

V&V Reference Report

L2 ASCDS Version : 8.1.1

Observation 765 - L2 Version 4
Chandra X-Ray Center

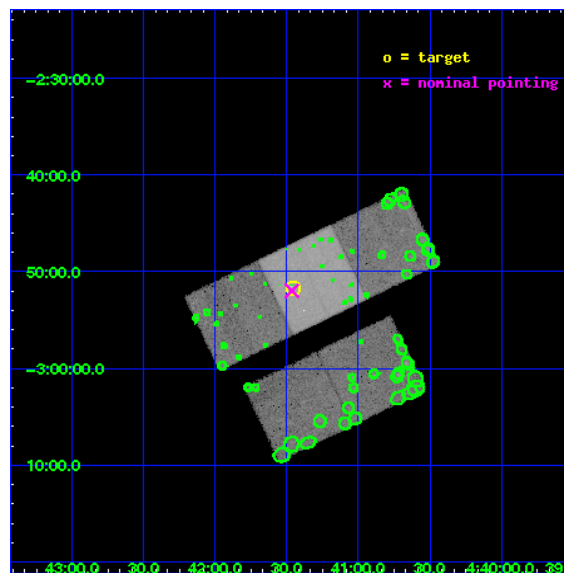
L2 Processing Date : Nov 26 2009

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1 Front

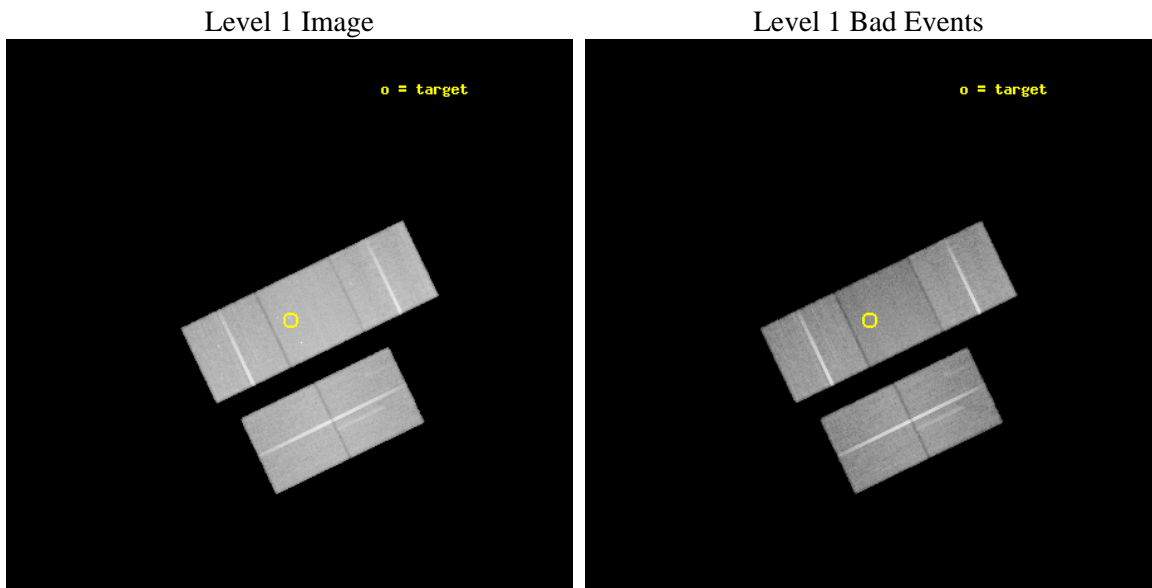
| | | |
|----------|---|---|
| seq_num | 500061 | Sequence number |
| obs_id | 765 | Observation id |
| title | PROMPT AXAF OBSERVATIONS OF NEARBY SUPERNOVAE | Proposal title |
| observer | Prof. Walter Lewin | Principal investigator |
| object | SN1999em | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 70.36275 | Observer's specified target RA |
| dec_targ | -2.862694 | Observer's specified target Dec |
| ra_nom | 70.366004518039 | Nominal RA |
| dec_nom | -2.8663765915829 | Nominal Dec |
| roll_nom | 334.31483858931 | Nominal Roll |
| revision | 4 | Processing version of data |
| ontime | 35771.478179172 | Sum of GTIs [s] |
| livetime | 35318.518183469 | Livetime [s] |
| ontime2 | 35771.437169097 | Sum of GTIs [s] |
| ontime3 | 35768.114088953 | Sum of GTIs [s] |
| ontime6 | 35768.155109033 | Sum of GTIs [s] |
| ontime7 | 35771.478179172 | Sum of GTIs [s] |
| ontime8 | 35764.832008965 | Sum of GTIs [s] |
| l2events | 237126 | Number of level 2 events |



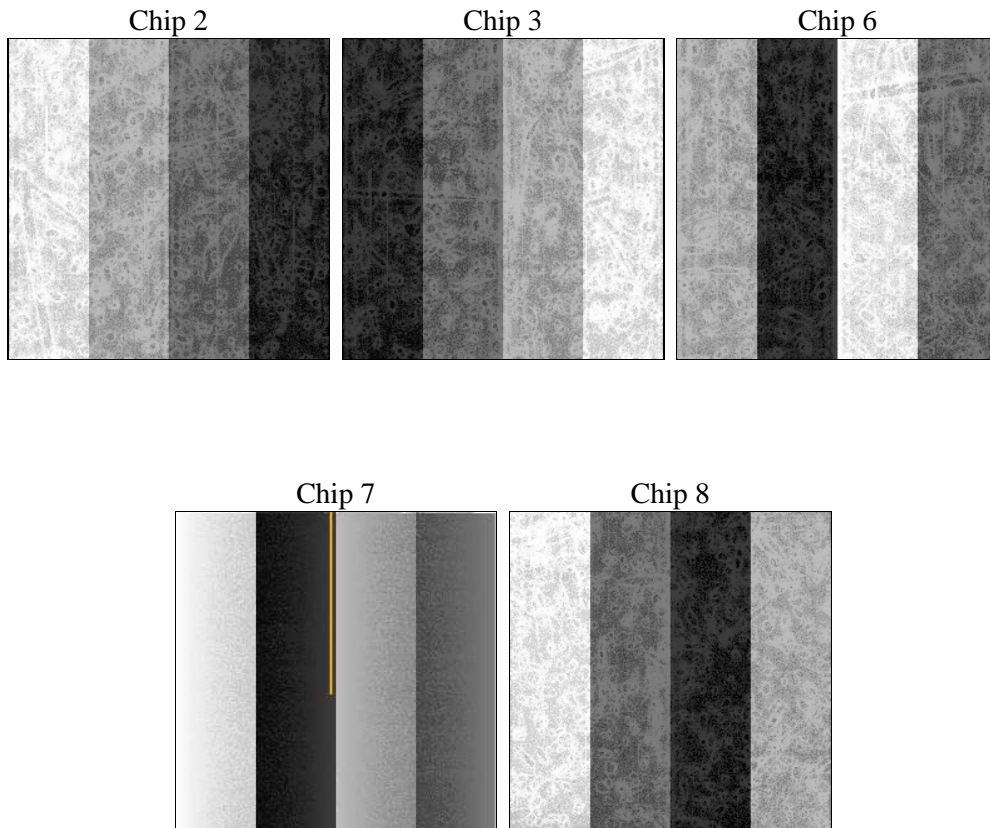
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|-------------------------------------|
| obi_num | 0 | Obi number | sched_exp_time | 36000.000000 | Scheduled observation exposure time |
| ascdsver | 8.1.1 | ASCDS version number | ontime | 35771.478179172 | Sum of GTIs [s] |
| caldbver | 4.1.4 | | ontime2 | 35771.437169097 | Sum of GTIs [s] |
| date | 2009-11-26T06:59:05 | Date and time of file creation | ontime3 | 35768.114088953 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime6 | 35768.155109033 | Sum of GTIs [s] |
| | | | ontime7 | 35771.478179172 | Sum of GTIs [s] |
| | | | ontime8 | 35764.832008965 | Sum of GTIs [s] |
| | | | l1events | 1615388 | Number of level 1 events |

2.1.4 Events

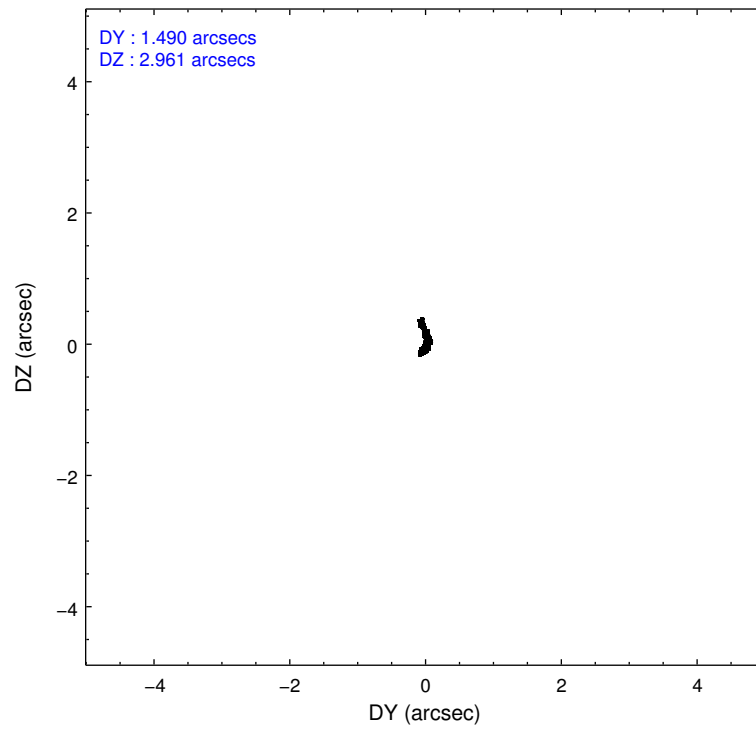
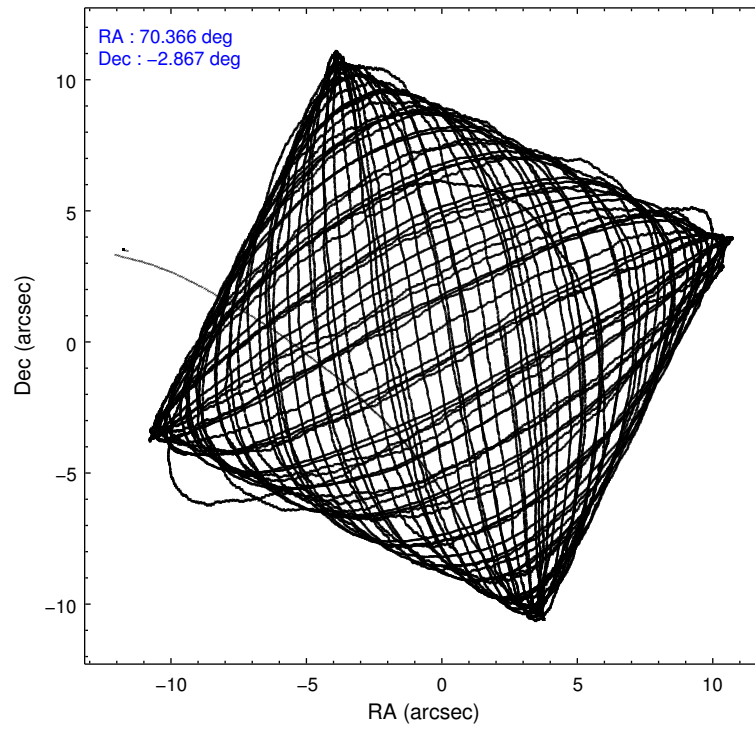
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|
| level 1 events | 309493 | 301563 | 315885 | 329419 | 359028 |
| rejected events | 281935 | 273050 | 284934 | 199883 | 299542 |
| rejected % | 91% | 90% | 90% | 60% | 83% |

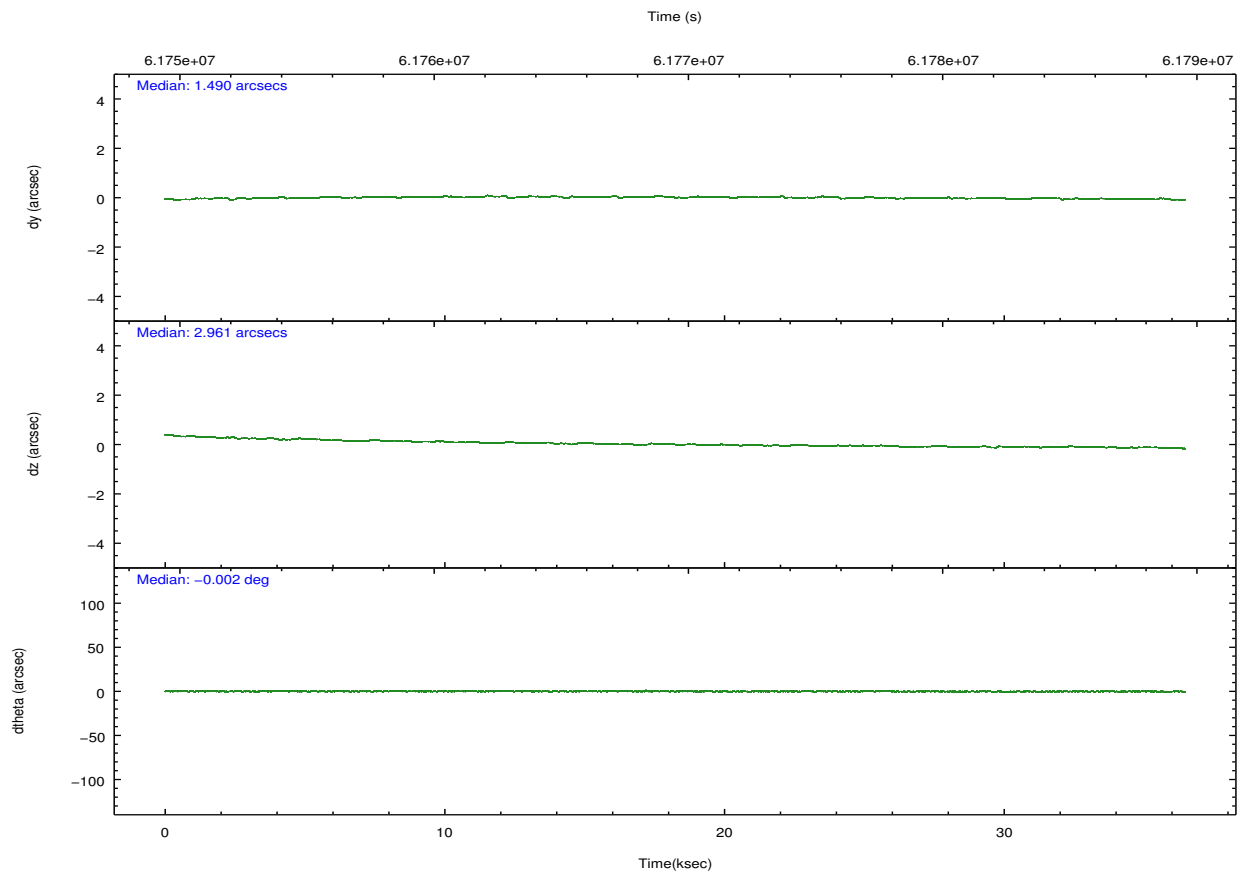
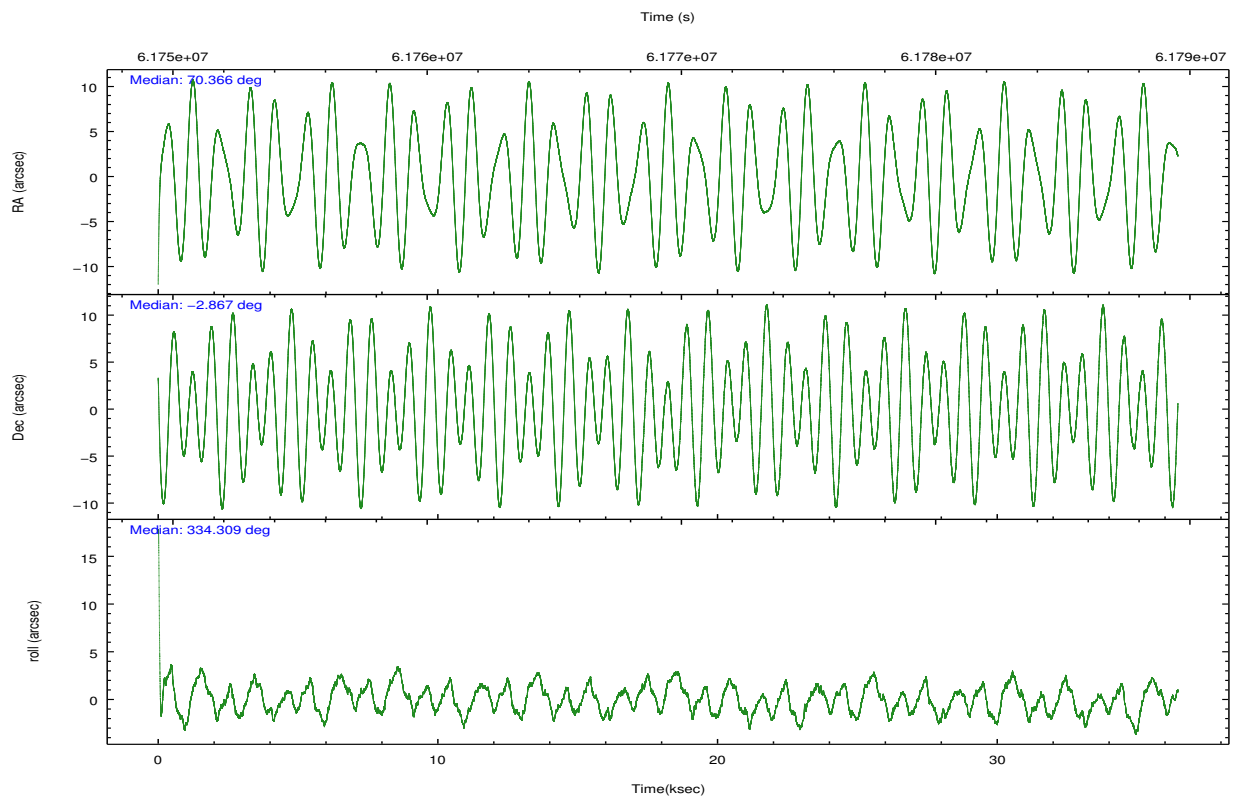
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 | ccd 8 |
|----------------|--------|--------|--------|--------|--------|
| grade 0 events | 6148 | 6385 | 7043 | 9215 | 13713 |
| | 1% | 2% | 2% | 2% | 3% |
| grade 1 events | 54 | 55 | 47 | 189 | 131 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 10732 | 11417 | 11840 | 27716 | 19094 |
| | 3% | 3% | 3% | 8% | 5% |
| grade 3 events | 1903 | 1864 | 1956 | 7702 | 4769 |
| | 0% | 0% | 0% | 2% | 1% |
| grade 4 events | 1799 | 1790 | 1948 | 6999 | 4532 |
| | 0% | 0% | 0% | 2% | 1% |
| grade 5 events | 5372 | 5786 | 6484 | 19505 | 8319 |
| | 1% | 1% | 2% | 5% | 2% |
| grade 6 events | 6978 | 7061 | 8171 | 77933 | 17388 |
| | 2% | 2% | 2% | 23% | 4% |
| grade 7 events | 276507 | 267205 | 278396 | 180160 | 291082 |
| | 89% | 88% | 88% | 54% | 81% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 6 | 6 |
| Detector | ACIS-23678 | ACIS-23678 | 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 | 70.338488 | 70.36600451803884 | Subarray requested | NONE | NONE |
| Pointing Dec | -2.868362 | -2.866376591582942 | Alternating exposures requested | N | N |
| Pointing Roll | 334.156828 | 334.3148385893101 | Primary exposure time | 0.000000 | 3.2 |
| Window start time | 61344065.184000 | 61344065.184000 | | | |
| Window stop time | 62553665.184000 | 62553665.184000 | | | |
| SIM focus pos (mm) | -0.684267 | -0.6828225247311905 | | | |
| SIM defocus (mm) | 0 | 0.001444936568705701 | | | |
| SIM translation stage pos (mm) | -190.132523 | -190.1400660498719 | | | |
| SIM translation stage offset (mm) | 0 | 0.00754346686406393 | | | |
| Observation start time | 61751705.184000 | 61750407.45001 | | | |
| Observation start date | 1999-12-16T17:14:01 | 1999-12-16T16:53:27 | | | |
| Observation end time | 61787705.184000 | 61788604.588893 | | | |
| Observation end date | 1999-12-17T03:14:01 | 1999-12-17T03:30:04 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



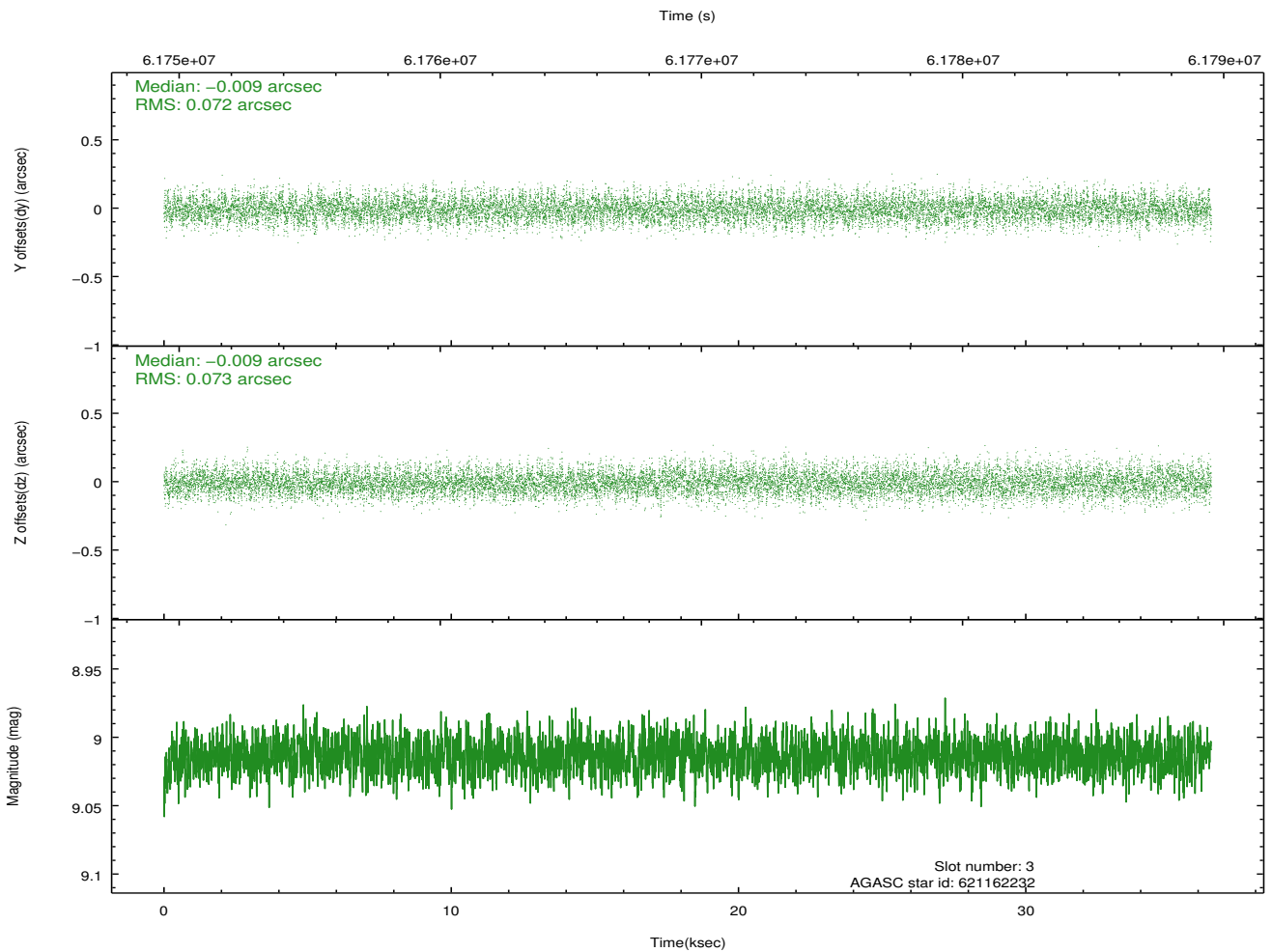
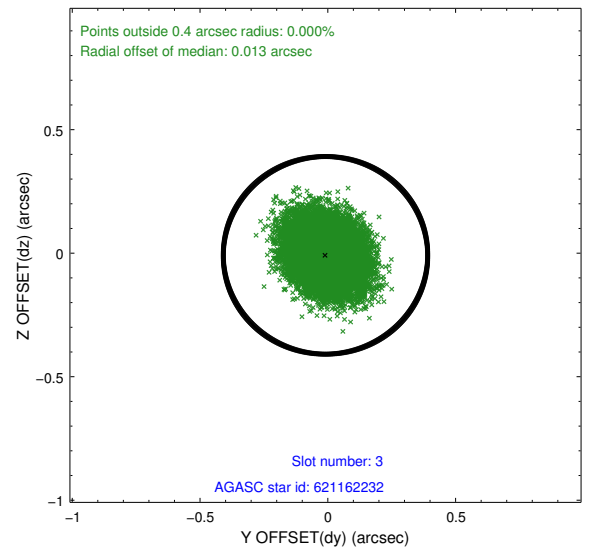
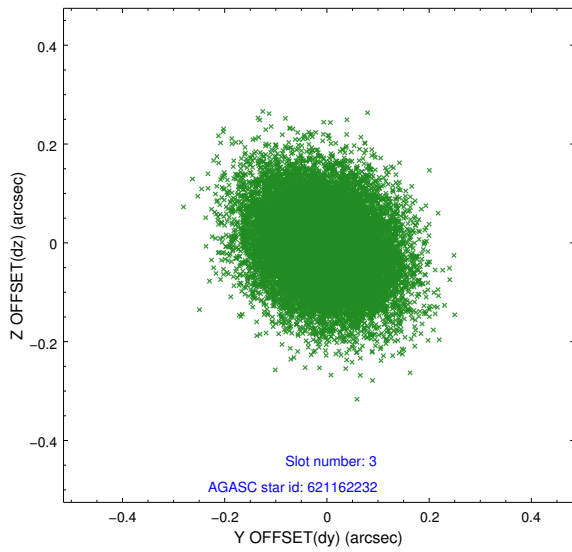


Slot Statistics

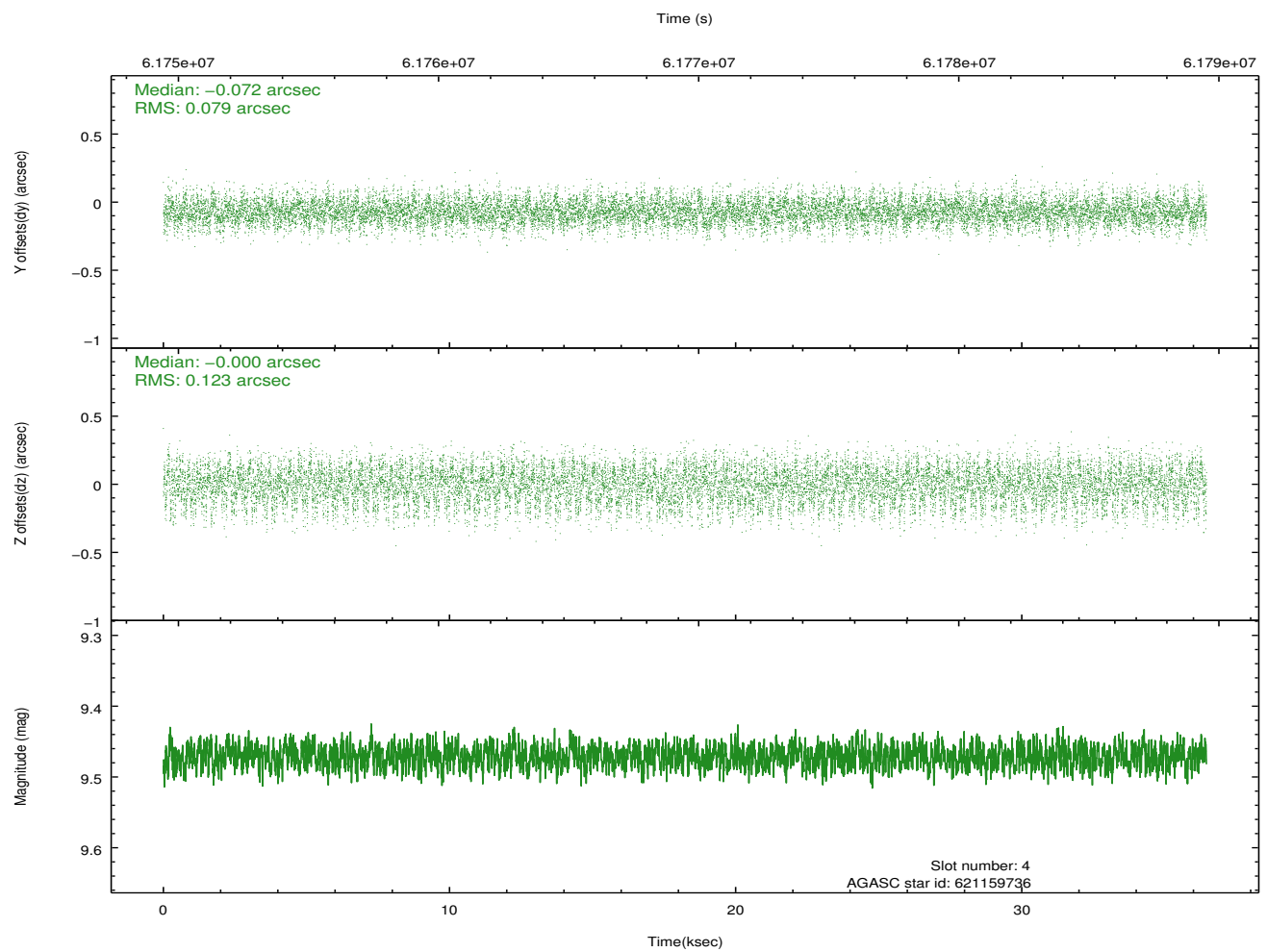
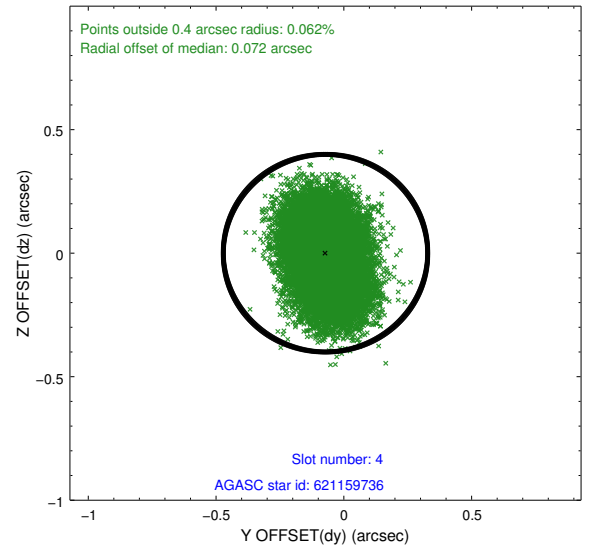
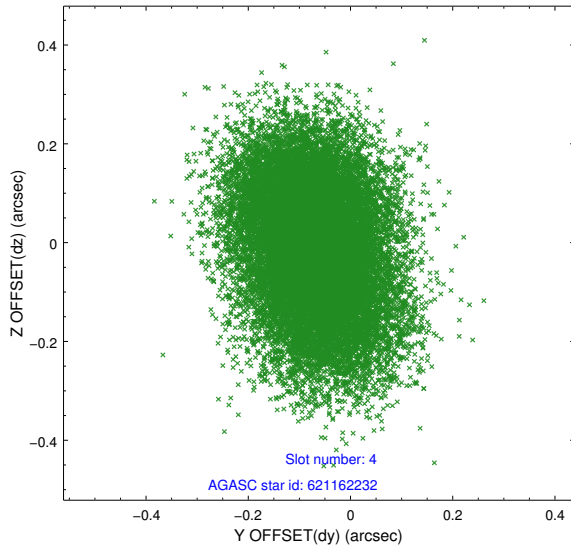
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0 | FID | ACIS-S-3 | 7.37 | 17784 | -0.005 | -0.100 | 0.007 | 0.013 | 0.000000 | 0.000000 | 59.05 | -1853.21 |
| 1 | FID | ACIS-S-4 | 7.23 | 17783 | 0.017 | 0.052 | 0.005 | 0.009 | 0.000000 | 0.000000 | 2159.28 | 184.48 |
| 2 | FID | ACIS-S-5 | 7.25 | 17783 | -0.040 | 0.059 | 0.005 | 0.009 | 0.000000 | 0.000000 | -1807.04 | 178.21 |
| 3 | GUIDE | 621162232 | 9.01 | 17770 | -0.009 | -0.009 | 0.110 | 0.177 | 70.564100 | -3.454145 | 1648.65 | -1544.16 |
| 4 | GUIDE | 621159736 | 9.47 | 17776 | -0.072 | -0.000 | 0.156 | 0.256 | 69.932347 | -3.381643 | -508.26 | -2299.35 |
| 5 | GUIDE | 621153256 | 9.48 | 17774 | 0.007 | 0.094 | 0.133 | 0.214 | 70.961959 | -2.598298 | 1593.77 | 1852.33 |
| 6 | GUIDE | 621151192 | 9.96 | 17580 | 0.055 | -0.049 | 0.164 | 0.274 | 70.235475 | -2.692308 | -610.00 | 409.21 |
| 7 | GUIDE | 621151232 | 9.70 | 17679 | 0.015 | -0.036 | 0.163 | 0.264 | 69.974686 | -2.320330 | -2038.34 | 1205.12 |

2.4 Star Slots

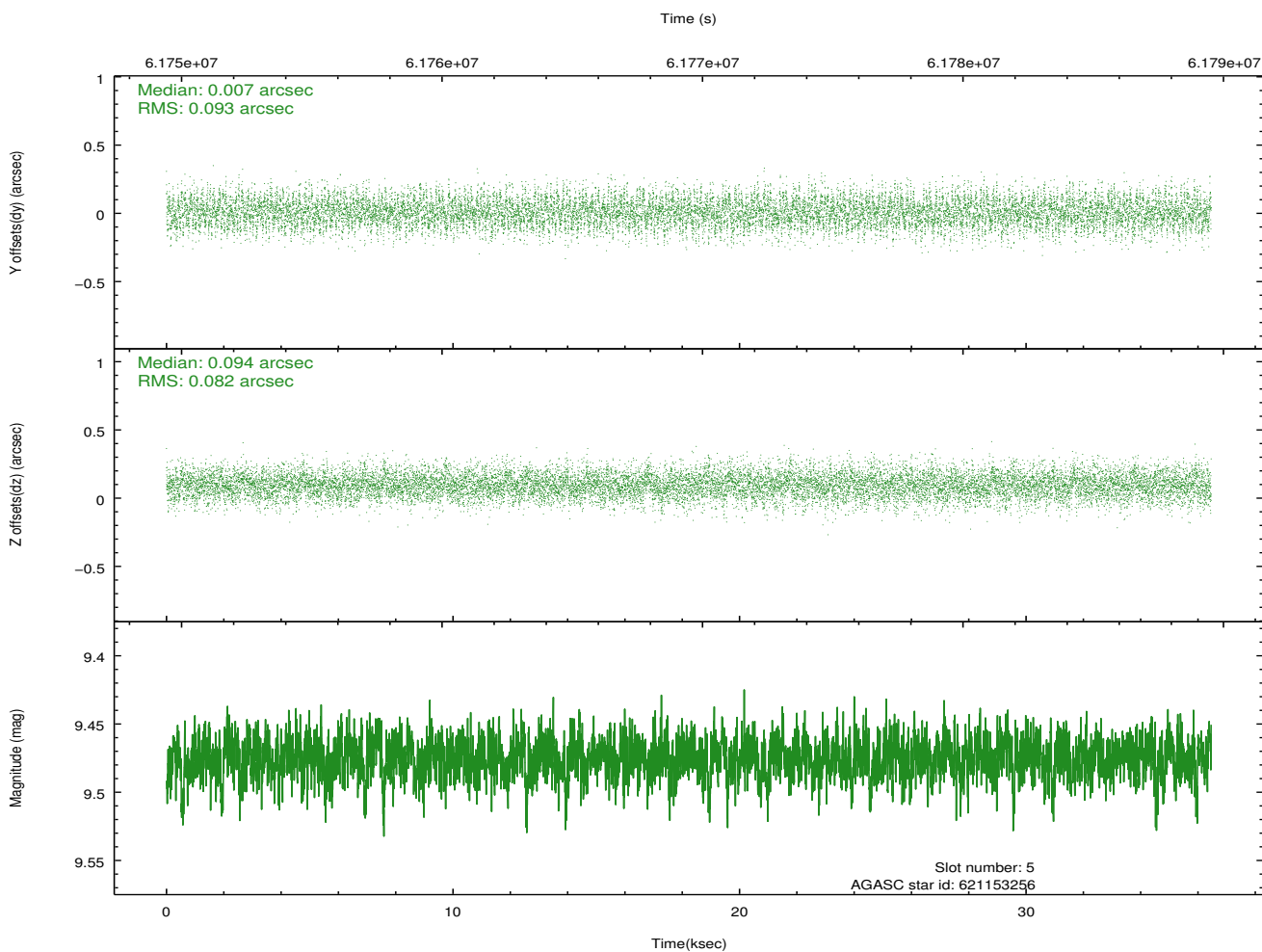
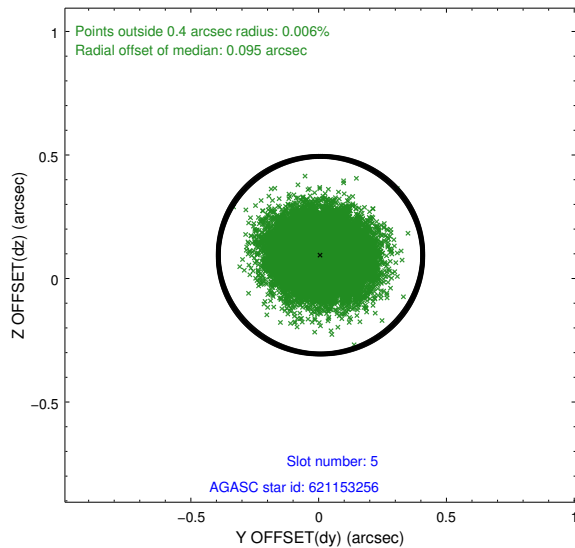
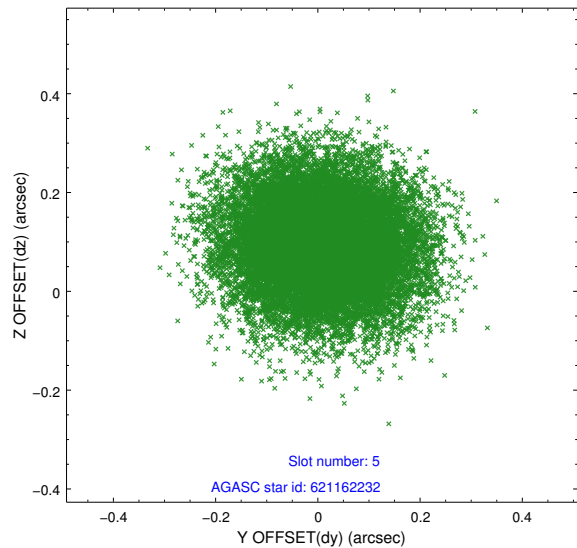
2.4.1 Slot 3



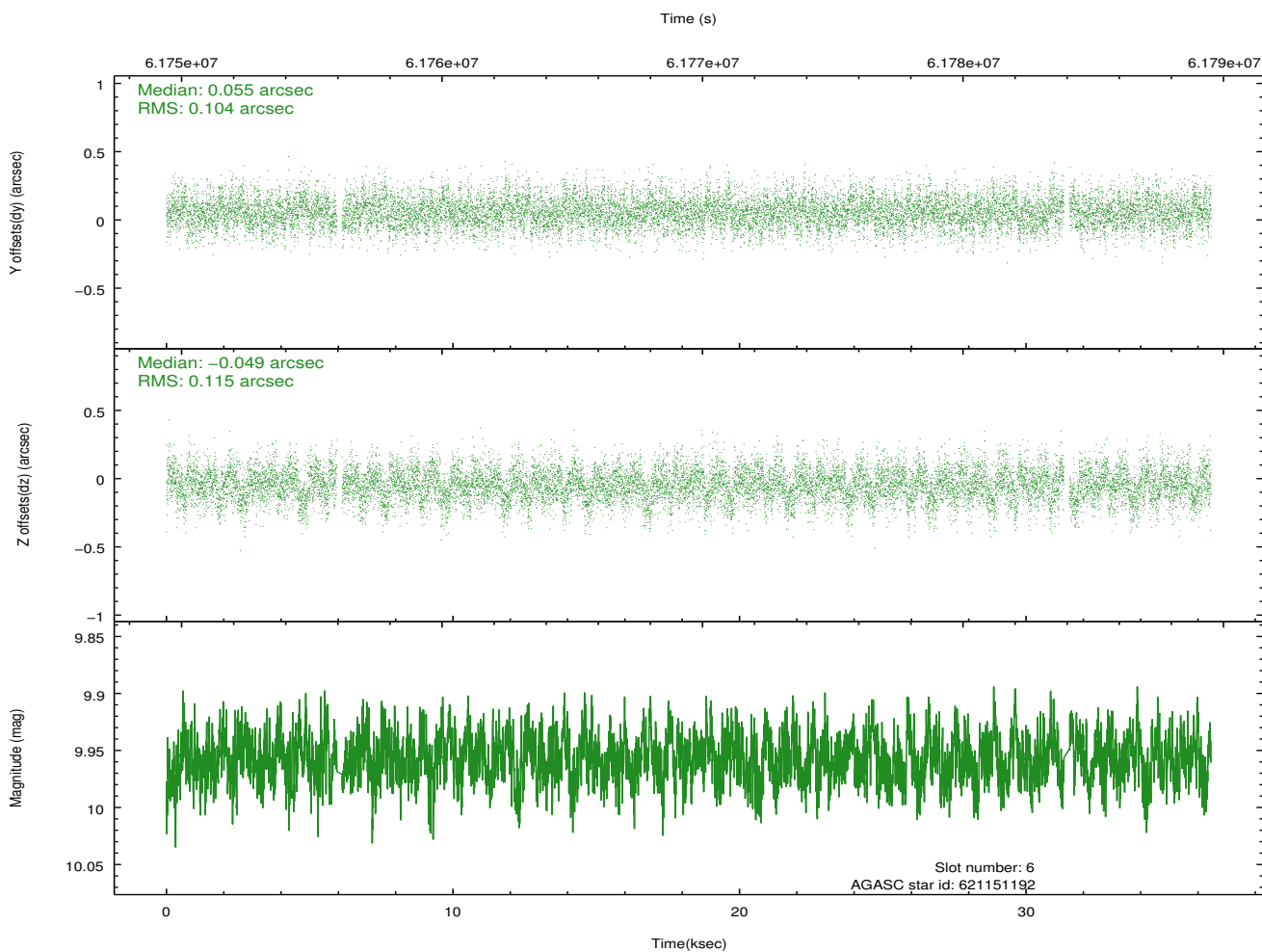
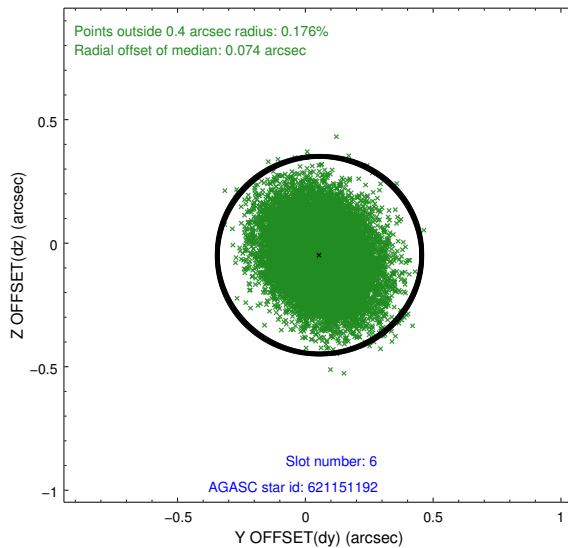
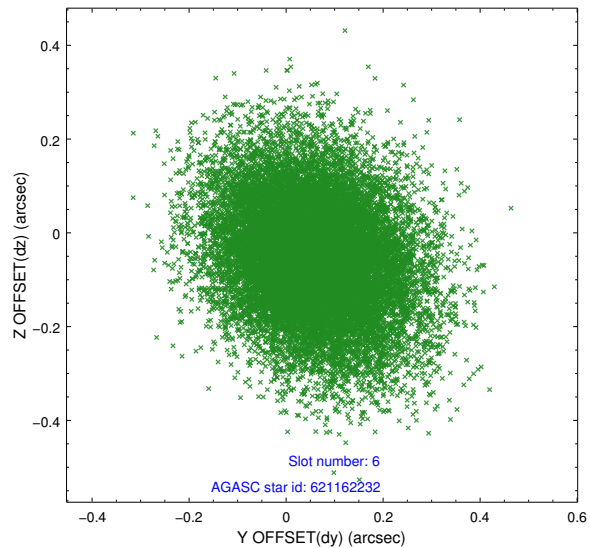
2.4.2 Slot 4



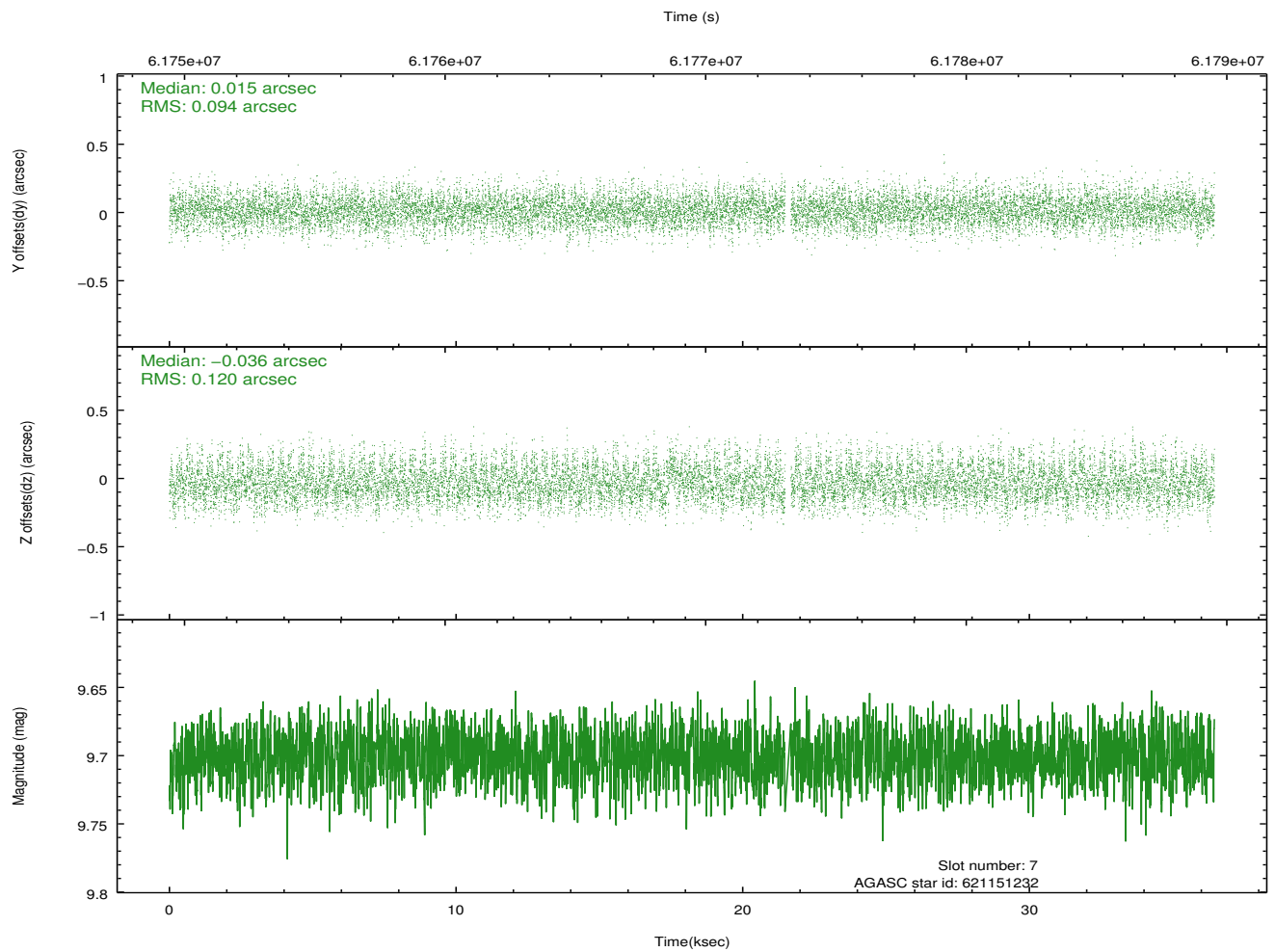
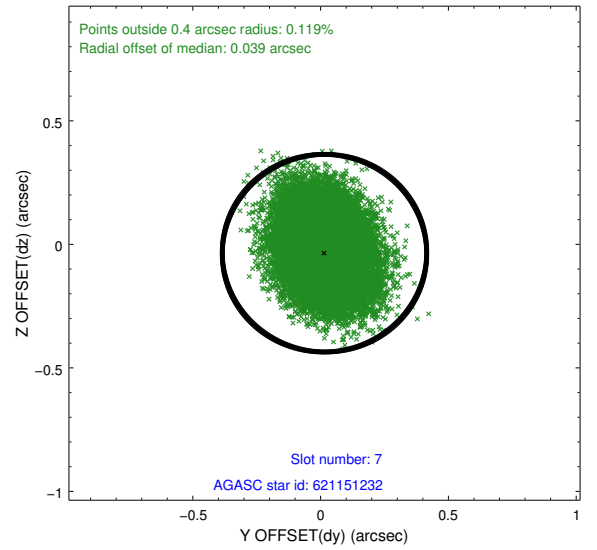
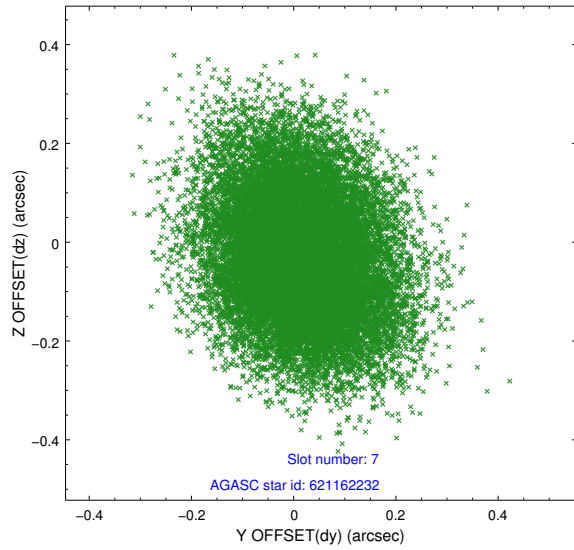
2.4.3 Slot 5



2.4.4 Slot 6

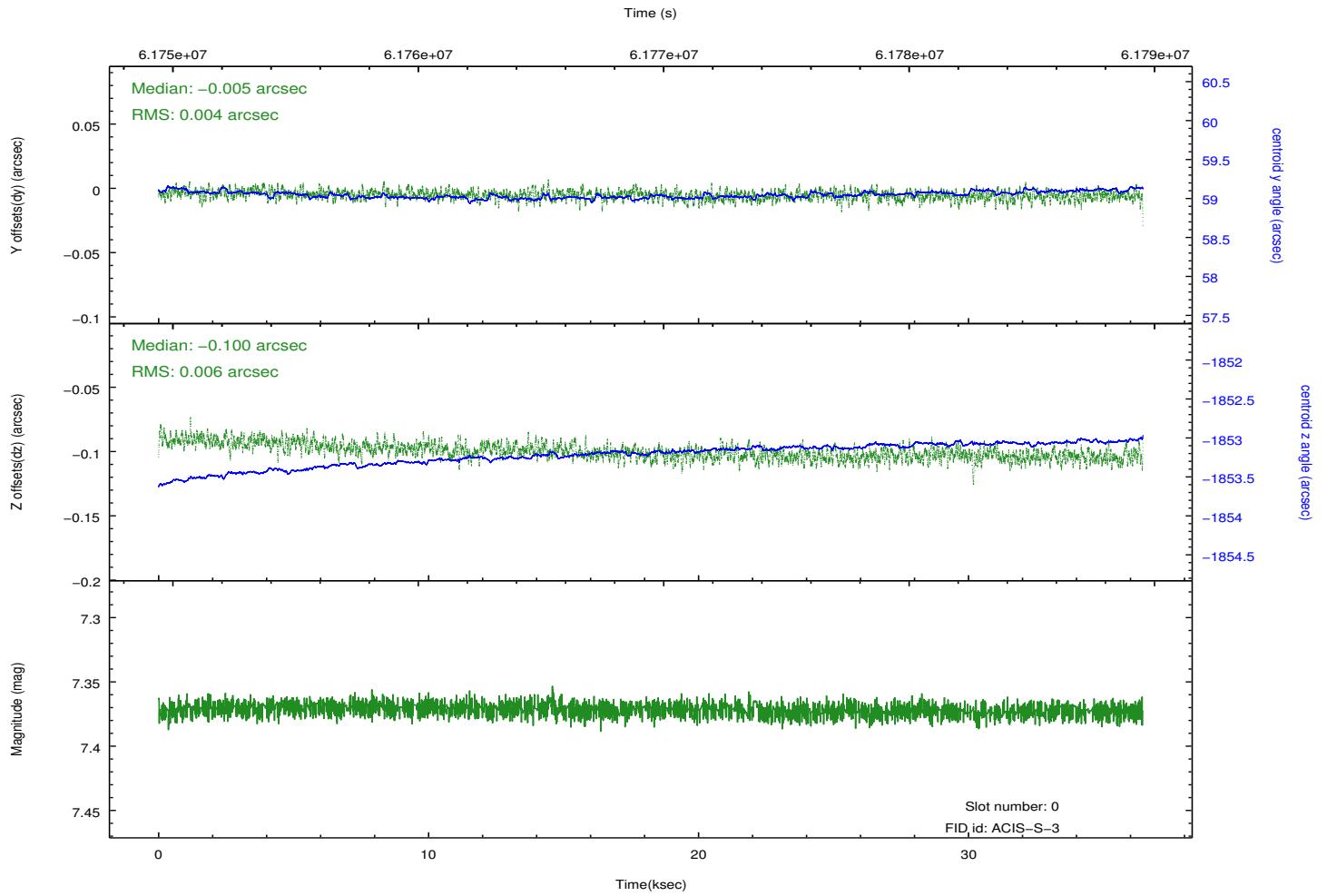
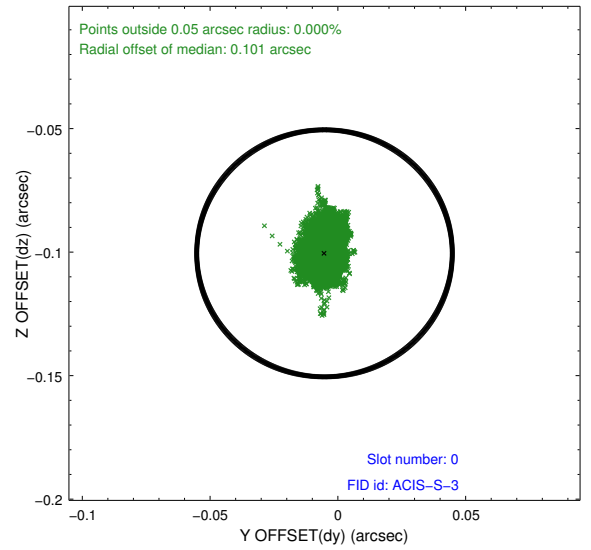
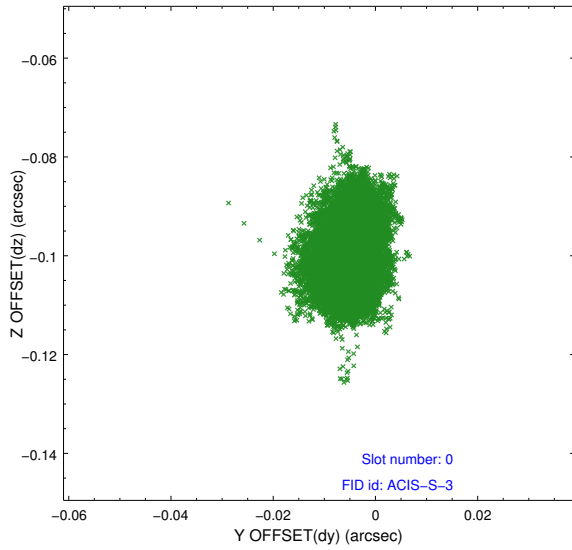


2.4.5 Slot 7

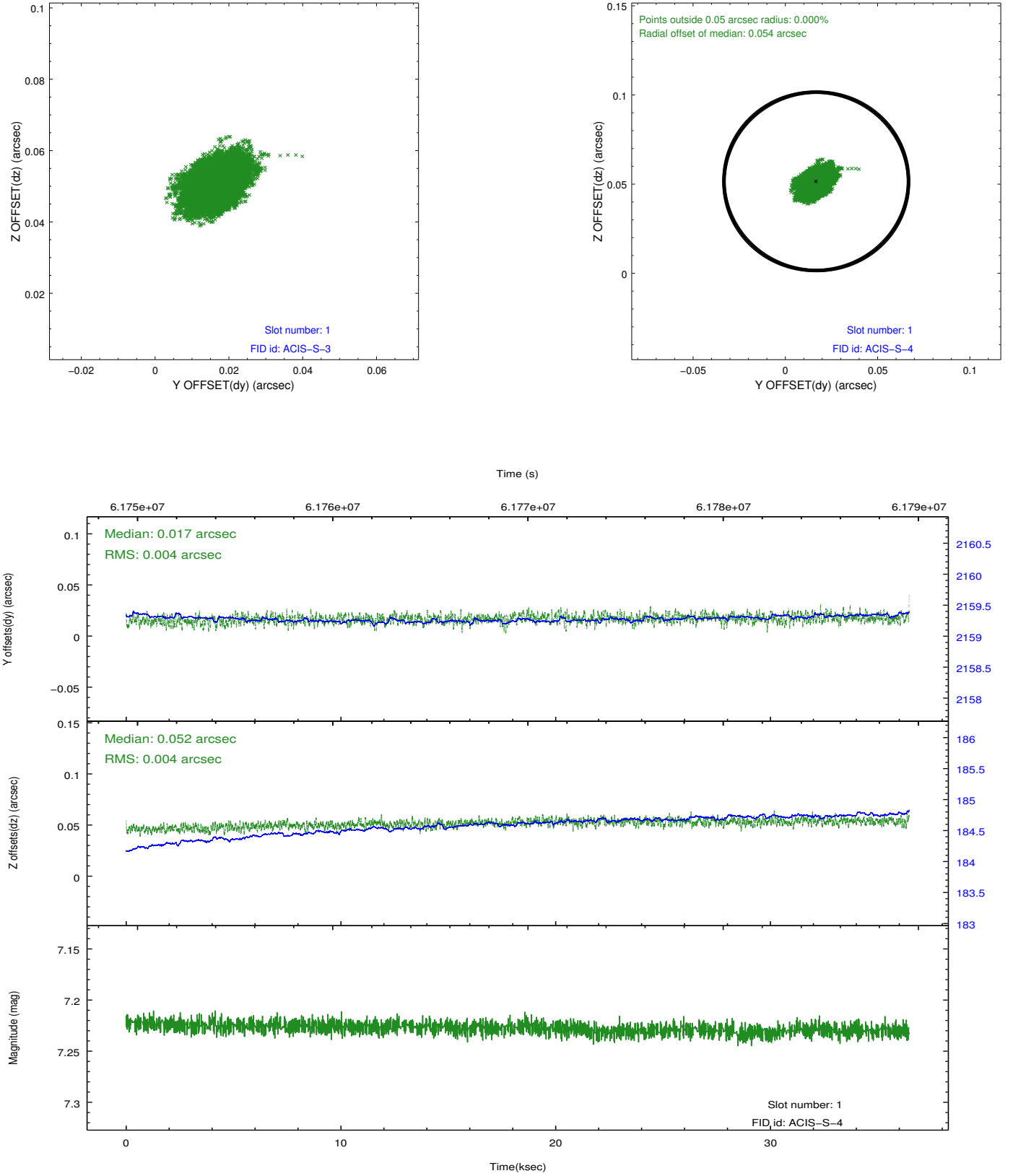


2.5 FID Slots

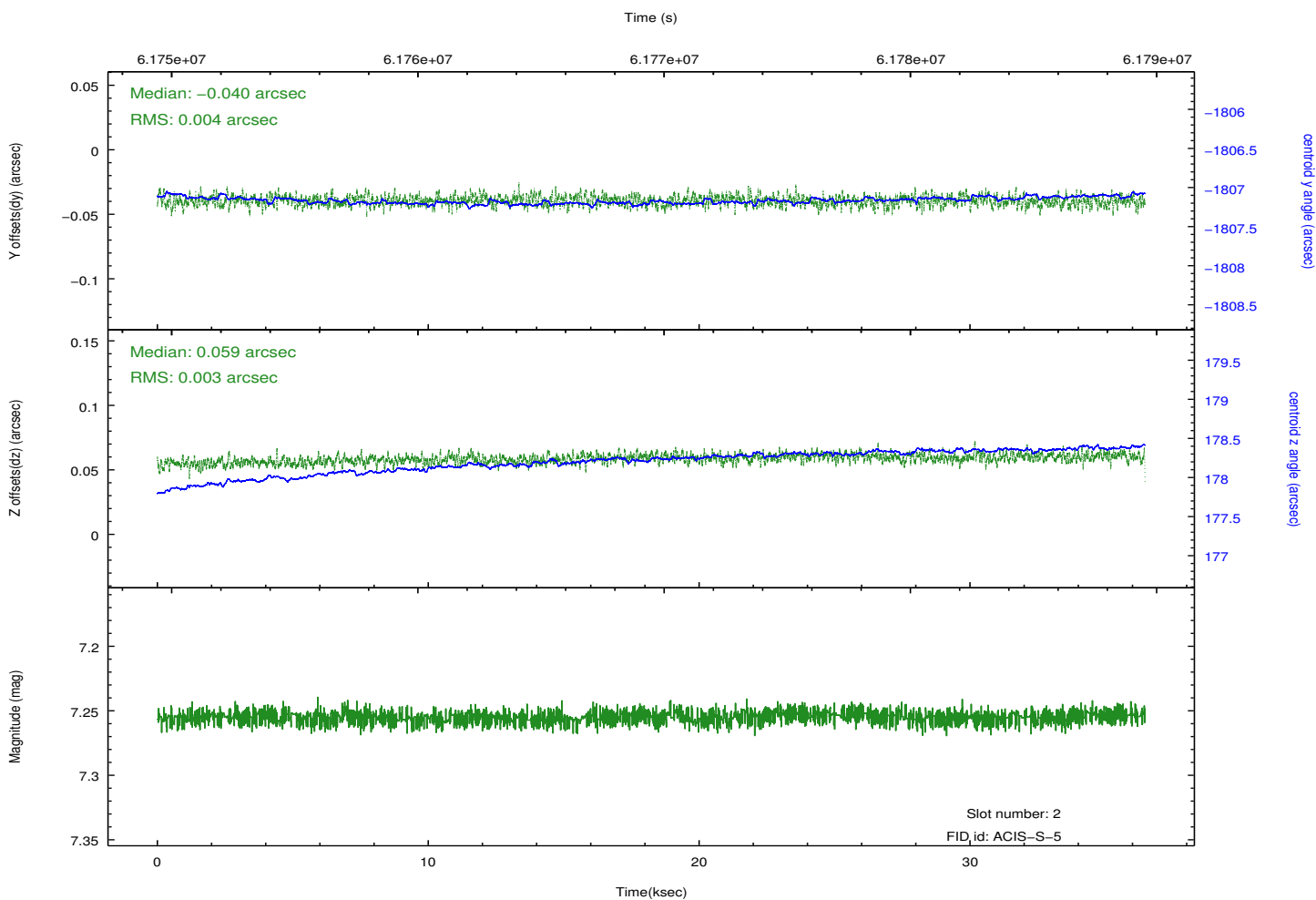
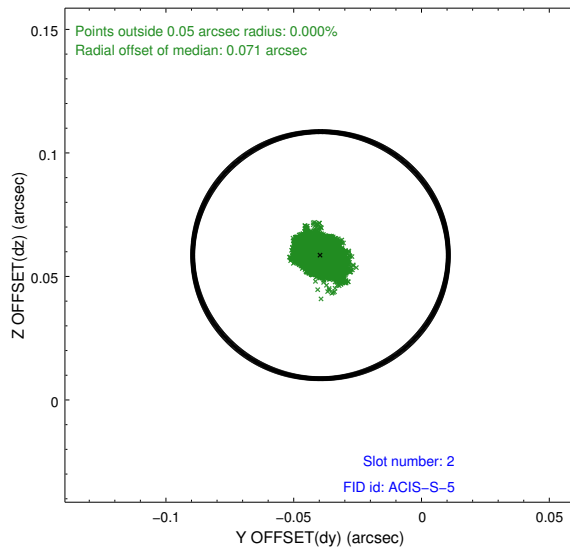
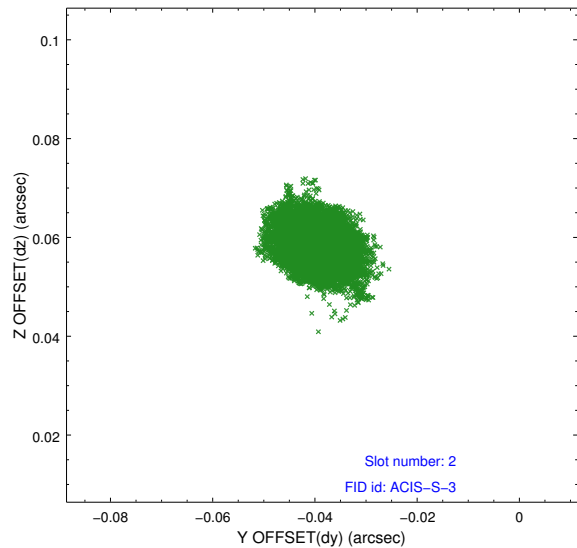
2.5.1 Slot 0



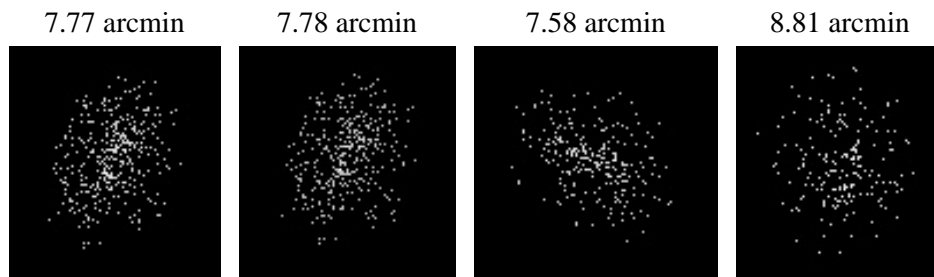
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2009.11.27 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 35.772 |

A.2 Comments

Focal plane temperature is warmer than -118.7 C degrees during the entire observation. This temperature is the upper limit of the verified ACIS calibration for the front-illuminated chips. The focal plane temperature is warmer than -116.7 degrees C for the entire observation. This temperature is the upper limit of the verified ACIS calibration for the back-illuminated chips. 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.

=====

This reprocessing of the data applies no CTI correction because none is available for that temperature.

=====

Window constraint met, monitor constraint met.