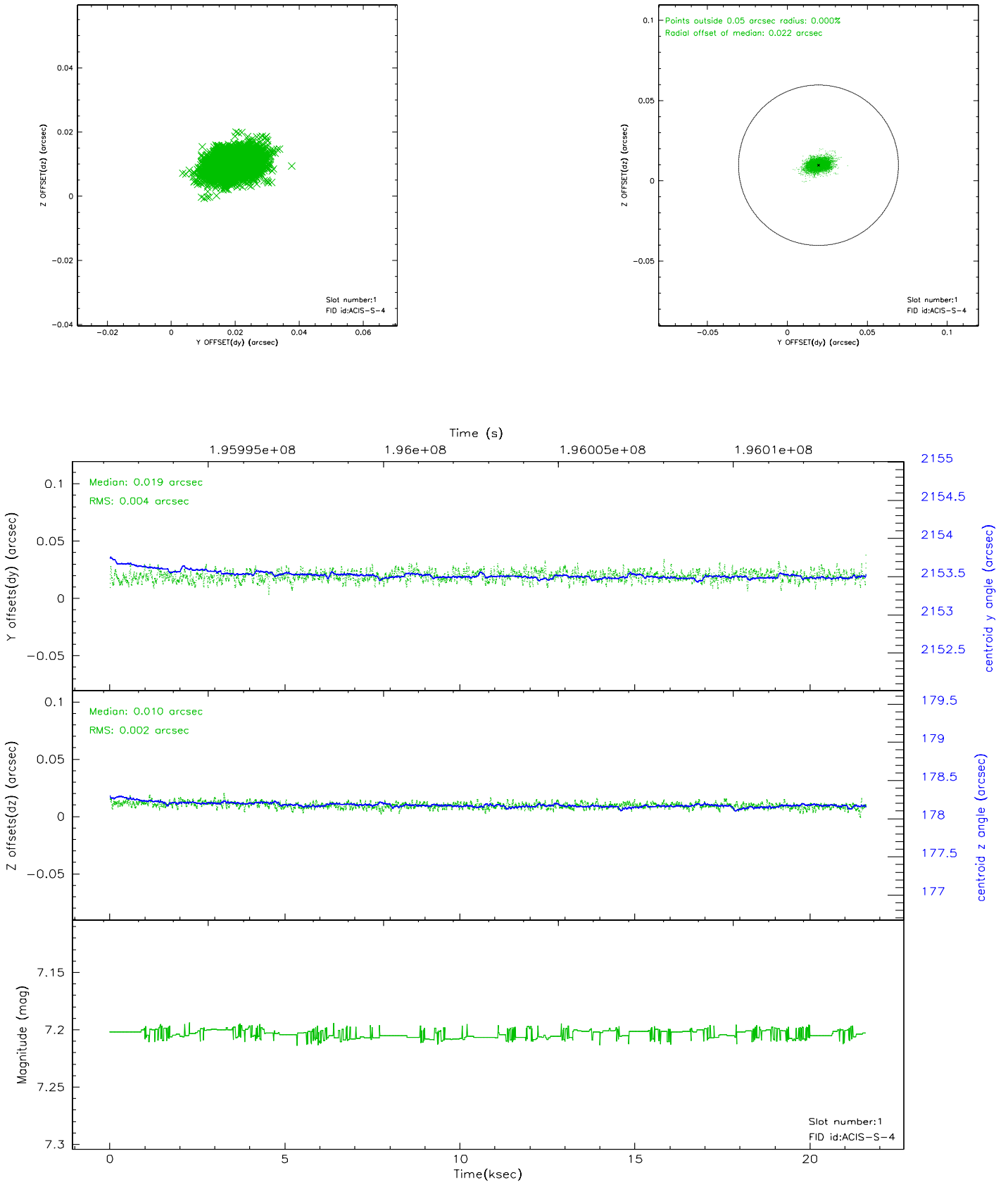


2.5 FID Slots

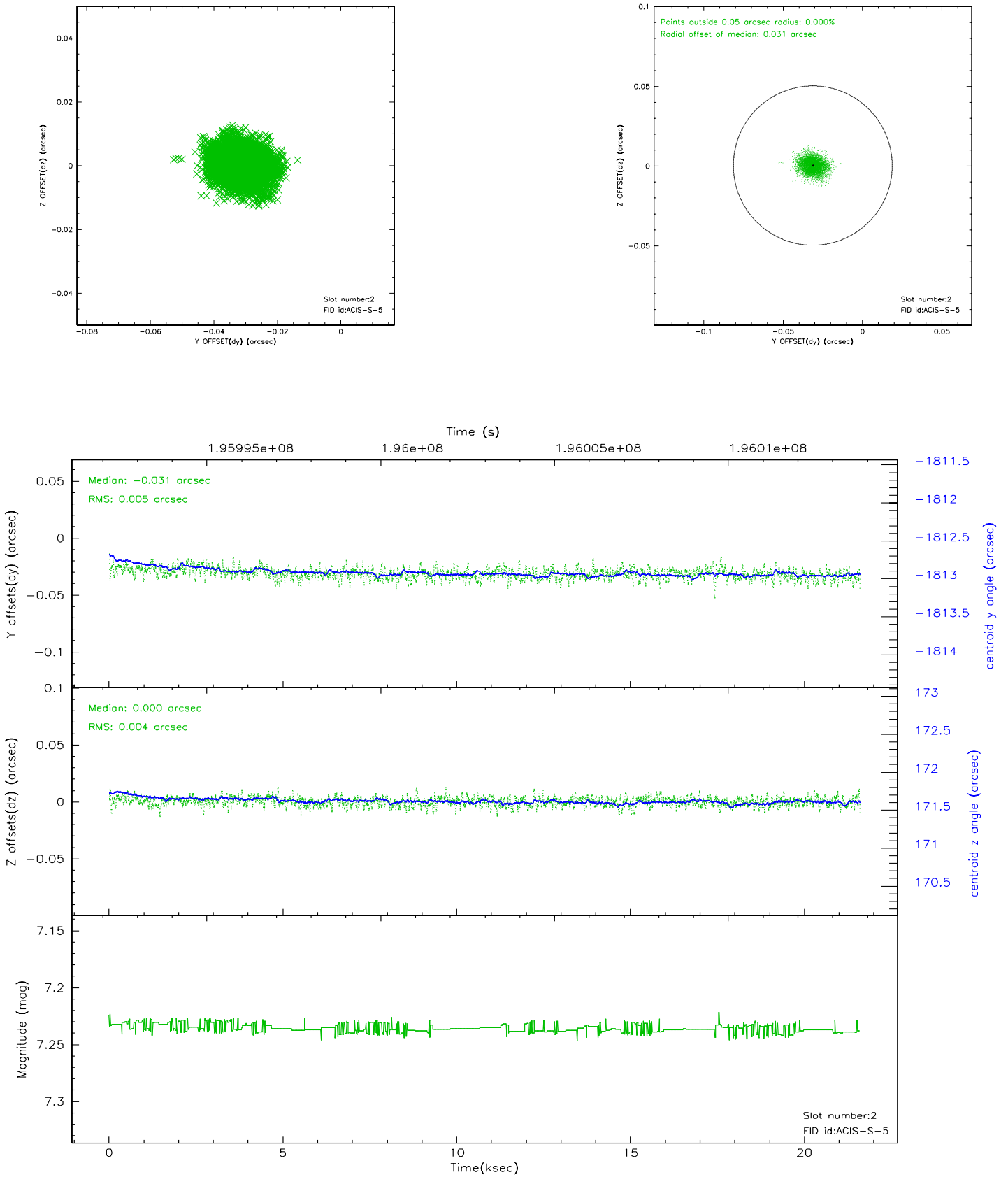
2.5.1 Slot 0



2.5.2 Slot 1

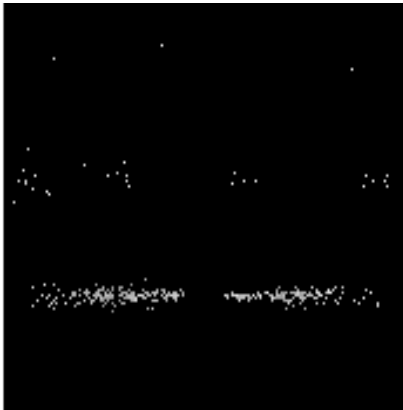


2.5.3 Slot 2



3 Gratings

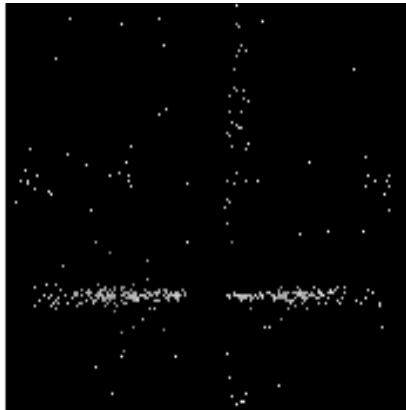
3.1 HEG Arm



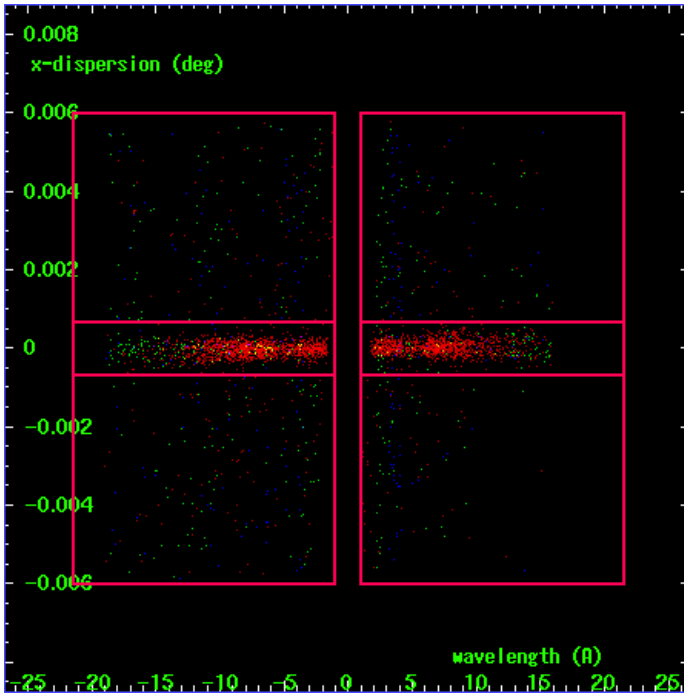
HEG Order Sort 123



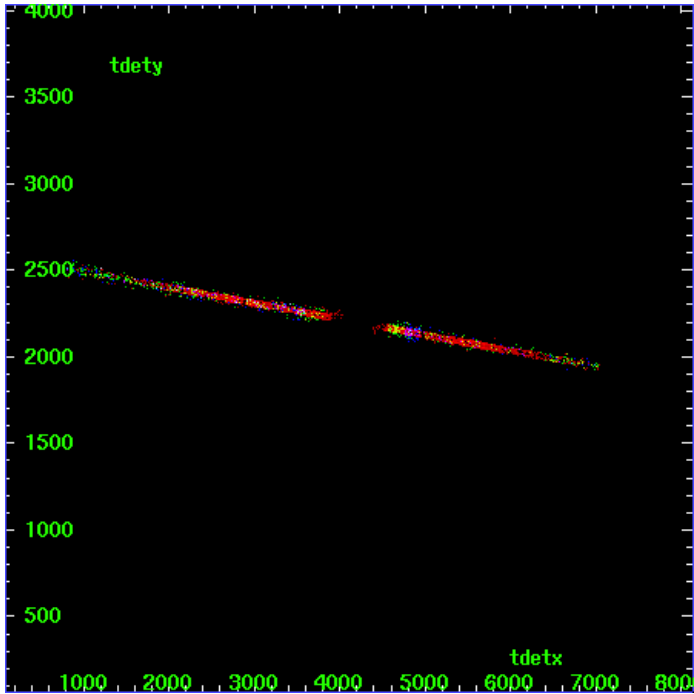
HEG Zero Order



HEG Order Sort ALL

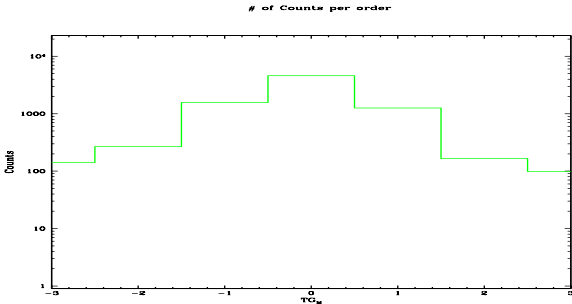


Spot Image HEG

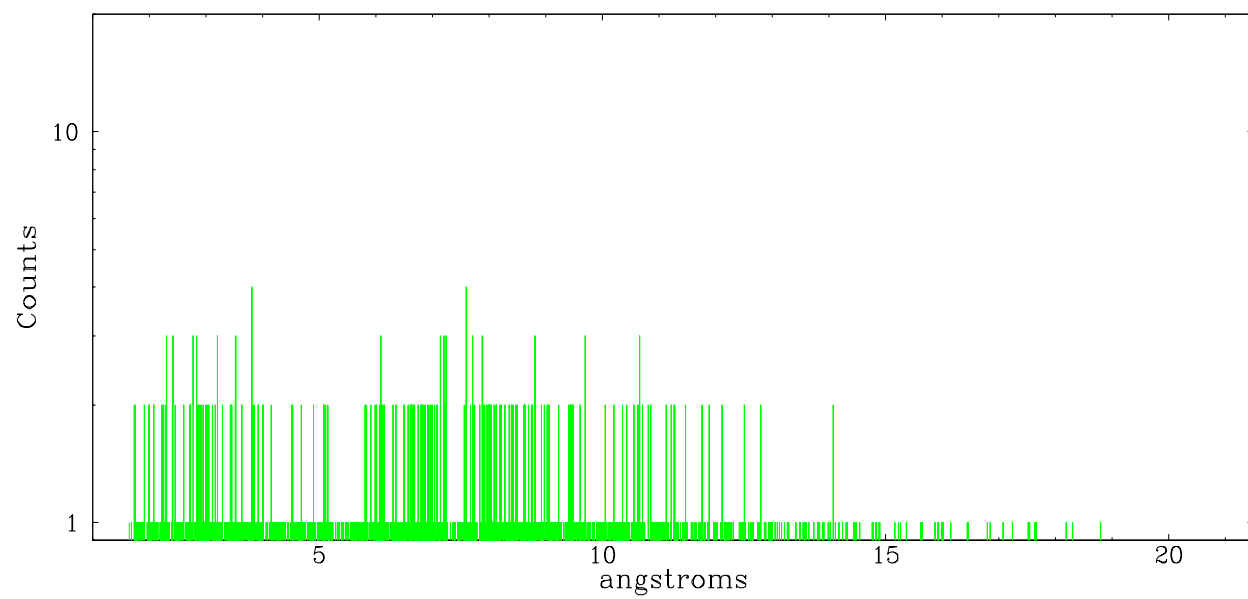


Full Detector HEG

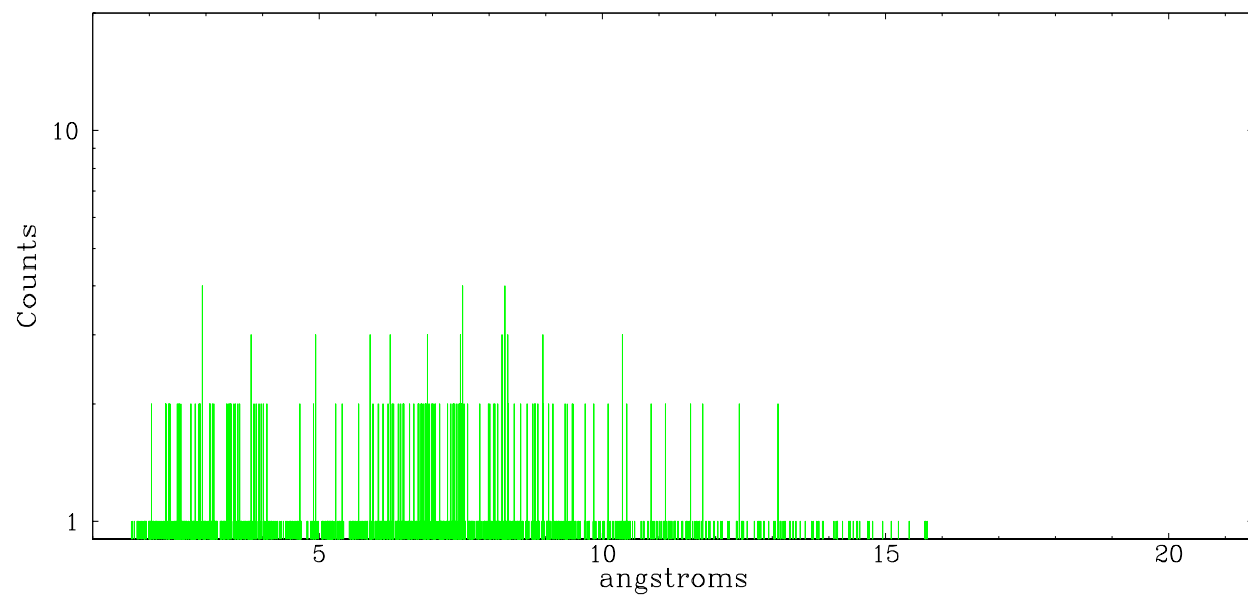
| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|-------------|-------------|-------------|------------|------------|------------|------------|
| Events | 141 | 267 | 1563 | 4580 | 1262 | 165 | 99 |



heg order -1



heg order +1



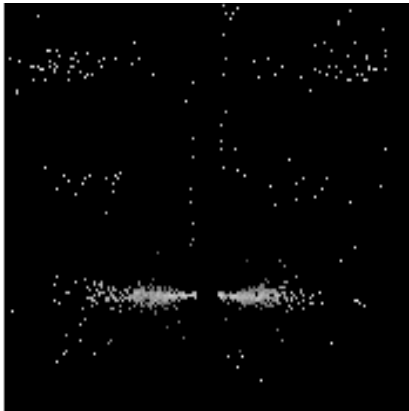
3.2 MEG Arm



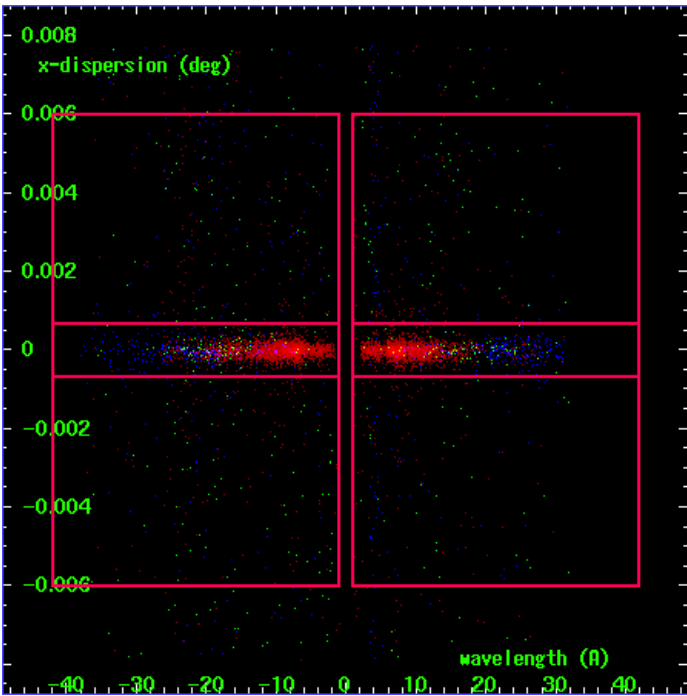
MEG Order Sort 123



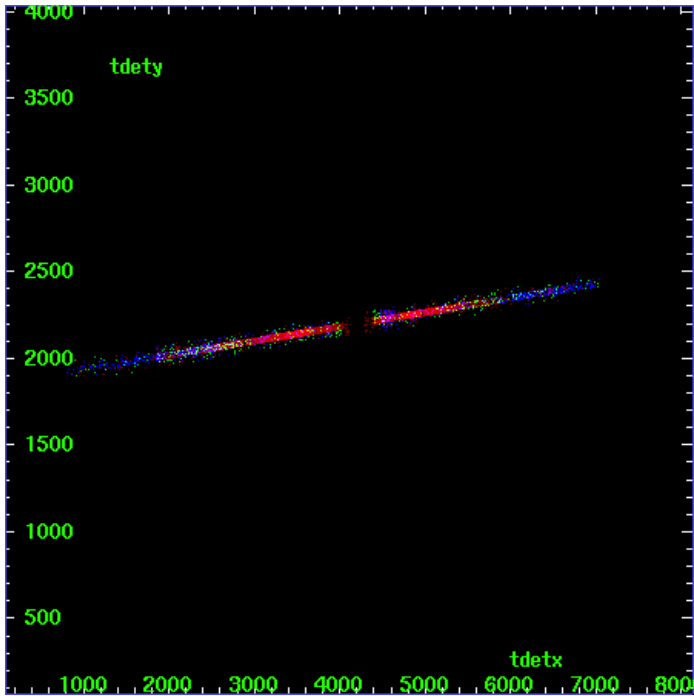
MEG Zero Order



MEG Order Sort ALL

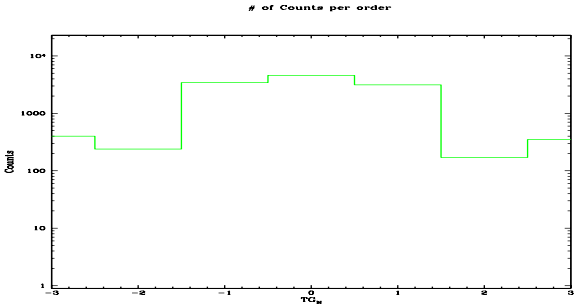


Spot Image MEG

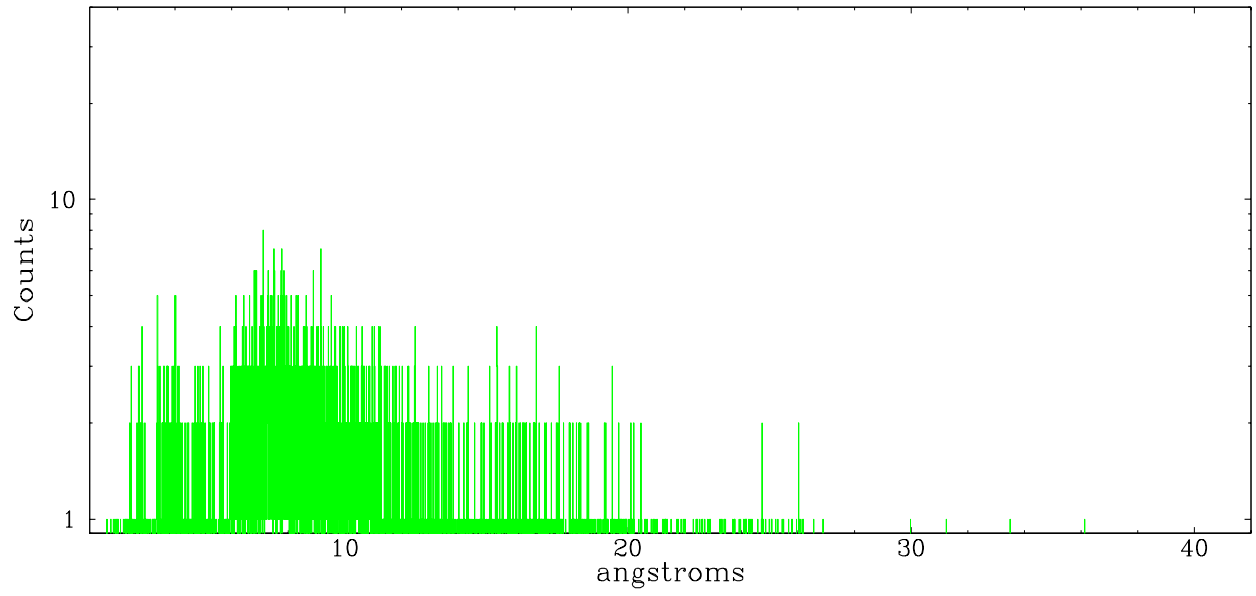


Full Detector MEG

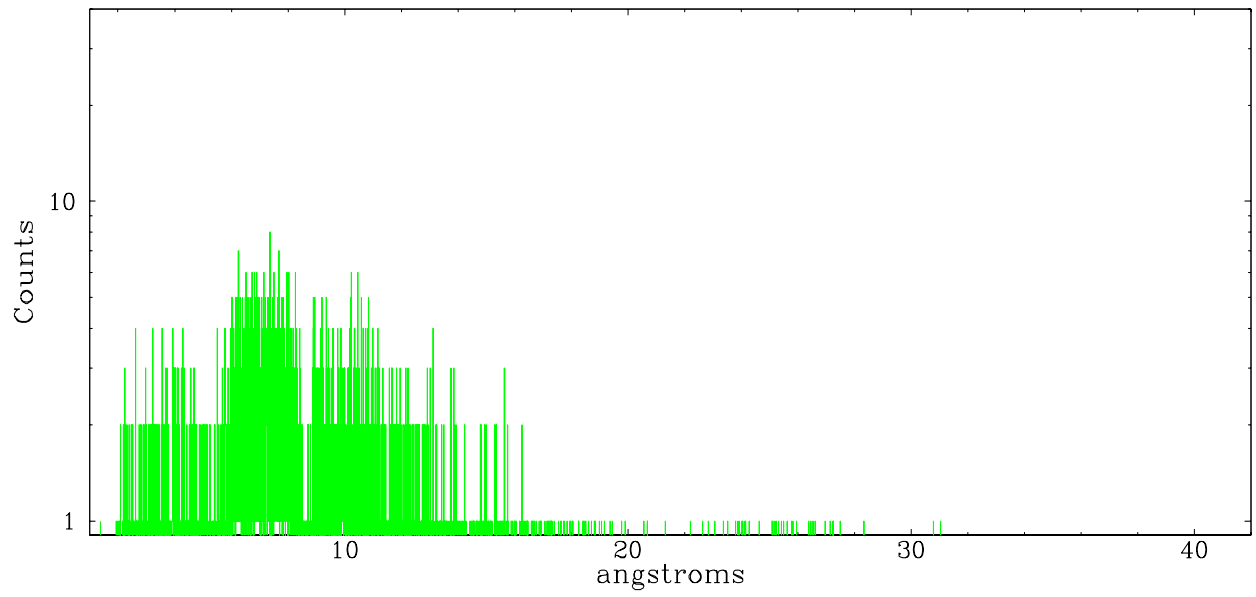
| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|-------------|-------------|-------------|------------|------------|------------|------------|
| Events | 400 | 239 | 3432 | 4580 | 3135 | 171 | 350 |



meg order -1



meg order +1



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2006.05.30 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 21.26 |

A.2 Comments