

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 4631 - L2 Version 3
Chandra X-Ray Center

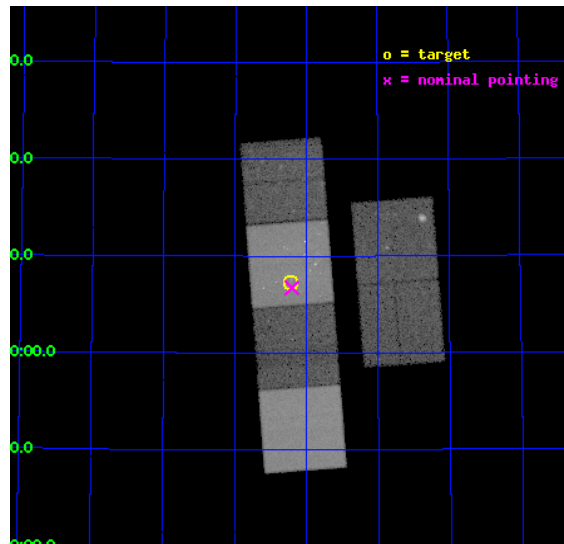
L2 Processing Date : Dec 10 2012

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1 Front

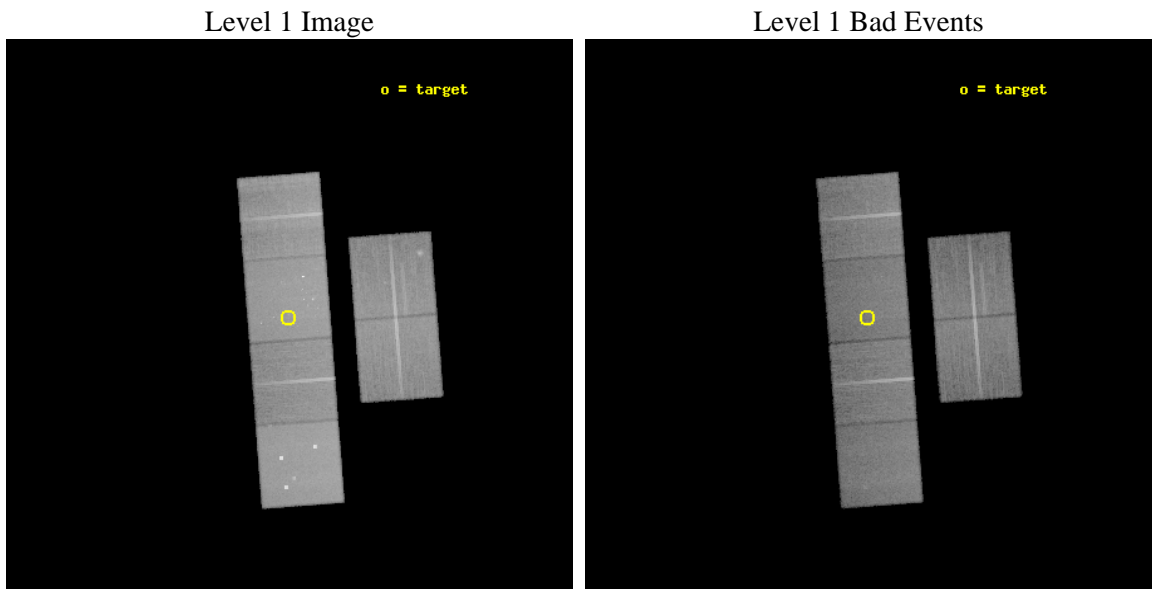
| | | |
|----------|--|---|
| seq_num | 500456 | Sequence number |
| obs_id | 4631 | Observation id |
| title | Prompt Chandra Observations of Nearby Supernovae | Proposal title |
| observer | Prof. Walter Lewin | Principal investigator |
| object | SN 2004et | Source name |
| dtycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 308.805833 | Observer's specified target RA [deg] |
| dec_targ | 60.121556 | Observer's specified target Dec [deg] |
| ra_nom | 308.80098668668 | Nominal RA [deg] |
| dec_nom | 60.112167384499 | Nominal Dec [deg] |
| roll_nom | 265.59431452399 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 30121.599887788 | Sum of GTIs [s] |
| livetime | 29740.182052959 | Livetime [s] |
| ontime2 | 30121.599887788 | Sum of GTIs [s] |
| ontime3 | 30121.599887788 | Sum of GTIs [s] |
| ontime5 | 30121.599887788 | Sum of GTIs [s] |
| ontime6 | 30121.599887788 | Sum of GTIs [s] |
| ontime7 | 30121.599887788 | Sum of GTIs [s] |
| ontime8 | 30121.599887788 | Sum of GTIs [s] |
| l2events | 399115 | Number of level 2 events |



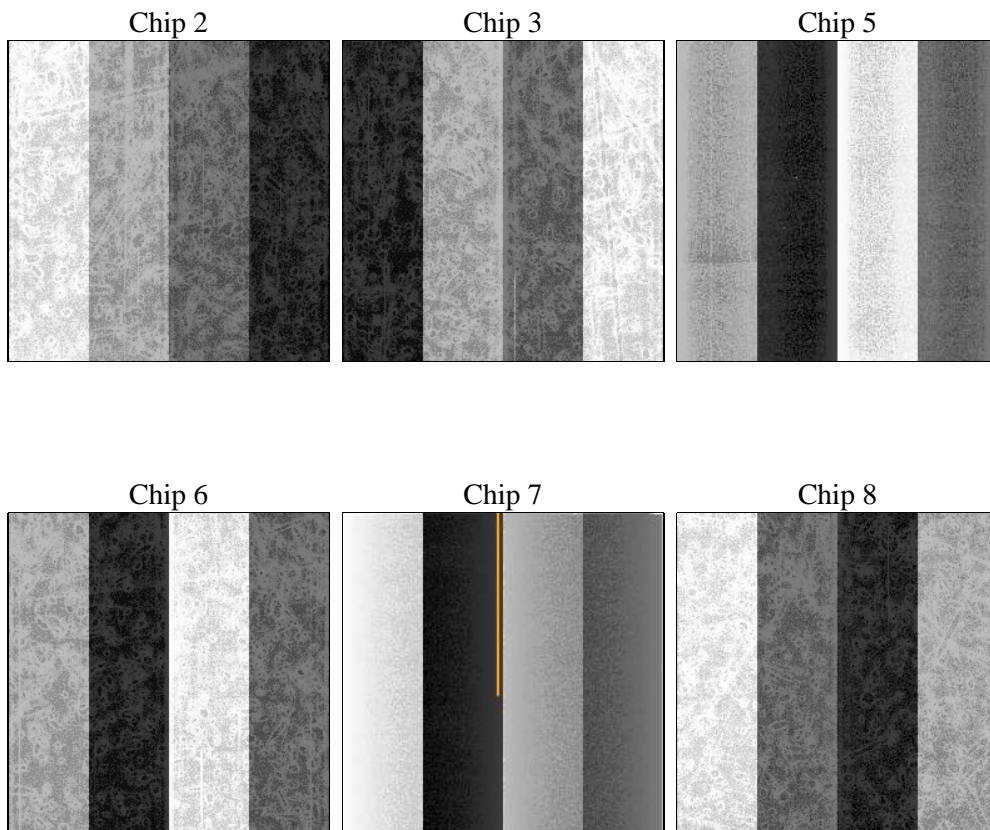
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 30000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.5 | Processing system revision | ontime | 30121.599887788 | Sum of GTIs [s] |
| caldbver | 4.5.4 | | ontime2 | 30121.599887788 | Sum of GTIs [s] |
| date | 2012-12-10T12:12:06 | Date and time of file creation | ontime3 | 30121.599887788 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 30121.599887788 | Sum of GTIs [s] |
| | | | ontime6 | 30121.599887788 | Sum of GTIs [s] |
| | | | ontime7 | 30121.599887788 | Sum of GTIs [s] |
| | | | ontime8 | 30121.599887788 | Sum of GTIs [s] |
| | | | l1events | 1747056 | Number of level 1 events |

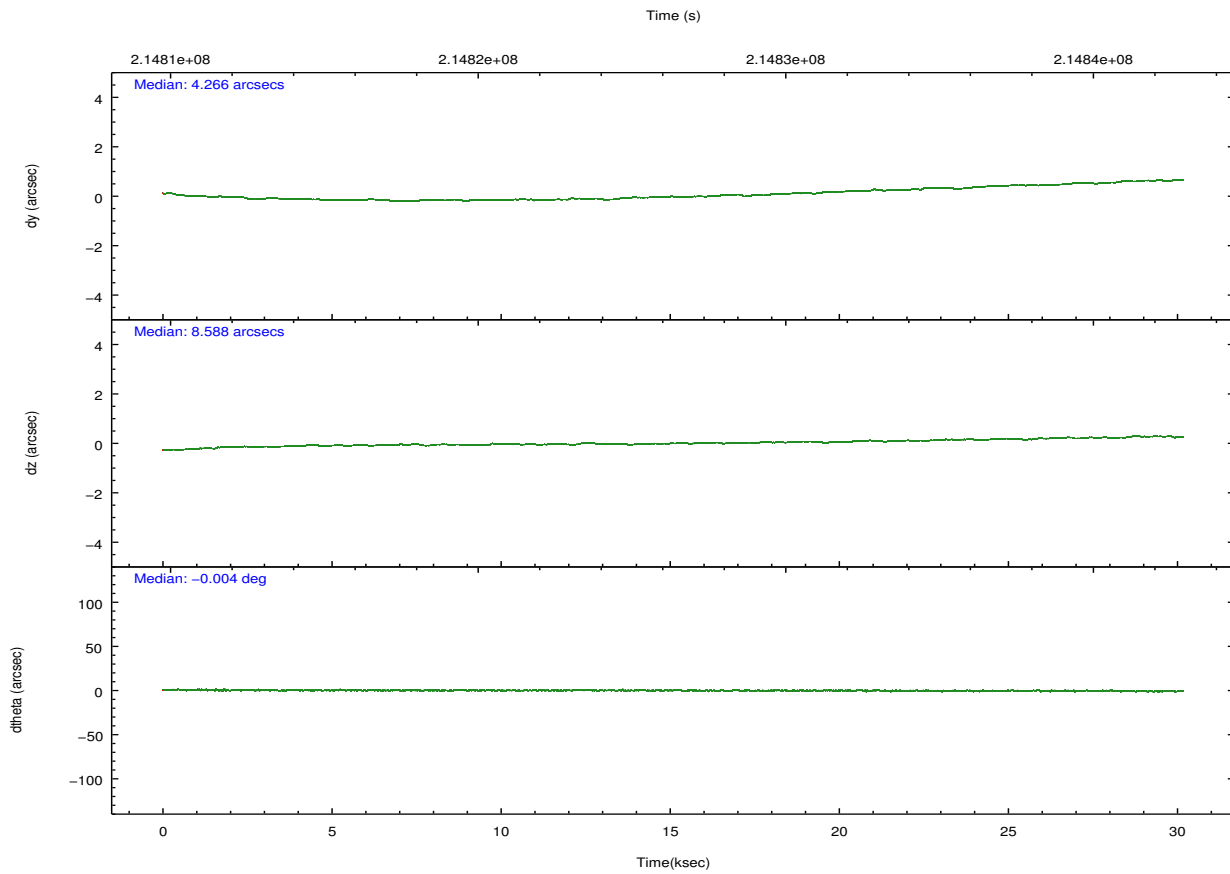
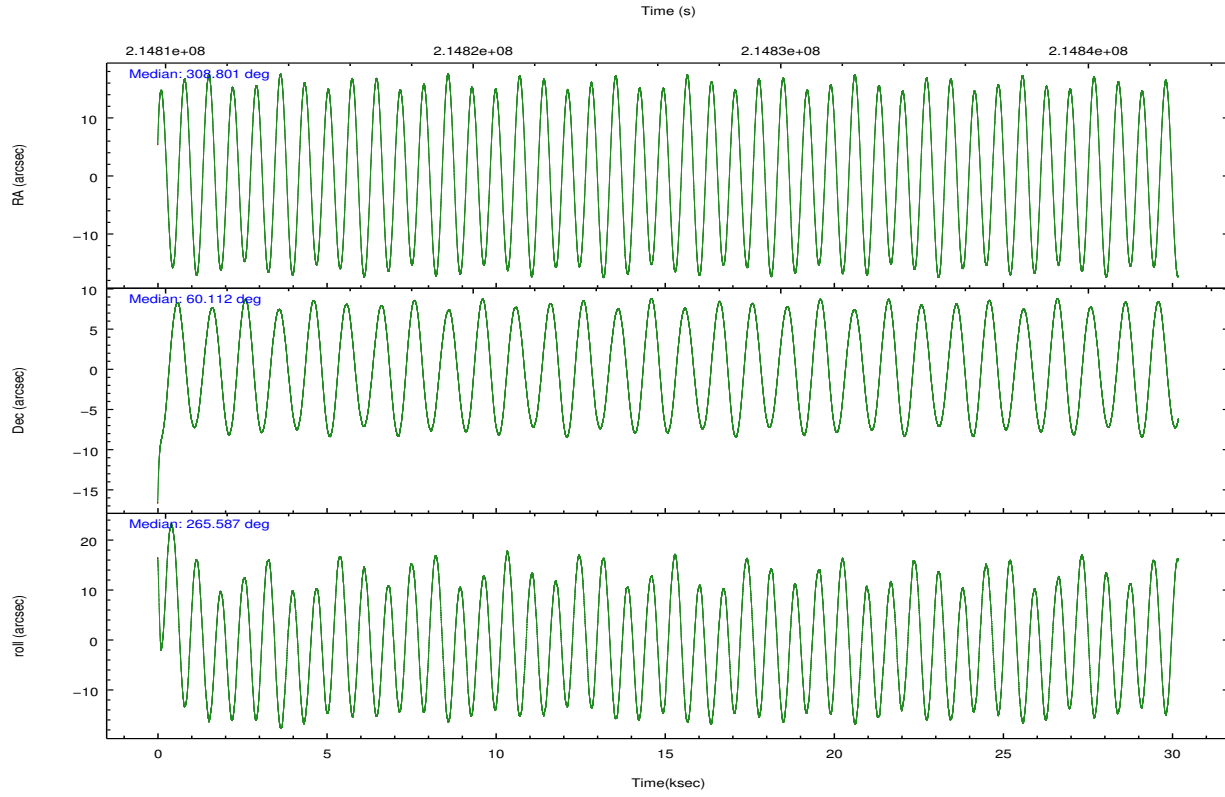
2.1.4 Events

| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 249347 | 237551 | 376106 | 245506 | 333853 | 304693 | grade 0 events | 12543 | 13928 | 29106 | 11407 | 14794 | 20278 |
| rejected events | 220729 | 207457 | 197118 | 216719 | 190088 | 240530 | | 5% | 5% | 7% | 4% | 4% | 6% |
| rejected % | 88% | 87% | 52% | 88% | 56% | 78% | grade 1 events | 162 | 155 | 667 | 109 | 351 | 220 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 5886 | 5568 | 50301 | 6042 | 29306 | 14070 |
| | | | | | | | | 2% | 2% | 13% | 2% | 8% | 4% |
| | | | | | | | grade 3 events | 2694 | 2783 | 6040 | 2731 | 12905 | 6679 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 4 events | 2793 | 2879 | 6045 | 2727 | 12863 | 6296 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 5 events | 9569 | 10734 | 26199 | 11207 | 30881 | 14190 |
| | | | | | | | | 3% | 4% | 6% | 4% | 9% | 4% |
| | | | | | | | grade 6 events | 4710 | 4945 | 87529 | 5887 | 73940 | 16844 |
| | | | | | | | | 1% | 2% | 23% | 2% | 22% | 5% |
| | | | | | | | grade 7 events | 210990 | 196559 | 170219 | 205396 | 158813 | 226116 |
| | | | | | | | | 84% | 82% | 45% | 83% | 47% | 74% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|--------------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-235678 | ACIS-235678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | 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 | 308.776691 | 308.800986686677 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | 60.136588 | 60.1121673844993 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 265.458743 | 265.5943145239918 | [s] Primary exposure time | 0.000000 | 3.2 |
| [deg] Roll angle | 265.000000 | 265.000000 | | | |
| [deg] Roll tolerance | 5.000000 | 5.000000 | | | |
| Roll constraint allows 180D rotation | N | N | | | |
| [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) | 214811425.184000 | 214810380.13729 | | | |
| Observation start date | 2004-10-22T05:49:21 | 2004-10-22T05:33:00 | | | |
| [s] Observation end time (MET) | 214841425.184000 | 214843227.80127 | | | |
| Observation end date | 2004-10-22T14:09:21 | 2004-10-22T14:40:27 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect

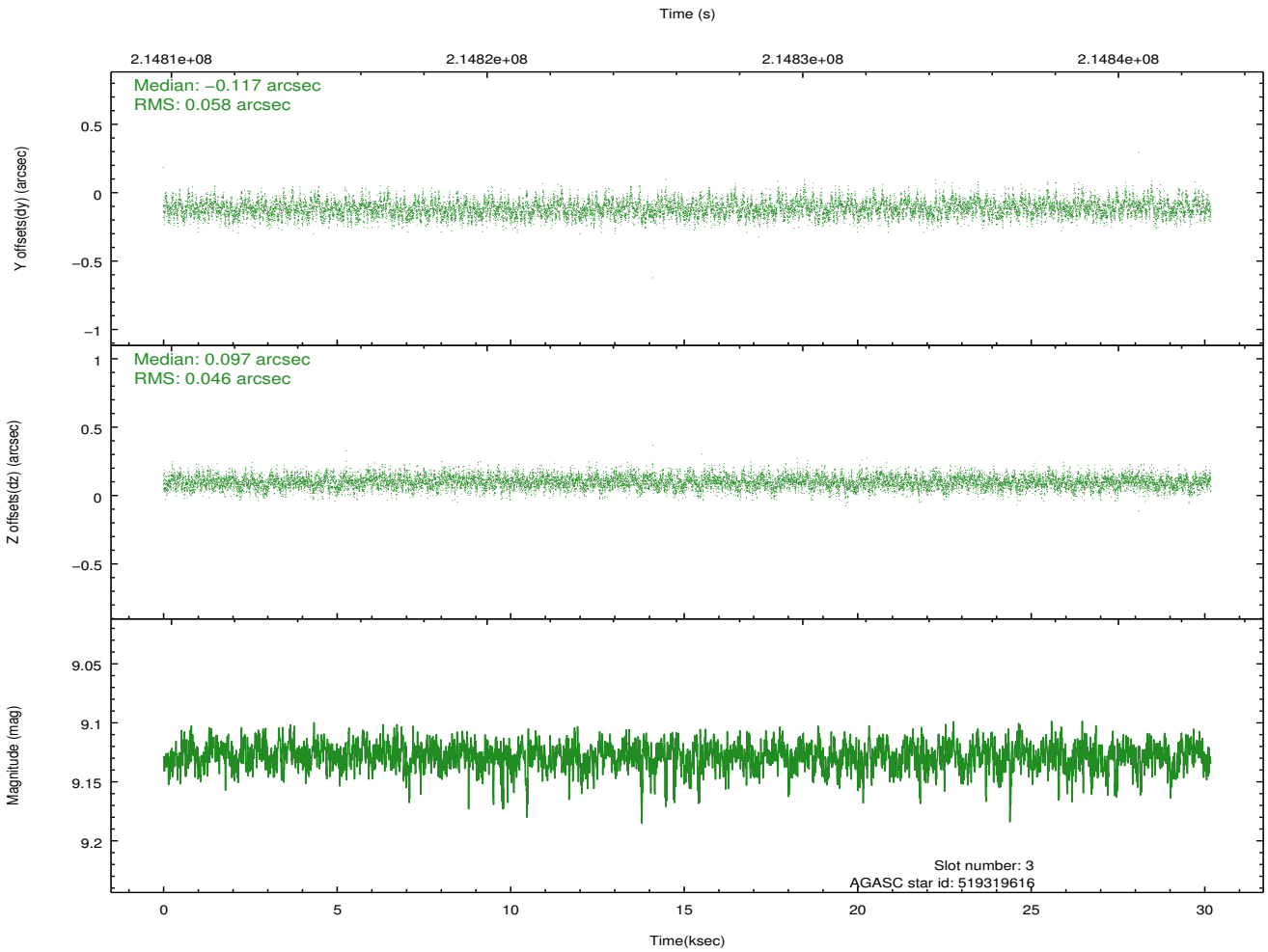
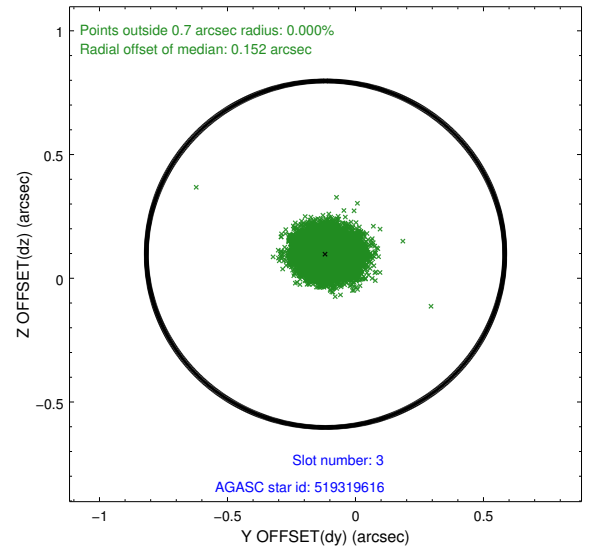
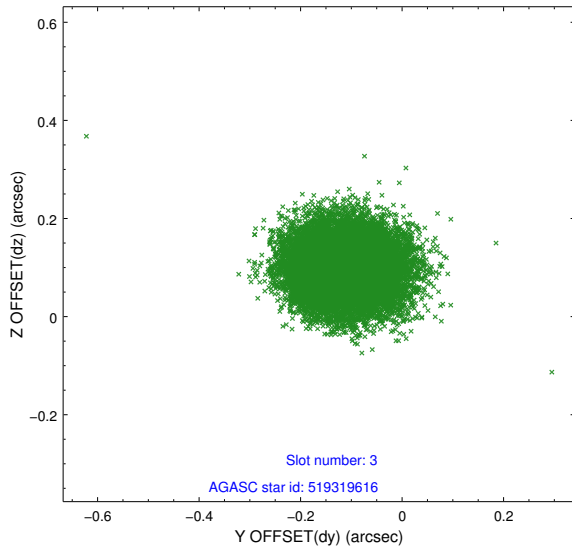


Slot Statistics

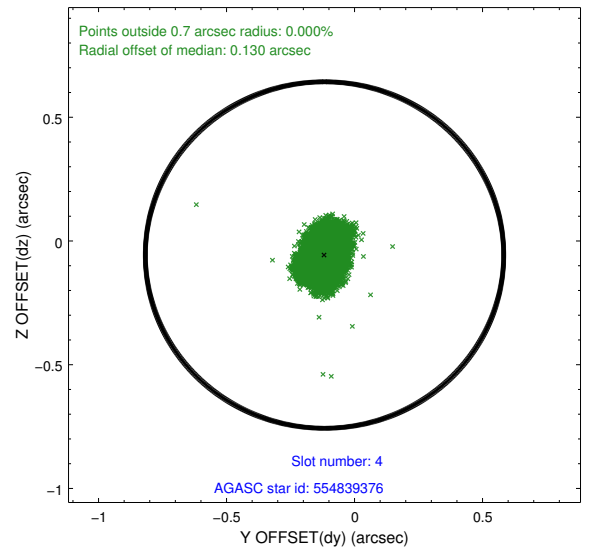
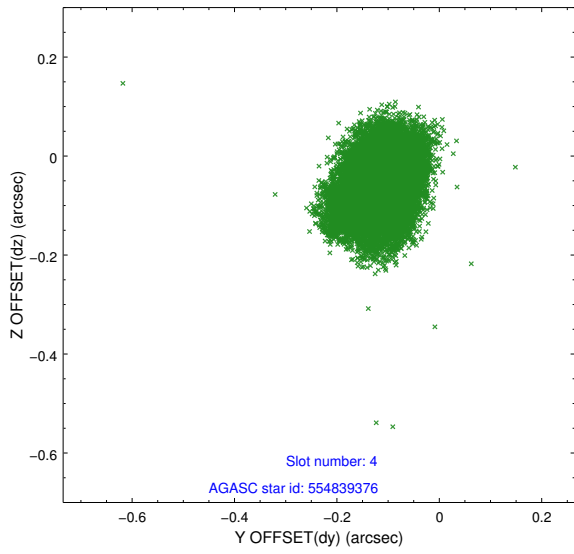
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 7362 | -0.042 | -0.057 | 0.009 | 0.016 | 0.000000 | 0.000000 | -757.09 | -1729.87 |
| 1 | FID | ACIS-S-4 | 7.20 | 7363 | 0.114 | 0.035 | 0.011 | 0.021 | 0.000000 | 0.000000 | 2156.32 | 178.62 |
| 2 | FID | ACIS-S-5 | 7.23 | 7361 | -0.104 | 0.030 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1809.90 | 172.38 |
| 3 | GUIDE | 519319616 | 9.13 | 14701 | -0.117 | 0.097 | 0.078 | 0.128 | 308.290973 | 59.595846 | 2007.63 | -727.82 |
| 4 | GUIDE | 554839376 | 7.41 | 14719 | -0.117 | -0.057 | 0.077 | 0.120 | 308.018563 | 60.422364 | -925.79 | -1425.02 |
| 5 | GUIDE | 556537192 | 9.20 | 14715 | -0.049 | -0.044 | 0.086 | 0.140 | 309.975880 | 60.344309 | -934.06 | 2068.36 |
| 6 | GUIDE | 519320296 | 9.08 | 14715 | 0.166 | 0.023 | 0.109 | 0.171 | 308.366901 | 59.489372 | 2380.09 | -561.75 |
| 7 | GUIDE | 519309304 | 8.67 | 14682 | 0.119 | -0.018 | 0.076 | 0.126 | 309.978425 | 59.702936 | 1363.98 | 2297.90 |

2.4 Star Slots

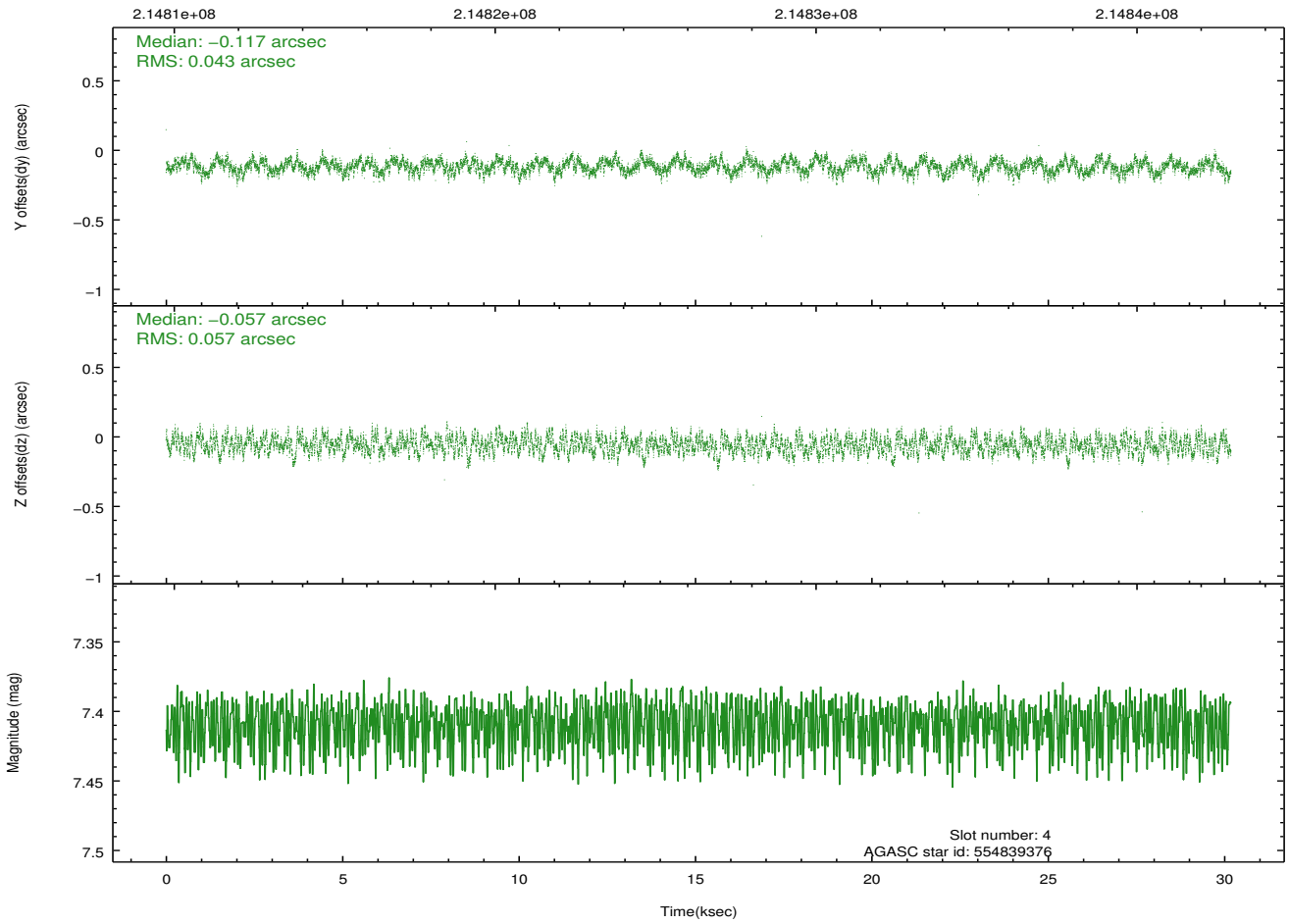
2.4.1 Slot 3



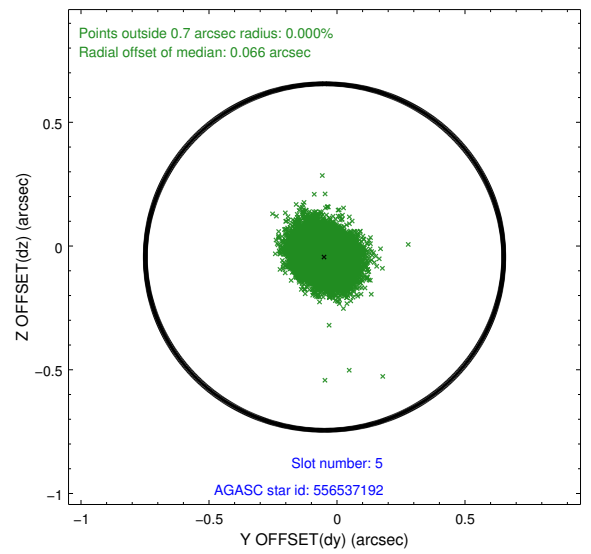
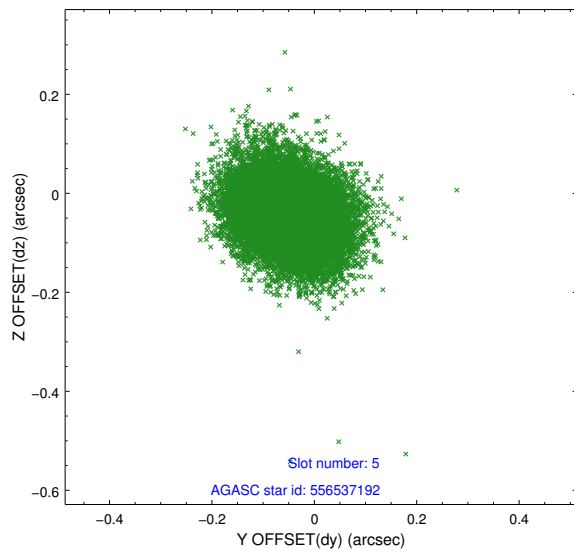
2.4.2 Slot 4



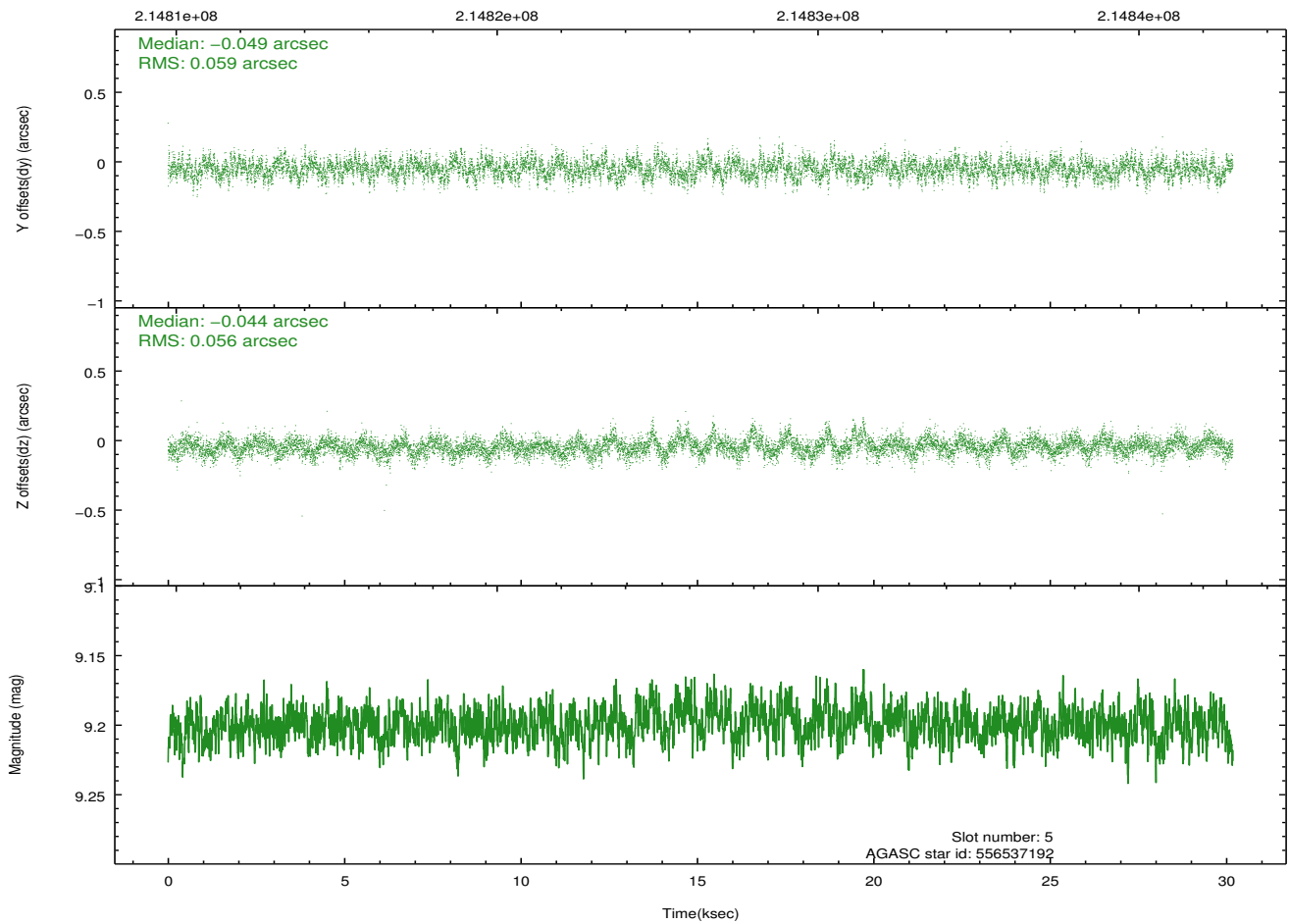
Time (s)



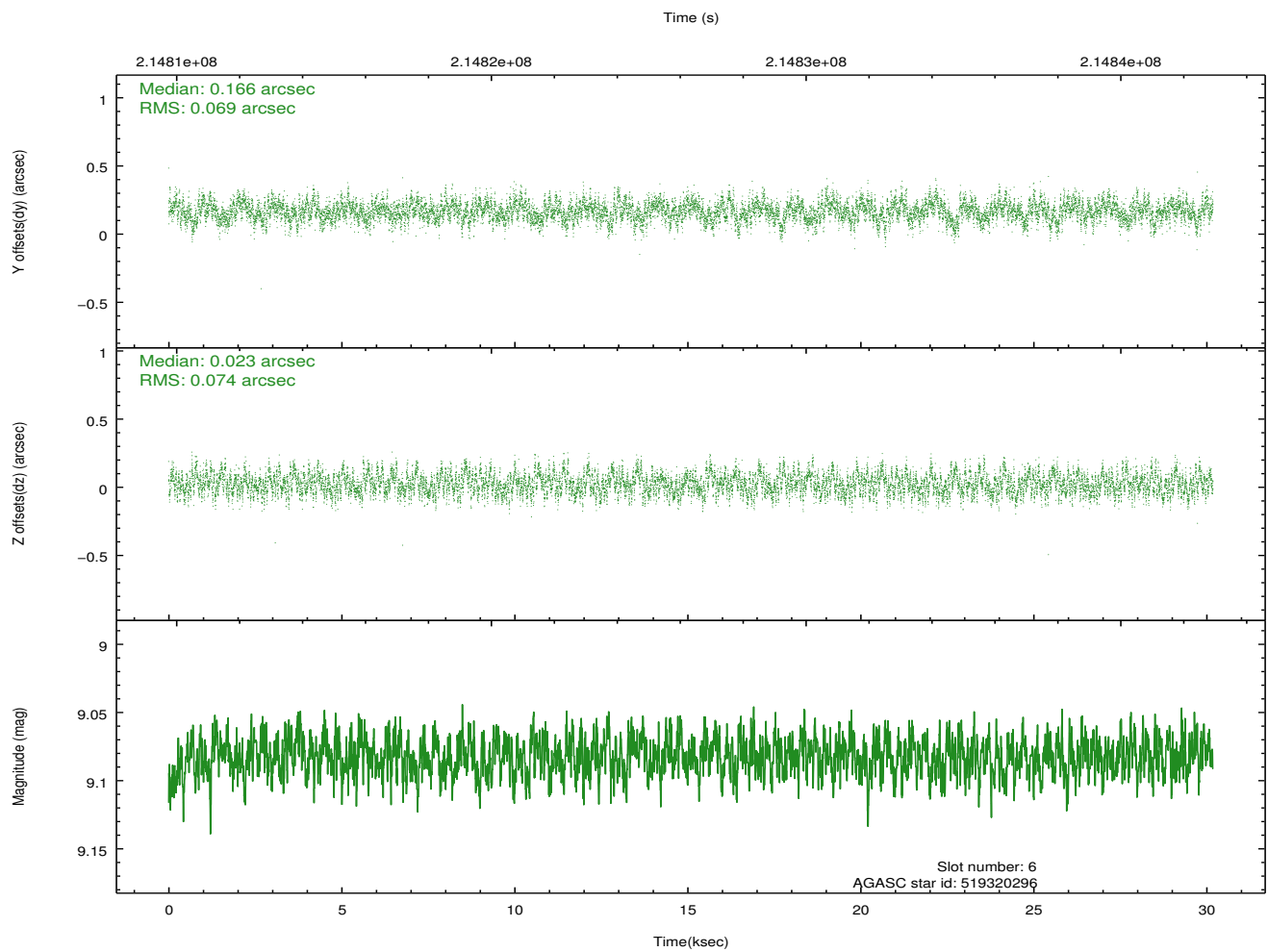
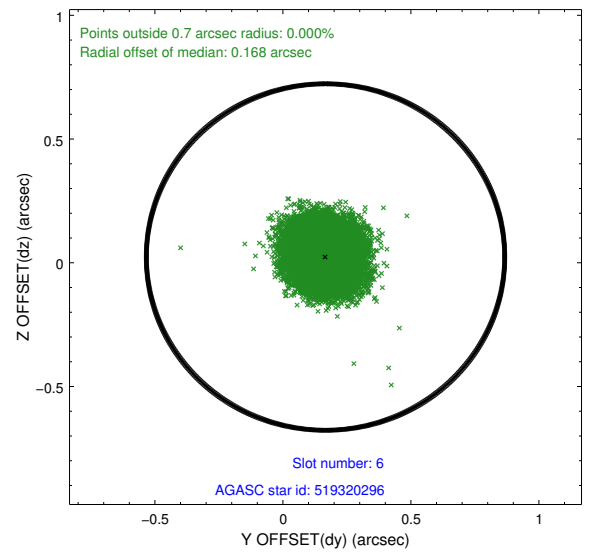
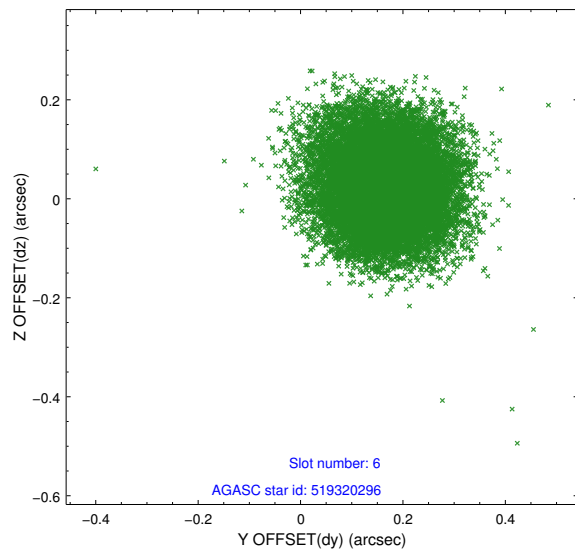
2.4.3 Slot 5



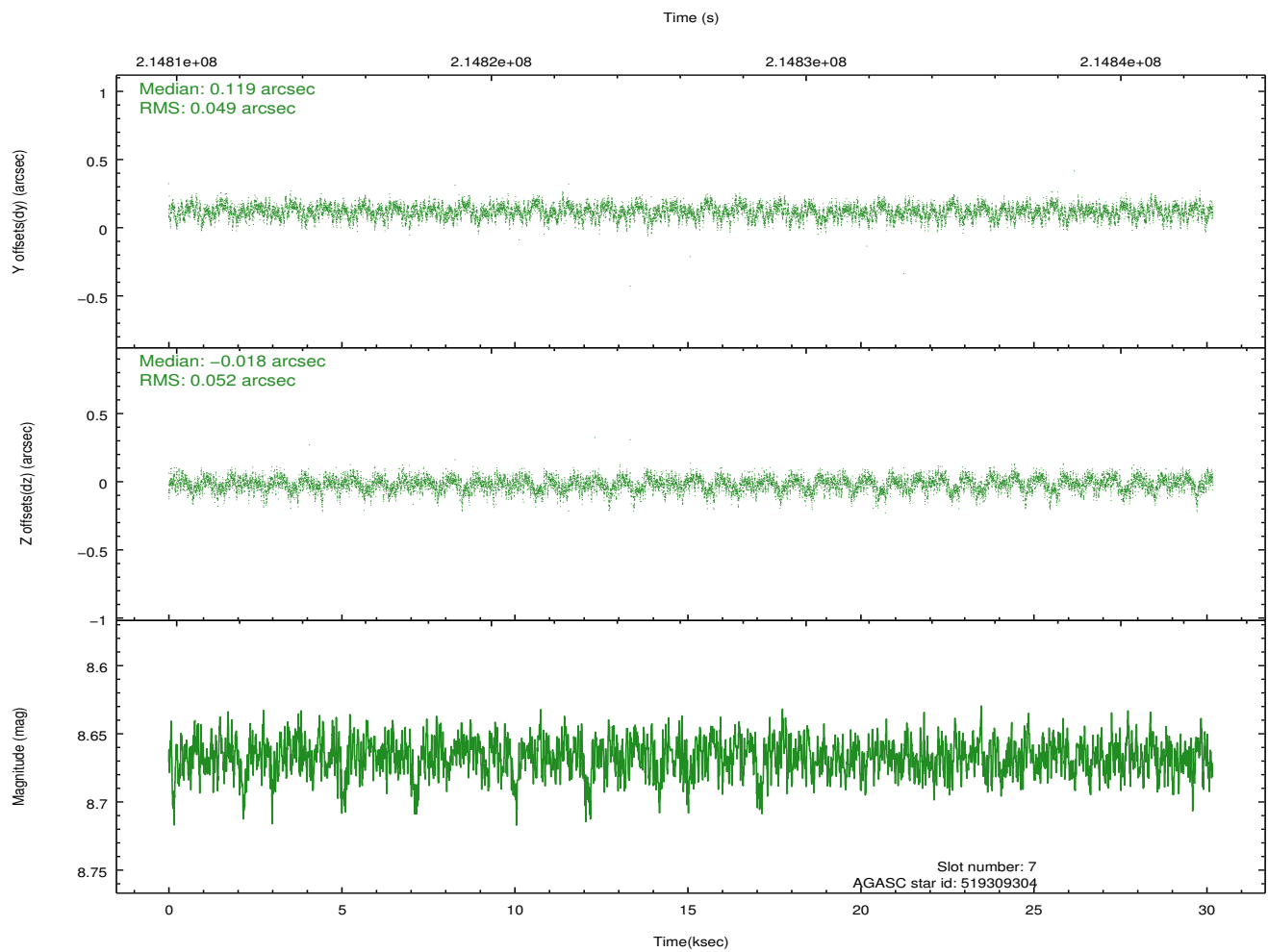
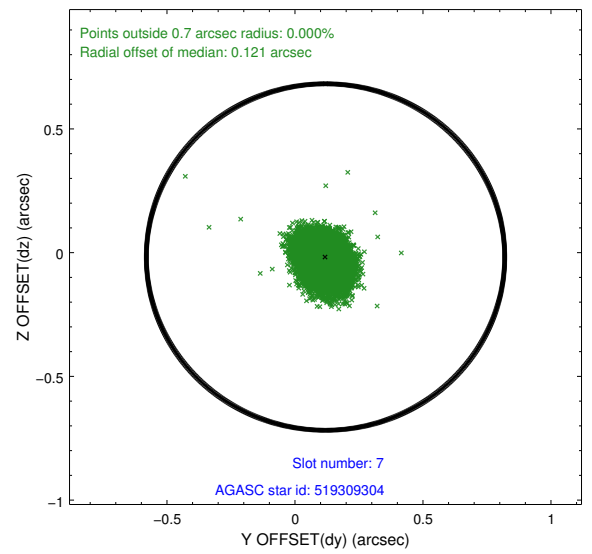
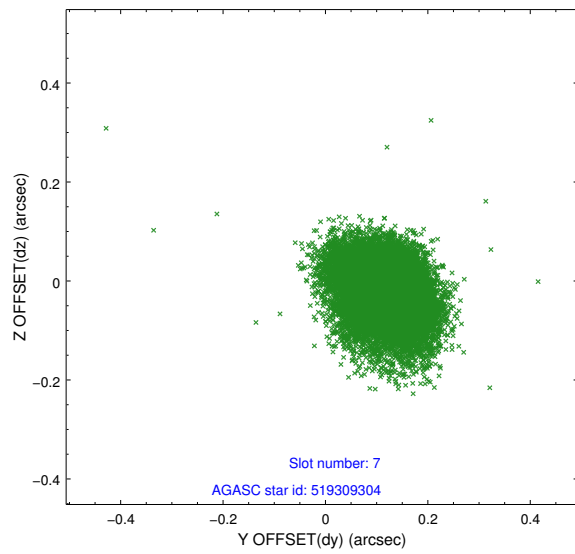
Time (s)



2.4.4 Slot 6

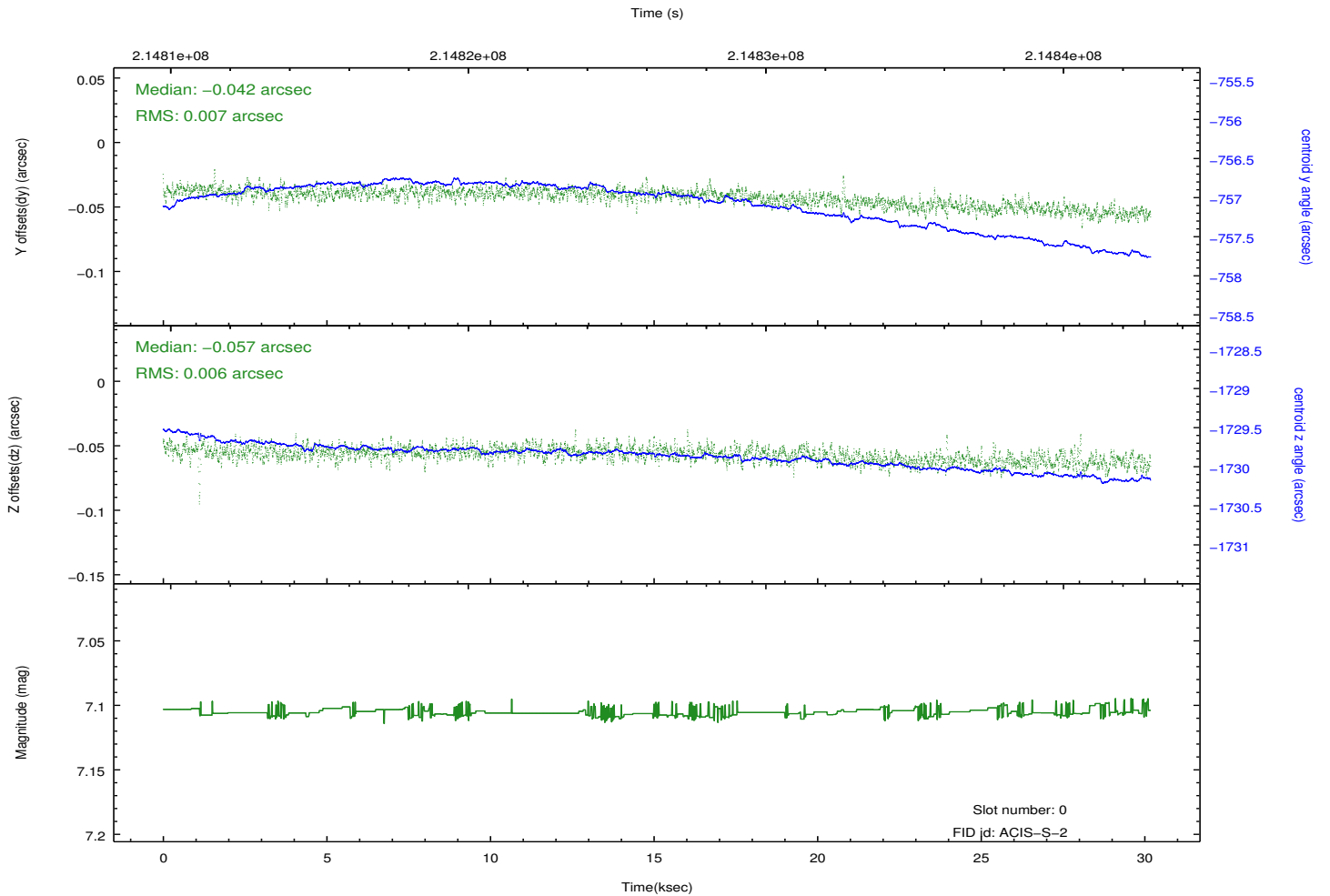
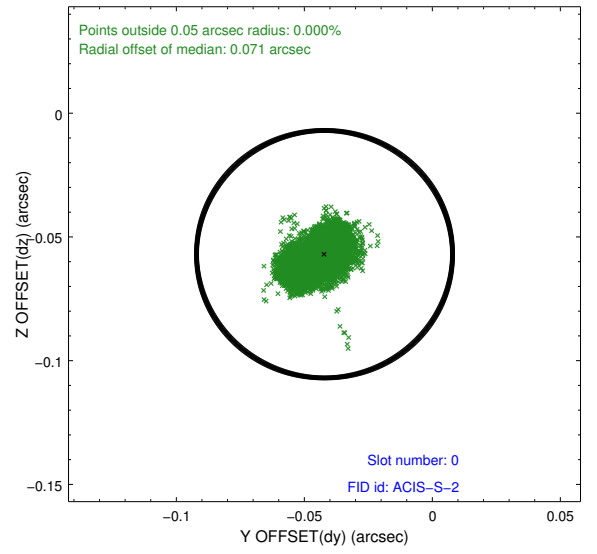
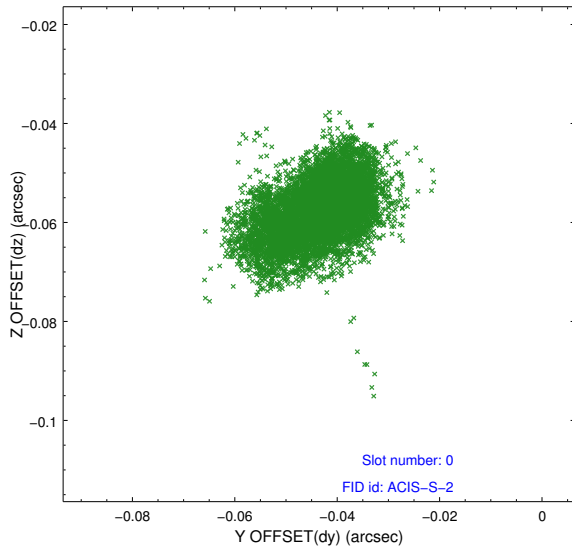


2.4.5 Slot 7

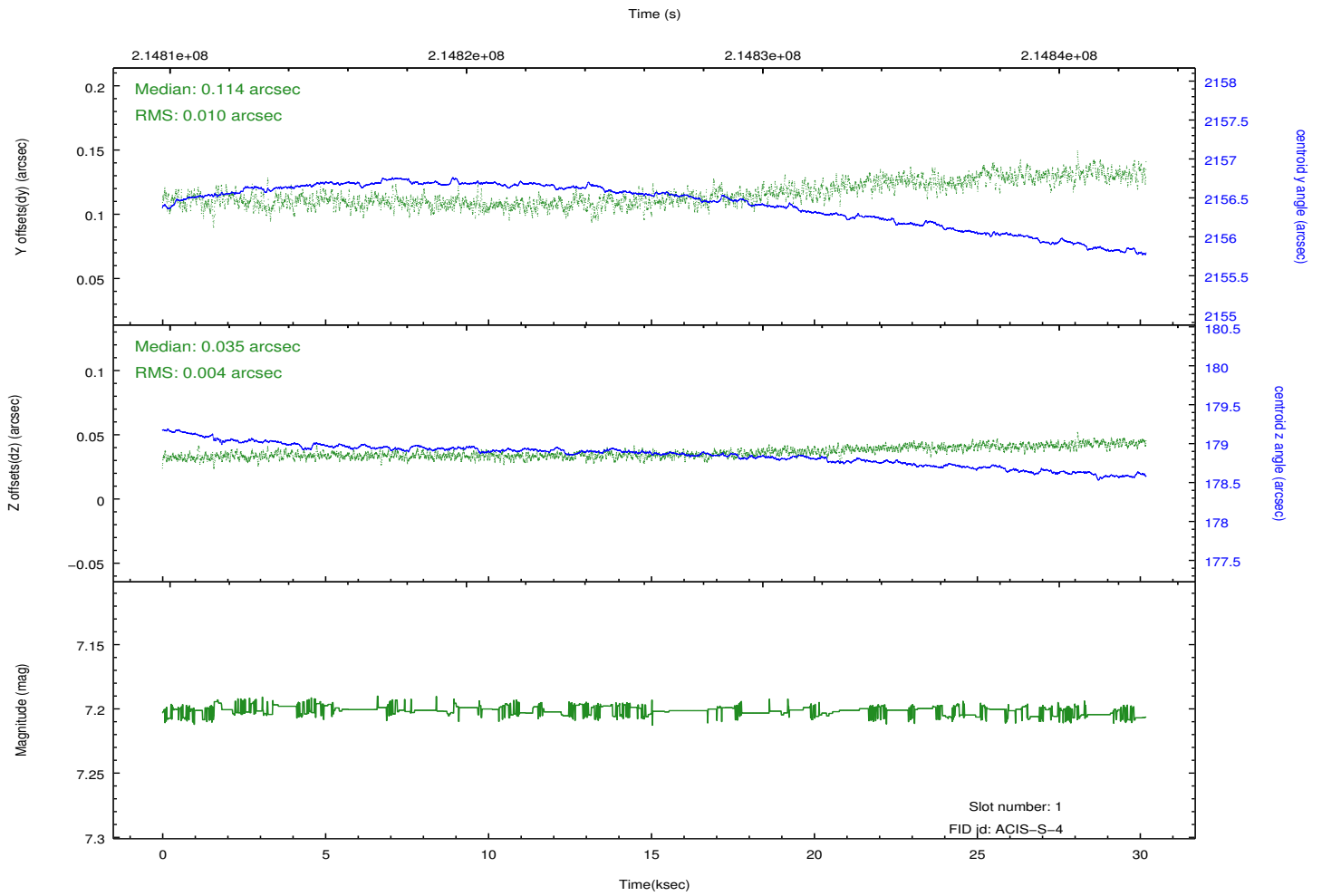
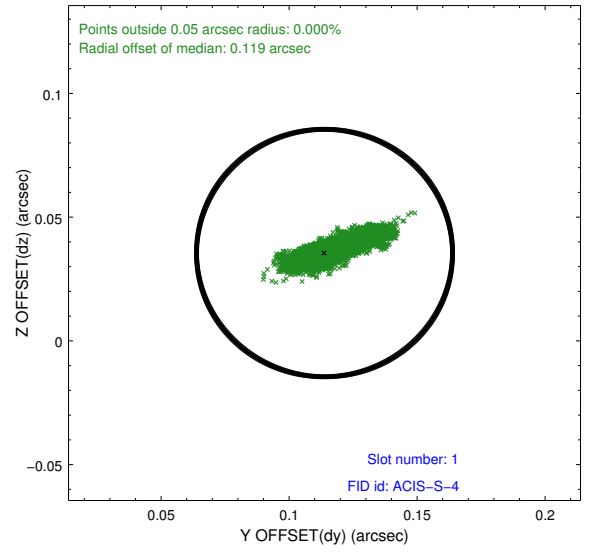
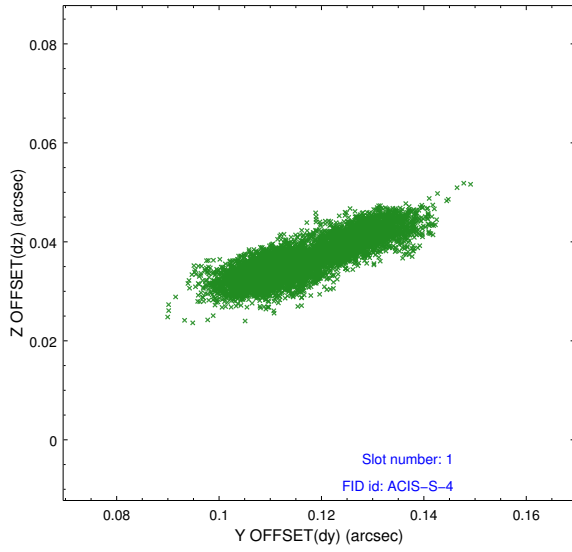


2.5 FID Slots

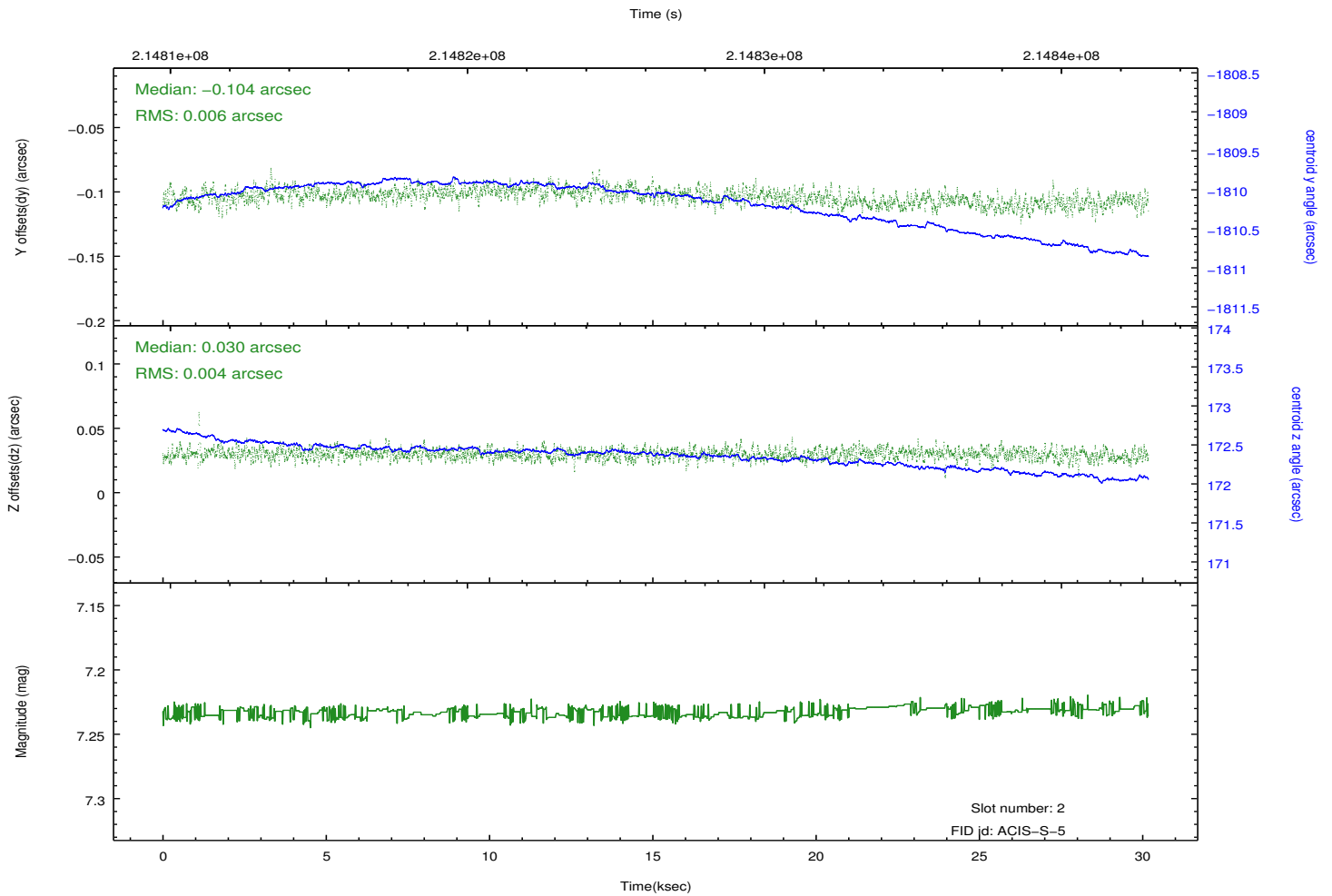
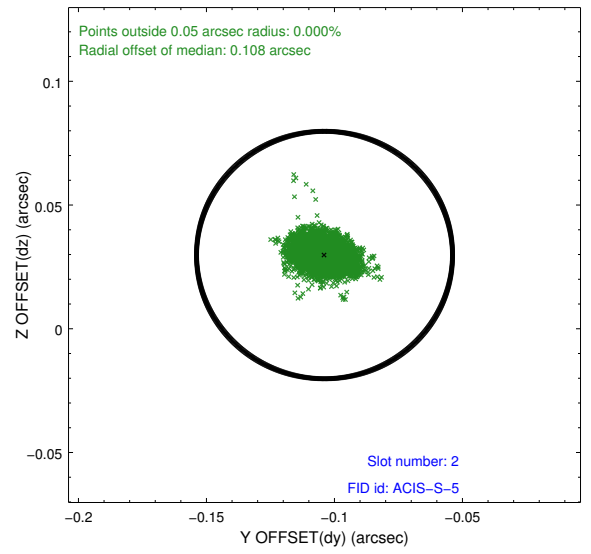
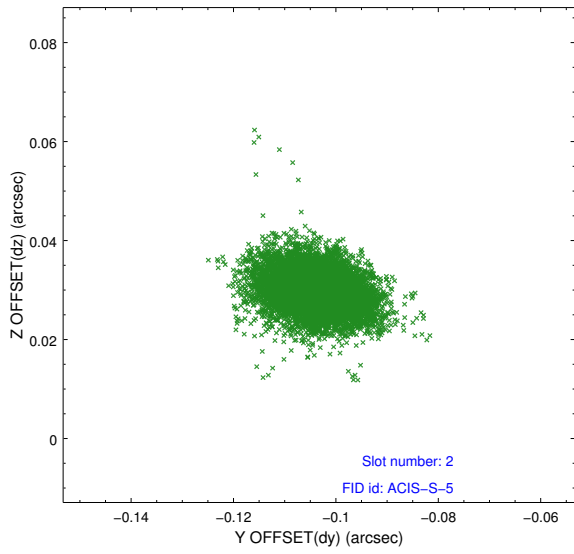
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2013.01.03 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 30.121 |

A.2 Comments

Roll constraint met.