

V&V Reference Report

L2 ASCDS Version : 8.1.2

Observation 1190 - L2 Version 3
Chandra X-Ray Center

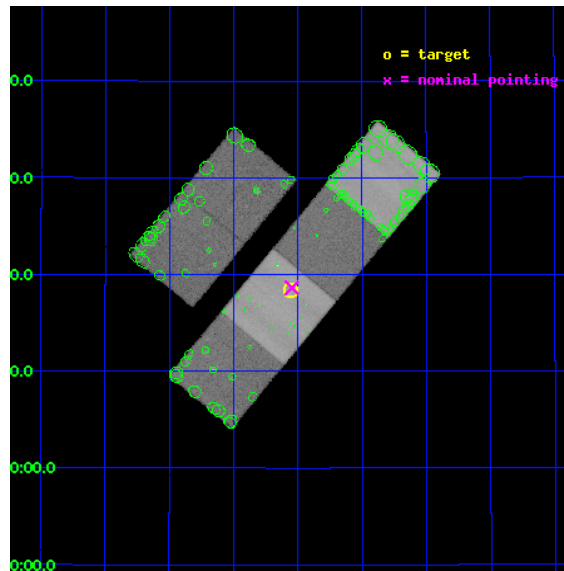
L2 Processing Date : Jul 10 2010

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1 Front

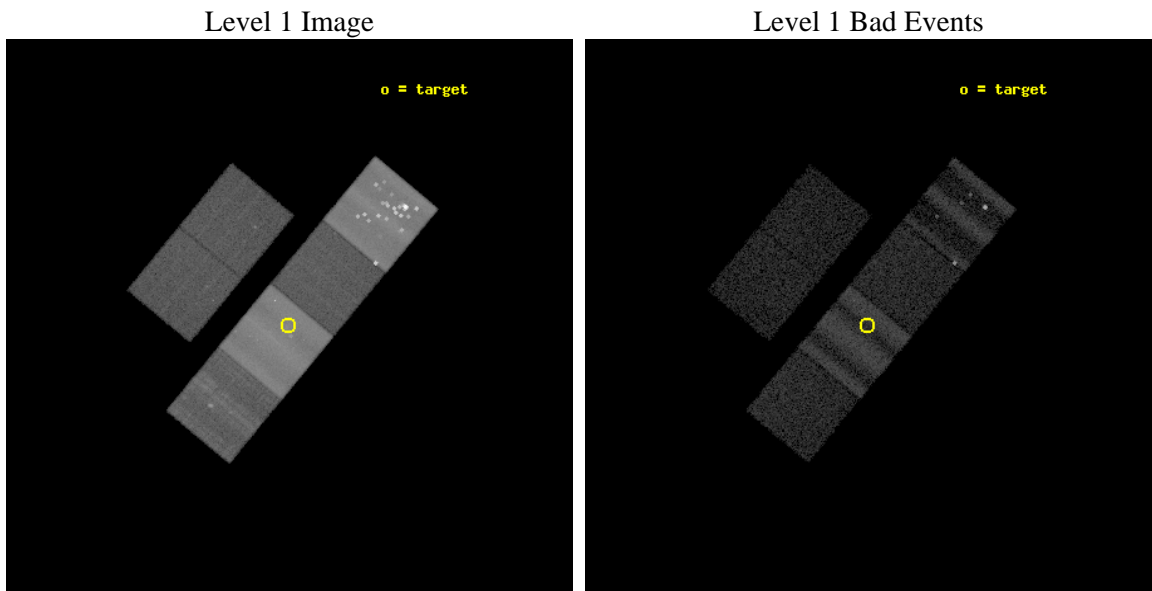
| | | |
|----------|---------------------|--|
| seq_num | 880140 | Sequence number |
| obs_id | 1190 | Observation id |
| title | | Proposal title |
| observer | Dr. CXC Calibration | Principal investigator |
| object | RXJ003033.2+261819 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 7.638333 | Observer's specified target RA |
| dec_targ | 26.305278 | Observer's specified target Dec |
| ra_nom | 7.6367926539704 | Nominal RA |
| dec_nom | 26.31044990722 | Nominal Dec |
| roll_nom | 129.68233052597 | Nominal Roll |
| revision | 3 | Processing version of data |
| ontime | 24755.200023055 | Sum of GTIs [s] |
| livetime | 24441.734774571 | Livetime [s] |
| ontime2 | 24755.200023055 | Sum of GTIs [s] |
| ontime3 | 24755.200023055 | Sum of GTIs [s] |
| ontime5 | 24755.200023055 | Sum of GTIs [s] |
| ontime6 | 24755.200023055 | Sum of GTIs [s] |
| ontime7 | 24755.200023055 | Sum of GTIs [s] |
| ontime8 | 24755.200023055 | Sum of GTIs [s] |
| l2events | 651979 | Number of level 2 events |



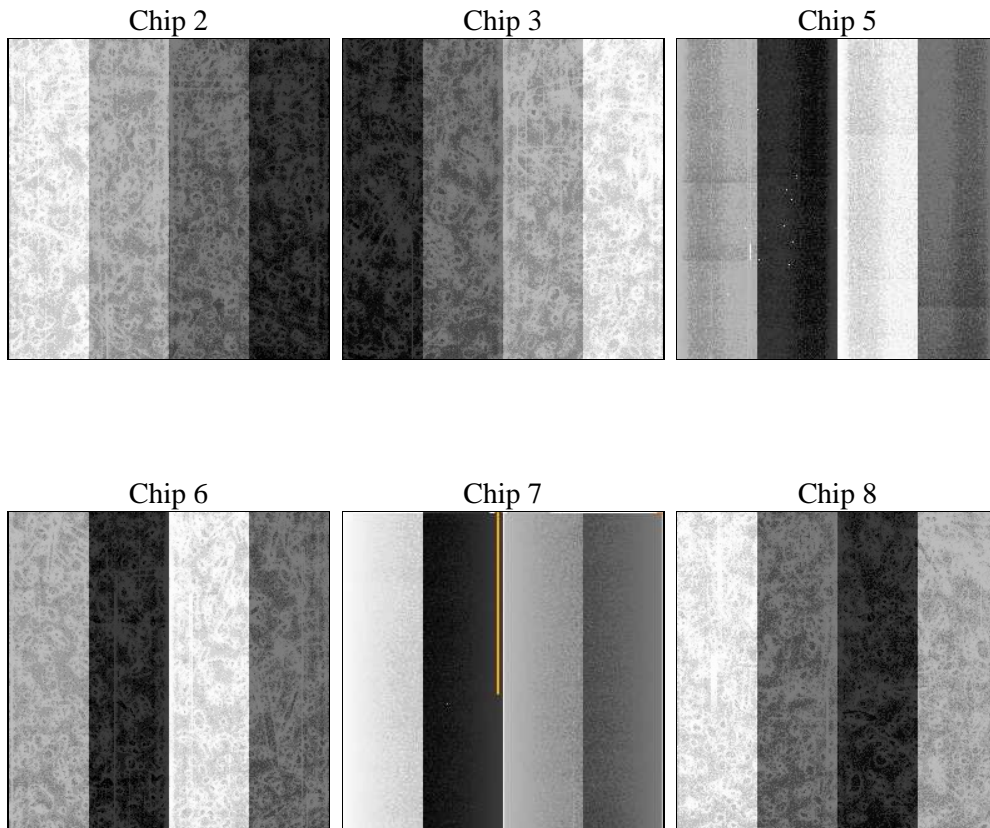
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|-------------------------------------|
| obi_num | 0 | Obi number | sched_exp_time | 25000.000000 | Scheduled observation exposure time |
| ascdsver | 8.1.2 | ASCDS version number | ontime | 24755.200023055 | Sum of GTIs [s] |
| caldbver | 4.1.4 | | ontime2 | 24755.200023055 | Sum of GTIs [s] |
| date | 2009-12-14T08:02:29 | Date and time of file creation | ontime3 | 24755.200023055 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 24755.200023055 | Sum of GTIs [s] |
| | | | ontime6 | 24755.200023055 | Sum of GTIs [s] |
| | | | ontime7 | 24755.200023055 | Sum of GTIs [s] |
| | | | ontime8 | 24755.200023055 | Sum of GTIs [s] |
| | | | l1events | 925010 | Number of level 1 events |

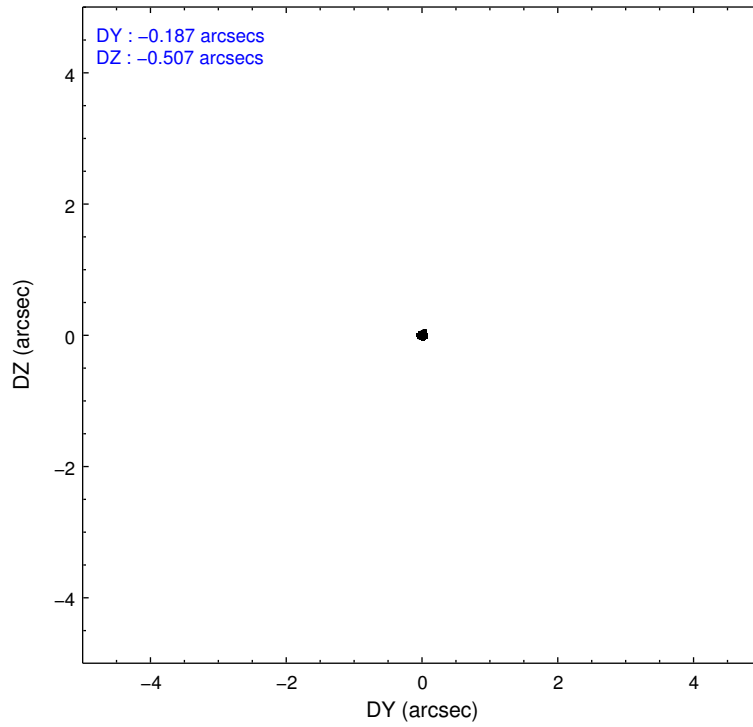
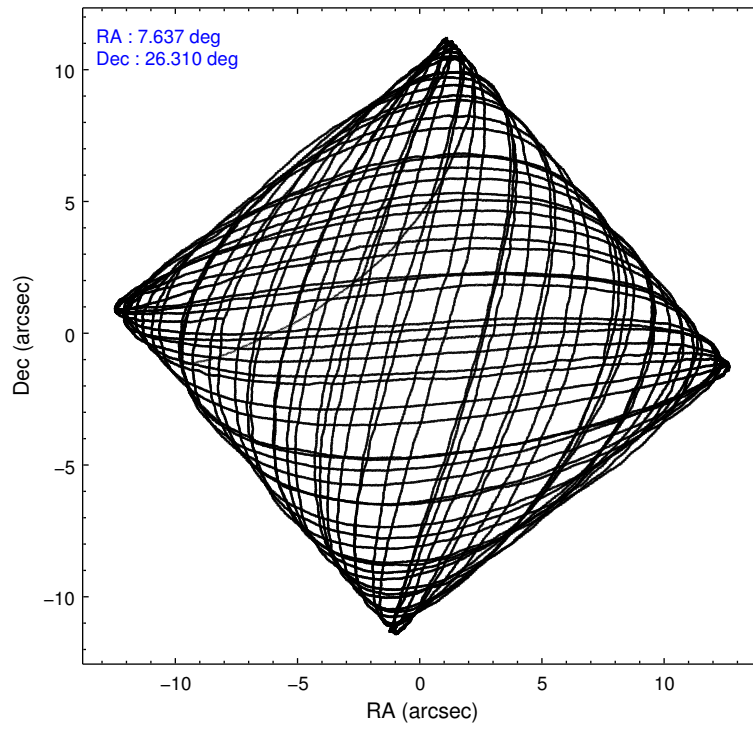
2.1.4 Events

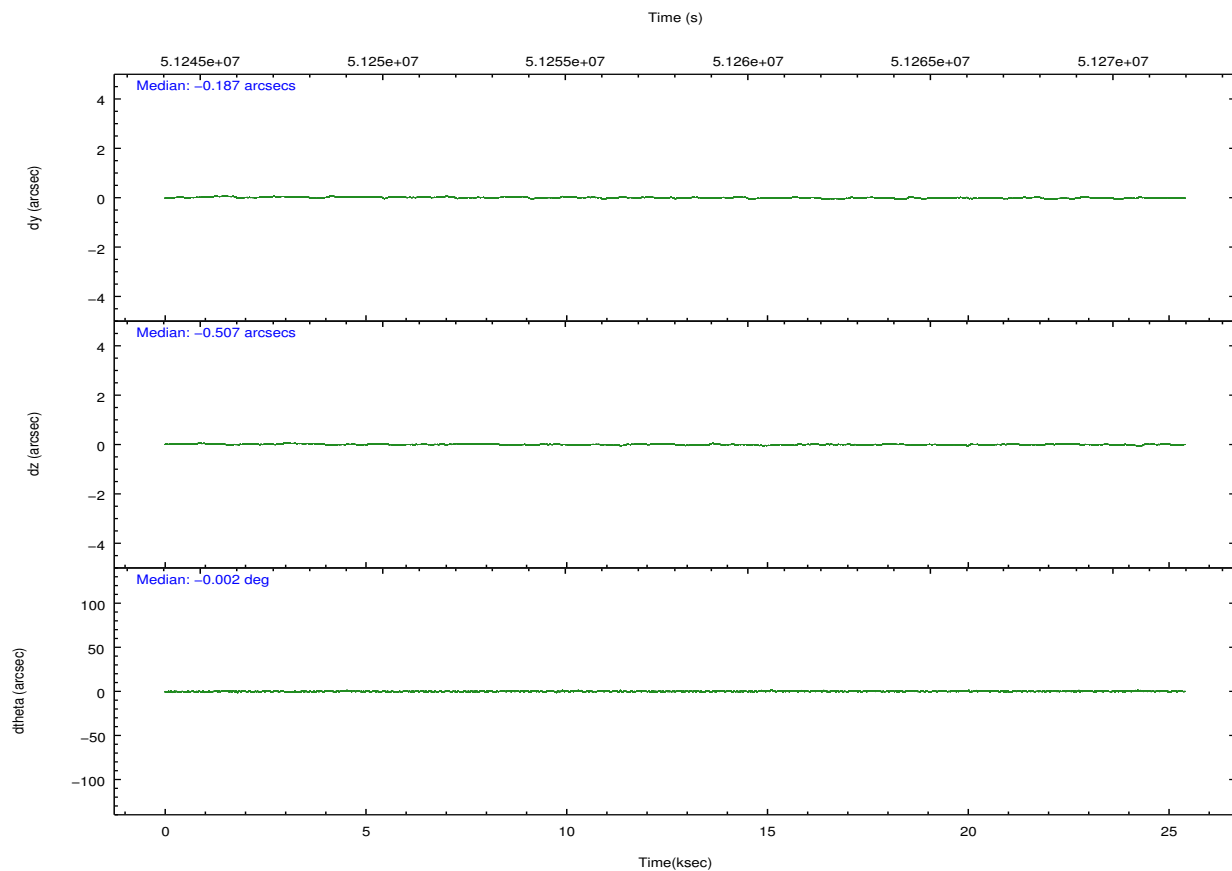
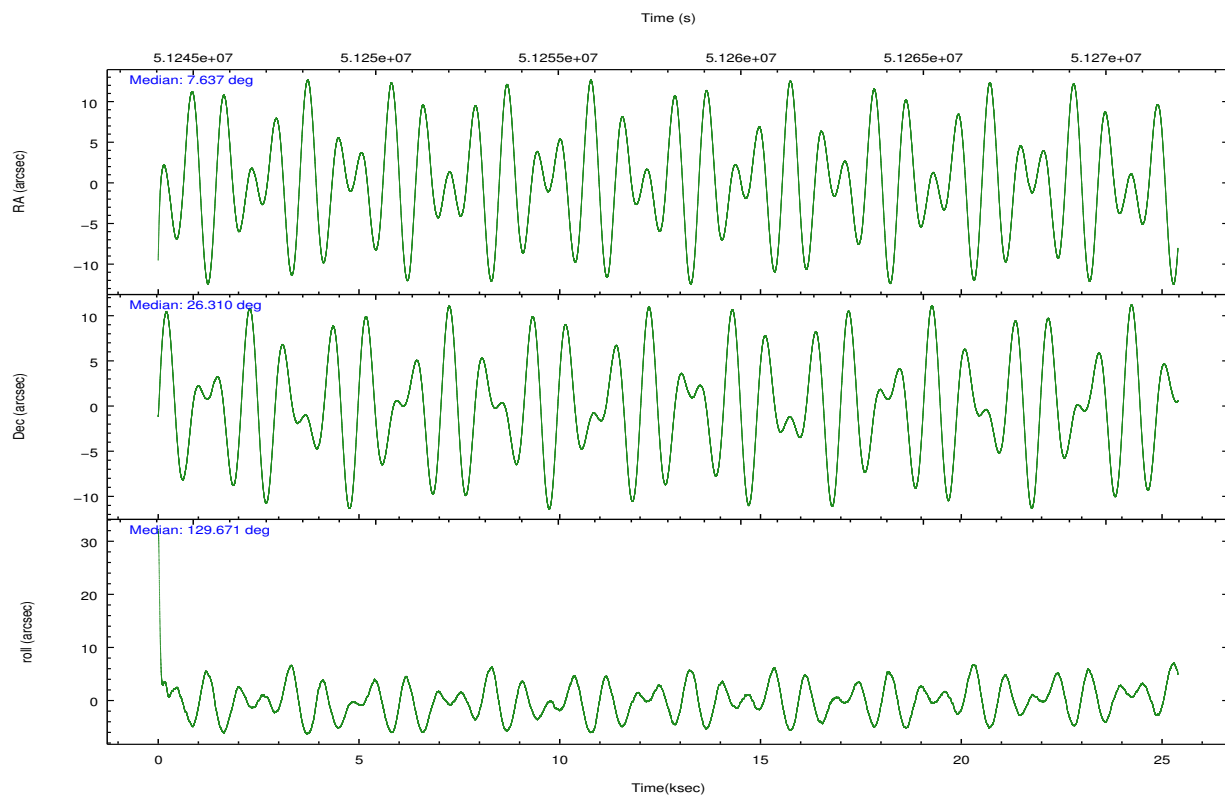
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|--------|-------|--------|-------|----------------|-------|-------|--------|-------|--------|-------|
| level 1 events | 62300 | 62552 | 362512 | 72393 | 269740 | 95513 | grade 0 events | 14247 | 13869 | 89482 | 16835 | 13813 | 22681 |
| rejected events | 15293 | 16230 | 24645 | 18715 | 32420 | 19349 | | 22% | 22% | 24% | 23% | 5% | 23% |
| rejected % | 24% | 25% | 6% | 25% | 12% | 20% | grade 1 events | 143 | 127 | 1056 | 114 | 194 | 204 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 9738 | 9352 | 48590 | 10623 | 28788 | 17984 |
| | | | | | | | | 15% | 14% | 13% | 14% | 10% | 18% |
| | | | | | | | grade 3 events | 4046 | 4089 | 15581 | 4287 | 16998 | 6394 |
| | | | | | | | | 6% | 6% | 4% | 5% | 6% | 6% |
| | | | | | | | grade 4 events | 3692 | 3739 | 13267 | 4144 | 14485 | 5677 |
| | | | | | | | | 5% | 5% | 3% | 5% | 5% | 5% |
| | | | | | | | grade 5 events | 15143 | 16093 | 21552 | 18590 | 32103 | 19104 |
| | | | | | | | | 24% | 25% | 5% | 25% | 11% | 20% |
| | | | | | | | grade 6 events | 15291 | 15283 | 171043 | 17800 | 163301 | 23469 |
| | | | | | | | | 24% | 24% | 47% | 24% | 60% | 24% |
| | | | | | | | grade 7 events | 0 | 0 | 1941 | 0 | 58 | 0 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 6 | 6 |
| 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 |
| Pointing RA | 7.665534 | 7.636792653970387 | Subarray requested | NONE | NONE |
| Pointing Dec | 26.300332 | 26.31044990721985 | Alternating exposures requested | N | N |
| Pointing Roll | 129.512951 | 129.6823305259668 | Primary exposure time | 0.000000 | 3.2 |
| SIM focus pos (mm) | -0.684267 | -0.865731118321573 | | | |
| SIM defocus (mm) | 0 | -0.1814636570216768 | | | |
| SIM translation stage pos (mm) | -190.132523 | -190.1325231039672 | | | |
| SIM translation stage offset (mm) | 0 | 5.209593894051068e-07 | | | |
| Observation start time | 51245715.184000 | 51243743.532464 | | | |
| Observation start date | 1999-08-17T02:54:11 | 1999-08-17T02:22:23 | | | |
| Observation end time | 51270715.184000 | 51270830.183419 | | | |
| Observation end date | 1999-08-17T09:50:51 | 1999-08-17T09:53:50 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



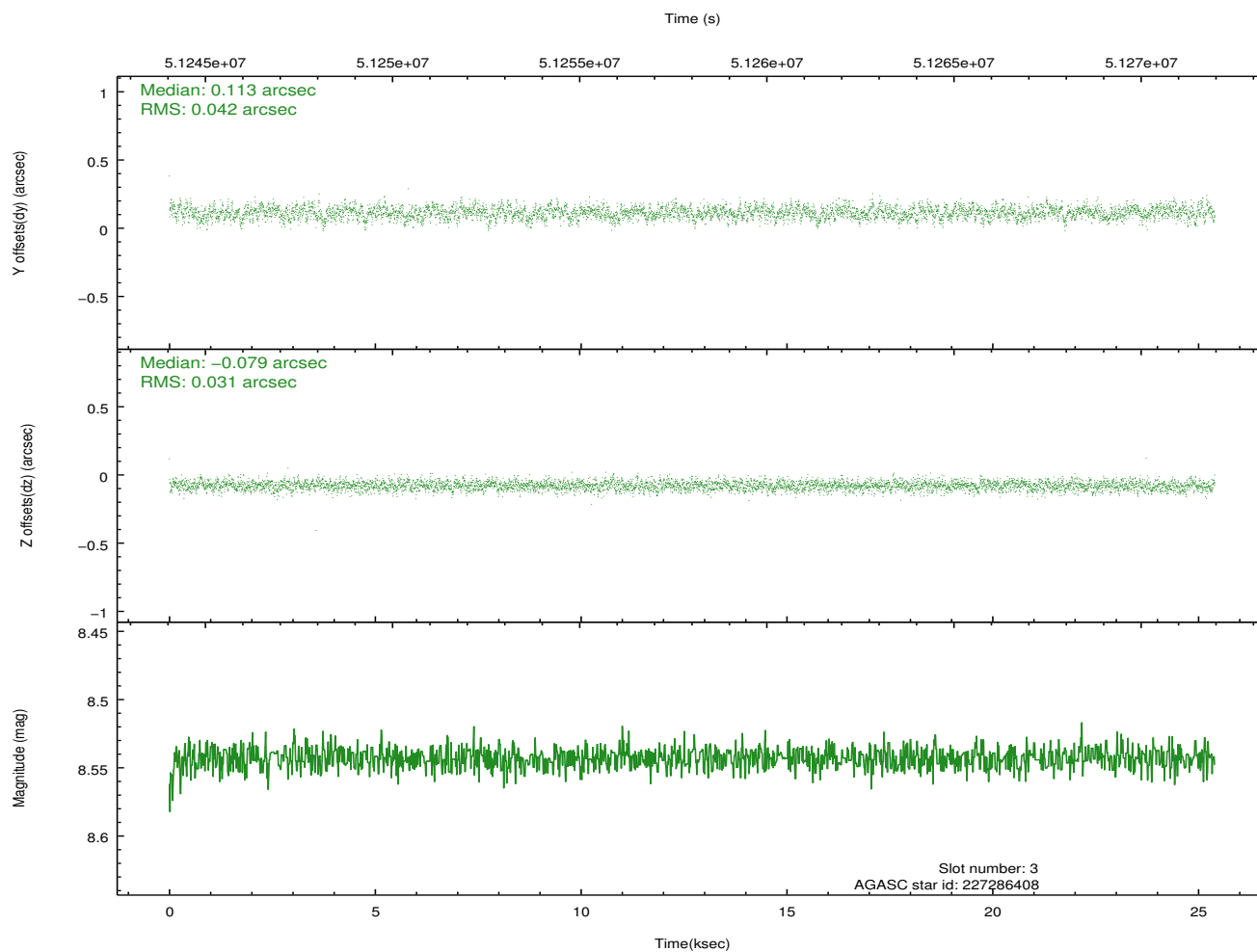
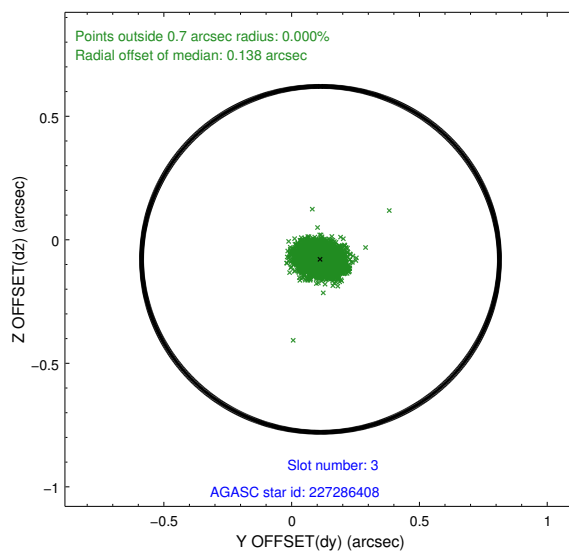
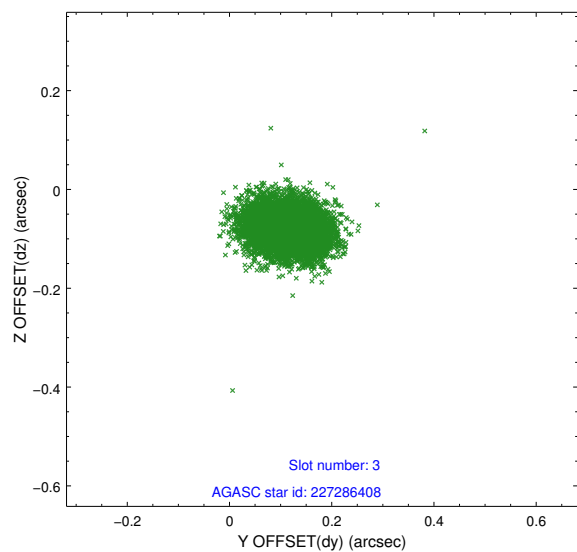


Slot Statistics

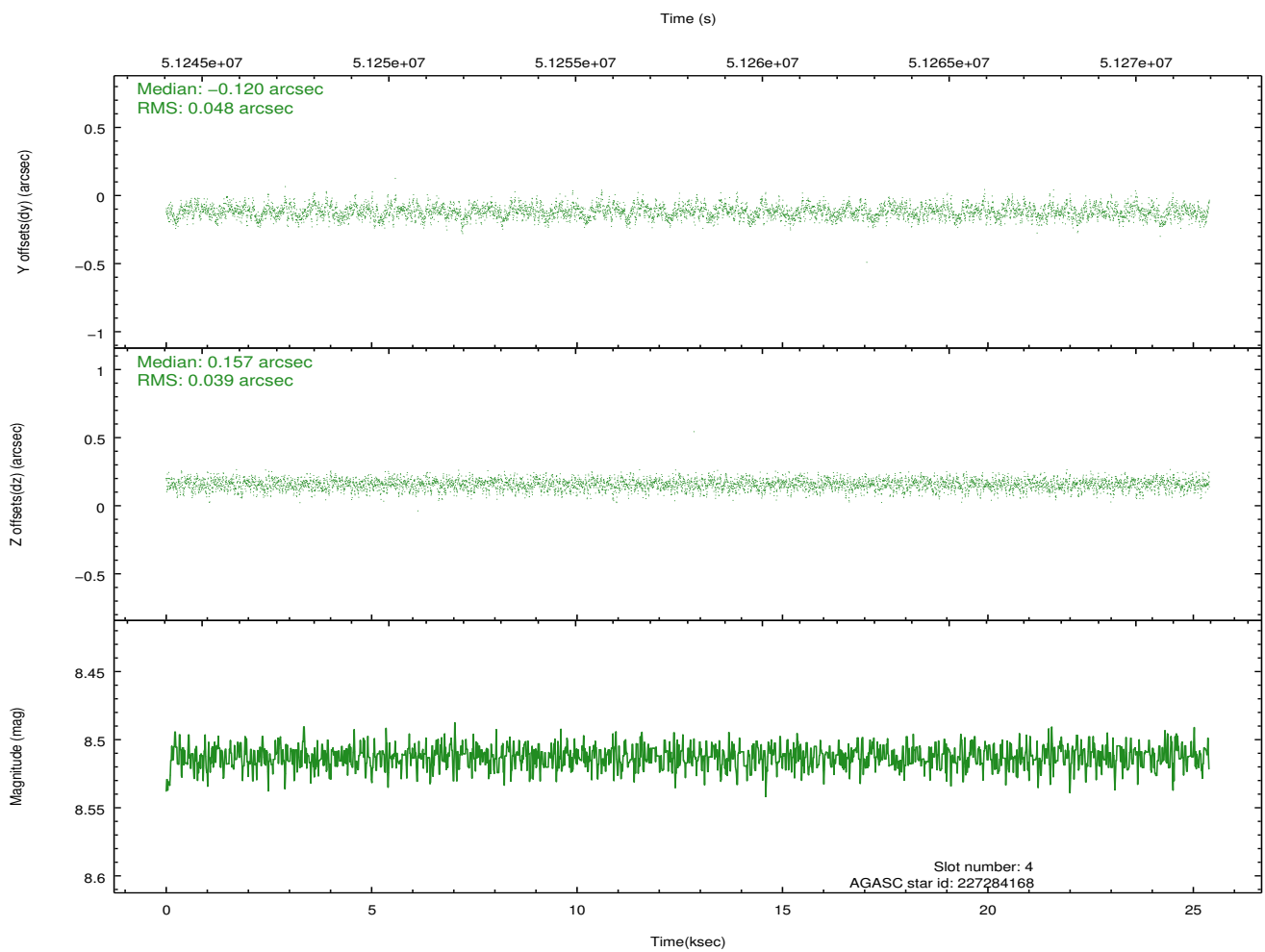
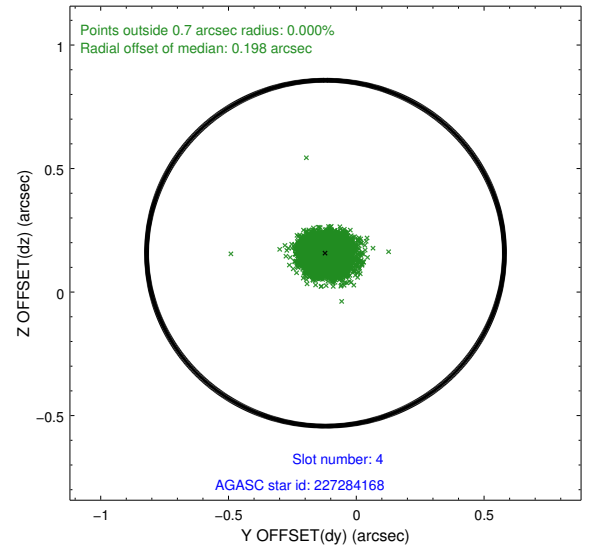
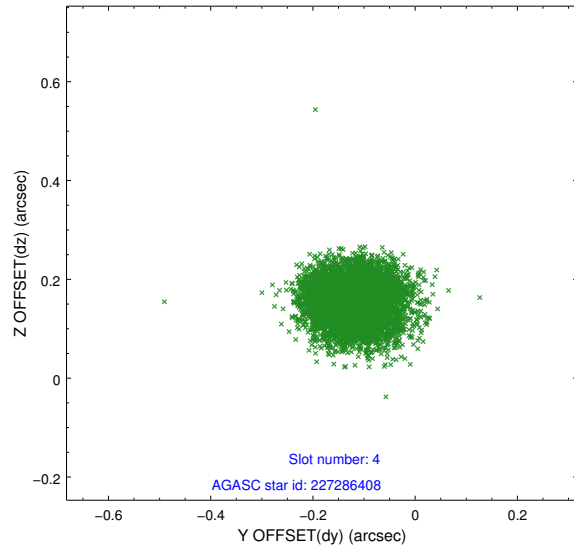
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|----------|-----------|----------|---------|
| 0 | UNUSED | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |
| 1 | FID | ACIS-S-4 | 7.21 | 6191 | 0.134 | 0.005 | 0.005 | 0.010 | 0.000000 | 0.000000 | 2161.08 | 187.98 |
| 2 | FID | ACIS-S-5 | 7.01 | 6195 | -0.156 | 0.005 | 0.005 | 0.010 | 0.000000 | 0.000000 | -1805.18 | 181.61 |
| 3 | GUIDE | 227286408 | 8.54 | 6191 | 0.113 | -0.079 | 0.055 | 0.090 | 7.352499 | 26.495316 | 1184.81 | 330.97 |
| 4 | GUIDE | 227284168 | 8.51 | 6193 | -0.120 | 0.157 | 0.066 | 0.107 | 7.338725 | 26.871683 | 2256.35 | -499.14 |
| 5 | GUIDE | 227289528 | 9.24 | 6189 | 0.011 | -0.076 | 0.076 | 0.123 | 6.878527 | 26.412714 | 1933.23 | 1695.64 |
| 6 | UNUSED | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |
| 7 | UNUSED | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |

2.4 Star Slots

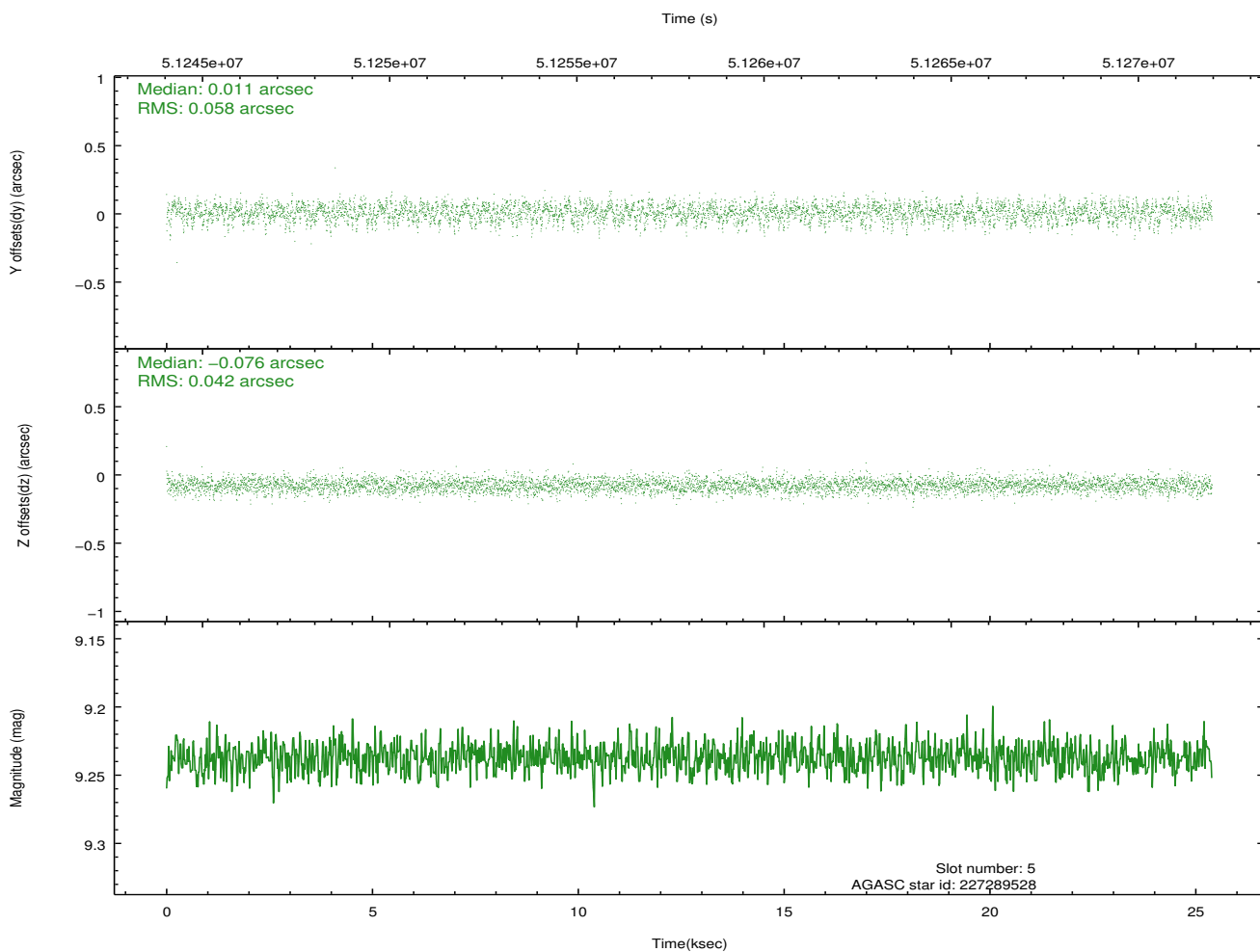
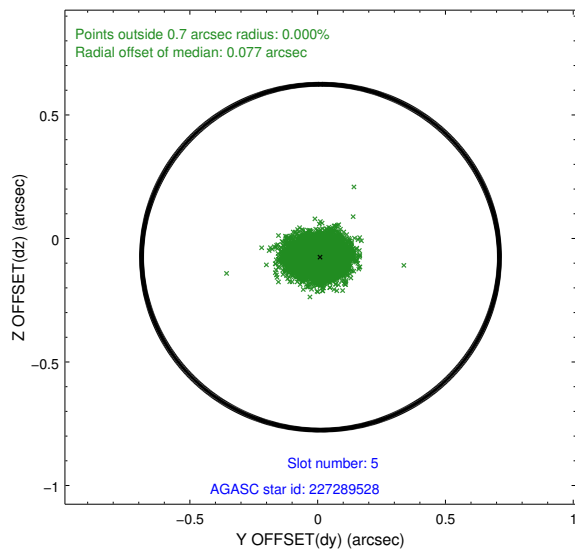
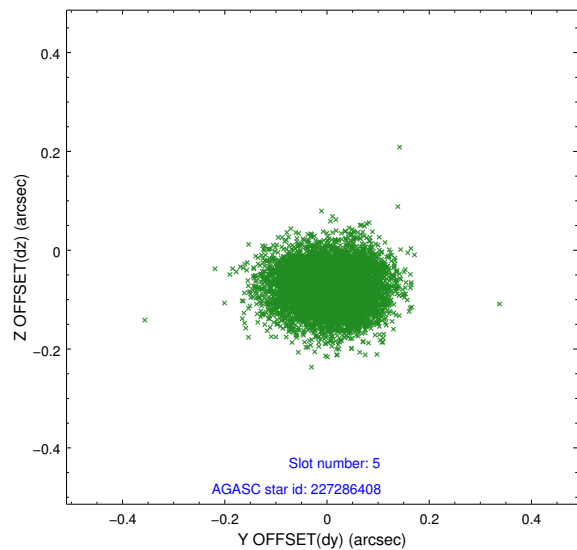
2.4.1 Slot 3



2.4.2 Slot 4

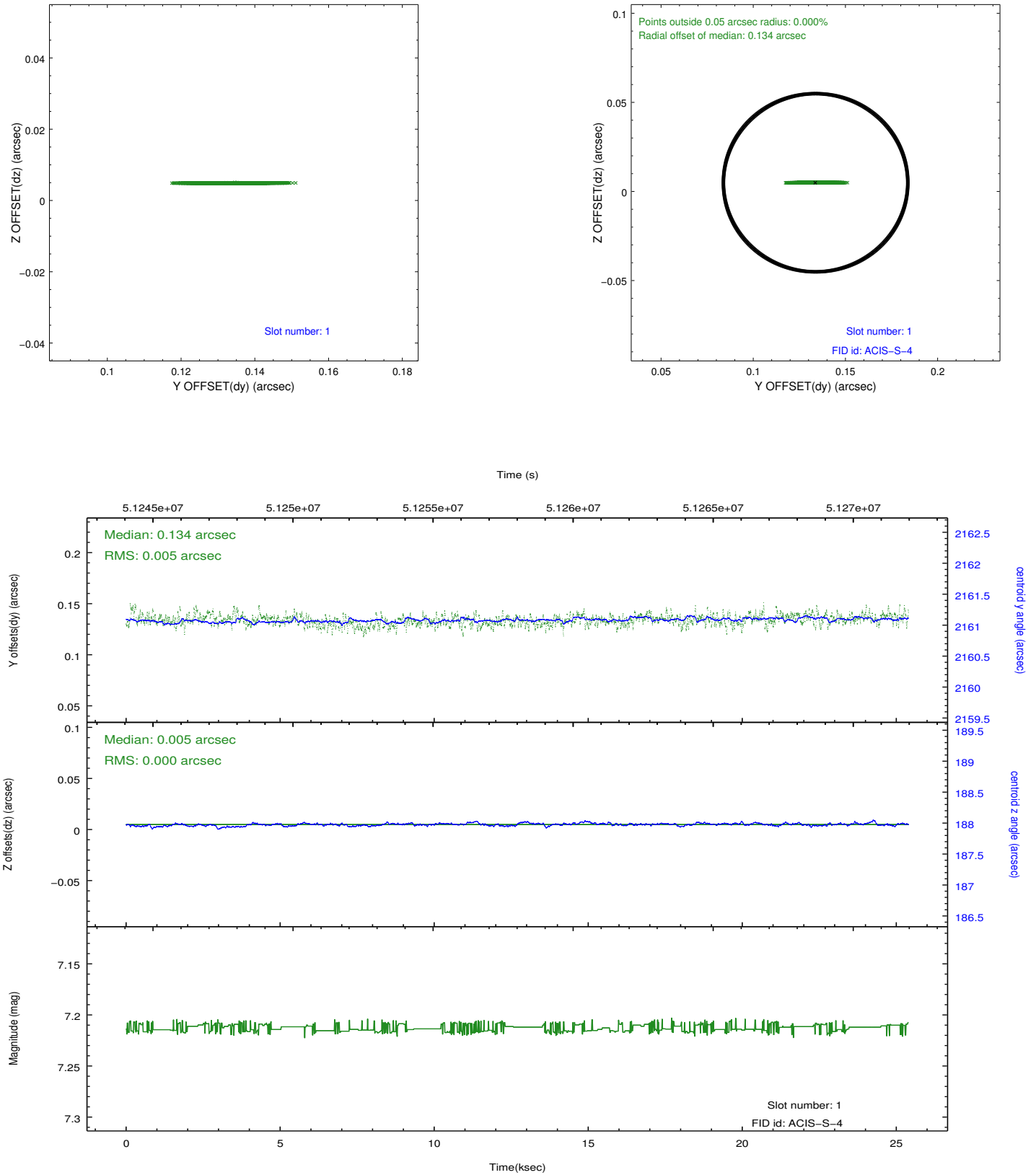


2.4.3 Slot 5

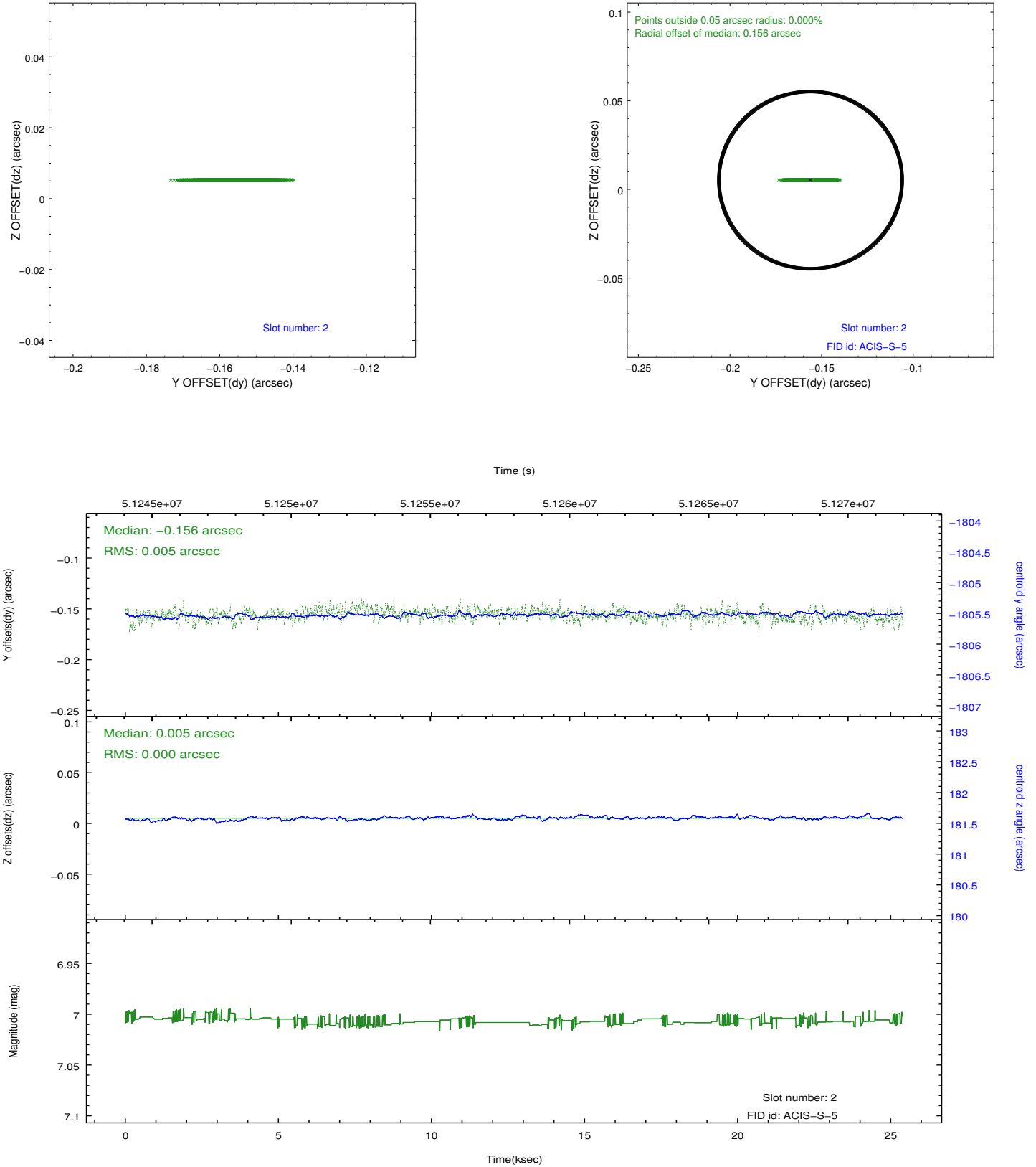


2.5 FID Slots

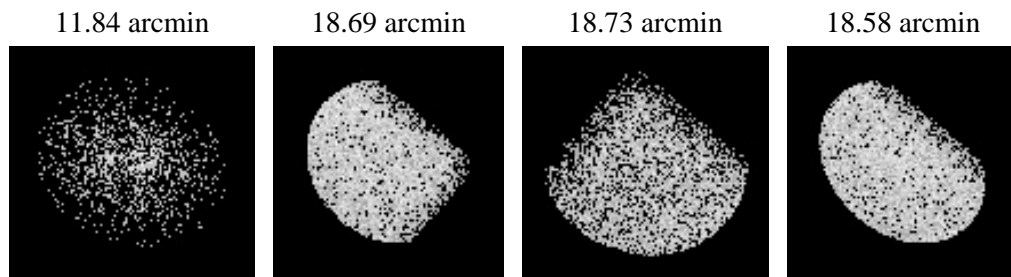
2.5.1 Slot 1



2.5.2 Slot 2



3 Point Sources



A Summary

A.1 Status

| | |
|----------------------------|-------------|
| V&V Scientist | Joy Nichols |
| V&V Date (YYYY-MM-DD) | 2010.07.30 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 24.758 |

A.2 Comments

Only 3 of the 5 planned guide stars for this observation were acquired. Also, one fid light was not powered due to a software issue on the ground

that affected the spacecraft load. This observation is from the early days of Chandra when parameters and procedures were still being optimized.

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A high radiation environment during this observation results in several periods of enhanced count rates.

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The focal plane temperature is approximately -100 C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.