

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 6896 - L2 Version 2
Chandra X-Ray Center

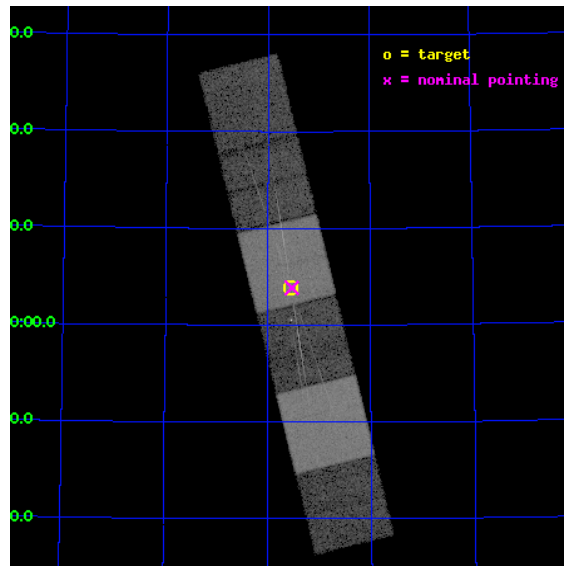
L2 Processing Date : Apr 1 2012

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1 Front

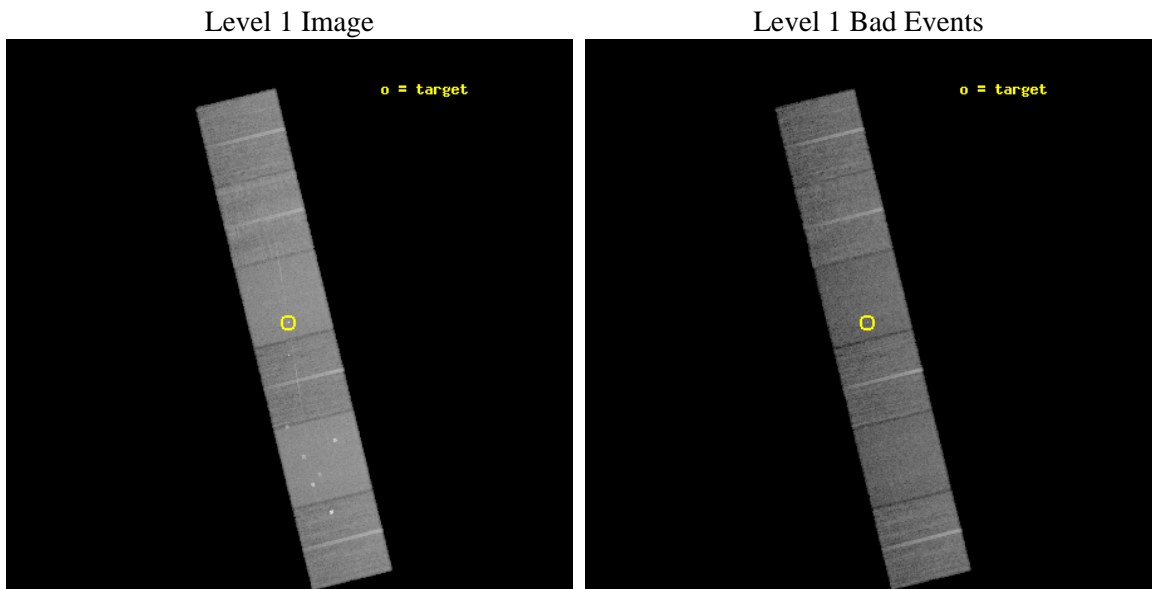
| | | |
|----------|---|---|
| seq_num | 701313 | Sequence number |
| obs_id | 6896 | Observation id |
| title | Testing Broad-Band Jet-Powered Emission in the LLAGN M81* | Proposal |
| observer | Dr Jon Miller | Principal investigator |
| object | M81* | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 148.888333 | Observer's specified target RA [deg] |
| dec_targ | 69.065306 | Observer's specified target Dec [deg] |
| ra_nom | 148.88300386366 | Nominal RA [deg] |
| dec_nom | 69.064520269139 | Nominal Dec [deg] |
| roll_nom | 256.18908907553 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 14952.675044596 | Sum of GTIs [s] |
| livetime | 14763.335269762 | Livetime [s] |
| ontime4 | 14952.716084599 | Sum of GTIs [s] |
| ontime5 | 14952.634004593 | Sum of GTIs [s] |
| ontime6 | 14952.59296459 | Sum of GTIs [s] |
| ontime7 | 14952.675044596 | Sum of GTIs [s] |
| ontime8 | 14952.551924586 | Sum of GTIs [s] |
| ontime9 | 14952.510884613 | Sum of GTIs [s] |
| l2events | 222758 | Number of level 2 events |



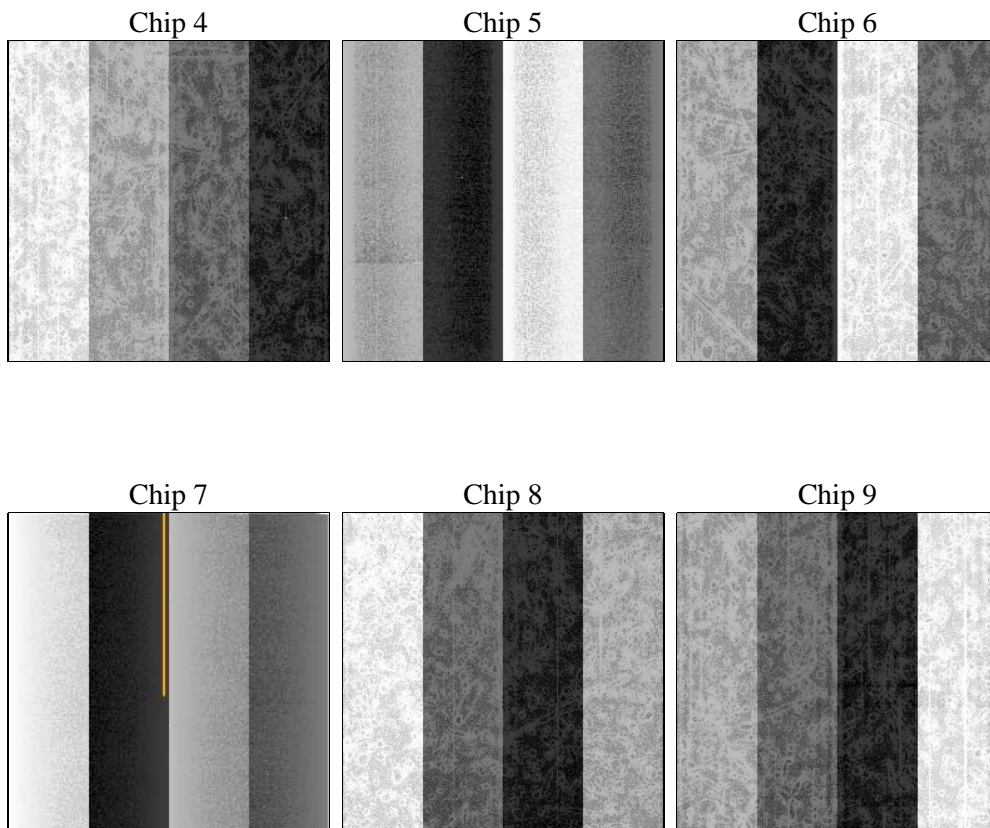
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 15000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3 | Processing system revision | ontime | 14952.675044596 | Sum of GTIs [s] |
| caldsver | 4.4.9 | | ontime4 | 14952.716084599 | Sum of GTIs [s] |
| date | 2012-04-01T05:07:53 | Date and time of file creation | ontime5 | 14952.634004593 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime6 | 14952.59296459 | Sum of GTIs [s] |
| | | | ontime7 | 14952.675044596 | Sum of GTIs [s] |
| | | | ontime8 | 14952.551924586 | Sum of GTIs [s] |
| | | | ontime9 | 14952.510884613 | Sum of GTIs [s] |
| | | | l1events | 970696 | Number of level 1 events |

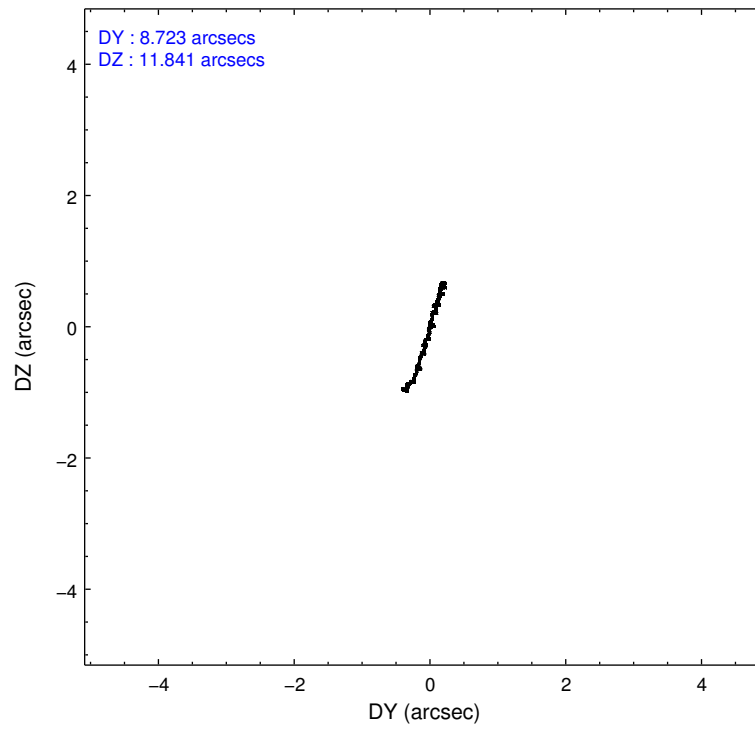
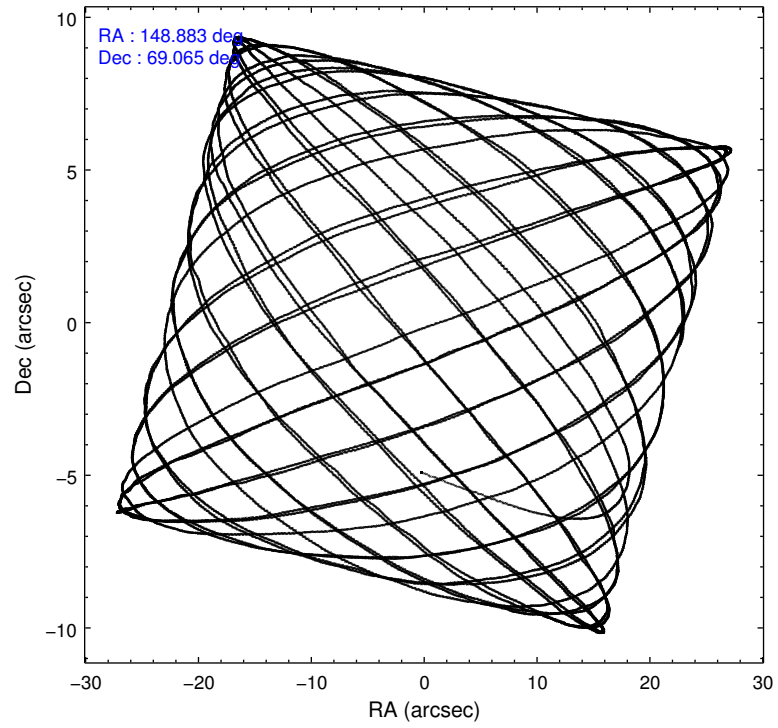
2.1.4 Events

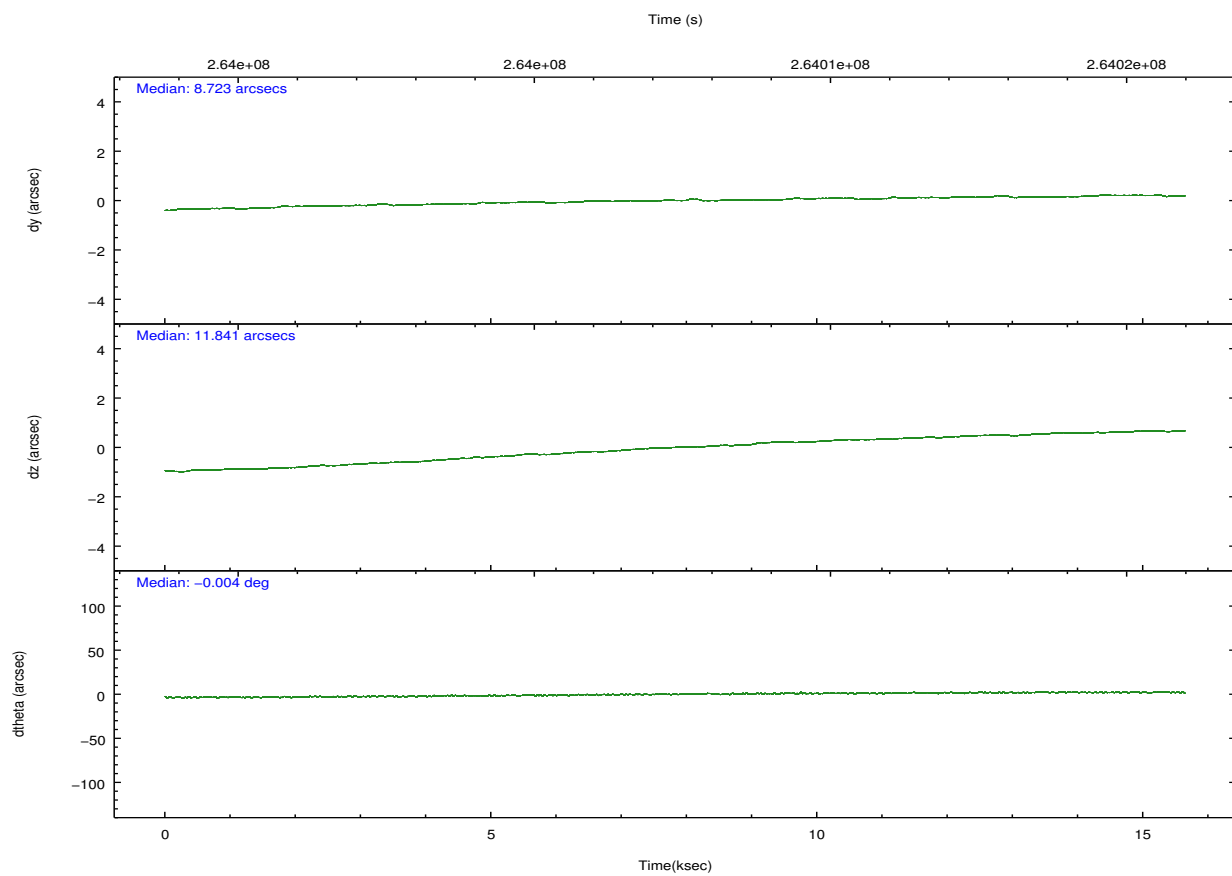
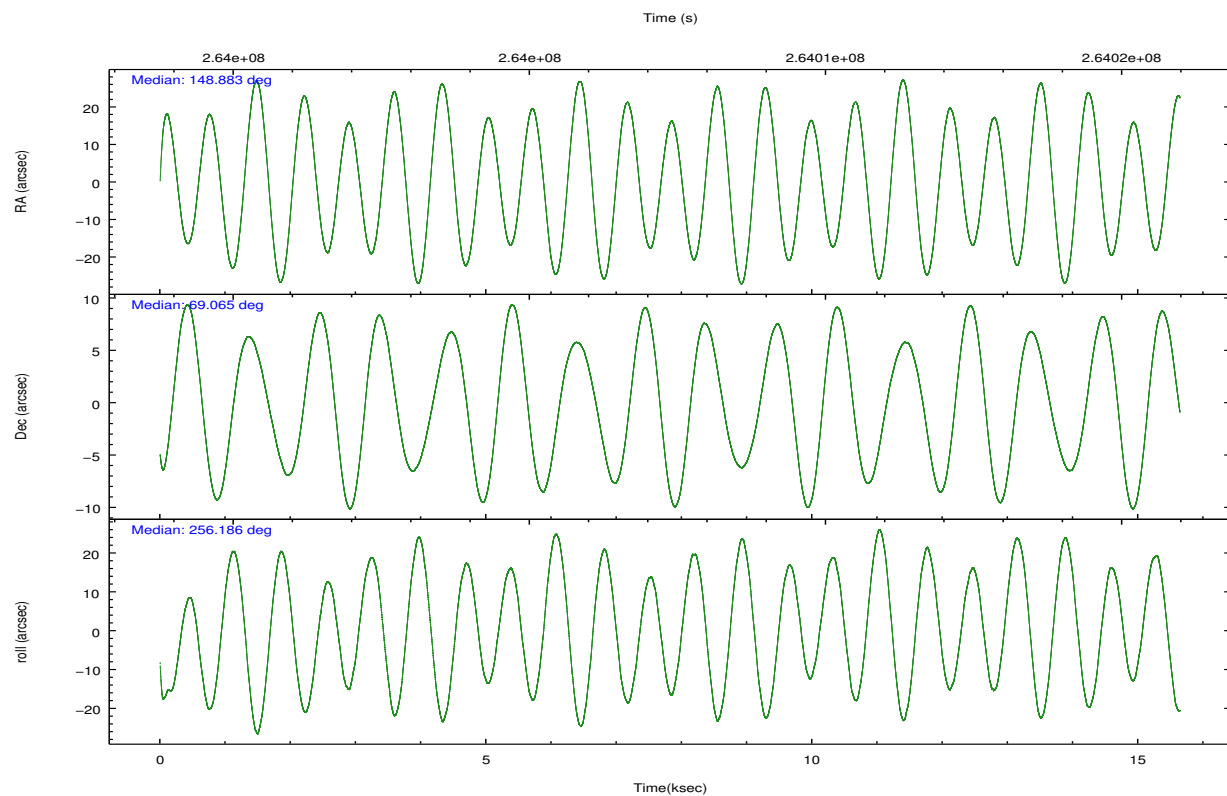
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 | | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|-------|--------|-------|--------|--------|
| level 1 events | 149218 | 201208 | 135573 | 184242 | 168708 | 131747 | grade 0 events | 11452 | 11136 | 8350 | 7490 | 12425 | 6786 |
| rejected events | 128675 | 107424 | 116970 | 105334 | 130676 | 115478 | | 7% | 5% | 6% | 4% | 7% | 5% |
| rejected % | 86% | 53% | 86% | 57% | 77% | 87% | grade 1 events | 139 | 378 | 93 | 193 | 123 | 75 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 3445 | 26995 | 3699 | 15927 | 8281 | 3181 |
| | | | | | | | | 2% | 13% | 2% | 8% | 4% | 2% |
| | | | | | | | grade 3 events | 1613 | 3539 | 1642 | 7041 | 4069 | 1657 |
| | | | | | | | | 1% | 1% | 1% | 3% | 2% | 1% |
| | | | | | | | grade 4 events | 1573 | 3466 | 1574 | 6850 | 3703 | 1540 |
| | | | | | | | | 1% | 1% | 1% | 3% | 2% | 1% |
| | | | | | | | grade 5 events | 5918 | 14730 | 6128 | 17301 | 8166 | 6543 |
| | | | | | | | | 3% | 7% | 4% | 9% | 4% | 4% |
| | | | | | | | grade 6 events | 2465 | 48667 | 3342 | 41617 | 9560 | 3107 |
| | | | | | | | | 1% | 24% | 2% | 22% | 5% | 2% |
| | | | | | | | grade 7 events | 122613 | 92297 | 110745 | 87823 | 122381 | 108858 |
| | | | | | | | | 82% | 45% | 81% | 47% | 72% | 82% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| 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 |
| [deg] Pointing RA | 148.860695 | 148.8830038636618 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 69.090529 | 69.06452026913938 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 256.053303 | 256.1890890755267 | [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) | 264000200.184000 | 263998863.95243 | | | |
| Observation start date | 2006-05-14T13:22:15 | 2006-05-14T13:01:03 | | | |
| [s] Observation end time (MET) | 264015200.184000 | 264015691.89072 | | | |
| Observation end date | 2006-05-14T17:32:15 | 2006-05-14T17:41:31 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



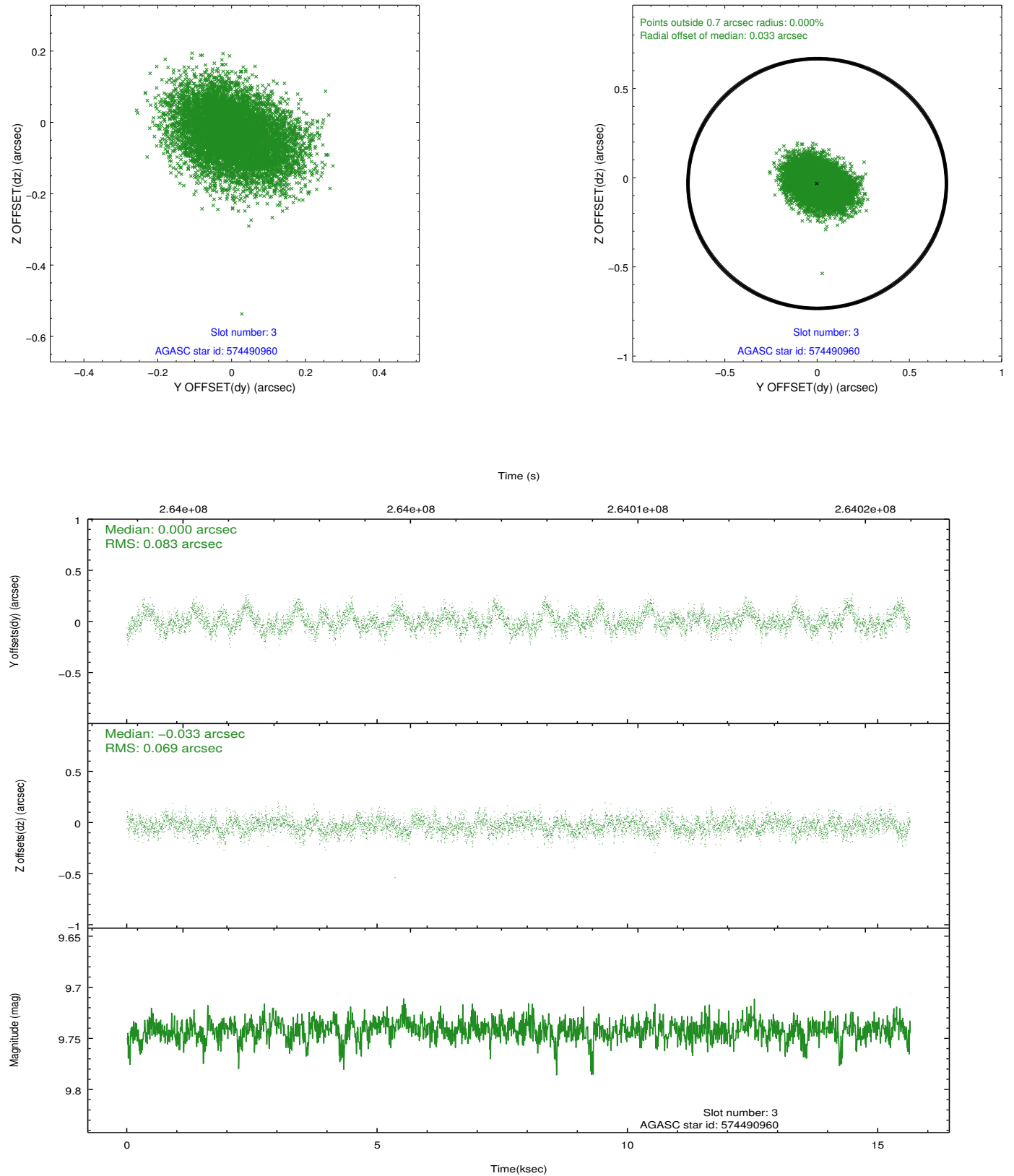


Slot Statistics

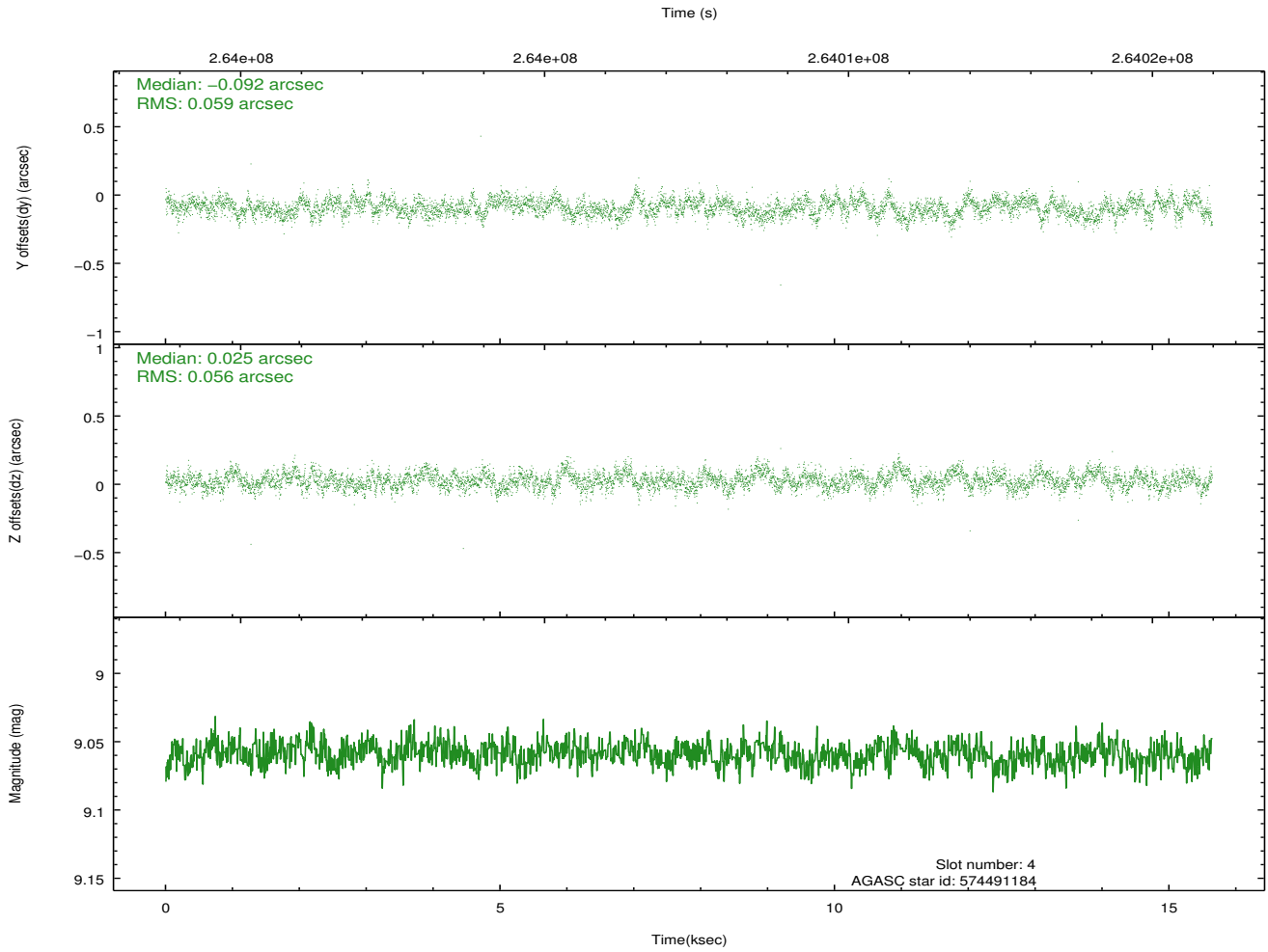
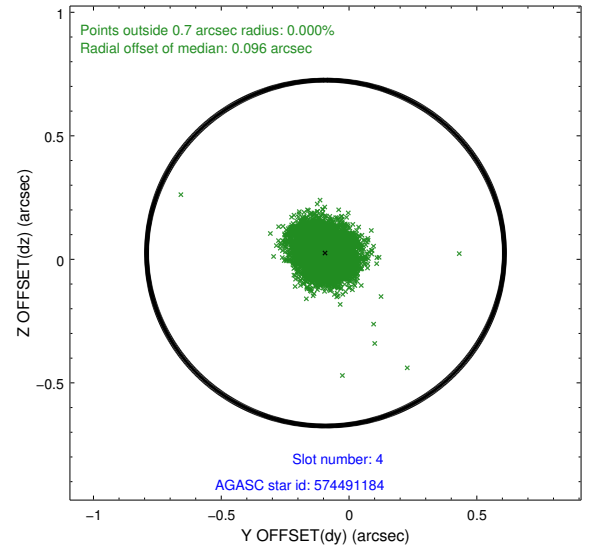
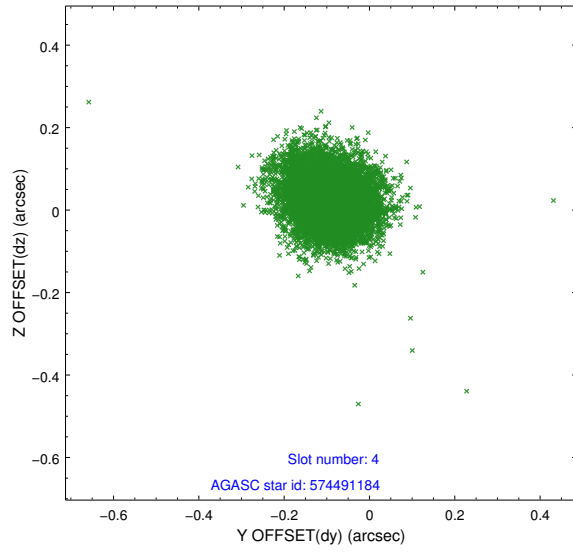
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|-------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 3816 | -0.017 | -0.021 | 0.018 | 0.026 | 0.000000 | 0.000000 | -761.51 | -1733.09 |
| 1 | FID | ACIS-S-4 | 7.20 | 3815 | 0.123 | 0.015 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2151.77 | 175.15 |
| 2 | FID | ACIS-S-5 | 7.23 | 3816 | -0.135 | 0.016 | 0.019 | 0.027 | 0.000000 | 0.000000 | -1814.11 | 169.13 |
| 3 | GUIDE | 574490960 | 9.74 | 7610 | 0.000 | -0.033 | 0.115 | 0.188 | 148.185918 | 69.658768 | -1785.47 | -1313.51 |
| 4 | GUIDE | 574491184 | 9.06 | 7626 | -0.092 | 0.025 | 0.086 | 0.136 | 148.582453 | 69.768699 | -2286.40 | -924.68 |
| 5 | GUIDE | 574491280 | 9.35 | 7624 | 0.041 | 0.033 | 0.109 | 0.181 | 148.611567 | 69.450135 | -1179.98 | -618.03 |
| 6 | GUIDE | 574493848 | 10.18 | 7613 | -0.018 | -0.037 | 0.169 | 0.277 | 147.355161 | 69.035593 | 636.73 | -1839.52 |
| 7 | GUIDE | 574500920 | 10.09 | 7621 | 0.062 | 0.009 | 0.183 | 0.304 | 147.014605 | 68.742334 | 1762.99 | -2044.51 |

2.4 Star Slots

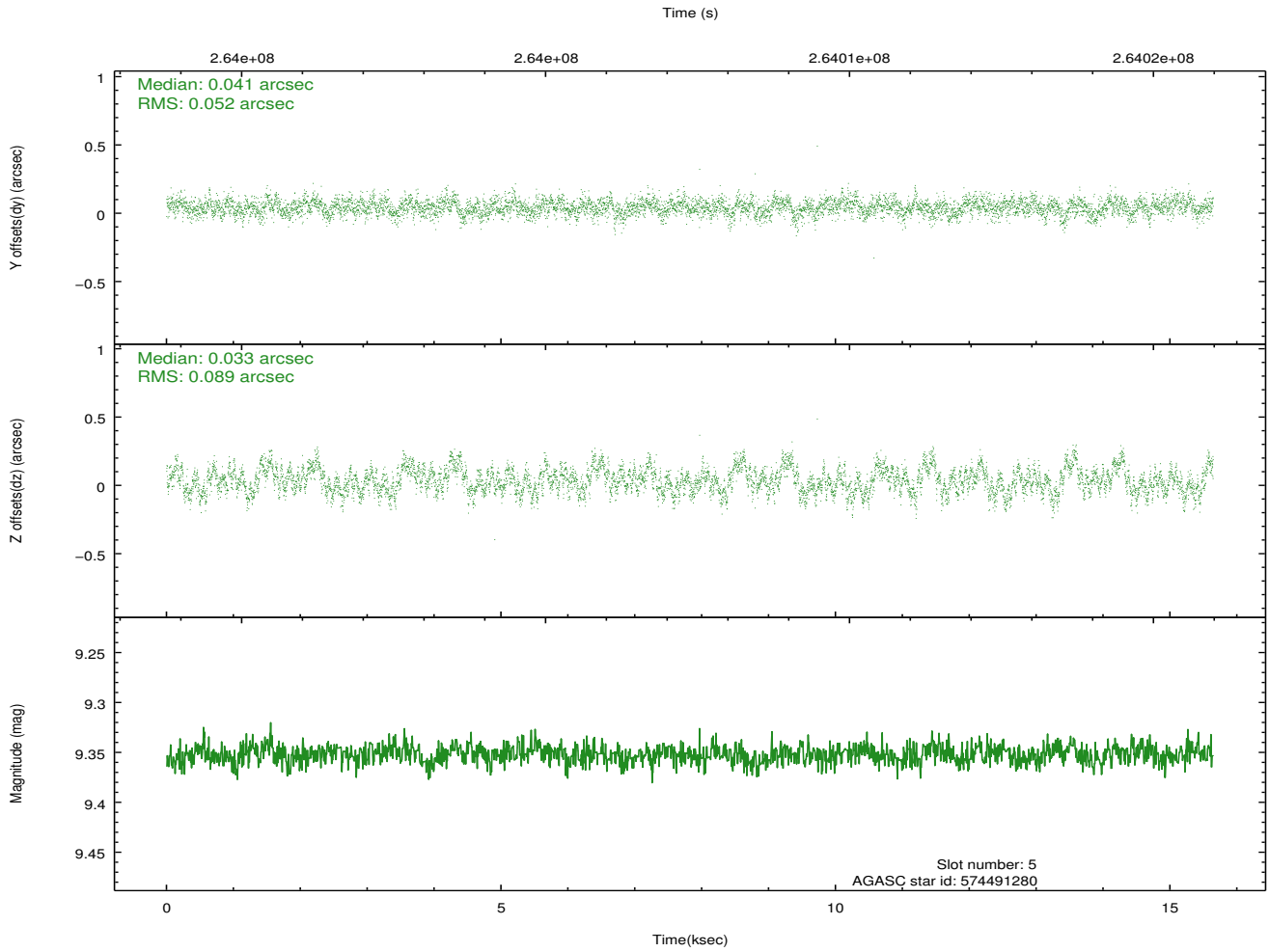
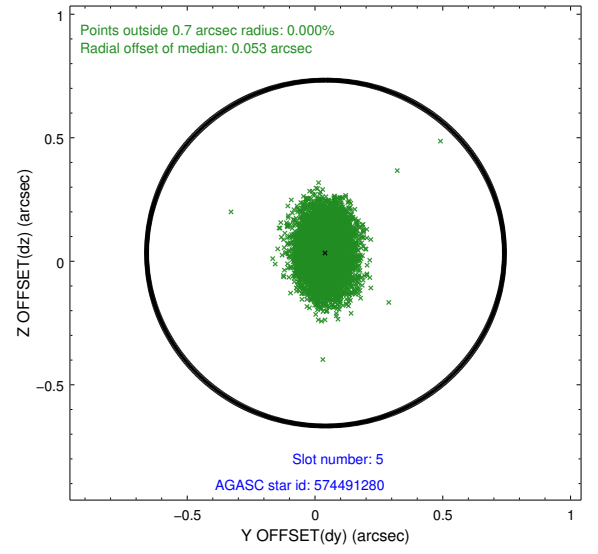
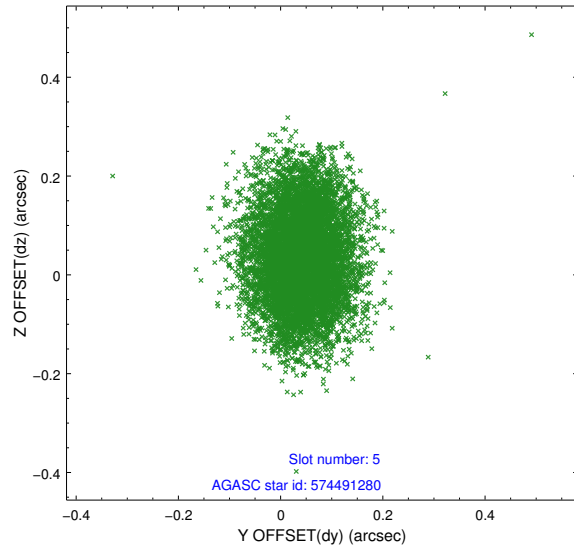
2.4.1 Slot 3



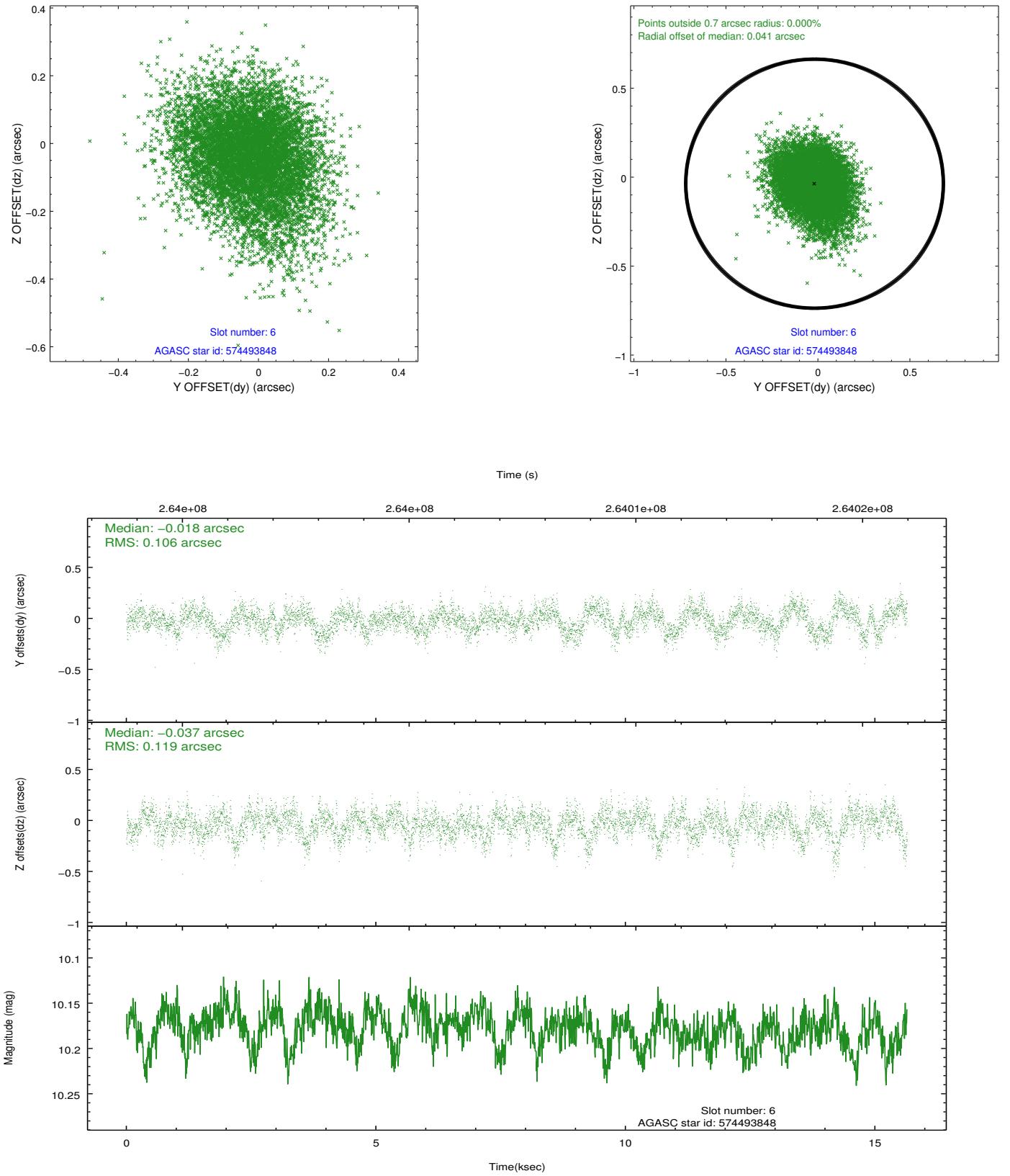
2.4.2 Slot 4



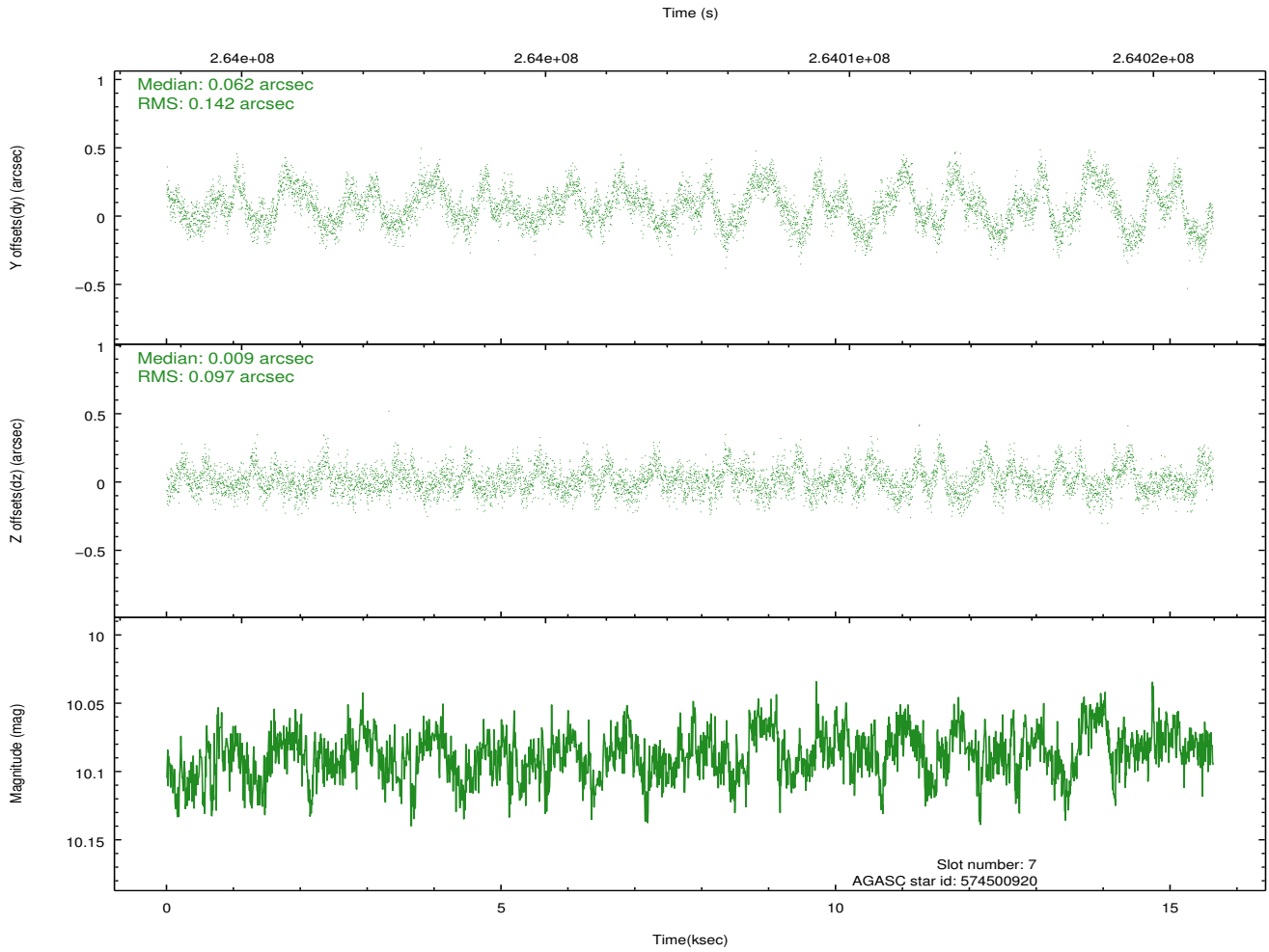
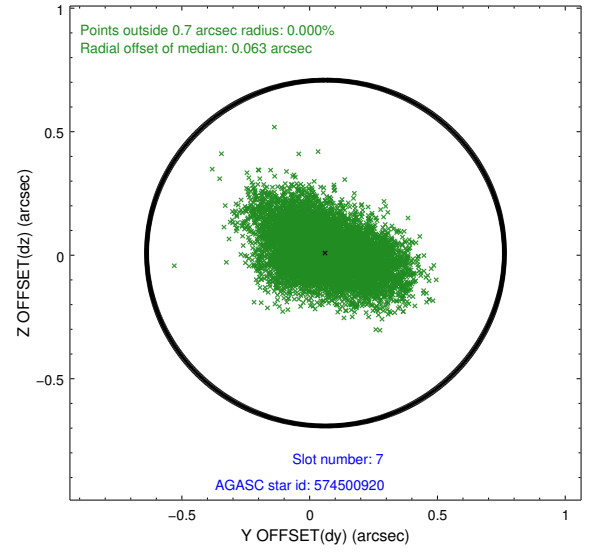
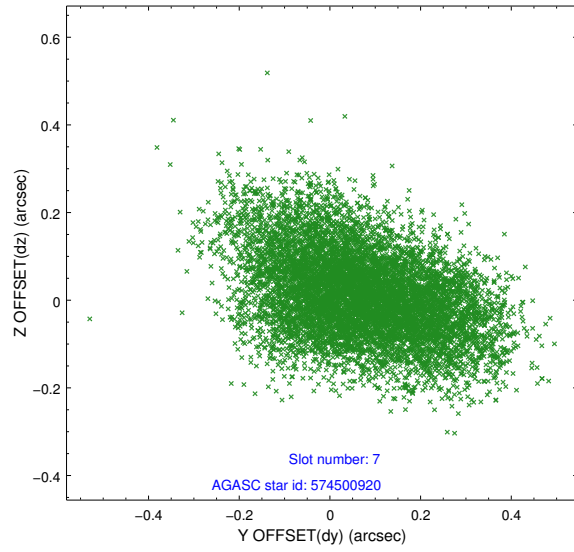
2.4.3 Slot 5



2.4.4 Slot 6

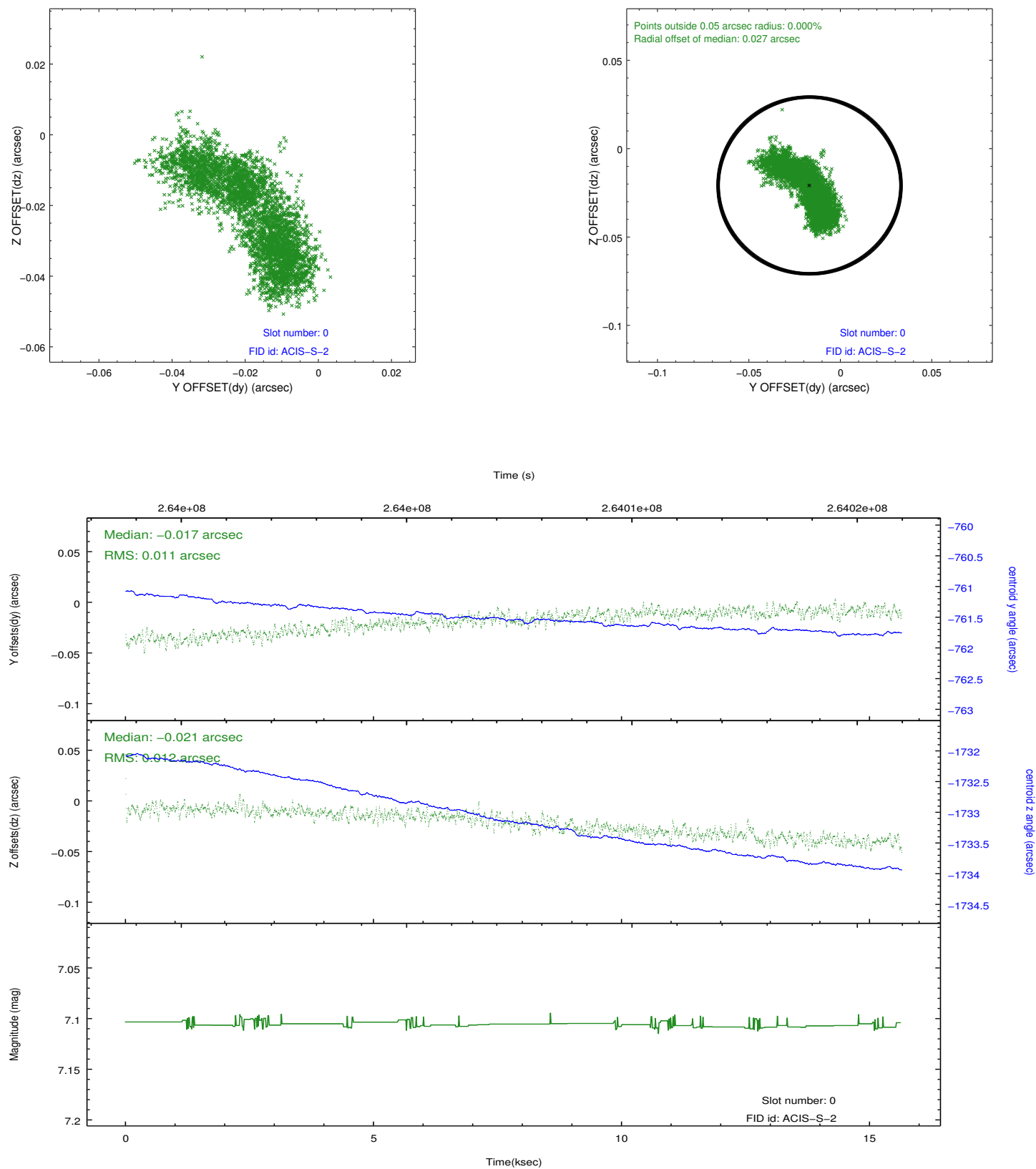


2.4.5 Slot 7

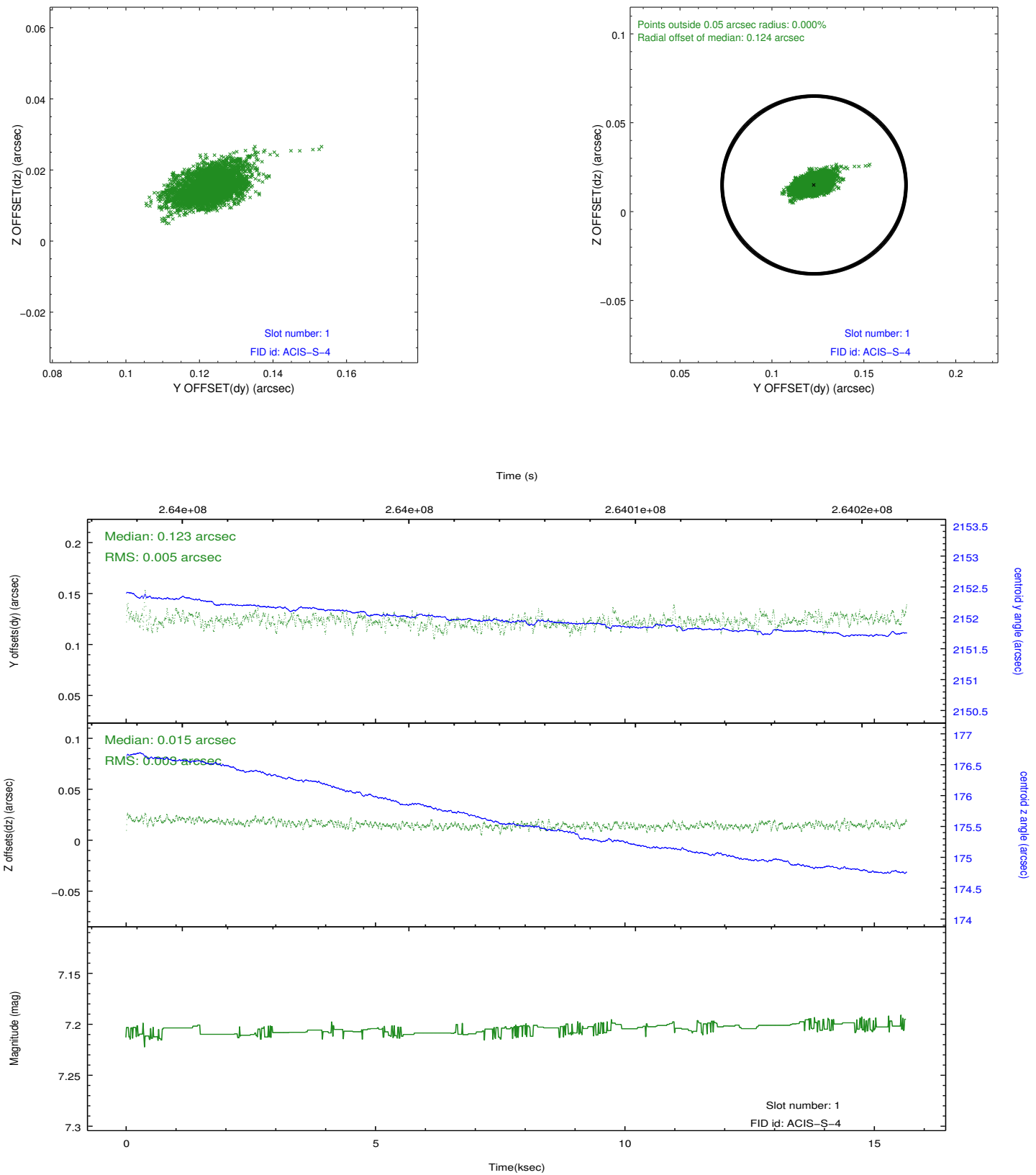


2.5 FID Slots

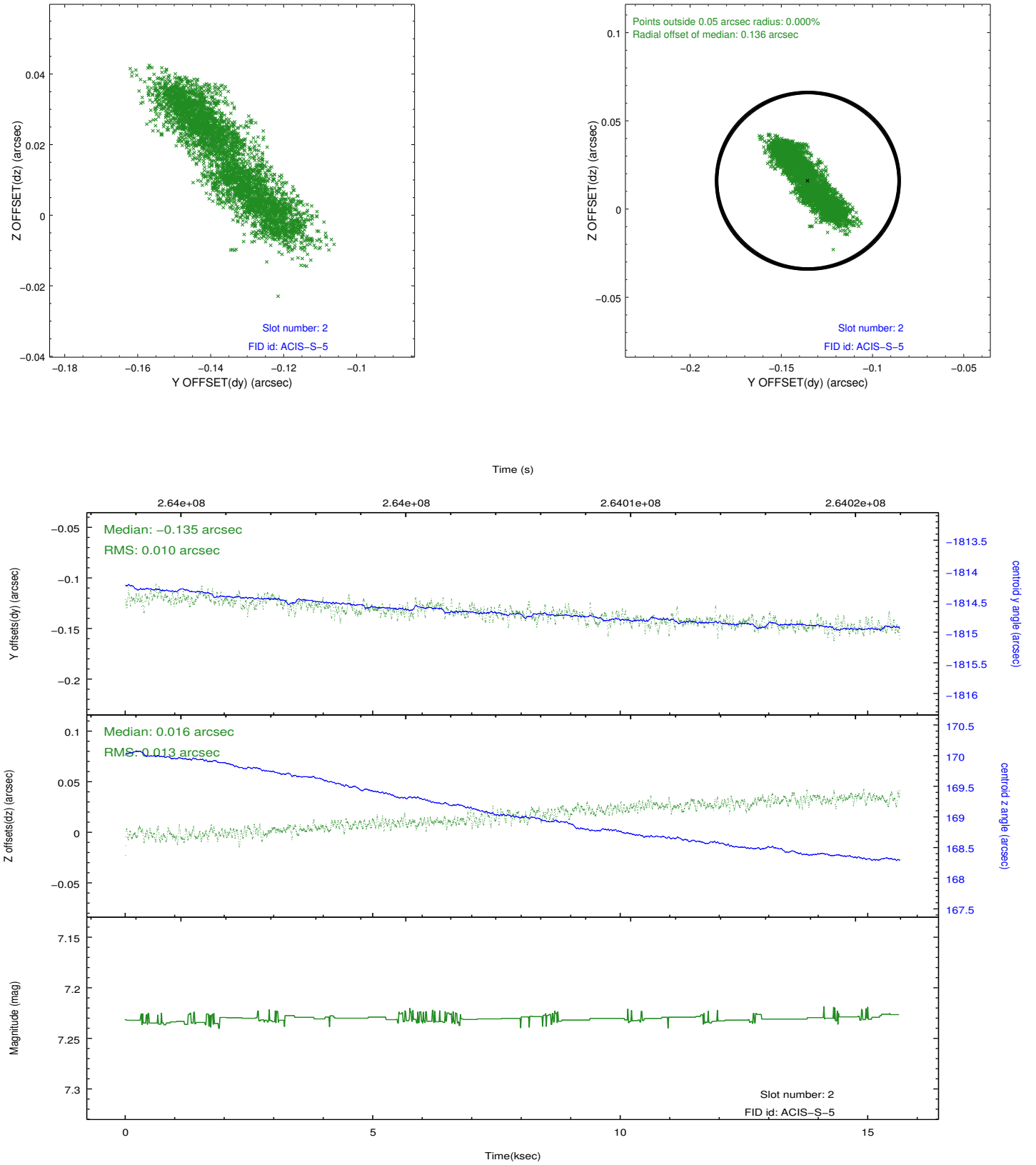
2.5.1 Slot 0



2.5.2 Slot 1

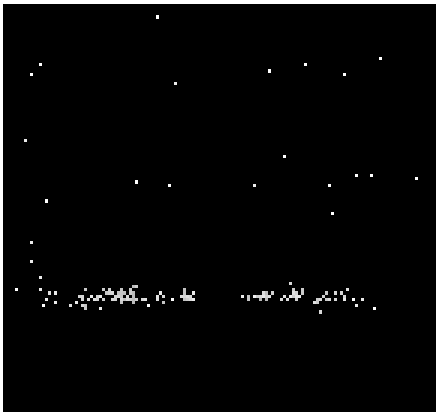


2.5.3 Slot 2

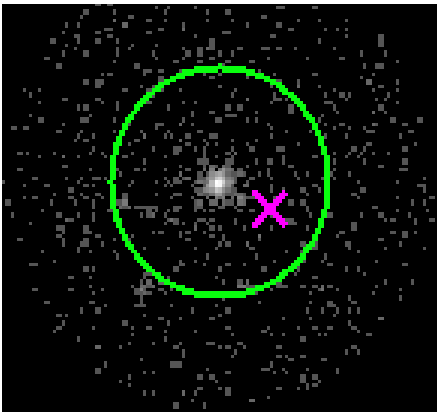


3 Gratings

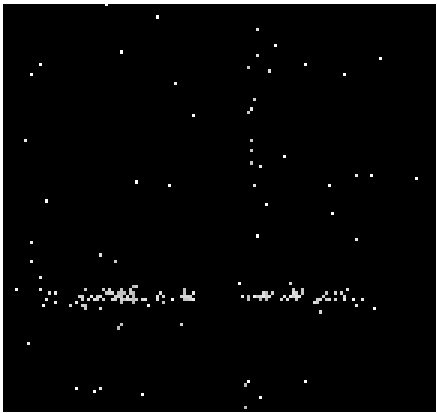
3.1 HEG Arm



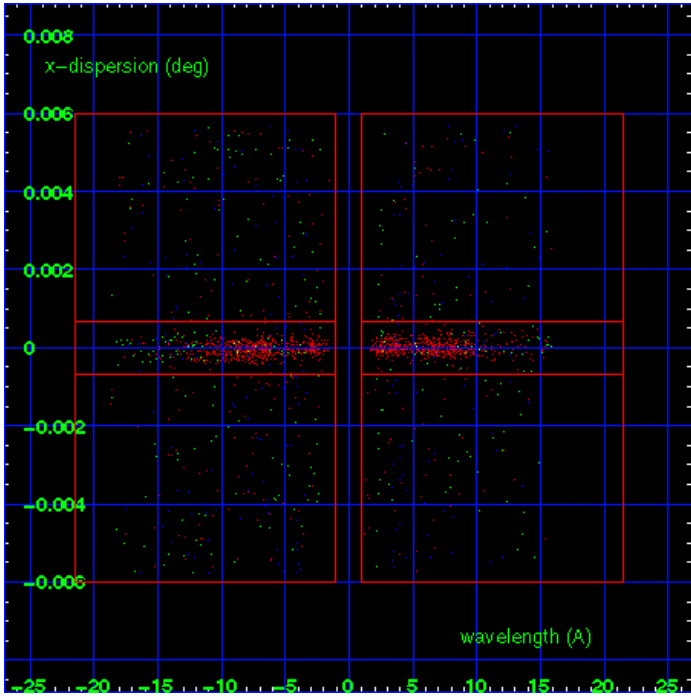
HEG Order Sort 123



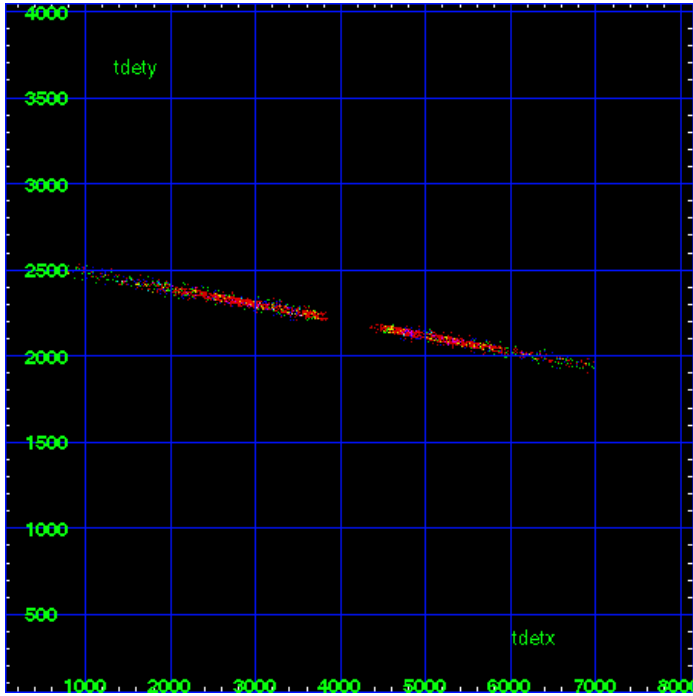
HEG Zero Order



HEG Order Sort ALL

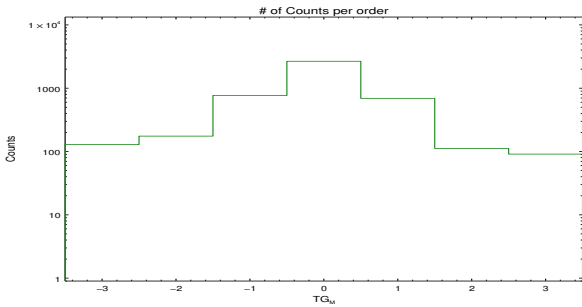


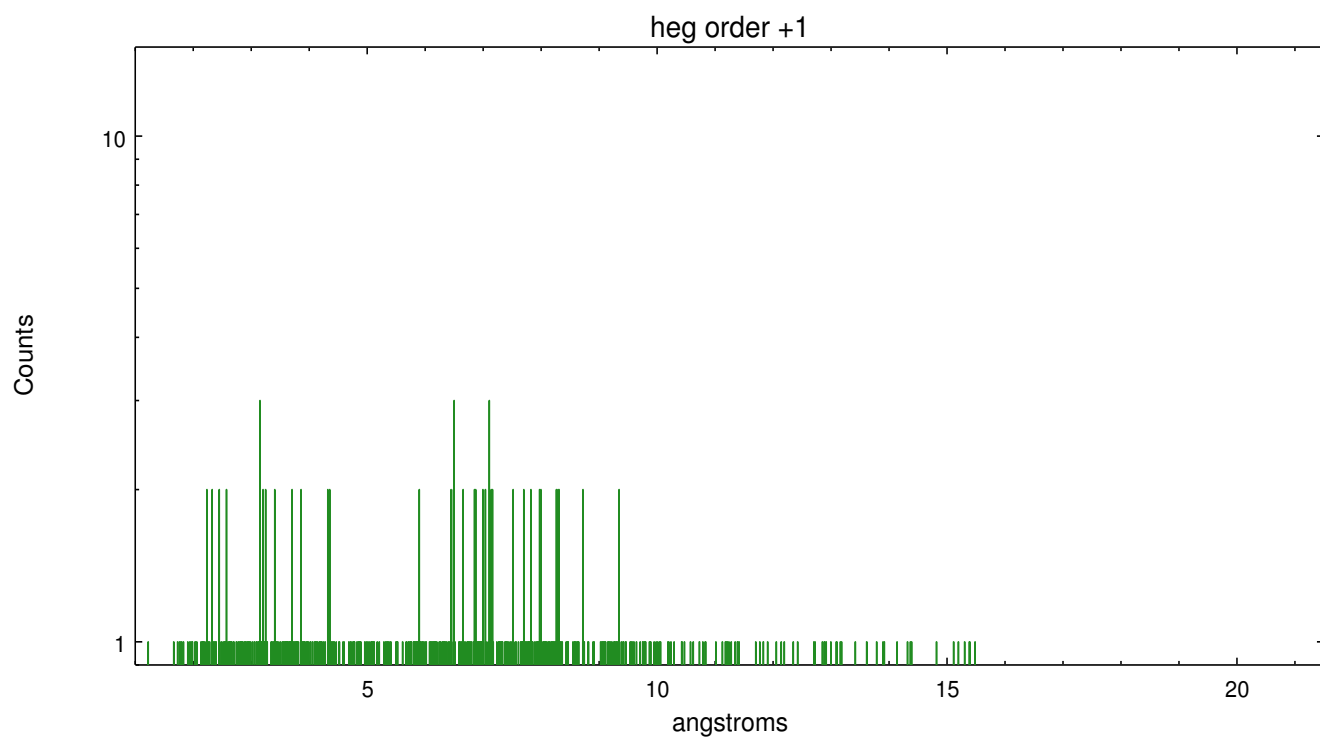
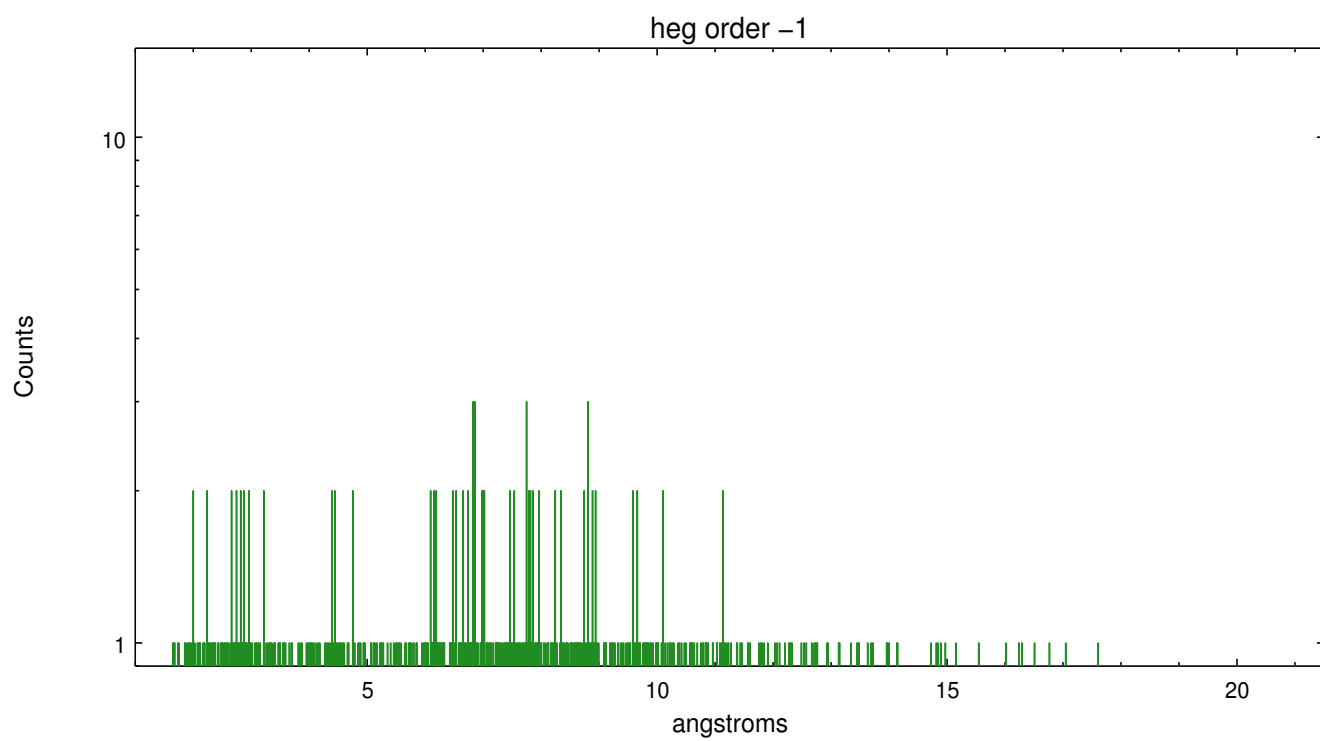
Spot Image HEG



Full Detector HEG

| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|-------------|-------------|-------------|------------|------------|------------|------------|
| Events | 129 | 175 | 768 | 2660 | 691 | 112 | 91 |

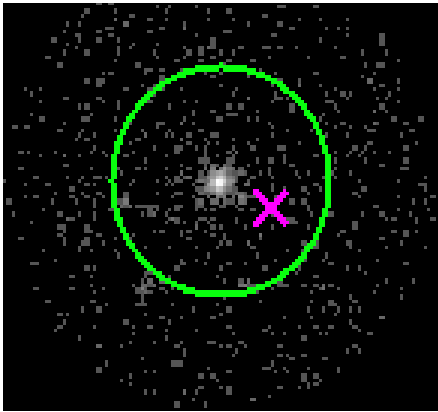




3.2 MEG Arm



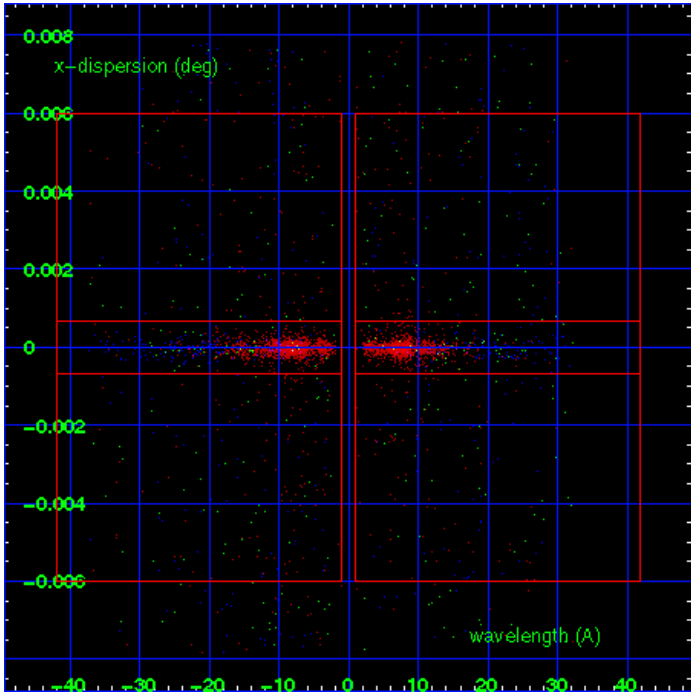
MEG Order Sort 123



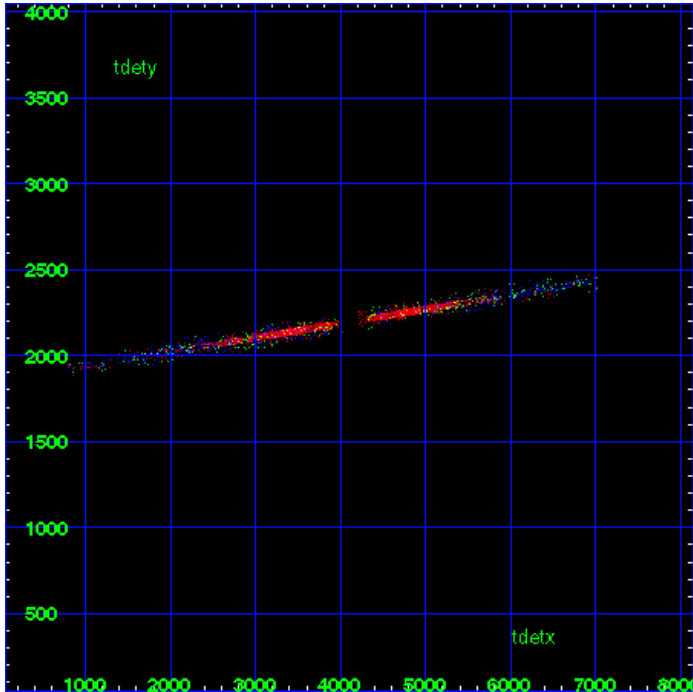
MEG Zero Order



MEG Order Sort ALL

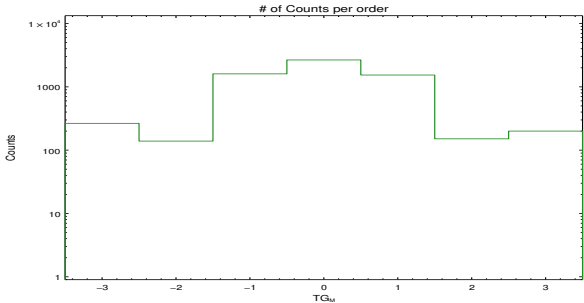


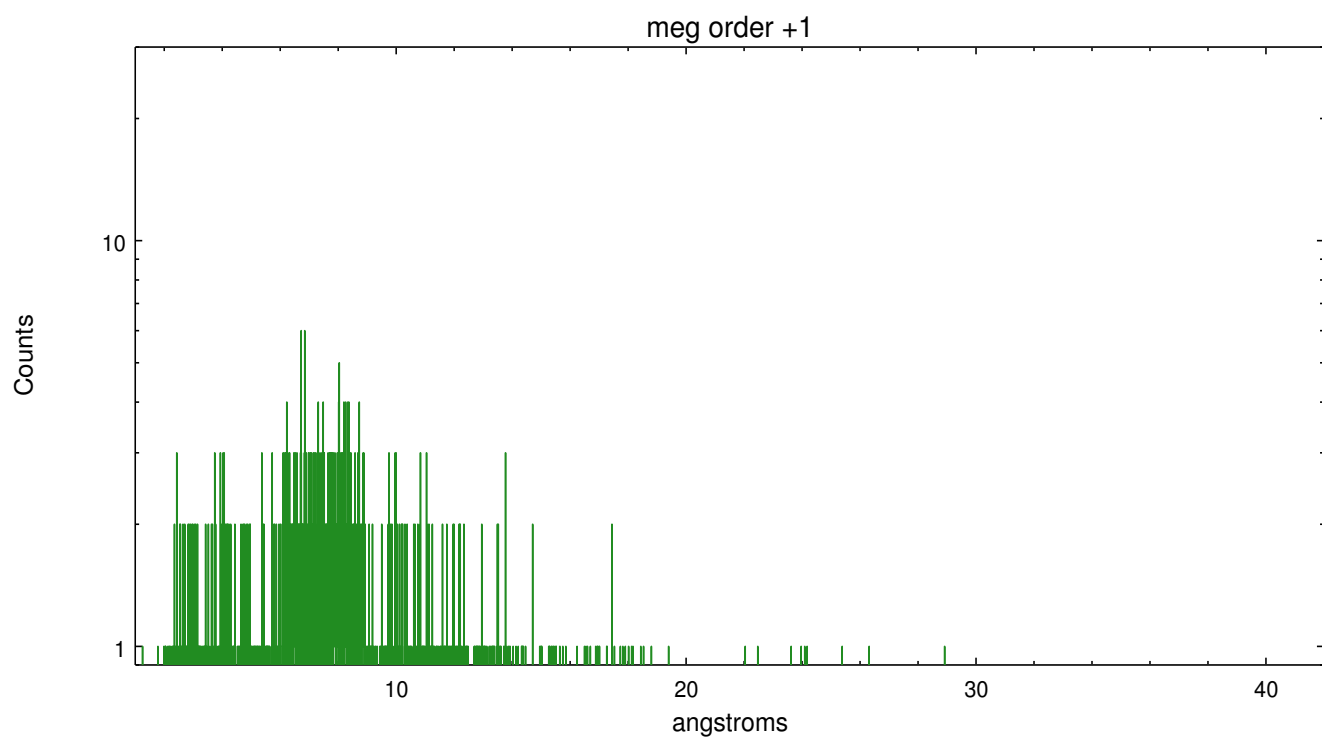
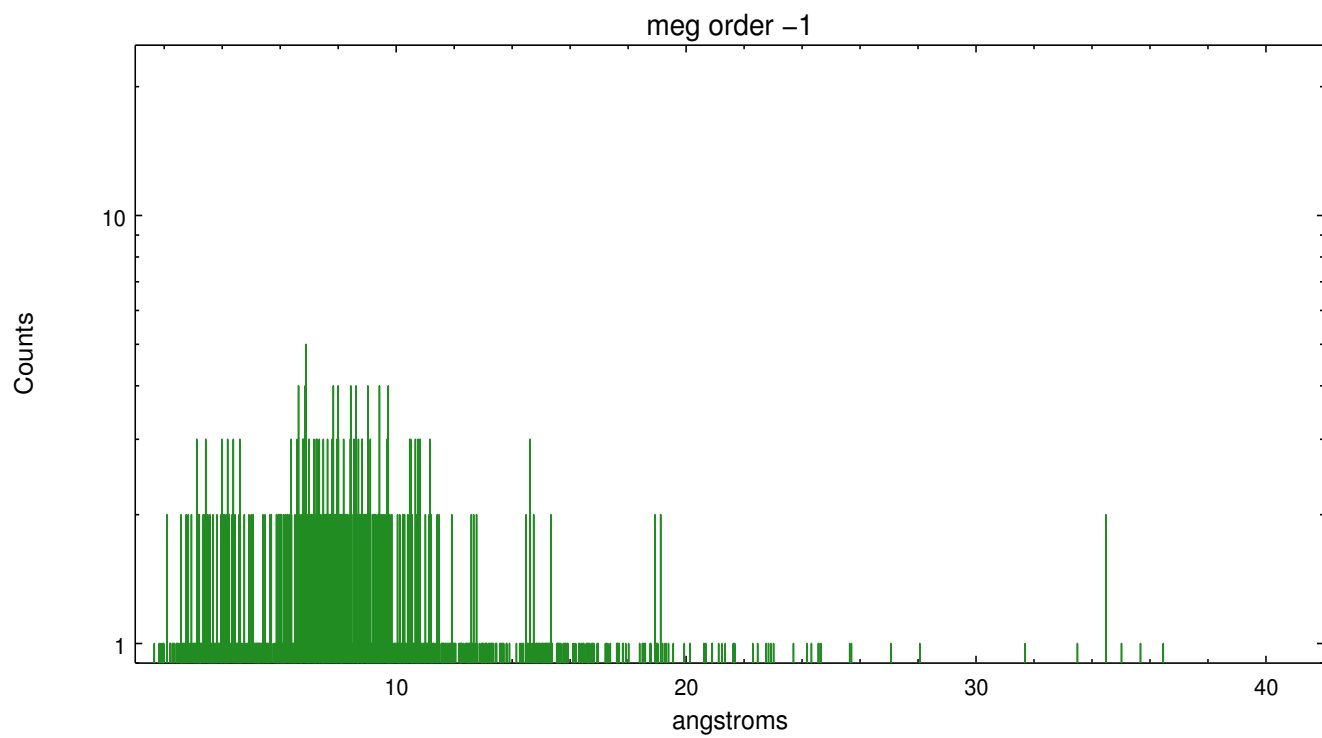
Spot Image MEG



Full Detector MEG

| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|-------------|-------------|-------------|------------|------------|------------|------------|
| Events | 265 | 139 | 1604 | 2660 | 1537 | 151 | 200 |





A Summary

A.1 Status

| | |
|----------------------------|-------------|
| V&V Scientist | Joy Nichols |
| V&V Date (YYYY-MM-DD) | 2012.04.04 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 14.9535999 |

A.2 Comments