

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 6617 - L2 Version 3
Chandra X-Ray Center

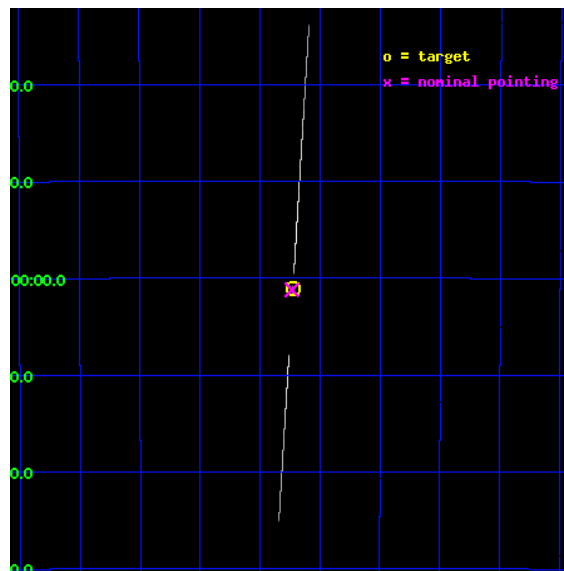
L2 Processing Date : Mar 29 2012

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1 Front

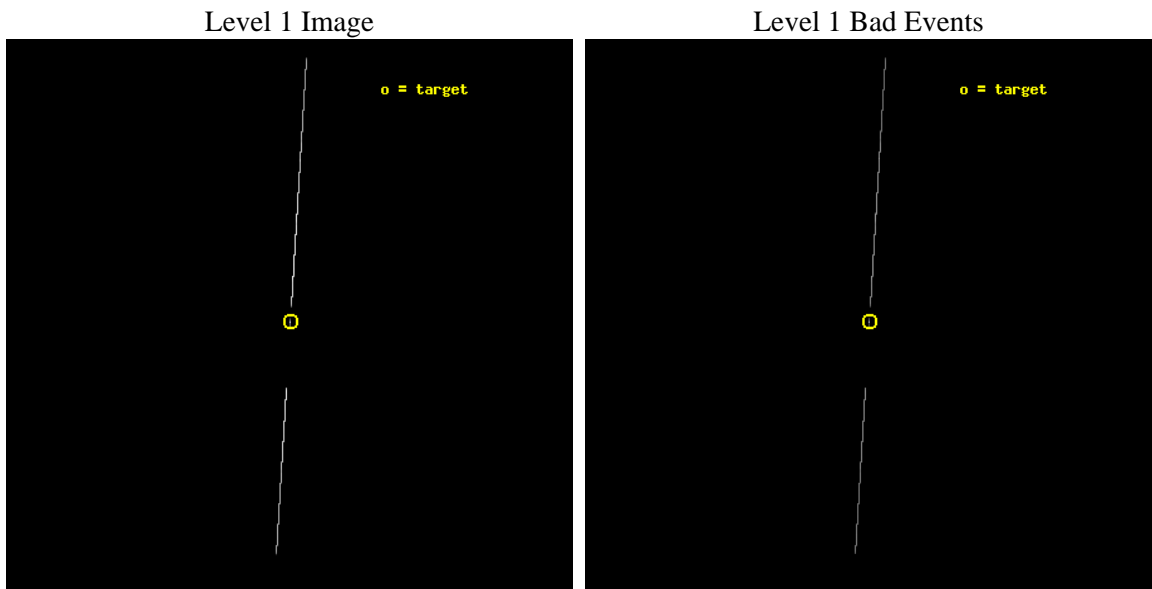
| | | |
|----------|---|---------------------------------------|
| seq_num | 400522 | Sequence number |
| obs_id | 6617 | Observation id |
| title | Relativistic Effects and Outflows in a Black Hole Transient | Propos |
| observer | Dr Jon Miller | Principal investigator |
| object | XTE J1817-330 | Source name |
| ra_targ | 274.431404 | Observer's specified target RA [deg] |
| dec_targ | -33.018833 | Observer's specified target Dec [deg] |
| ra_nom | 274.43349107149 | Nominal RA [deg] |
| dec_nom | -33.02018717106 | Nominal Dec [deg] |
| roll_nom | 93.475012840117 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 46710.75 | Sum of GTIs [s] |
| livetime | 46528.286132812 | Livetime [s] |
| ontime4 | 46710.75 | Sum of GTIs [s] |
| ontime5 | 46710.75 | Sum of GTIs [s] |
| ontime6 | 46703.450254887 | Sum of GTIs [s] |
| ontime7 | 46710.75 | Sum of GTIs [s] |
| ontime8 | 46710.75 | Sum of GTIs [s] |
| ontime9 | 46710.75 | Sum of GTIs [s] |
| l2events | 13638079 | 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 | 46579.184000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.3 | Processing system revision | ontime | 46710.75 | Sum of GTIs [s] |
| caldbver | 4.4.8 | | ontime4 | 46710.75 | Sum of GTIs [s] |
| date | 2012-03-28T06:36:48 | Date and time of file creation | ontime5 | 46710.75 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime6 | 46703.450254887 | Sum of GTIs [s] |
| | | | ontime7 | 46710.75 | Sum of GTIs [s] |
| | | | ontime8 | 46710.75 | Sum of GTIs [s] |
| | | | ontime9 | 46710.75 | Sum of GTIs [s] |
| | | | l1events | 15240937 | Number of level 1 events |

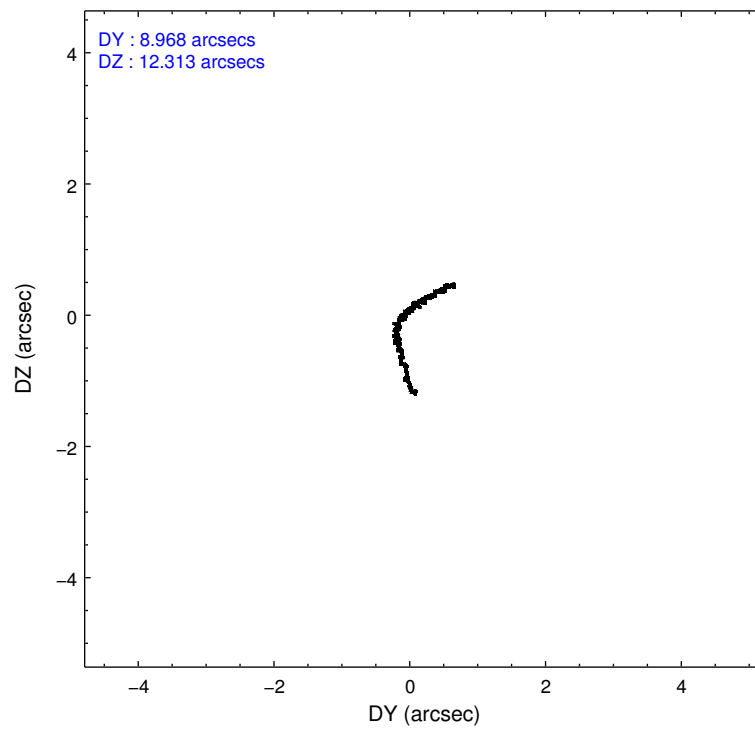
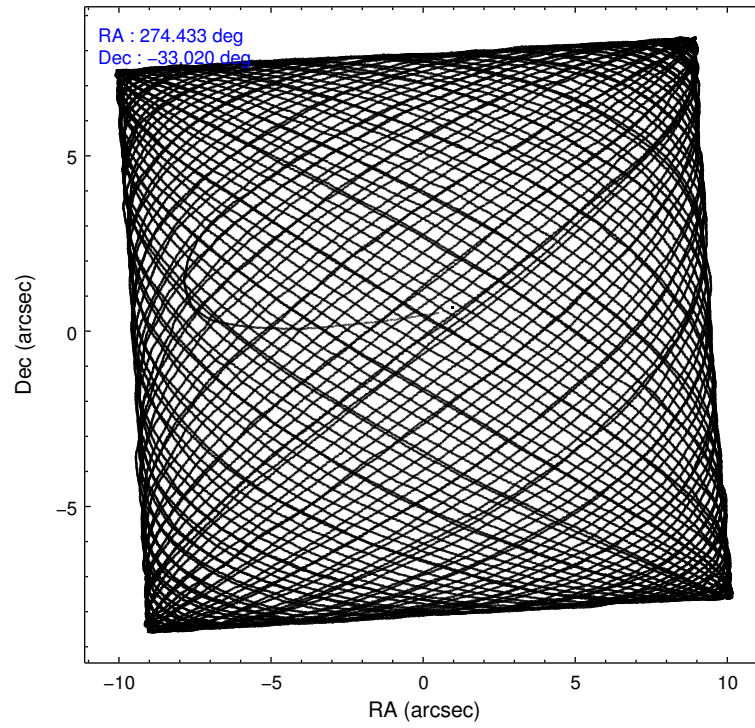
2.1.3 Events

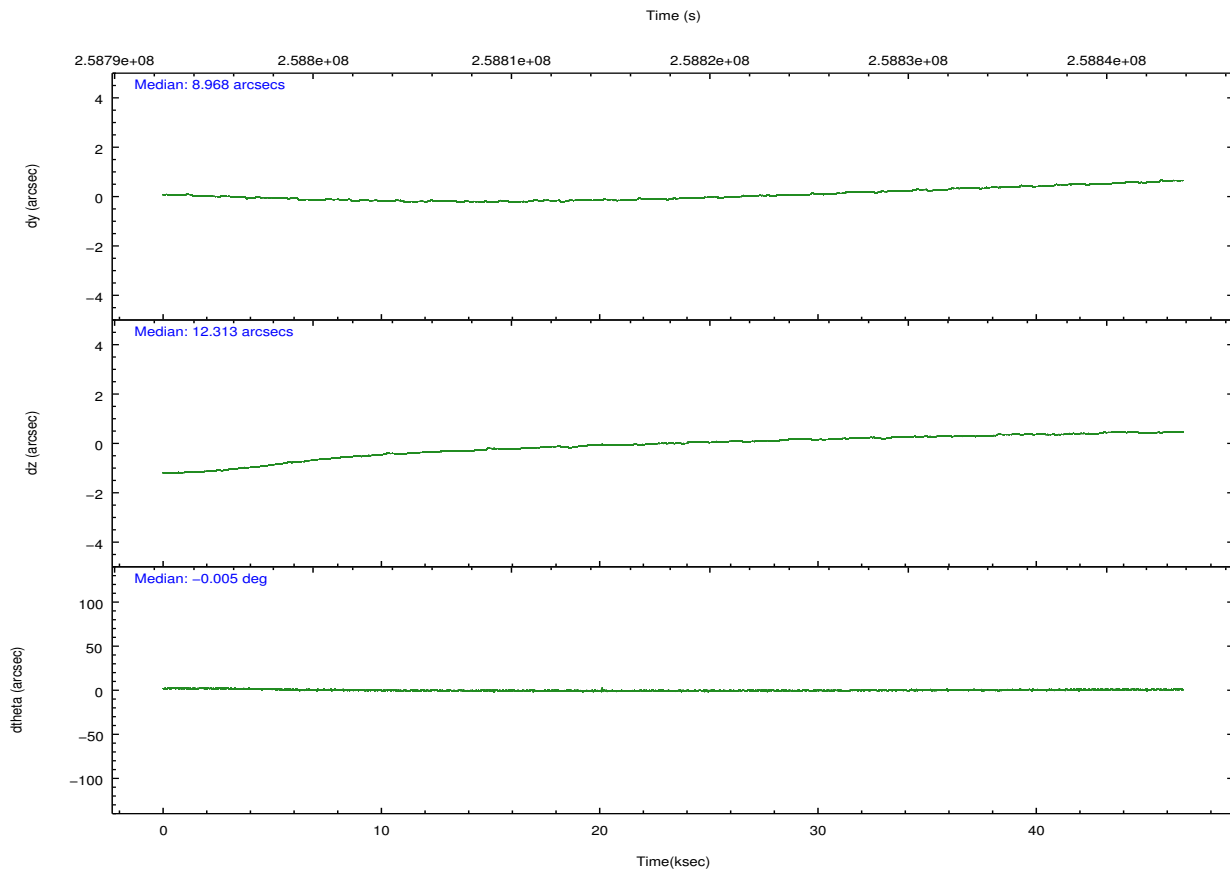
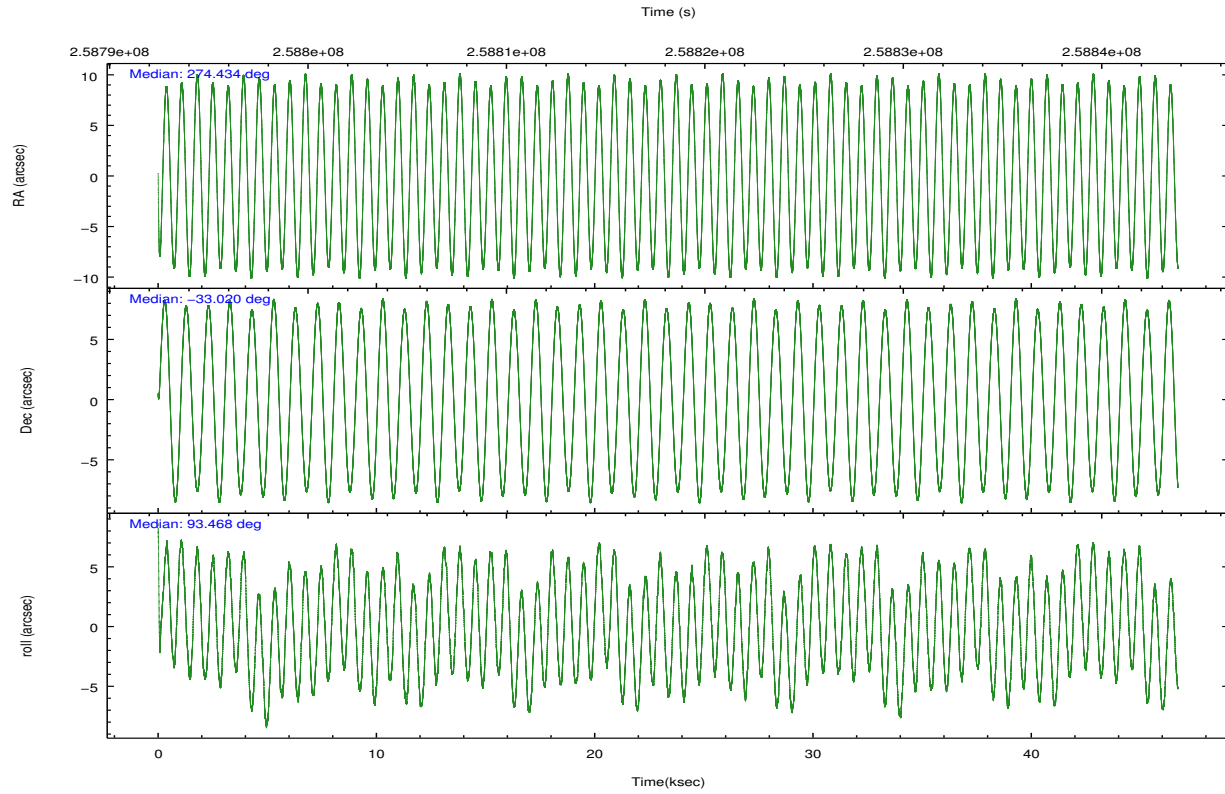
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 | | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|--------|---------|---------|--------|---------|--------|----------------|--------|---------|---------|-------|---------|--------|
| level 1 events | 654621 | 2847561 | 6780601 | 167198 | 3912435 | 878521 | grade 0 events | 210046 | 563467 | 971345 | 17060 | 1867572 | 311588 |
| rejected events | 21514 | 82747 | 85966 | 28010 | 59895 | 26520 | | 32% | 19% | 14% | 10% | 47% | 35% |
| rejected % | 3% | 2% | 1% | 16% | 1% | 3% | grade 1 events | 651 | 960 | 2415 | 4553 | 4039 | 1001 |
| | | | | | | | | 0% | 0% | 0% | 2% | 0% | 0% |
| | | | | | | | grade 2 events | 355906 | 1257349 | 5211898 | 36186 | 1704599 | 457858 |
| | | | | | | | | 54% | 44% | 76% | 21% | 43% | 52% |
| | | | | | | | grade 3 events | 16714 | 137337 | 47331 | 10976 | 84309 | 17740 |
| | | | | | | | | 2% | 4% | 0% | 6% | 2% | 2% |
| | | | | | | | grade 4 events | 16925 | 136016 | 46977 | 11185 | 82888 | 18261 |
| | | | | | | | | 2% | 4% | 0% | 6% | 2% | 2% |
| | | | | | | | grade 5 events | 17360 | 64274 | 54394 | 22895 | 37444 | 20911 |
| | | | | | | | | 2% | 2% | 0% | 13% | 0% | 2% |
| | | | | | | | grade 6 events | 37019 | 688158 | 446241 | 64343 | 131584 | 51162 |
| | | | | | | | | 5% | 24% | 6% | 38% | 3% | 5% |
| | | | | | | | grade 7 events | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |

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 | CC33_GRADED | CC33_GRADED | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 274.451774 | 274.4334910714935 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -33.042712 | -33.02018717105972 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 93.328348 | 93.47501284011722 | [s] Primary exposure time | 0.000000 | 0 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | | | |
| [mm] SIM defocus | 0 | 0.001444936568705701 | | | |
| [mm] SIM translation stage pos | -185.632523 | -185.6369273447779 | | | |
| [mm] SIM translation stage offset | -4.5 | -4.495595238229896 | | | |
| [s] Observation start time (MET) | 258794924.184000 | 258793880.9099 | | | |
| Observation start date | 2006-03-15T07:27:39 | 2006-03-15T07:11:20 | | | |
| [s] Observation end time (MET) | 258841503.184000 | 258841721.24962 | | | |
| Observation end date | 2006-03-15T20:23:58 | 2006-03-15T20:28:41 | | | |
| Read mode | CONTINUOUS | CONTINUOUS | | | |

2.3 Aspect



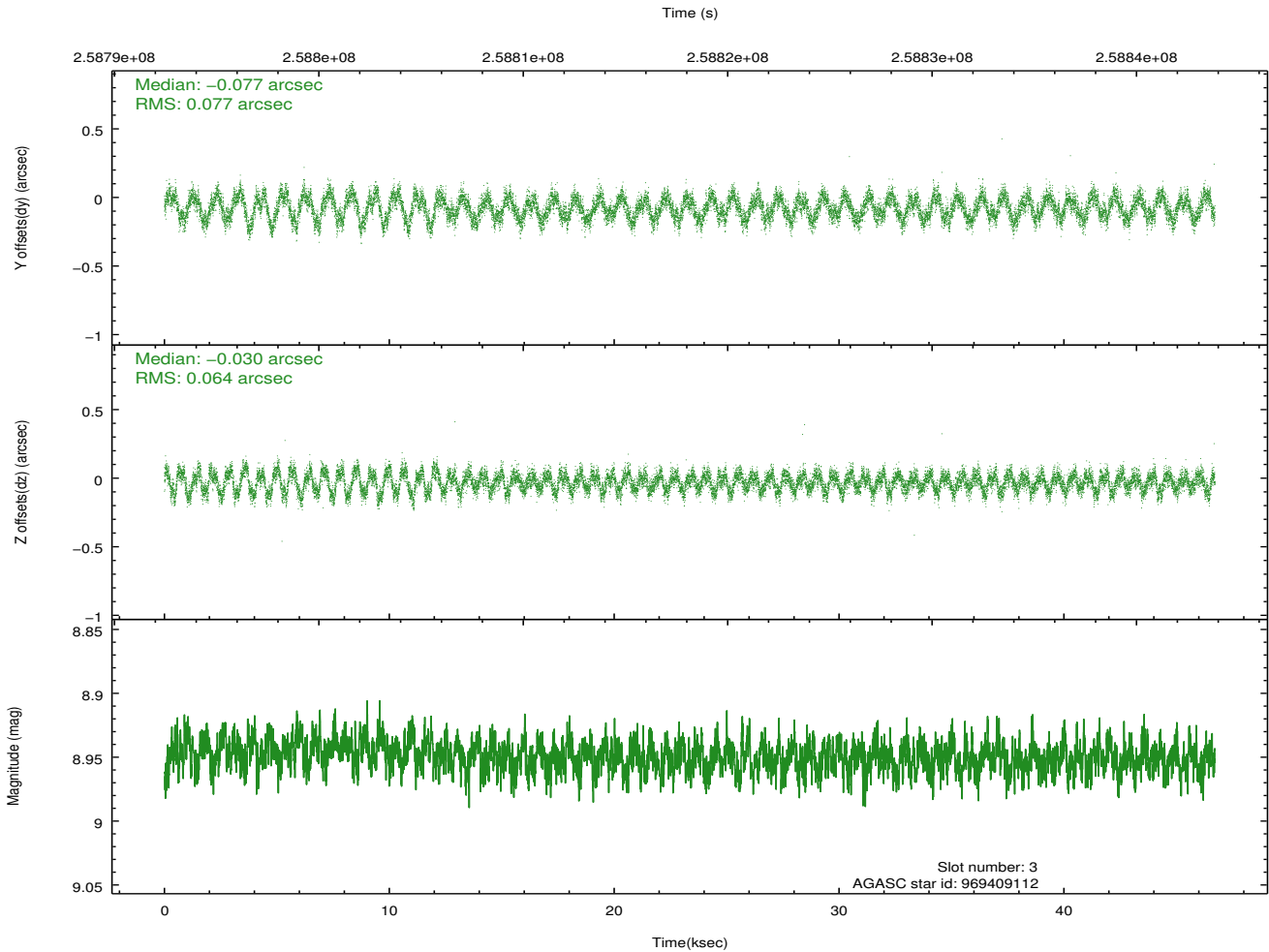
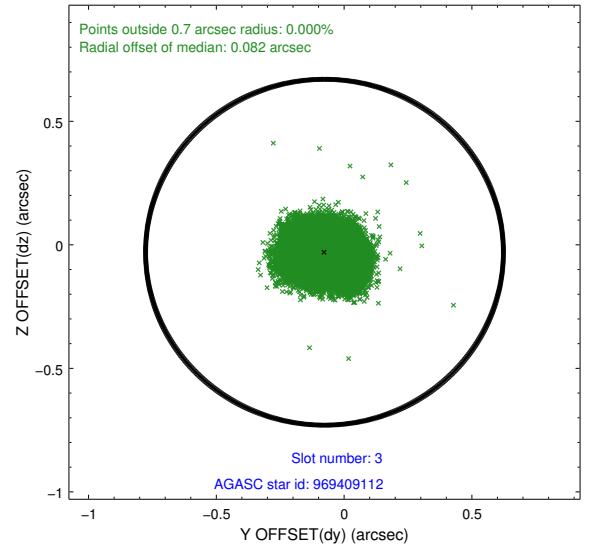
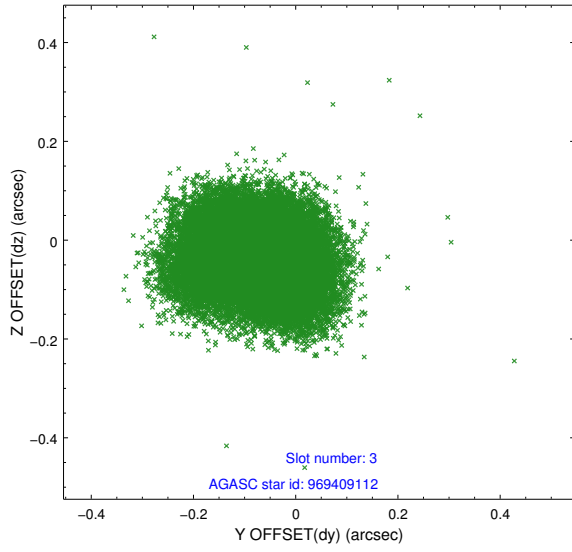


Slot Statistics

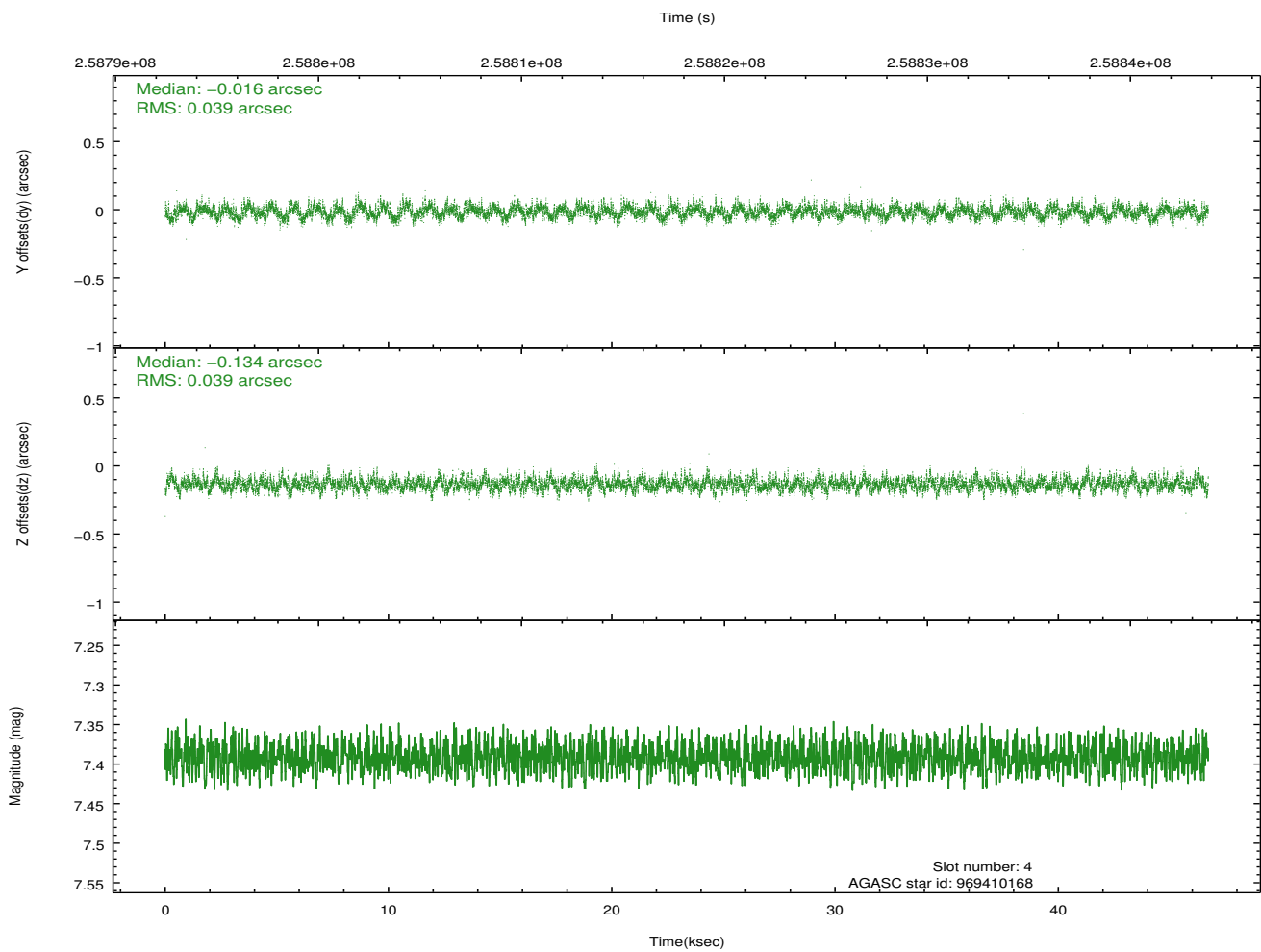
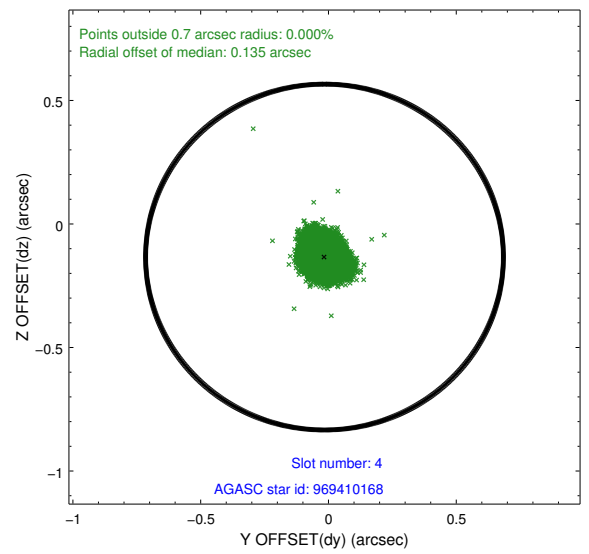
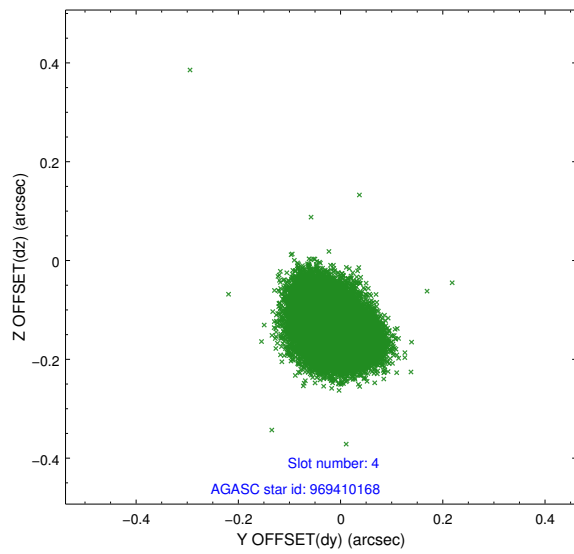
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.09 | 11394 | -0.071 | -0.057 | 0.011 | 0.031 | 0.000000 | 0.000000 | -761.58 | -1826.30 |
| 1 | FID | ACIS-S-4 | 7.19 | 11394 | 0.146 | 0.050 | 0.011 | 0.022 | 0.000000 | 0.000000 | 2151.89 | 82.33 |
| 2 | FID | ACIS-S-5 | 7.22 | 11395 | -0.107 | 0.015 | 0.013 | 0.030 | 0.000000 | 0.000000 | -1814.50 | 75.89 |
| 3 | GUIDE | 969409112 | 8.95 | 22780 | -0.077 | -0.030 | 0.109 | 0.165 | 274.299121 | -32.495229 | 1993.69 | 348.89 |
| 4 | GUIDE | 969410168 | 7.39 | 22787 | -0.016 | -0.134 | 0.058 | 0.096 | 273.917435 | -33.091571 | -86.17 | 1619.19 |
| 5 | GUIDE | 969423096 | 8.41 | 22778 | 0.202 | -0.177 | 0.067 | 0.107 | 273.993243 | -33.502196 | -1574.38 | 1470.09 |
| 6 | GUIDE | 969546176 | 8.83 | 22780 | -0.118 | 0.442 | 0.067 | 0.109 | 275.052671 | -32.702345 | 1112.53 | -1887.50 |
| 7 | GUIDE | 969409688 | 9.14 | 22774 | 0.009 | -0.101 | 0.078 | 0.129 | 273.631099 | -32.444349 | 2285.52 | 2364.77 |

2.4 Star Slots

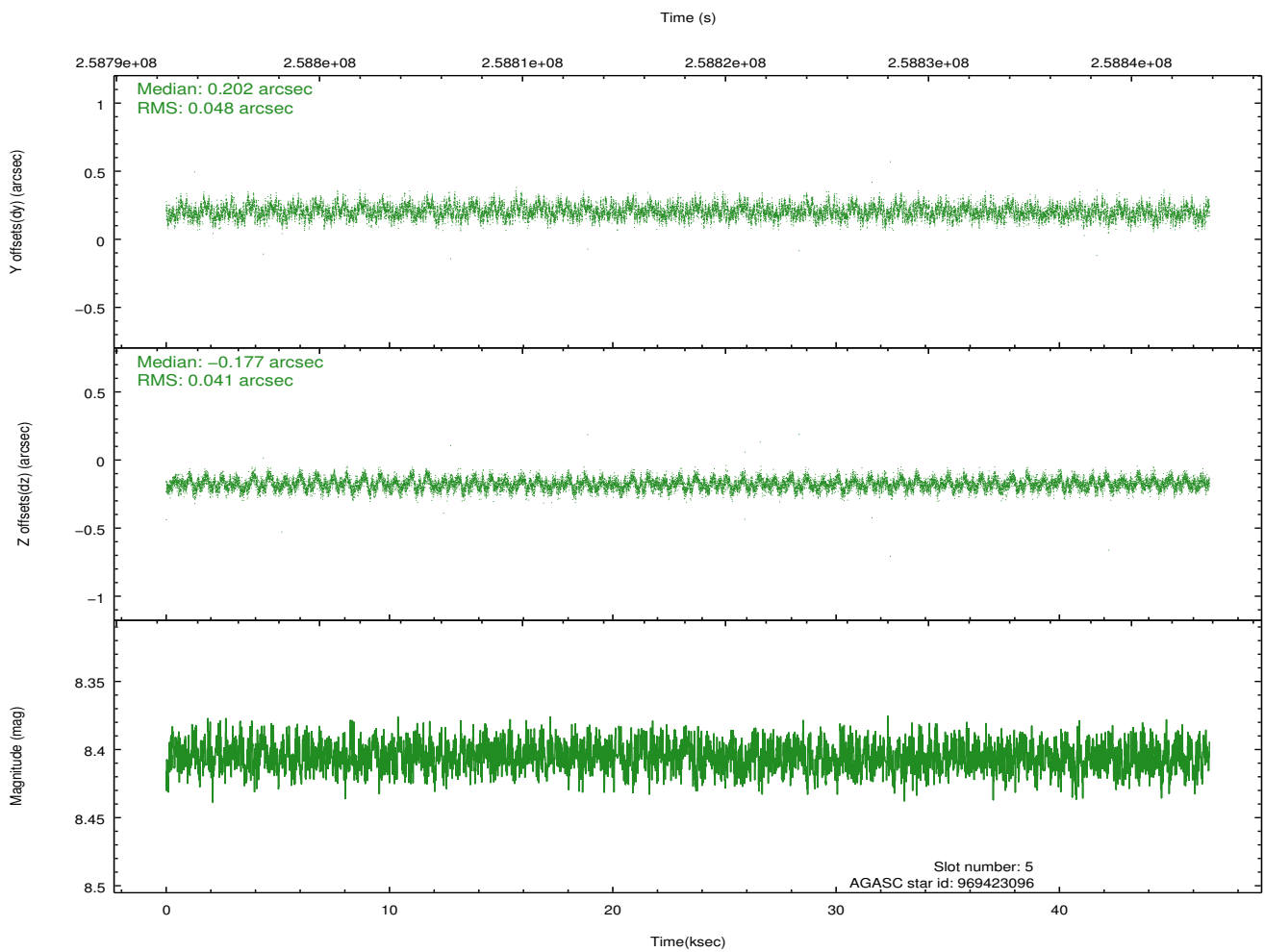
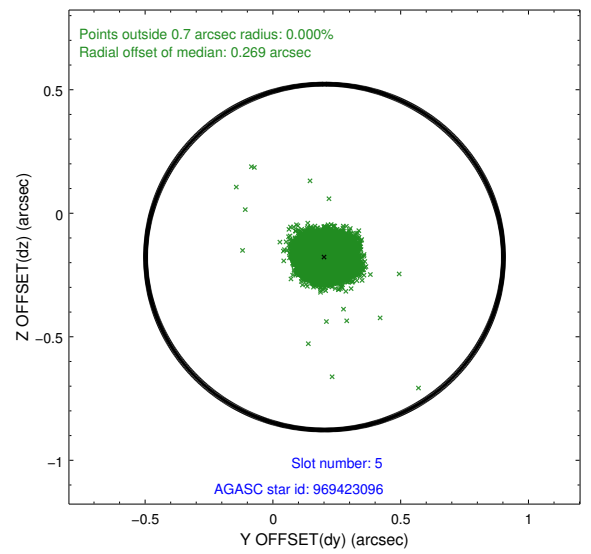
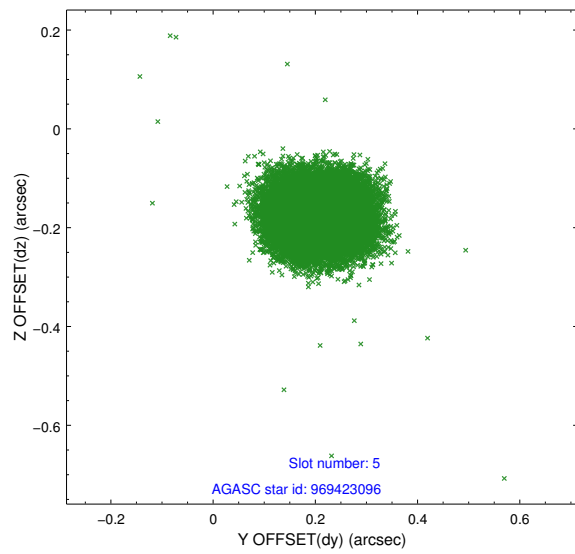
2.4.1 Slot 3



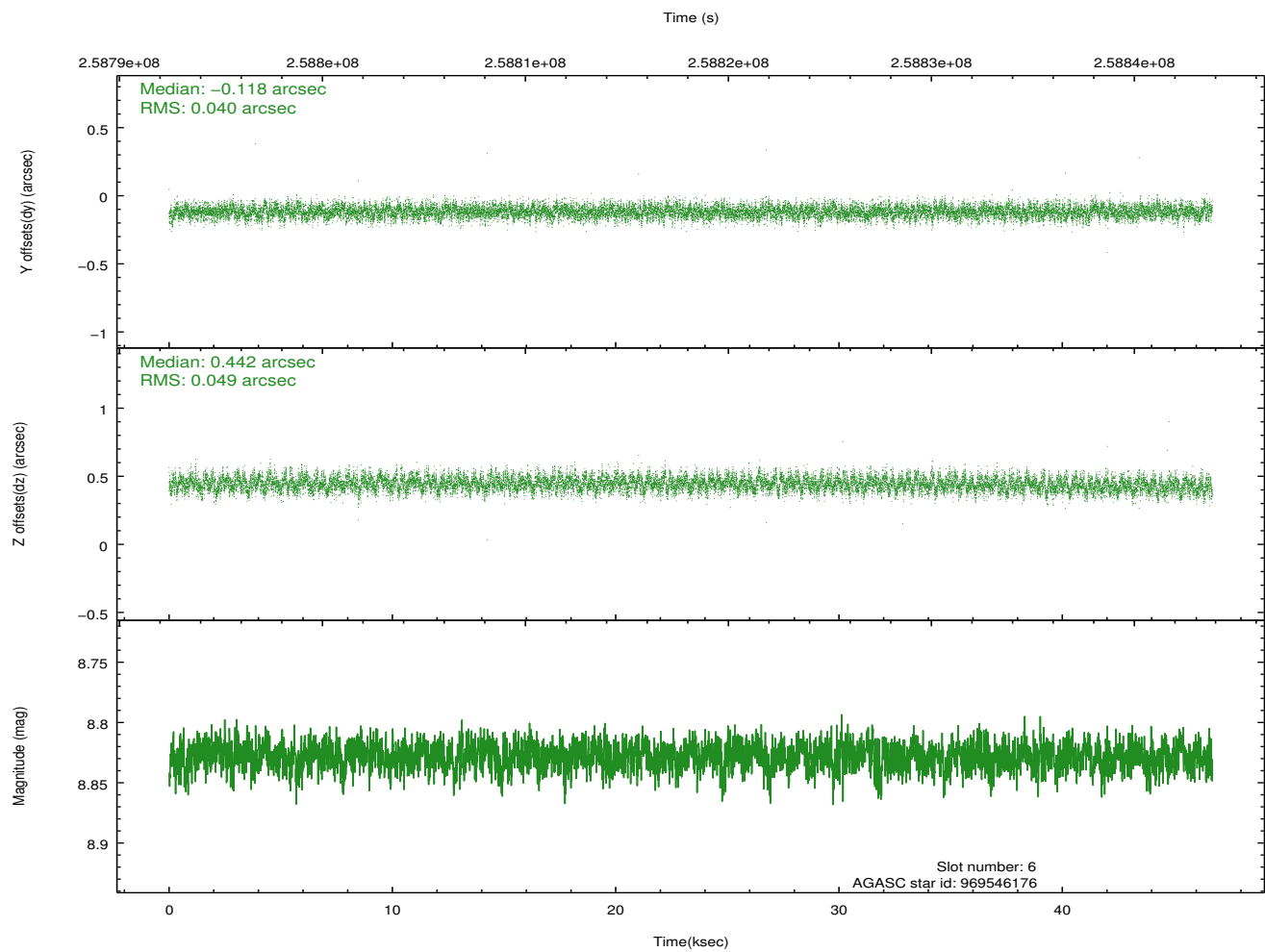
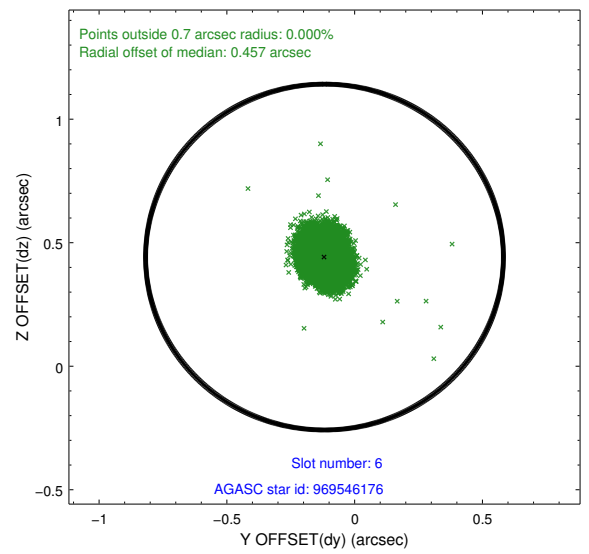
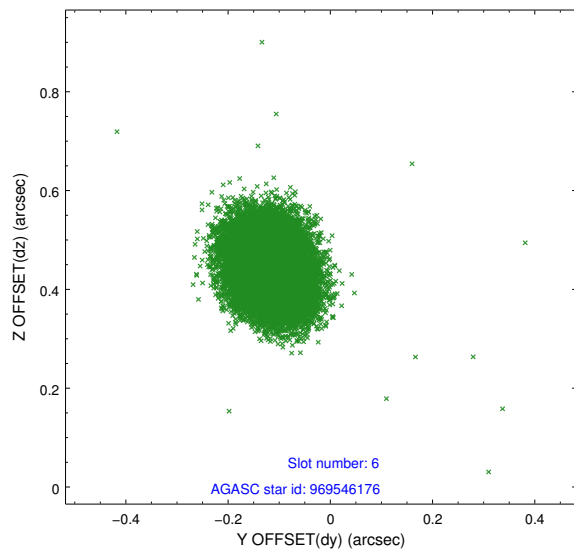
2.4.2 Slot 4



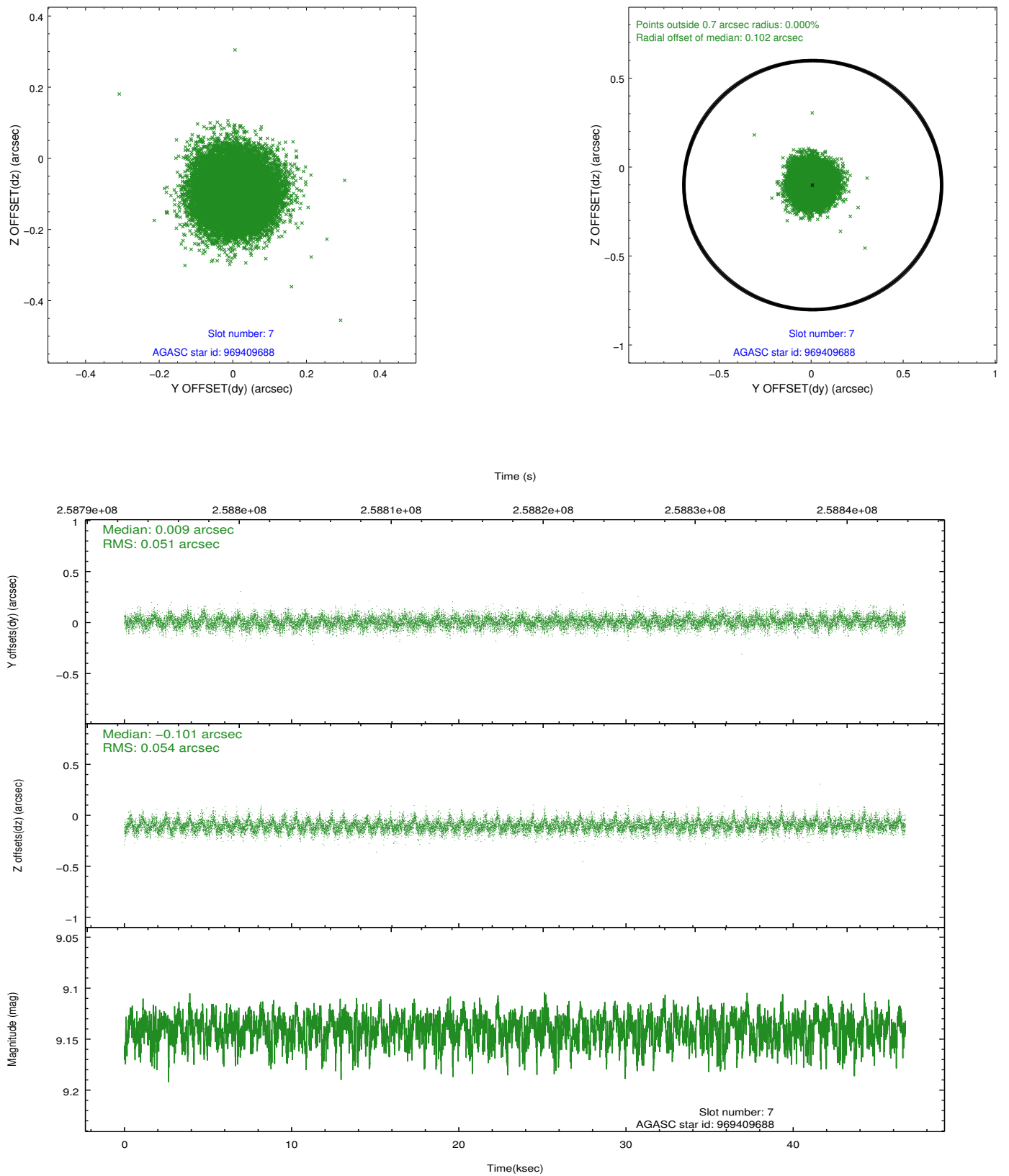
2.4.3 Slot 5



2.4.4 Slot 6

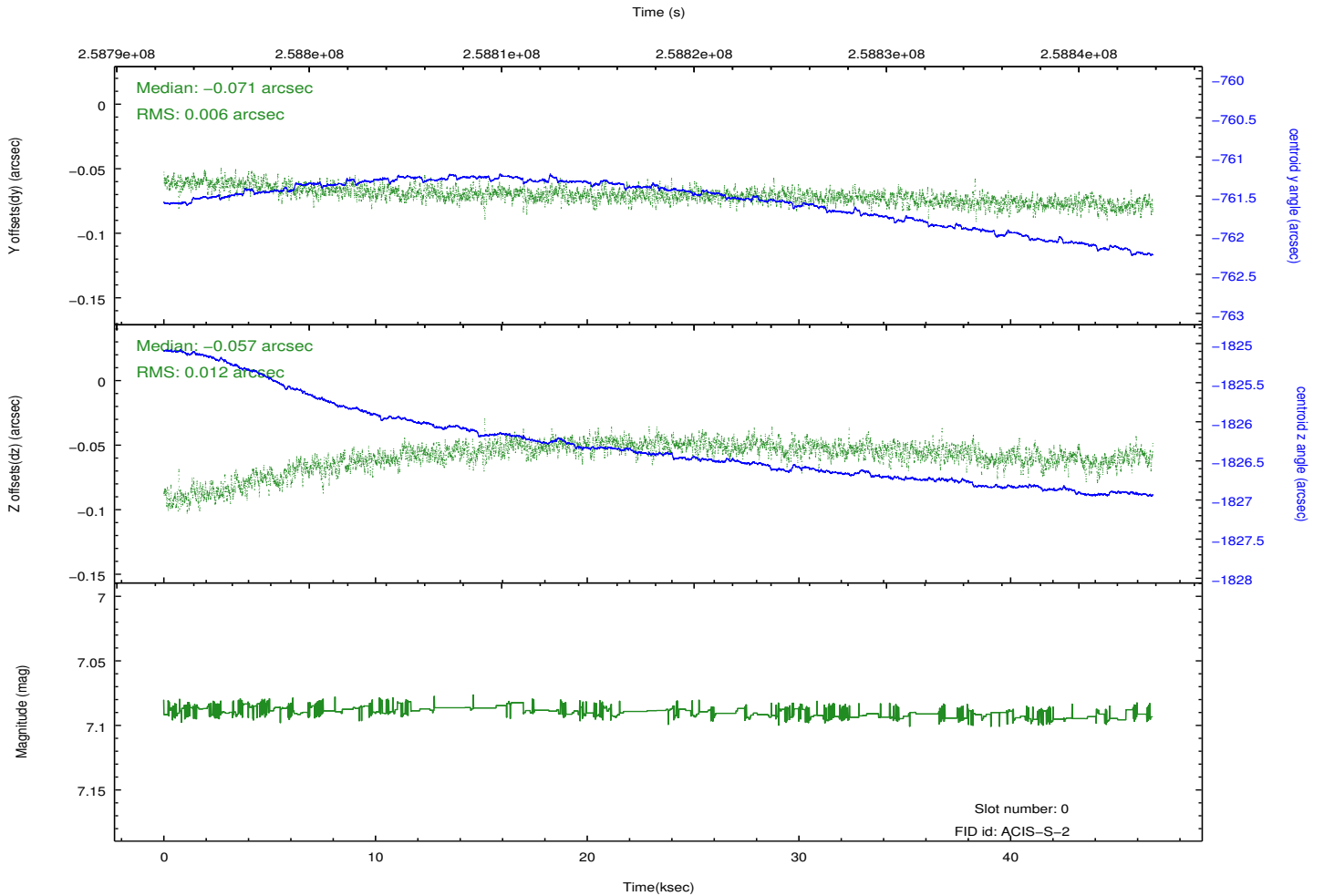
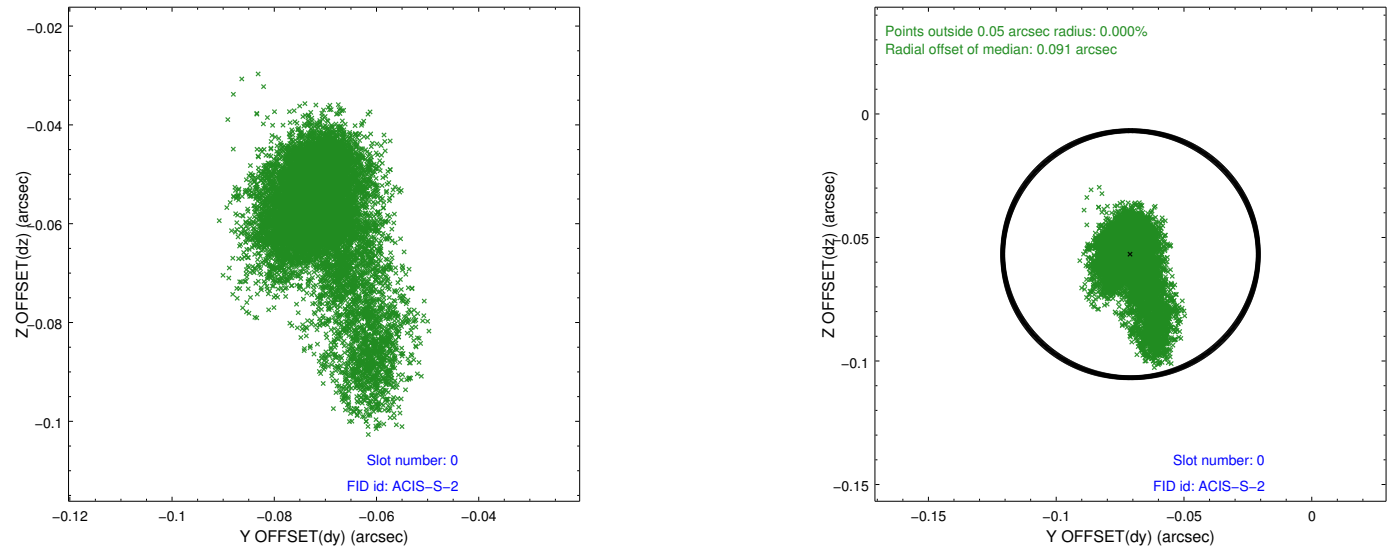


2.4.5 Slot 7

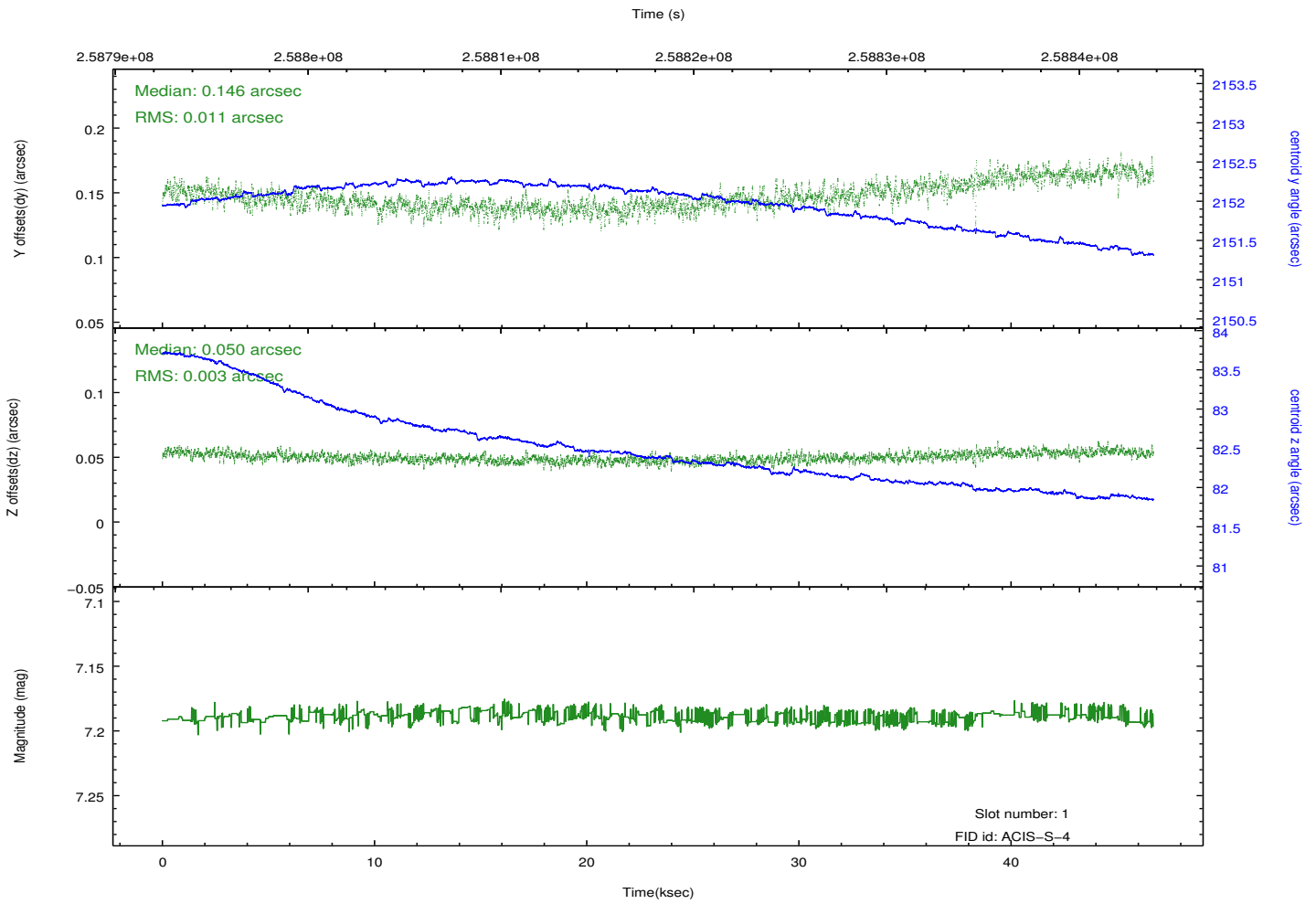
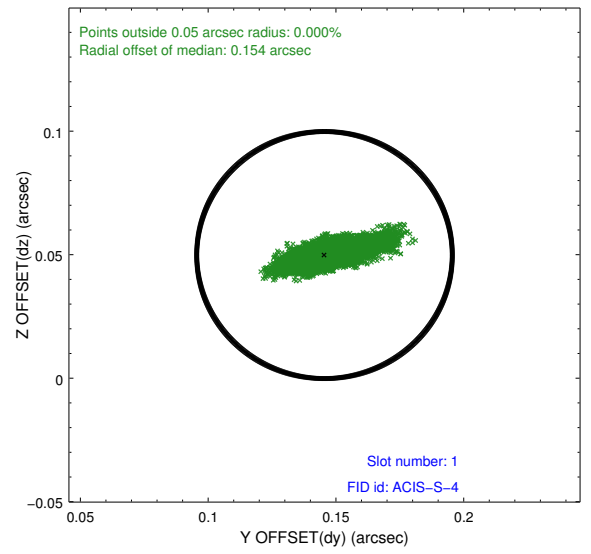
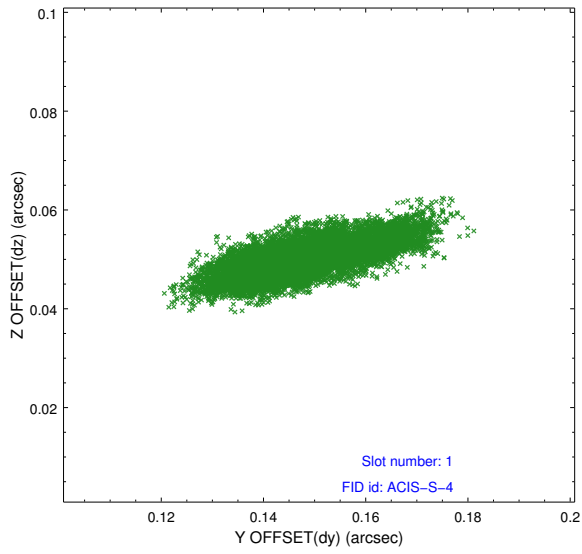


2.5 FID Slots

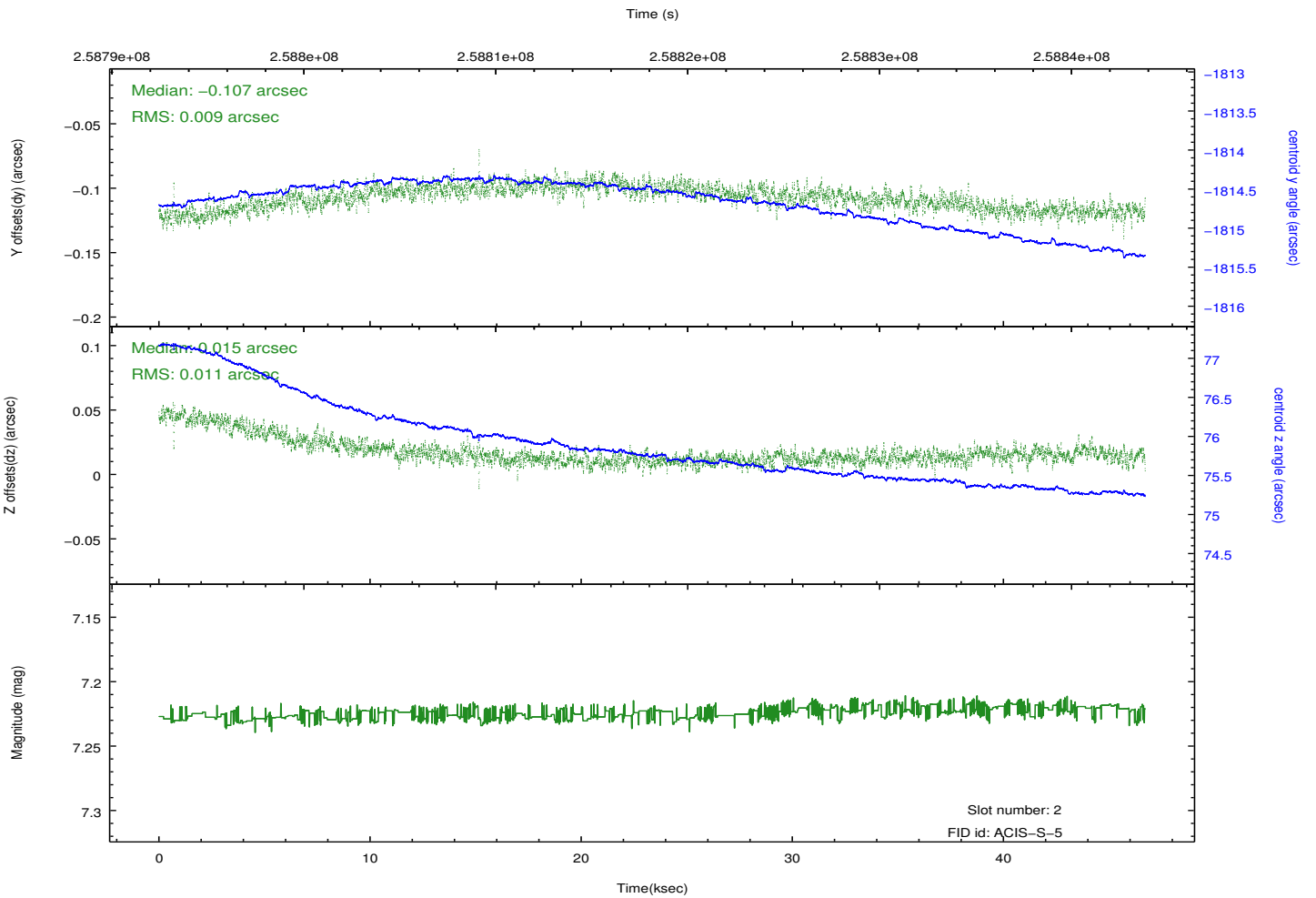
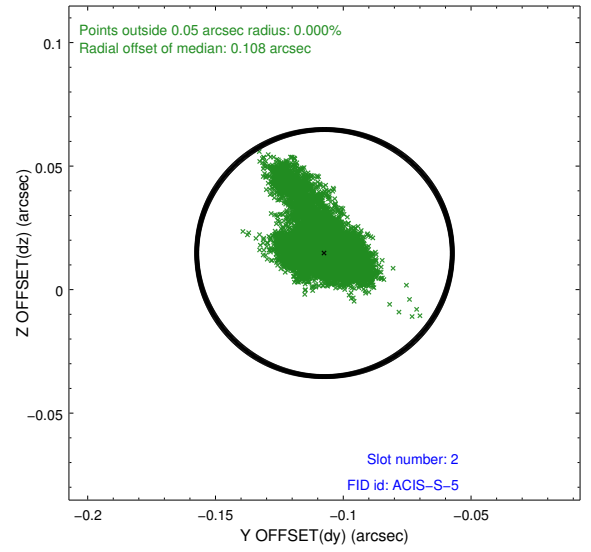
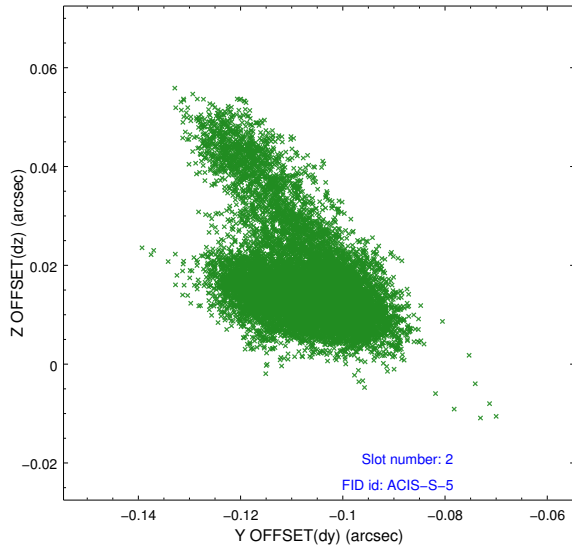
2.5.1 Slot 0



2.5.2 Slot 1

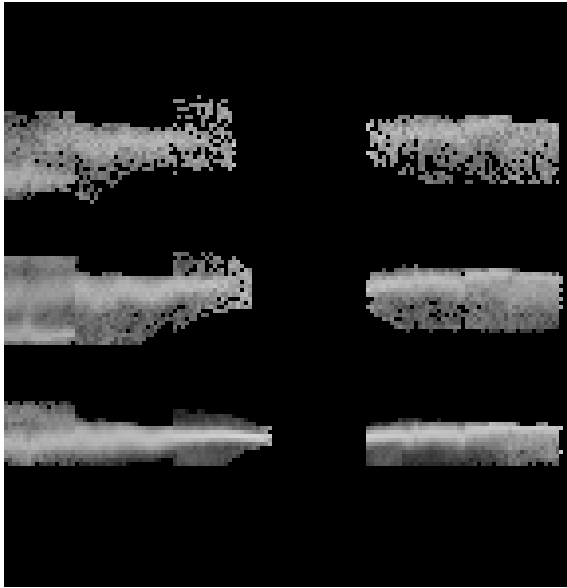


2.5.3 Slot 2

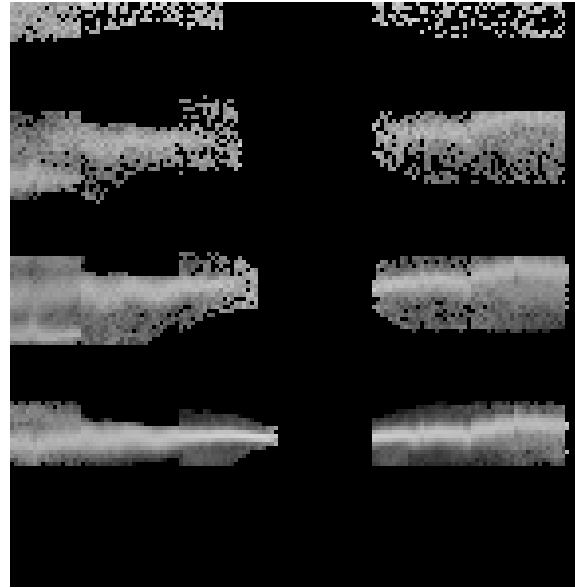


3 Gratings

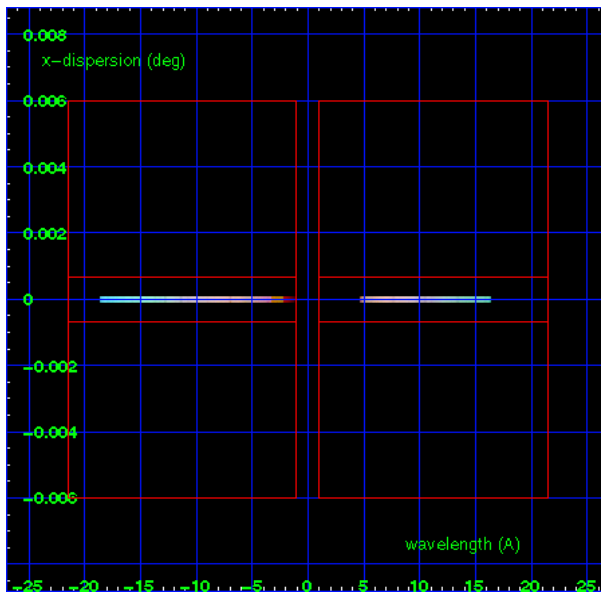
3.1 HEG Arm



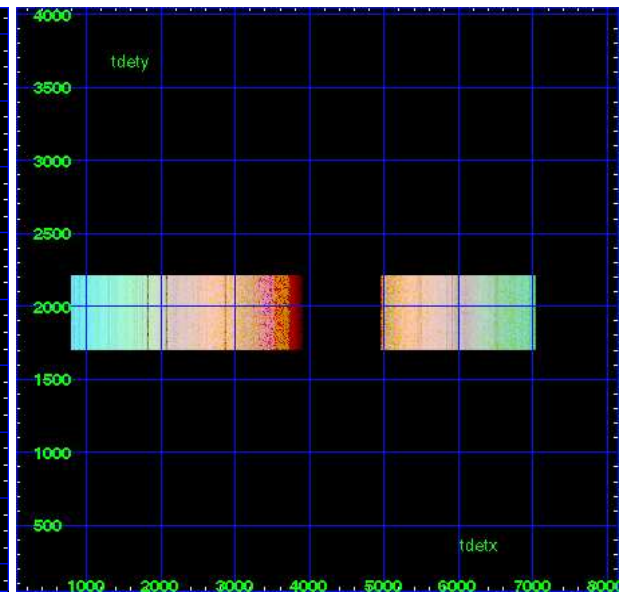
HEG Order Sort 123



HEG Order Sort ALL

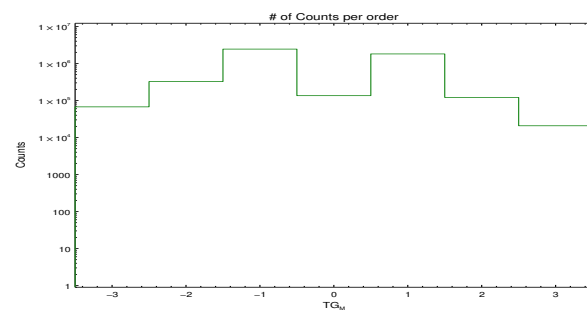


Spot Image HEG

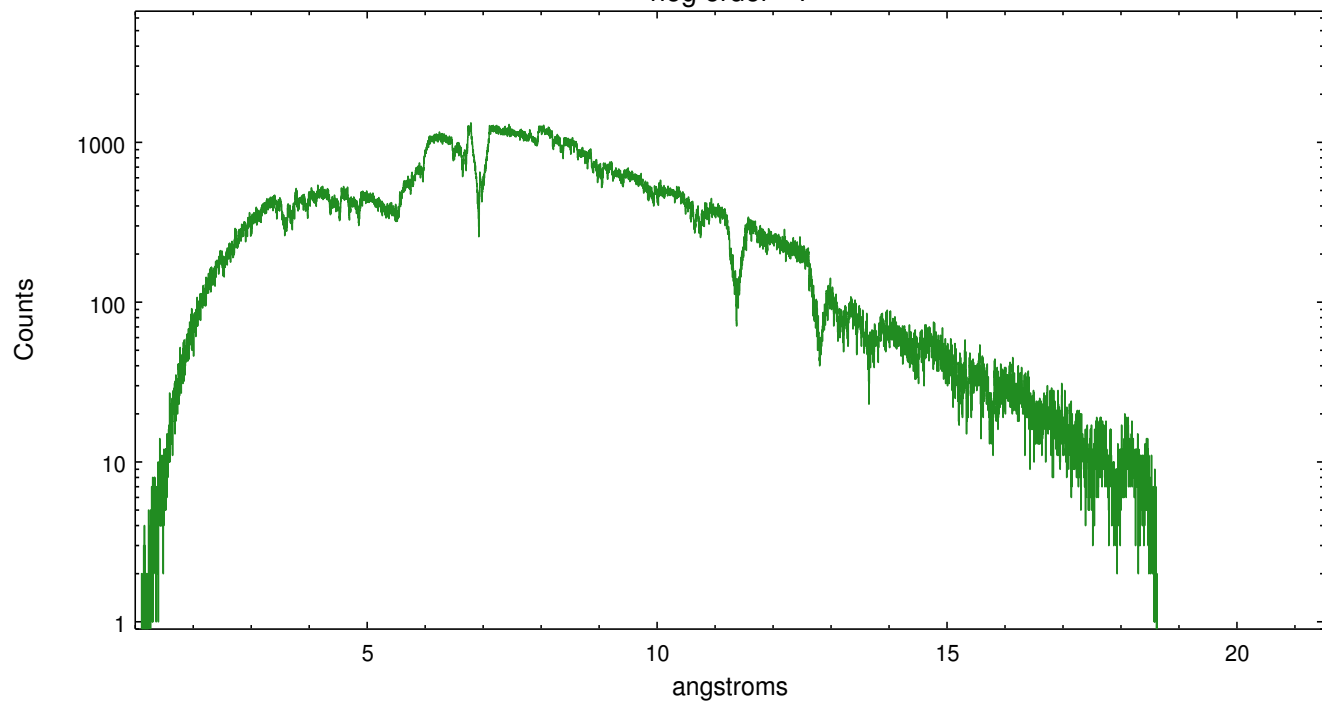


Full Detector HEG

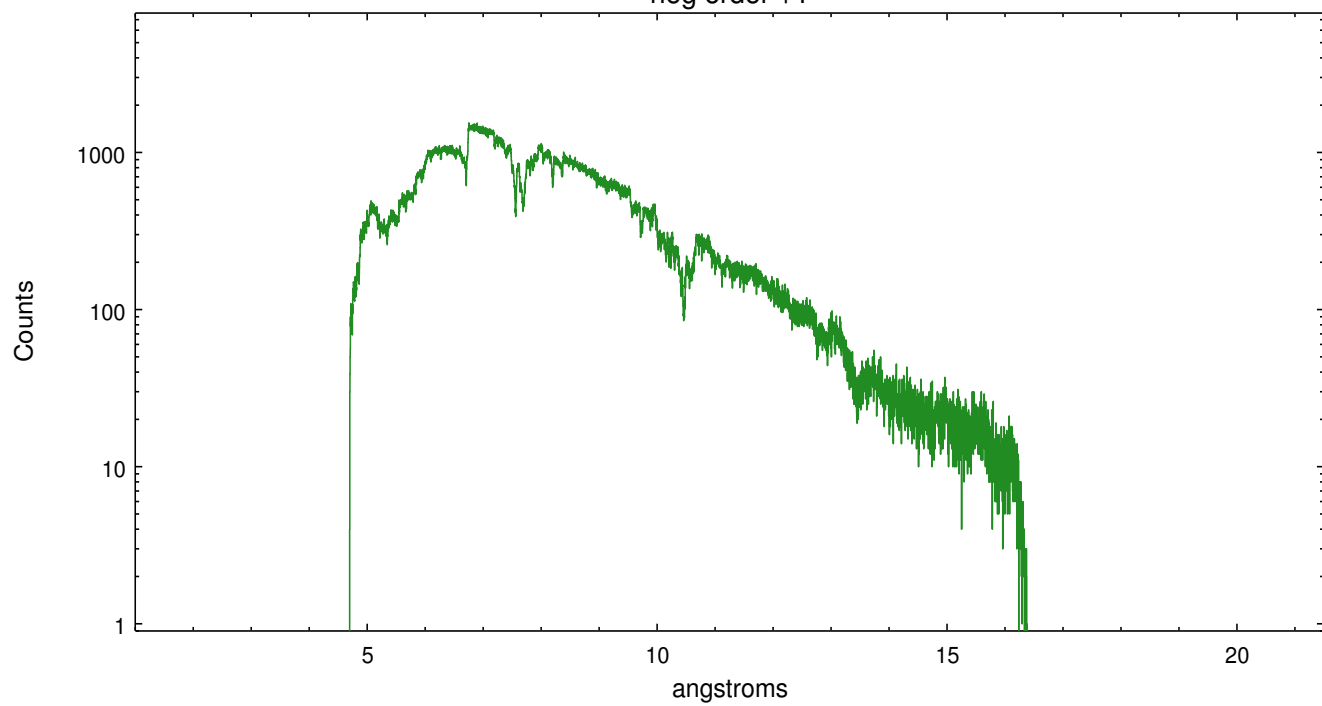
| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|-------------|-------------|-------------|------------|------------|------------|------------|
| Events | 67421 | 324524 | 2447054 | 135372 | 1814786 | 121088 | 20796 |



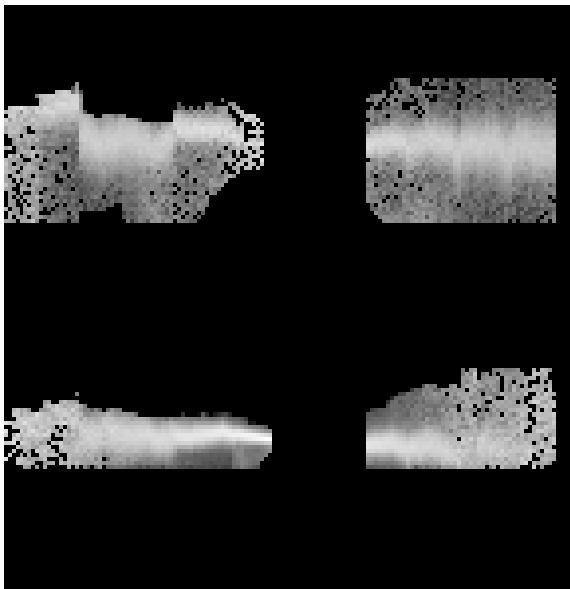
heg order -1



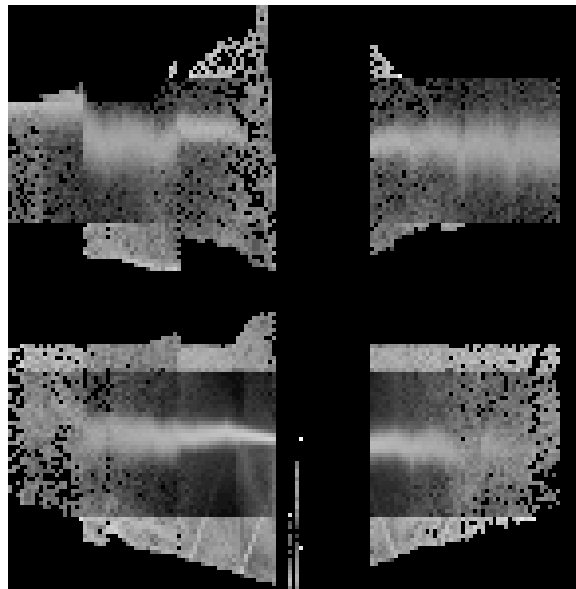
heg order +1



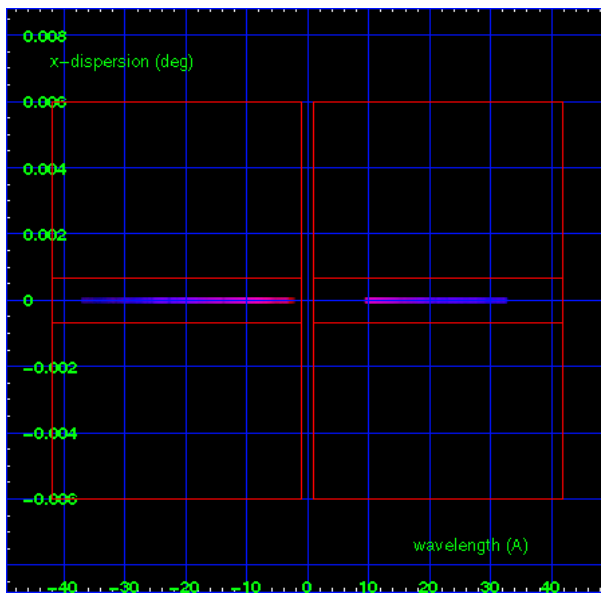
3.2 MEG Arm



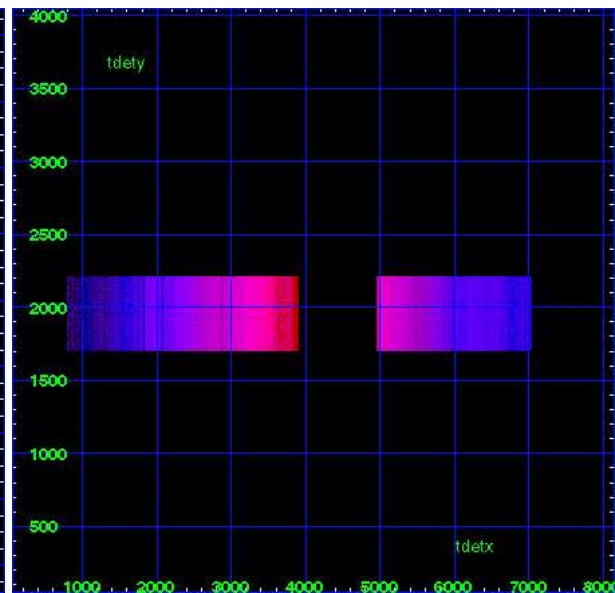
MEG Order Sort 123



MEG Order Sort ALL

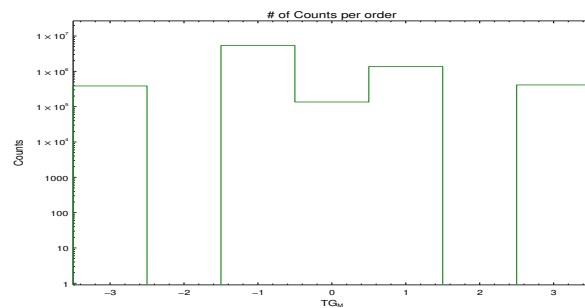


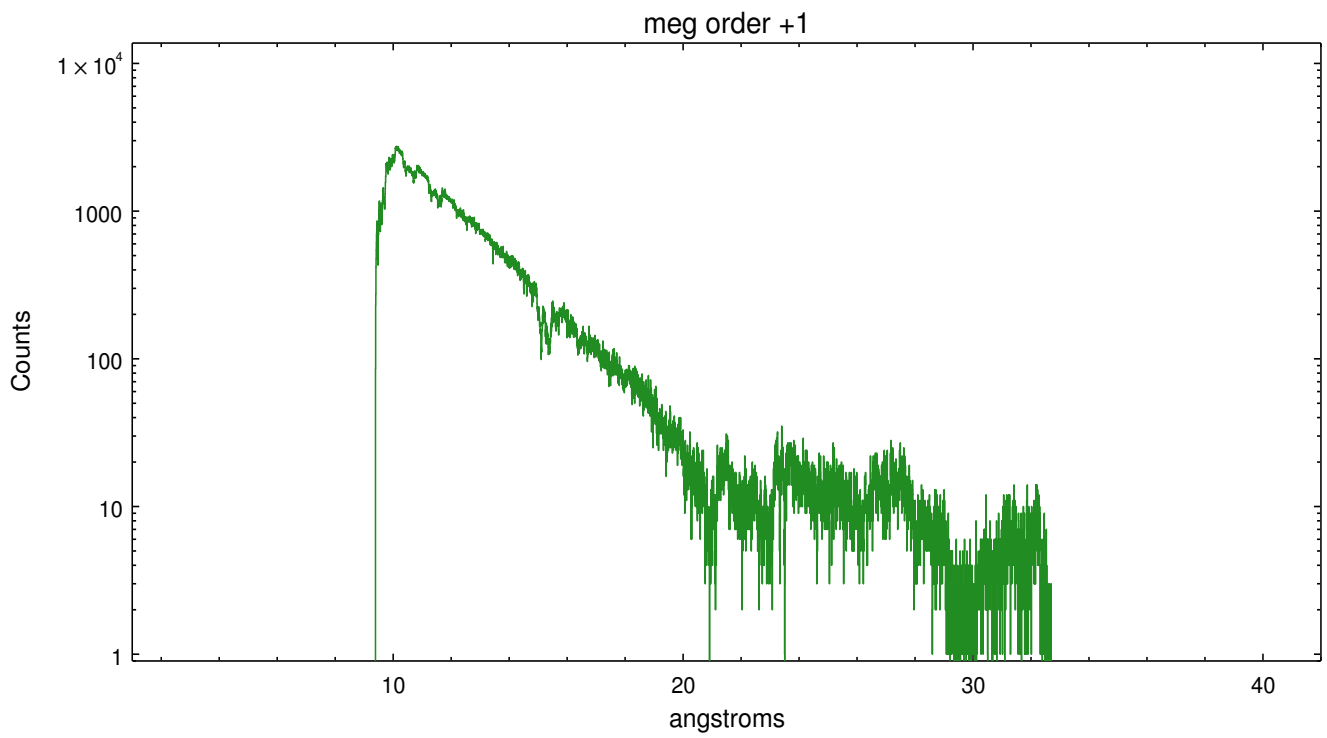
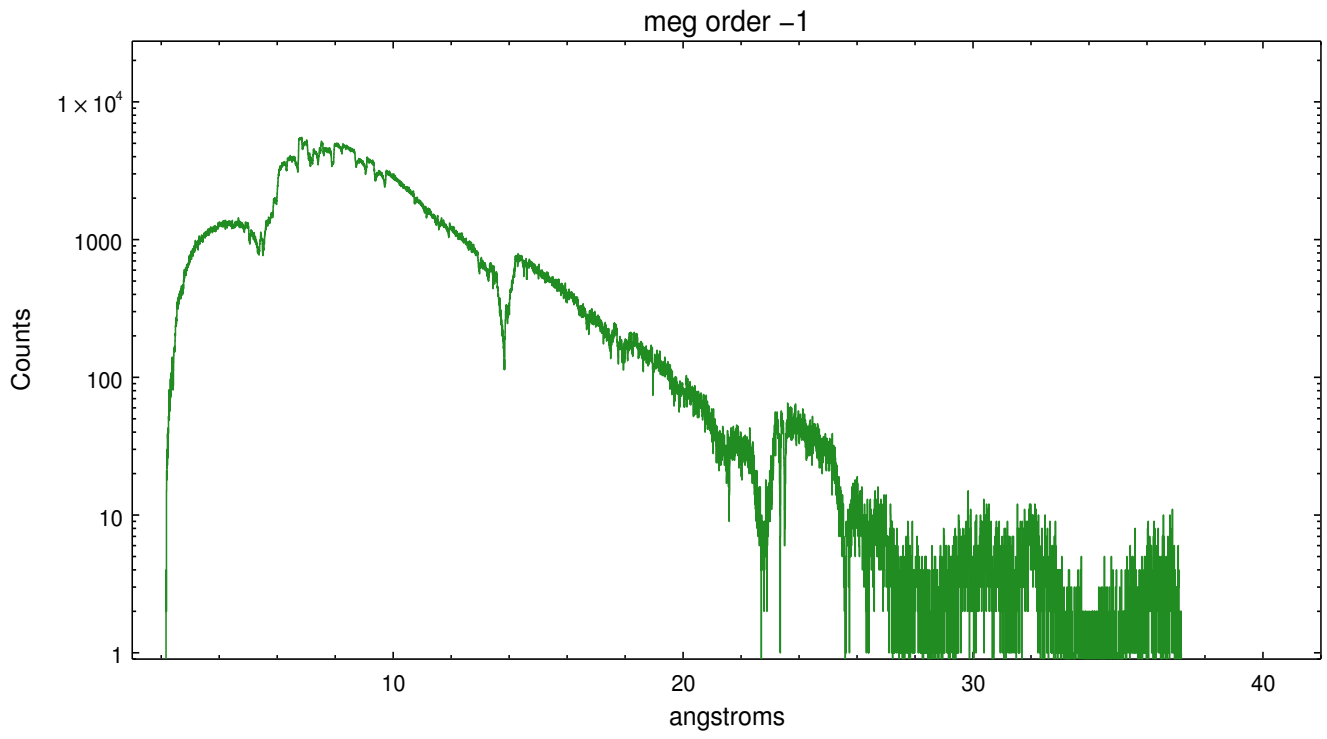
Spot Image MEG



Full Detector MEG

| | order -3 | order -2 | order -1 | order 0 | order 1 | order 2 | order 3 |
|--------|----------|----------|----------|---------|---------|---------|---------|
| Events | 385090 | 0 | 5357767 | 135372 | 1366168 | 0 | 411761 |





A Summary

A.1 Status

| | |
|----------------------------|--------------------|
| V&V Scientist | David Huenemoerder |
| V&V Date (YYYY-MM-DD) | 2012.03.29 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 46.71075 |

A.2 Comments