

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5044 - L2 Version 4
Chandra X-Ray Center

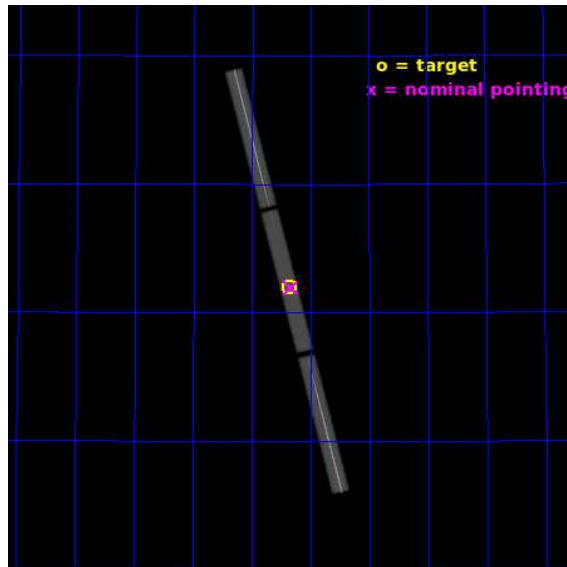
L2 Processing Date : Sep 27 2020

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1 Front

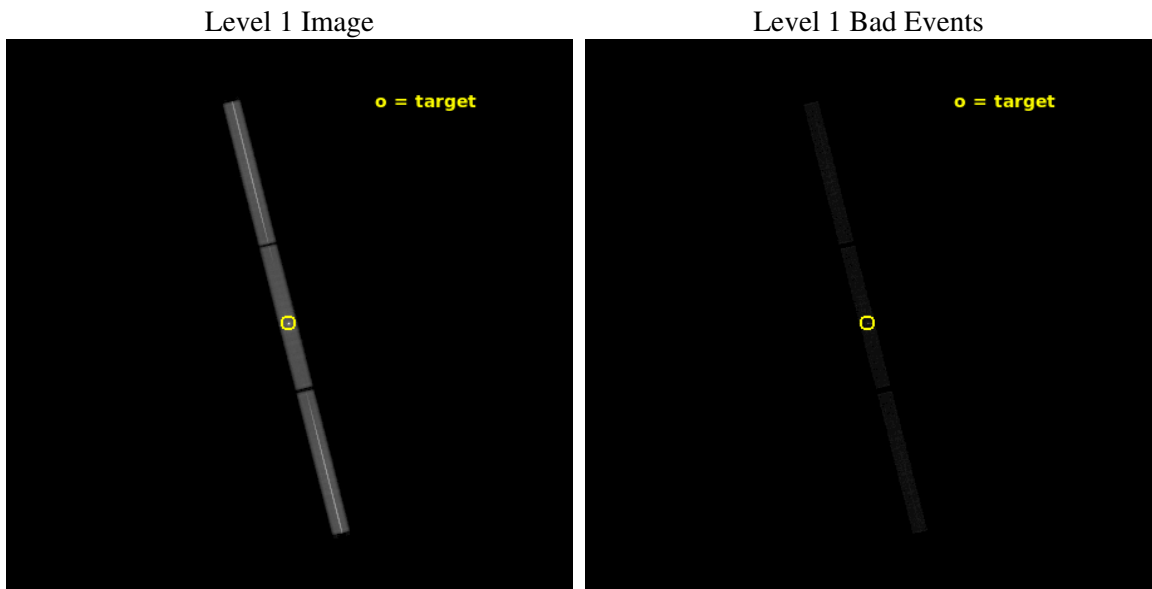
| | | |
|----------|--------------------------------------|---------------------------------------|
| seq_num | 290317 | Sequence number |
| obs_id | 5044 | Observation id |
| title | AO5 Calibration Observations of HZ43 | Proposal title |
| observer | CXC Calibration | Principal investigator |
| object | HZ43 | Source name |
| ra_targ | 199.092083 | Observer's specified target RA [deg] |
| dec_targ | 29.099 | Observer's specified target Dec [deg] |
| ra_nom | 199.08811078221 | Nominal RA [deg] |
| dec_nom | 29.097329995769 | Nominal Dec [deg] |
| roll_nom | 256.19216338099 | Nominal Roll [deg] |
| revision | 4 | Processing version of data |
| ontime | 19853.482131749 | [s] |
| livetime | 19665.051532833 | Ontime multiplied by DTCOR |
| l2events | 1817702 | 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 | 19693.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.9.1 | Processing system revision | ontime | 19853.482131749 | [s] |
| caldbver | 4.9.2 | | l1events | 2310260 | Number of level 1 events |
| date | 2020-09-27T13:00:38 | Date and time of file creation | tgmethod | TGDETECT | Method used to create src1a file |
| revision | 4 | Processing version of data | zo_pos | (32705.00, 32803.89) | src1a sky pixel position |

2.1.3 Events

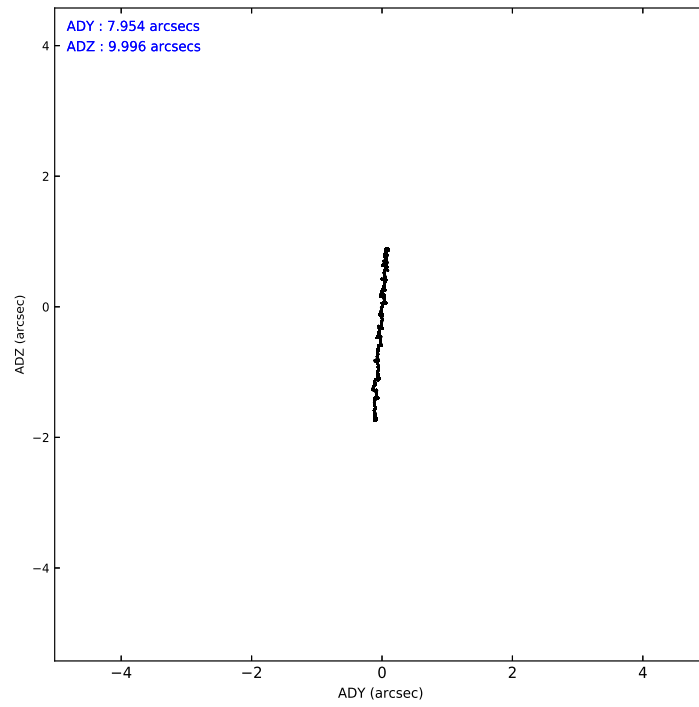
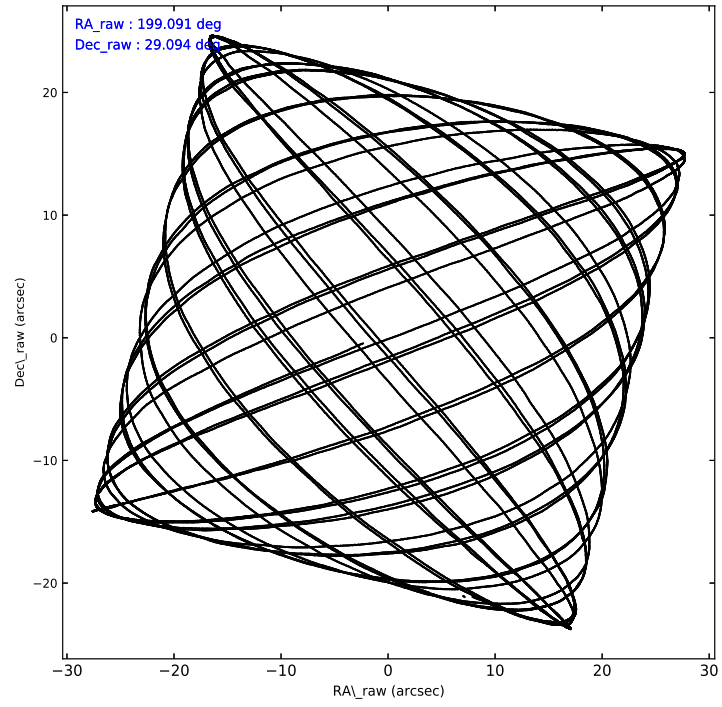
Level 1 Events

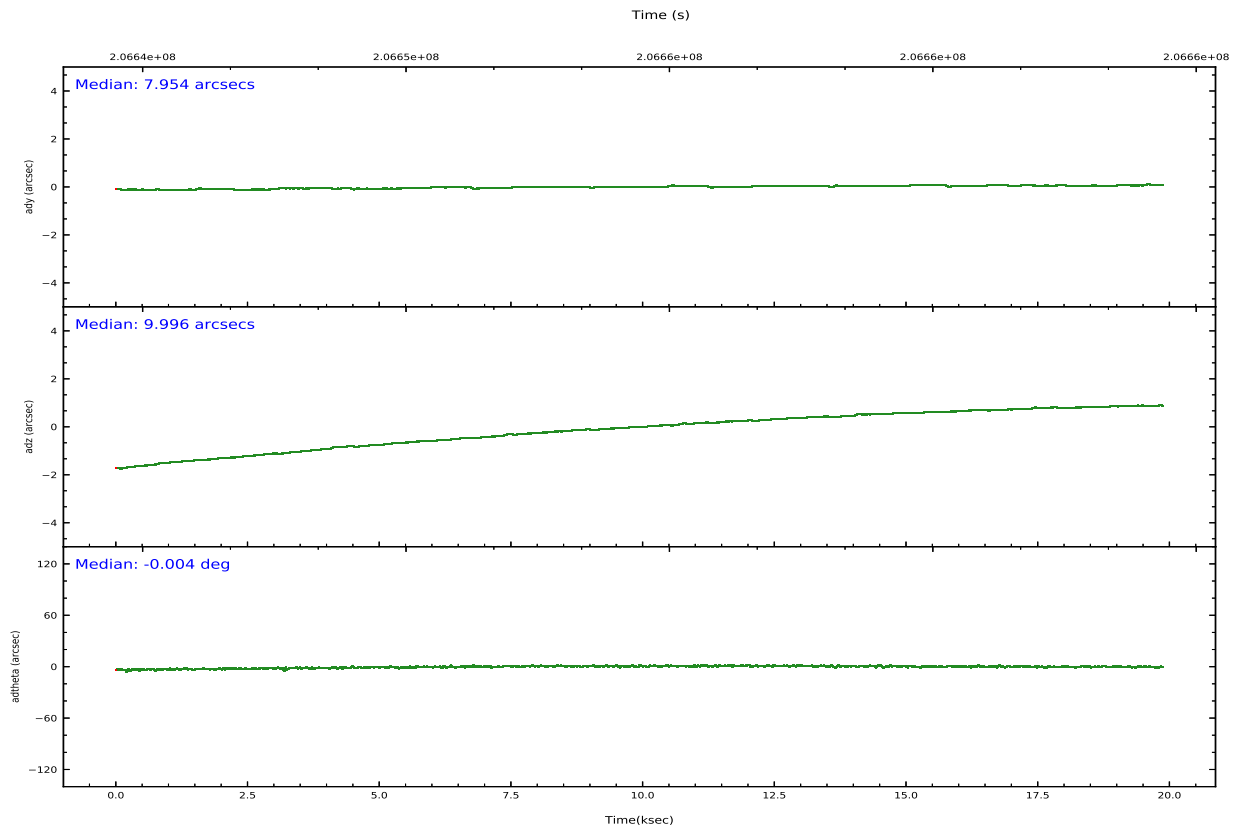
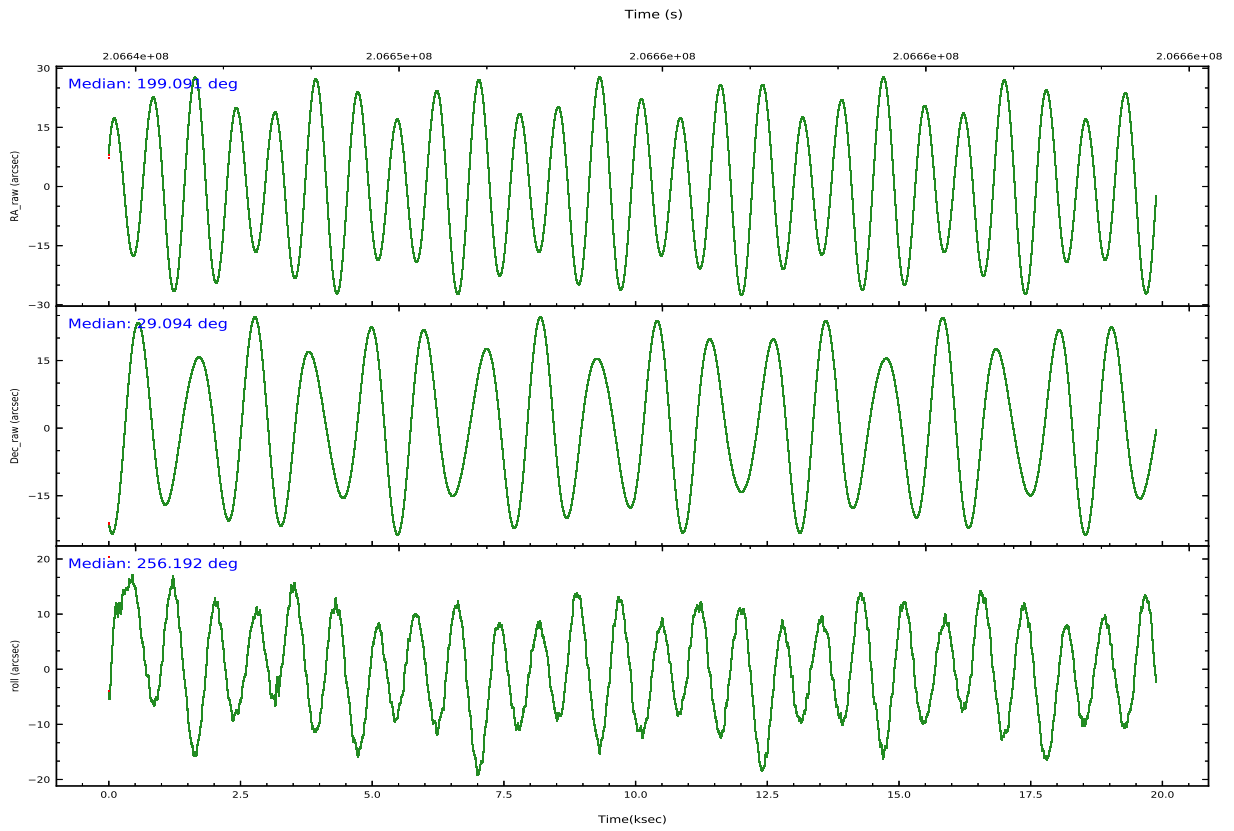
| | segment 1 | segment 2 | segment 3 |
|-----------------|----------------------|----------------------|----------------------|
| level 1 events | 803211 | 688544 | 818505 |
| rejected events | 21852 | 21202 | 22486 |
| rejected % | 2% | 3% | 2% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|-----------------------|-----------|---------|
| Instrument | HRC | HRC | Obspar version number | 8 | 8 |
| Detector | HRC-S | HRC-S | Obspar file type | PREDICTED | ACTUAL |
| Grating | LETG | LETG | Obspar update status | NONE | UPDATED |
| Data mode | OBSERVING | OBSERVING | | | |
| Observation mode | POINTING | POINTING | | | |
| [deg] Pointing RA | 199.079974 | 199.08811078221 | | | |
| [deg] Pointing Dec | 29.121529 | 29.097329995769 | | | |
| [deg] Pointing Roll | 256.131971 | 256.19216338099 | | | |
| [s] Window start time (MET) | 202435264.184000 | 202435264.184000 | | | |
| [s] Window stop time (MET) | 207619264.184000 | 207619264.184000 | | | |
| [mm] SIM focus pos | -1.429586 | -1.428180813131781 | | | |
| [mm] SIM defocus | 0.1037507710433287 | 0.1051558262725154 | | | |
| [mm] SIM translation stage pos | 250.455976 | 250.4635187648994 | | | |
| [mm] SIM translation stage offset | 0 | -0.007540371344731511 | | | |
| [s] Observation start time (MET) | 206644678.184000 | 206644303.1732 | | | |
| Observation start date | 2004-07-19T17:16:54 | 2004-07-19T17:11:43 | | | |
| [s] Observation end time (MET) | 206664371.184000 | 206665204.97412 | | | |
| Observation end date | 2004-07-19T22:45:07 | 2004-07-19T23:00:04 | | | |

2.3 Aspect





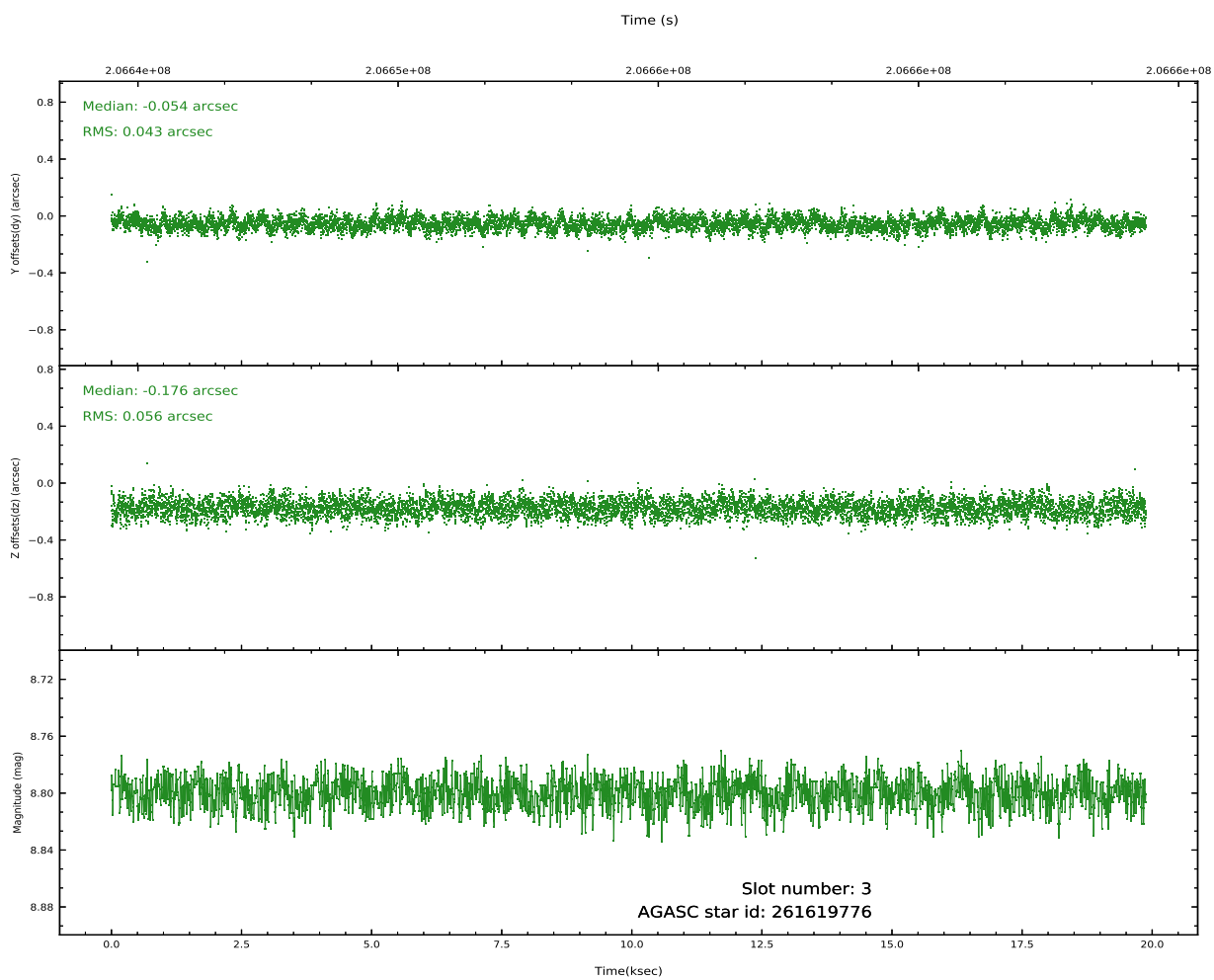
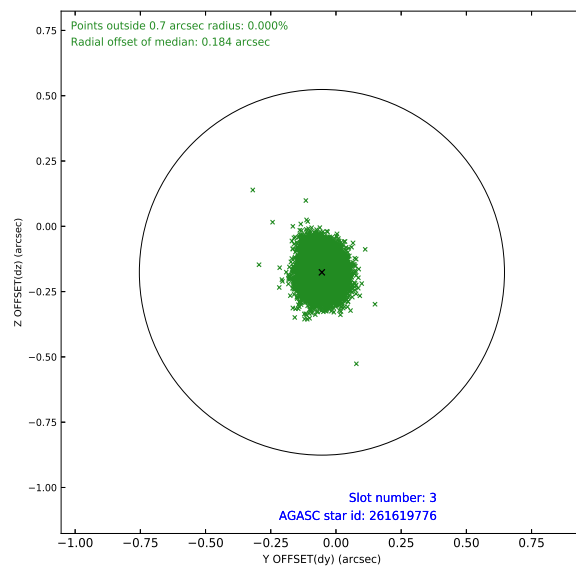
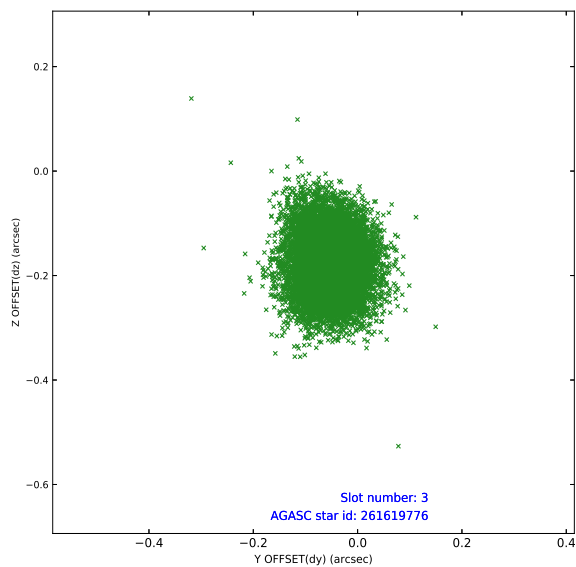
Slot Statistics

| slot | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|------|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|-----------|----------|-------|
| 0 | FID | | HRC-S-1 | 6.98 | 4850 | 1.000 | 0.118 | -0.187 | 0.014 | 0.058 | 0.000000 | 0.000000 | -1162.13 | -458 |
| 1 | FID | | HRC-S-2 | 6.97 | 4849 | 1.000 | 0.176 | -0.115 | 0.005 | 0.009 | 0.000000 | 0.000000 | 1237.37 | -451 |
| 2 | FID | | HRC-S-3 | 6.99 | 4850 | 1.000 | 0.096 | -0.000 | 0.015 | 0.062 | 0.000000 | 0.000000 | -1164.62 | 571 |
| 3 | GUIDE | used | 261619776 | 8.80 | 9693 | 1.000 | -0.054 | -0.176 | 0.075 | 0.120 | 198.654383 | 29.401174 | -659.45 | -1537 |
| 4 | GUIDE | used | 261619992 | 9.33 | 9692 | 1.000 | 0.148 | -0.077 | 0.104 | 0.174 | 198.395553 | 28.647634 | 2168.96 | -1691 |
| 5 | GUIDE | used | 261623040 | 9.12 | 9692 | 1.000 | -0.227 | -0.034 | 0.078 | 0.124 | 198.792686 | 29.757643 | -2008.80 | -1421 |
| 6 | GUIDE | used | 261623624 | 9.12 | 9690 | 1.000 | 0.191 | 0.276 | 0.080 | 0.127 | 199.611555 | 28.454113 | 1925.73 | 2208 |
| 7 | GUIDE | used | 261629720 | 8.10 | 9697 | 1.000 | -0.058 | 0.010 | 0.060 | 0.095 | 199.236176 | 29.044452 | 151.47 | 544 |

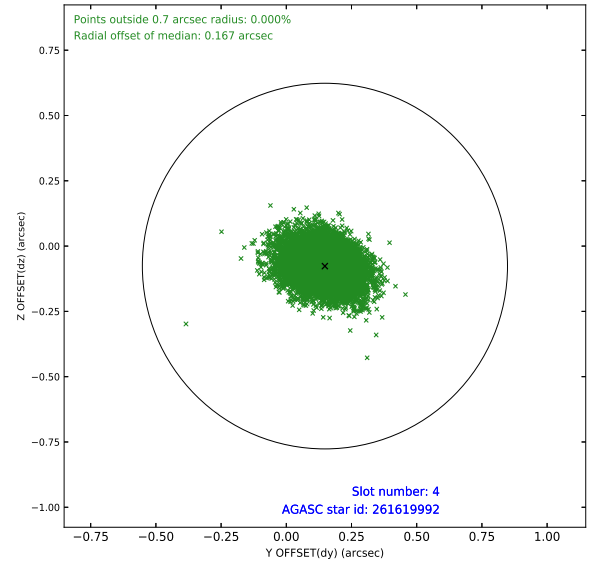
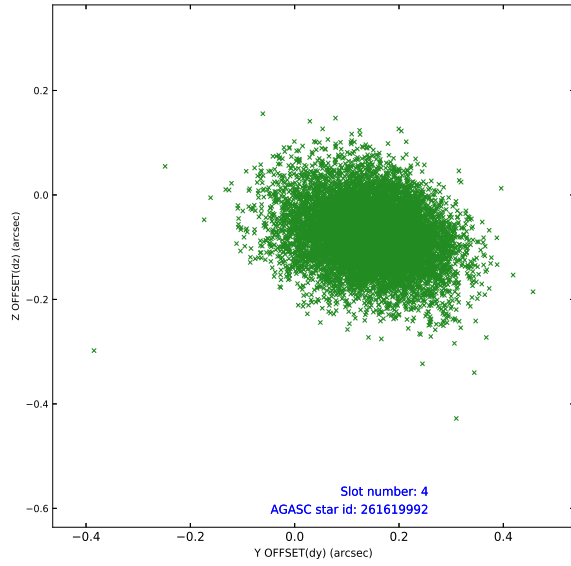
∞

2.4 Star Slots

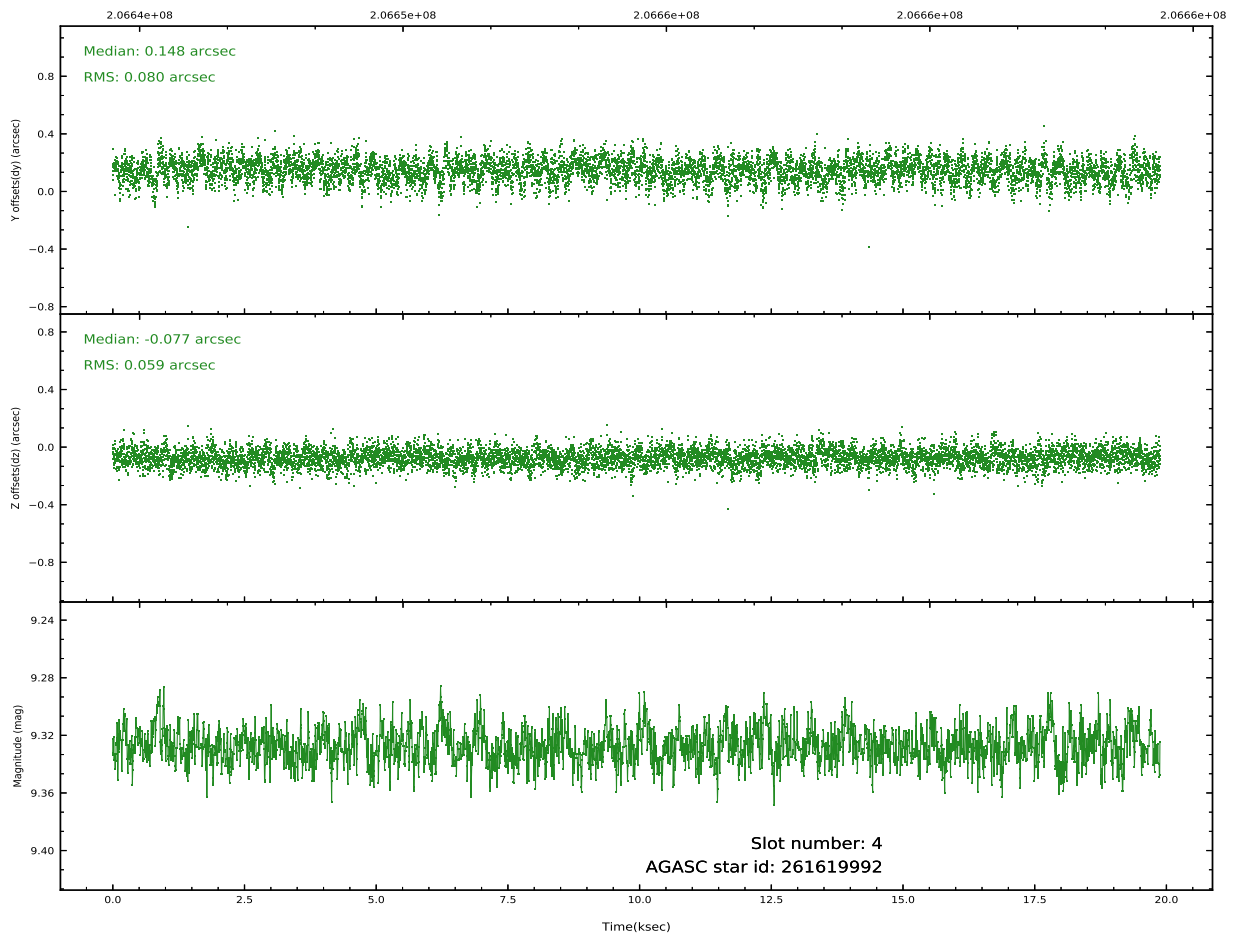
2.4.1 Slot 3



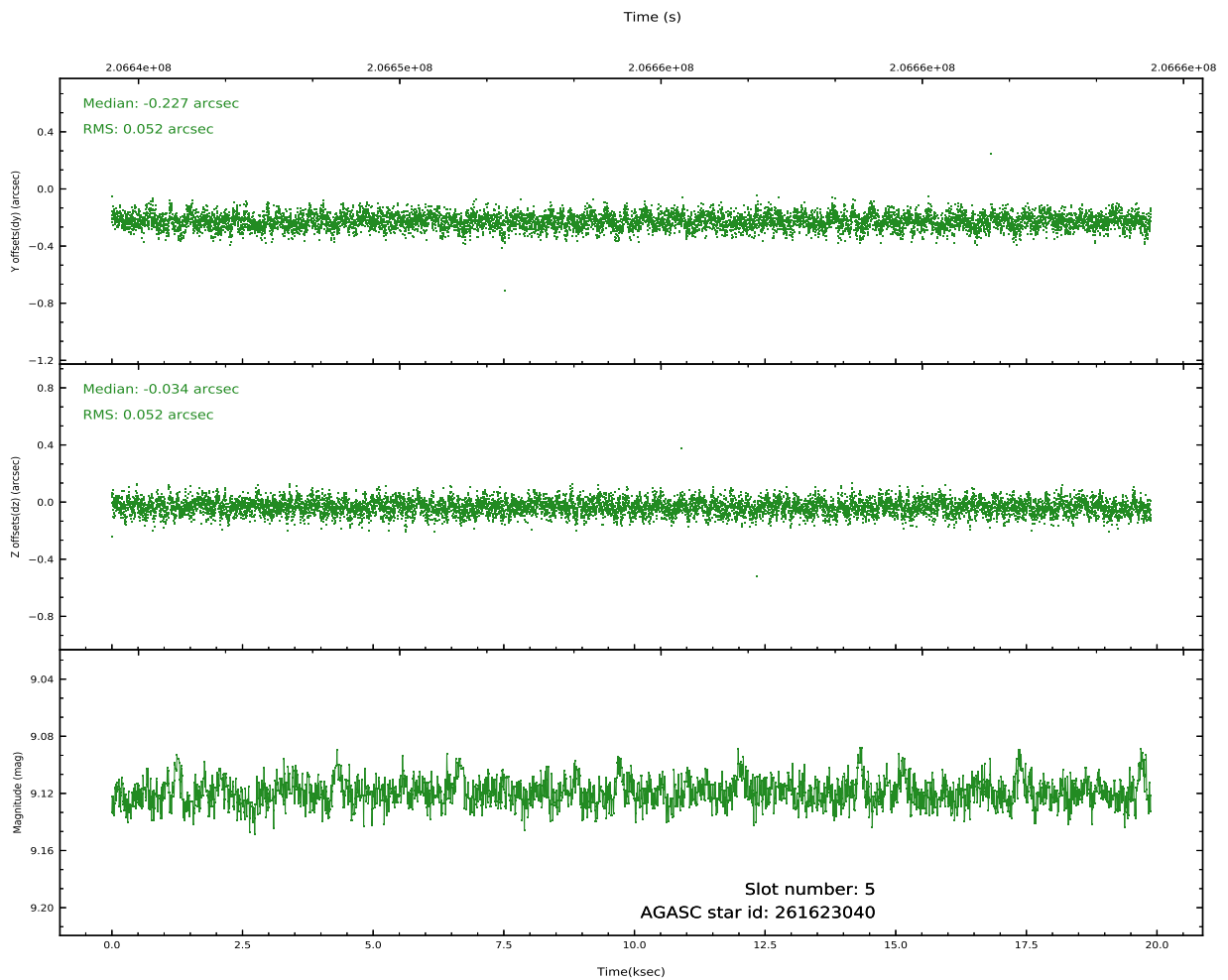
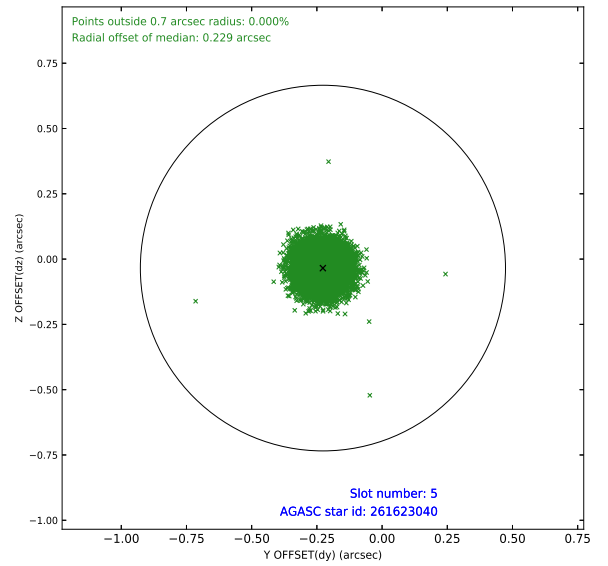
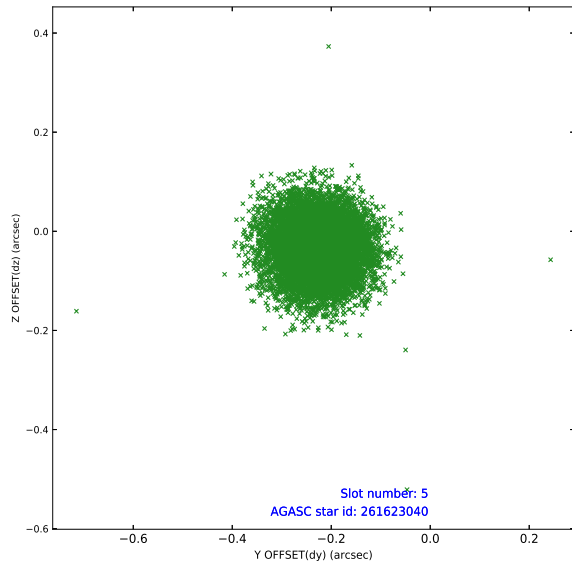
2.4.2 Slot 4



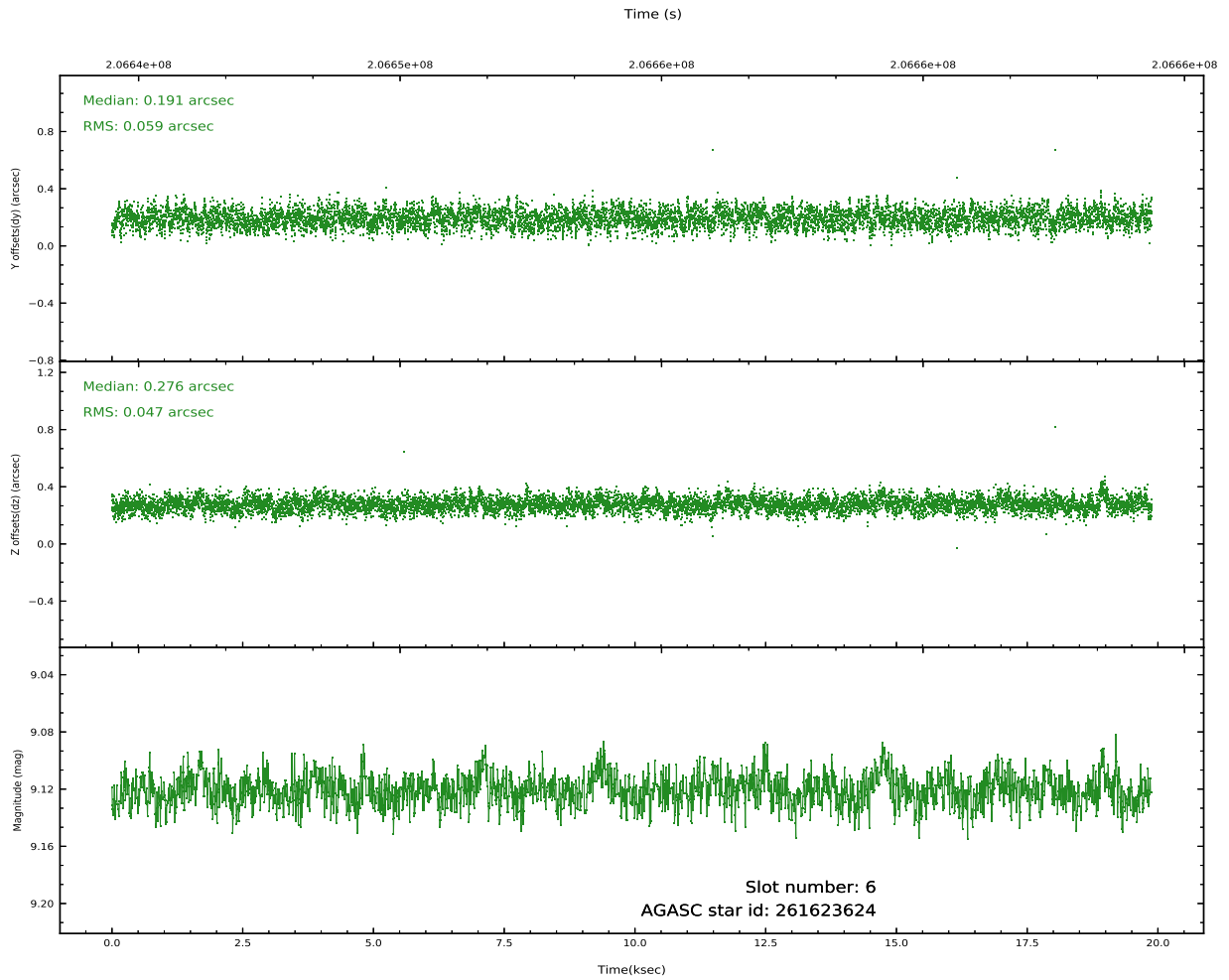
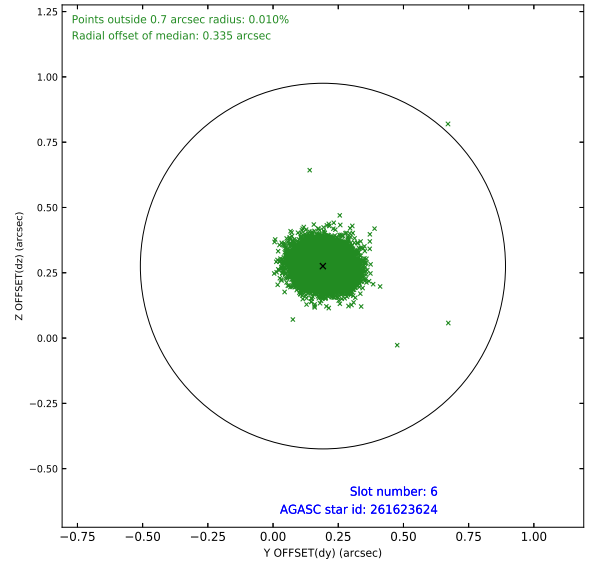
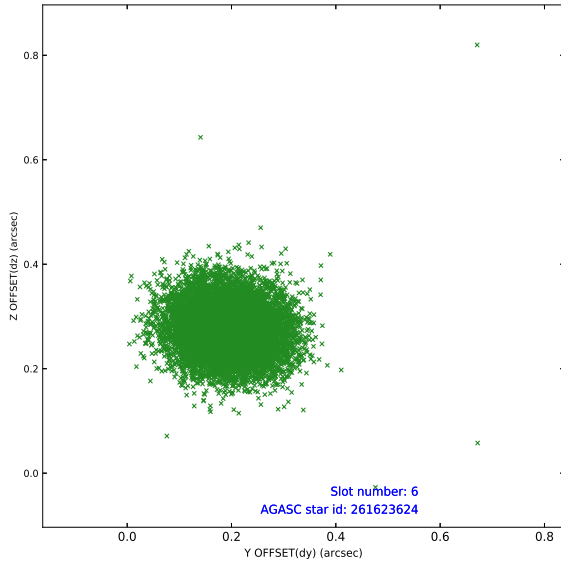
Time (s)



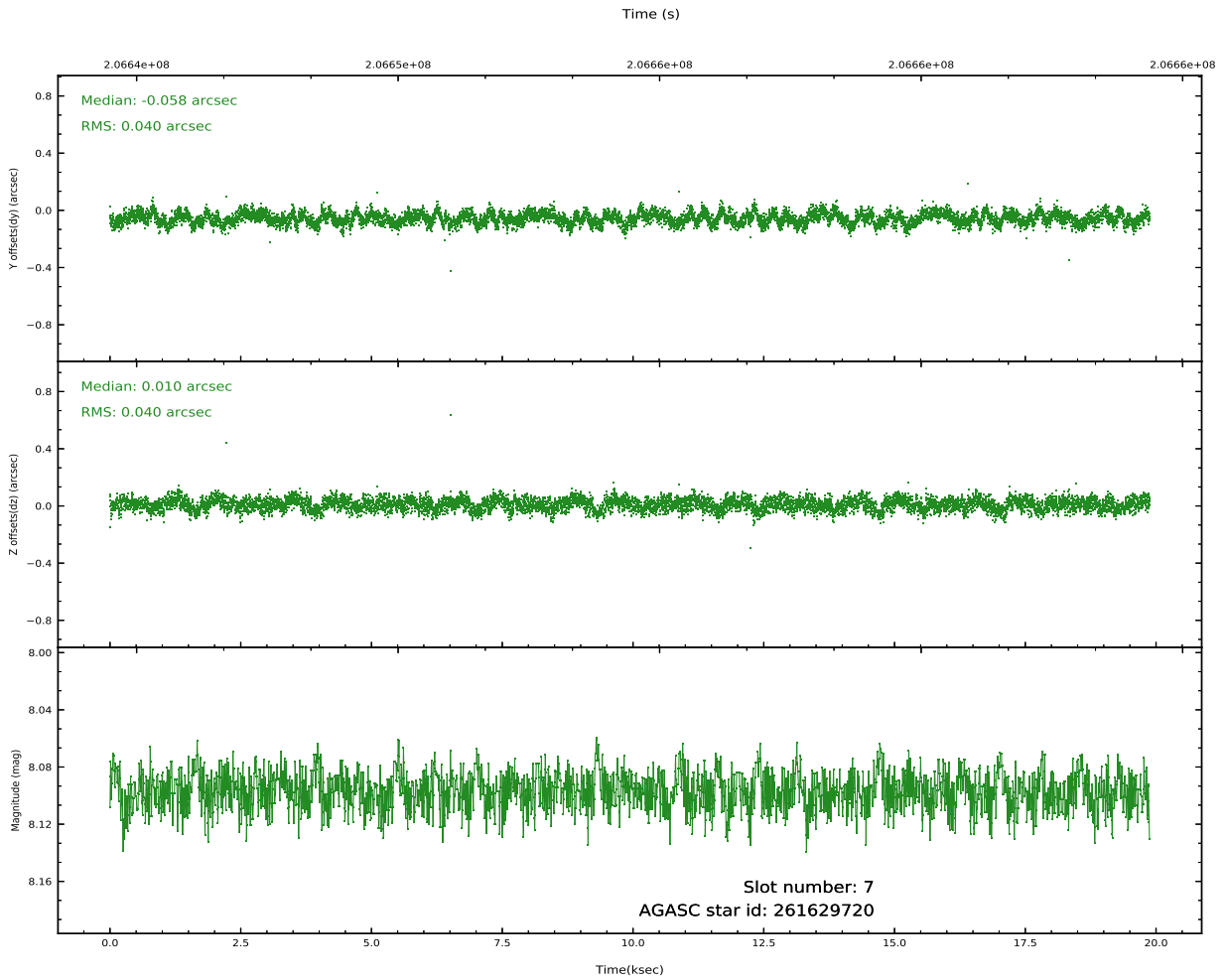
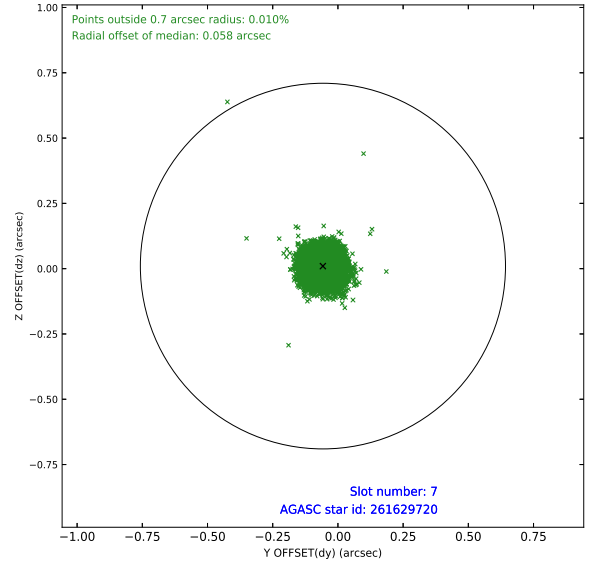
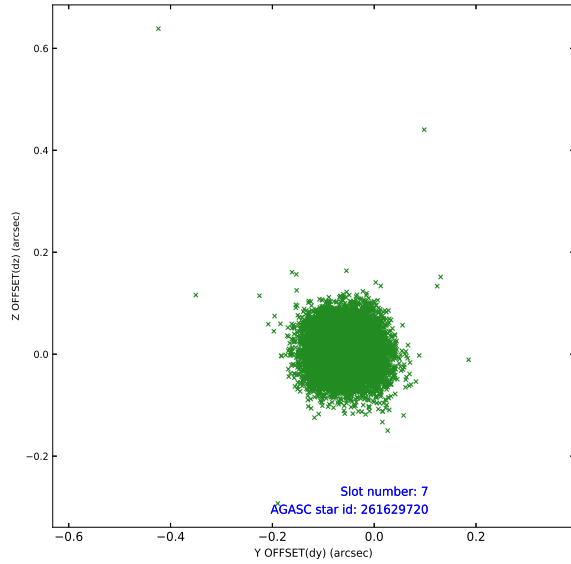
2.4.3 Slot 5



2.4.4 Slot 6

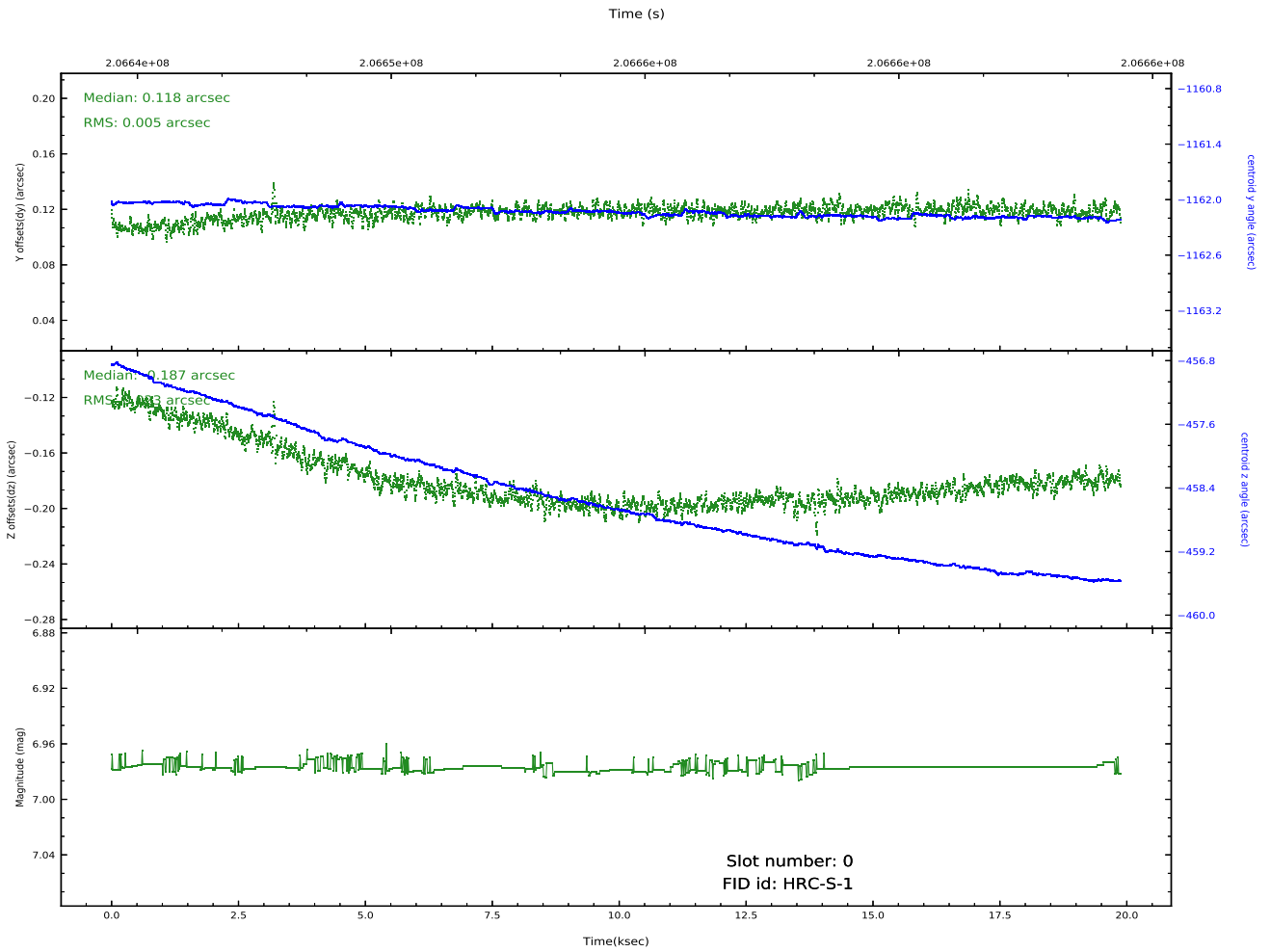
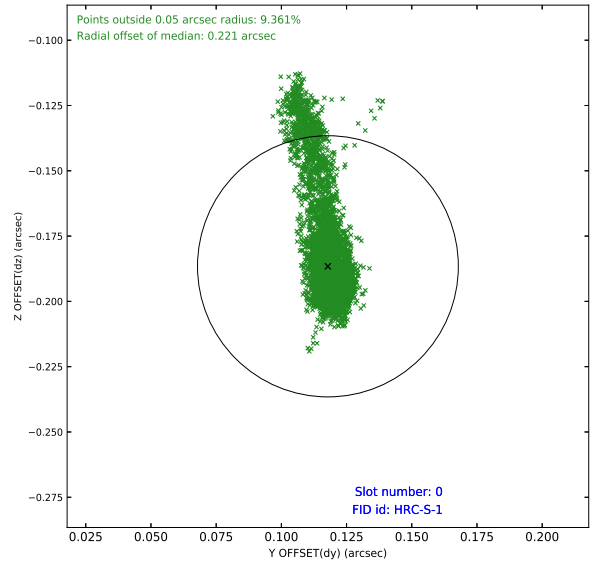
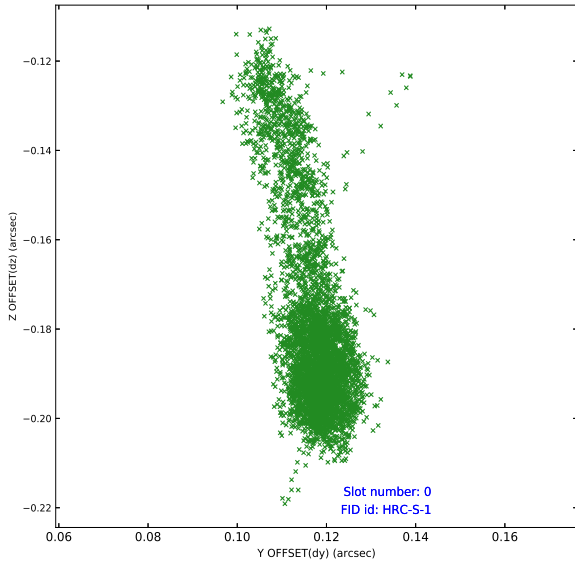


2.4.5 Slot 7

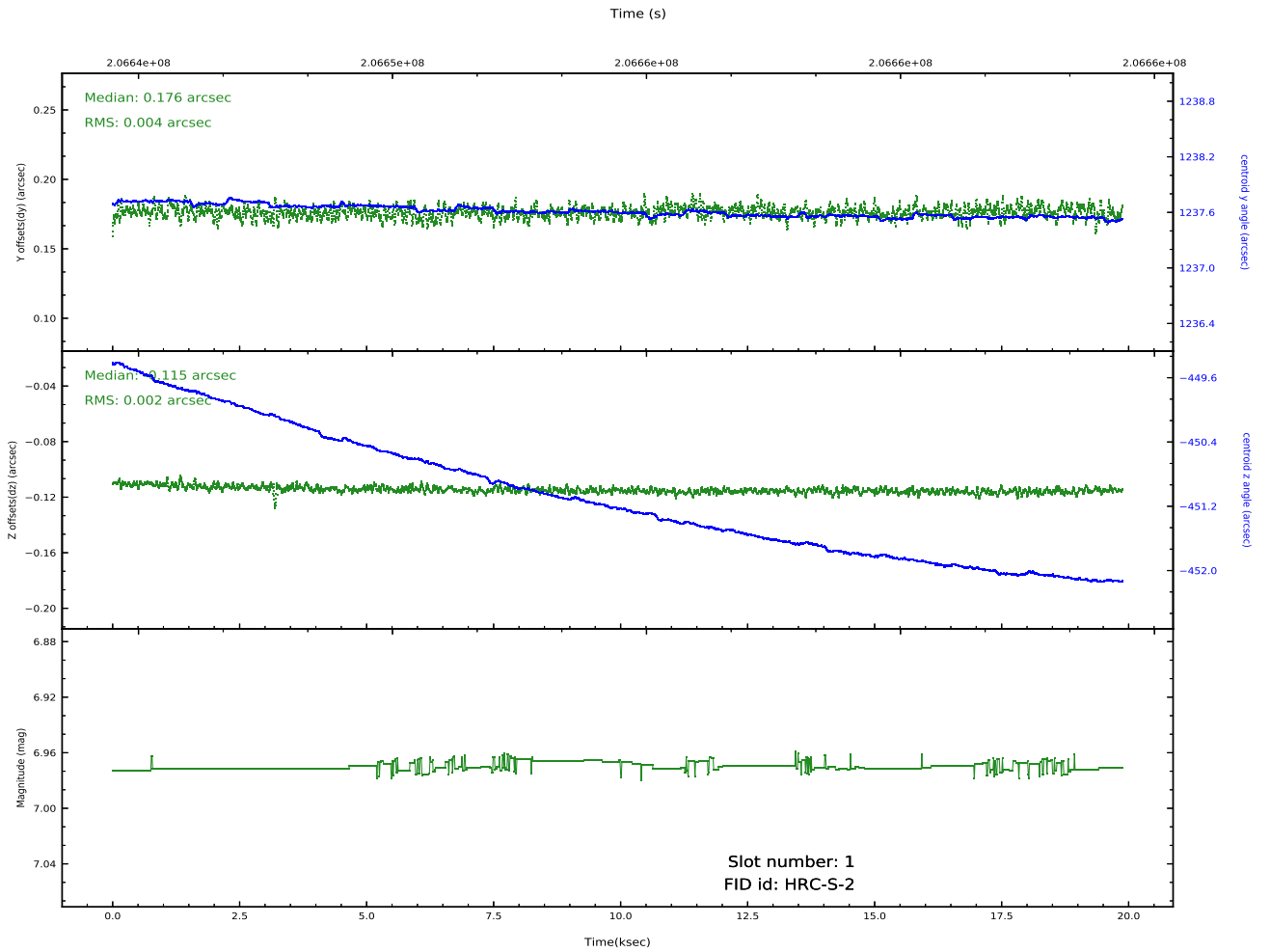
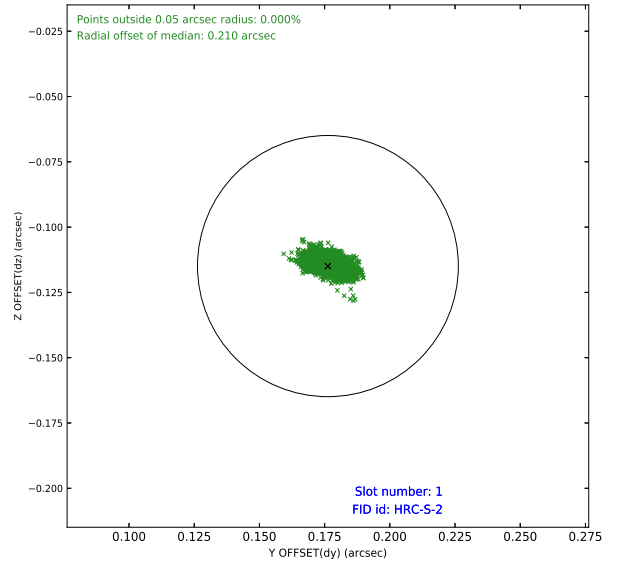
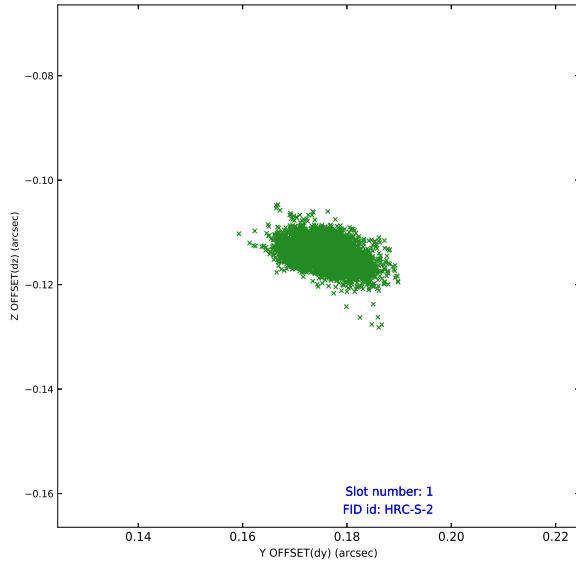


2.5 FID Slots

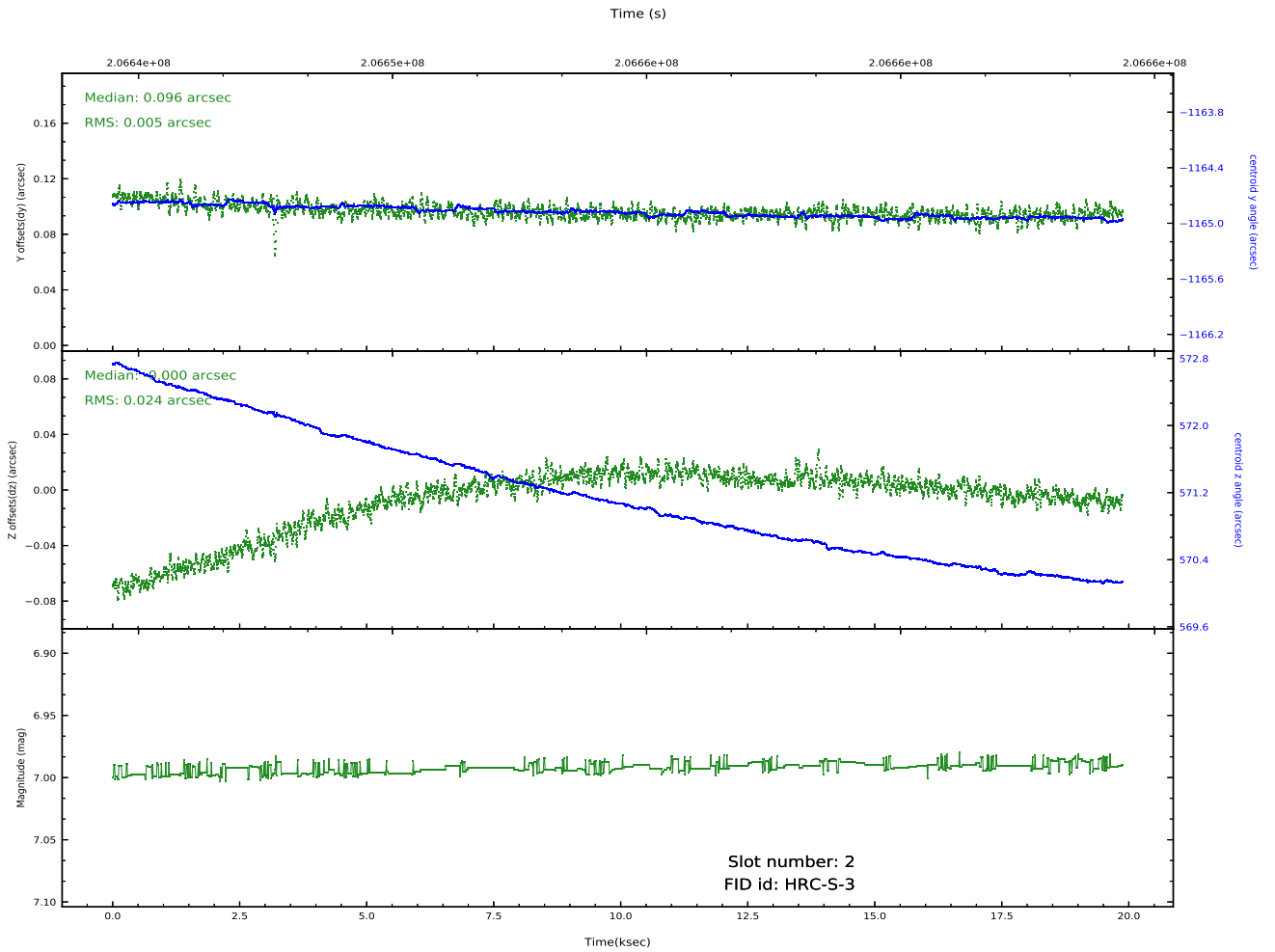
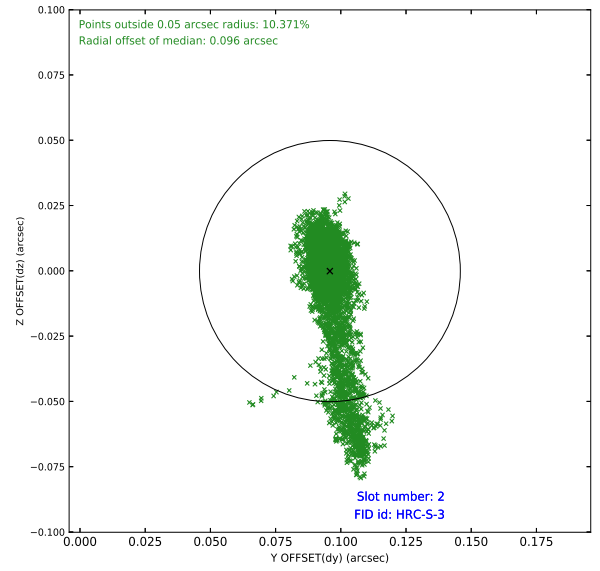
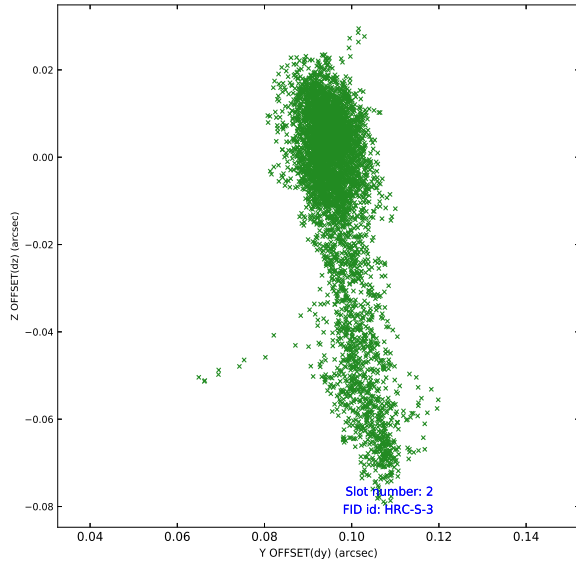
2.5.1 Slot 0



2.5.2 Slot 1

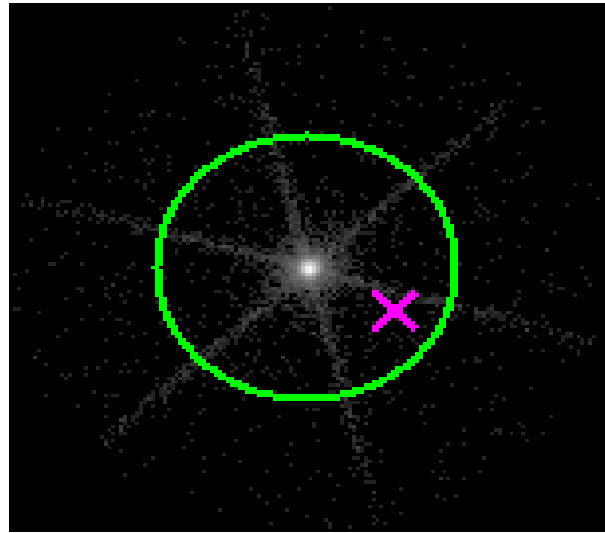


2.5.3 Slot 2

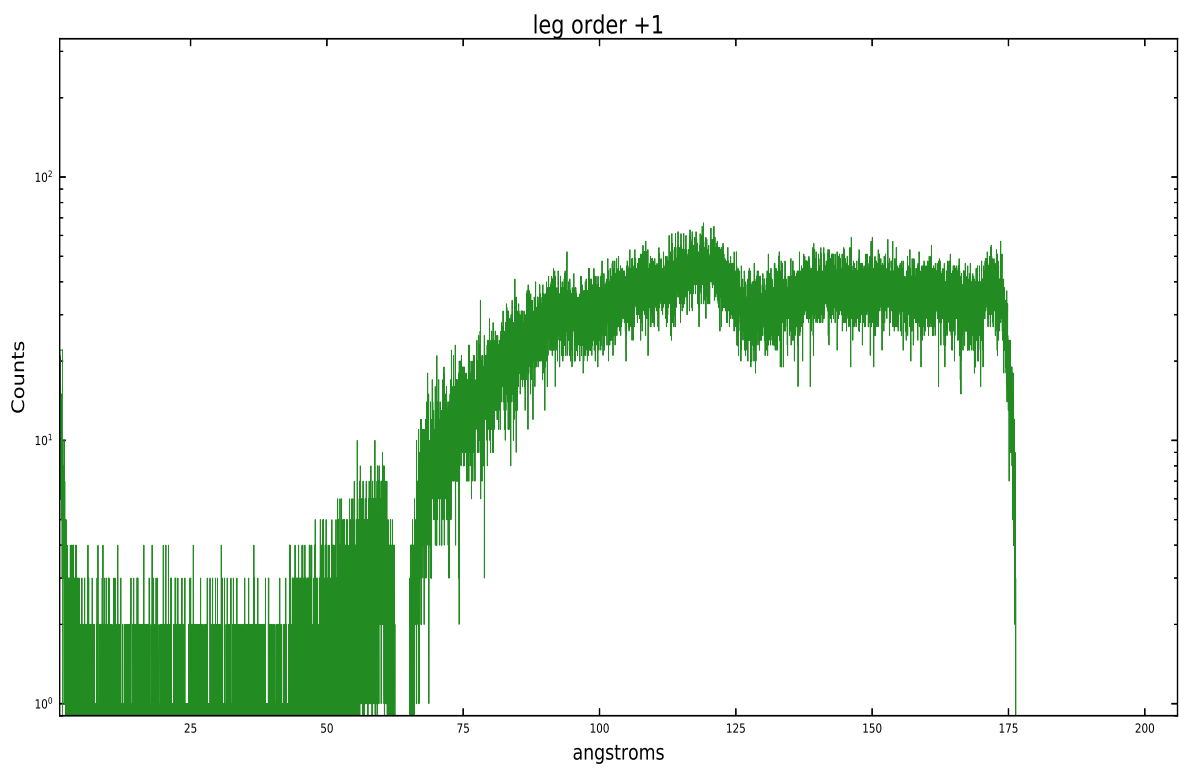
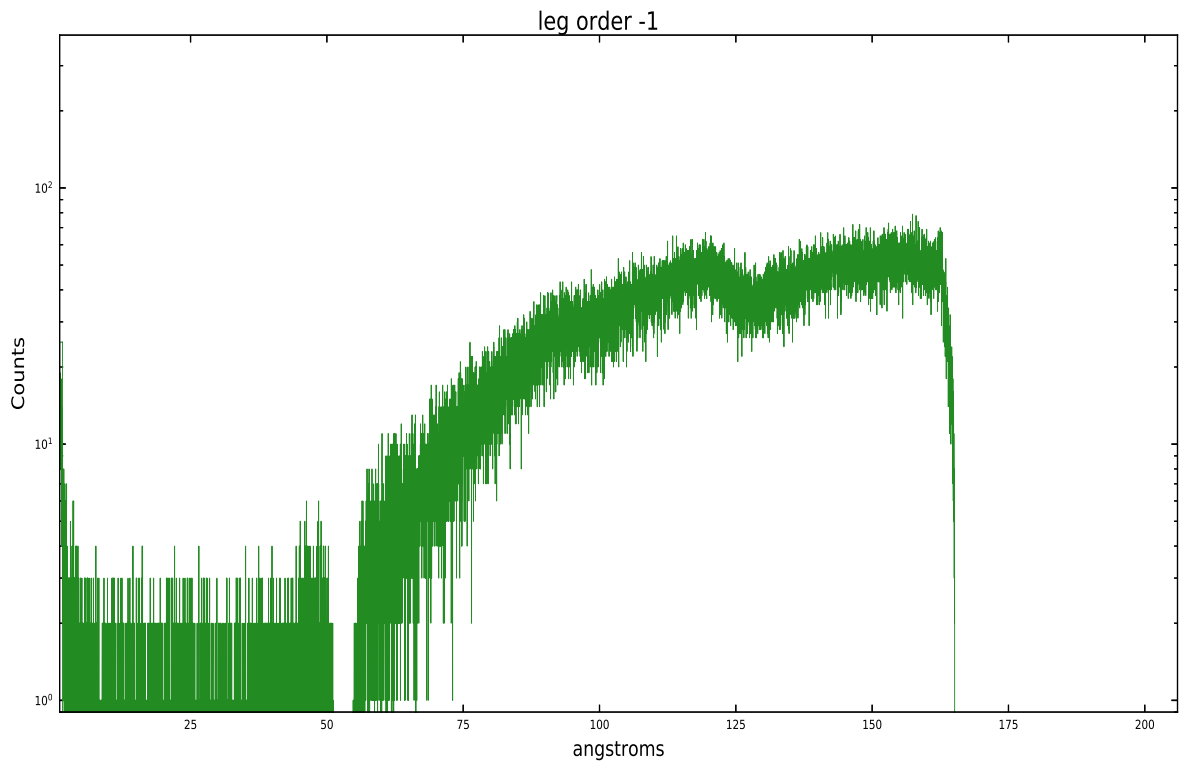


3 Gratings

3.1 LETG Arm



LETG Zero Order



A Summary

A.1 Status

| | |
|----------------------------|--------------------|
| V&V Scientist | David Huenemoerder |
| V&V Date (YYYY-MM-DD) | 2020.10.02 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 19.853 |

A.2 Comments