

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2930 - L2 Version 3
Chandra X-Ray Center

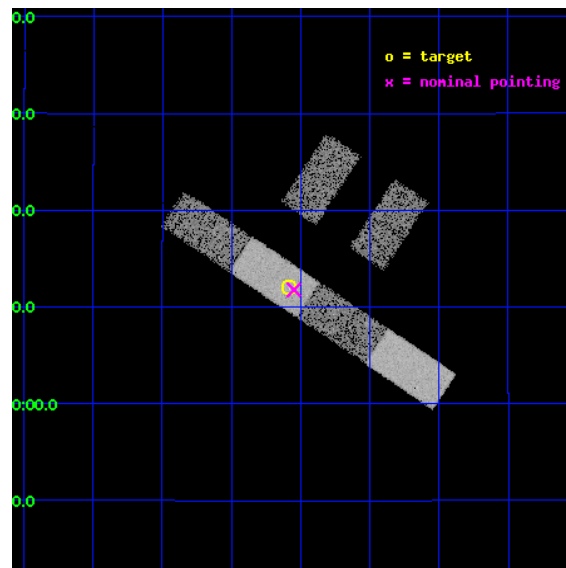
L2 Processing Date : Oct 9 2012

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1 Front

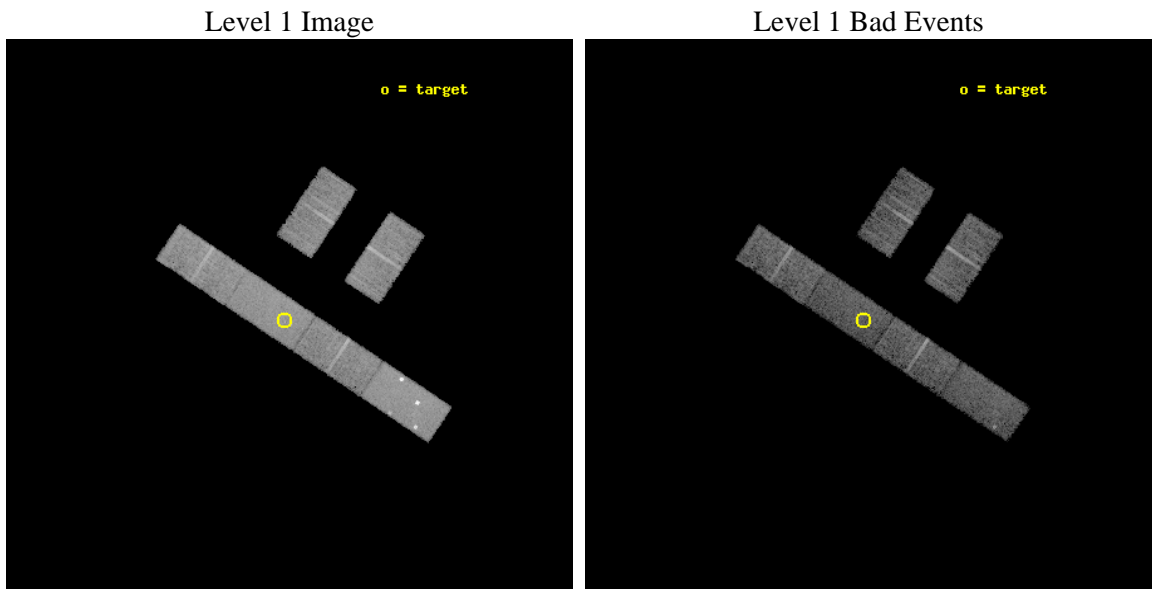
| | | |
|----------|---|---|
| seq_num | 600267 | Sequence number |
| obs_id | 2930 | Observation id |
| title | CHANDRA SURVEY OF GALAXIES WITH KNOWN BLACK HOLE MASSES | Proposal t |
| observer | Dr. Andrew Ptak | Principal investigator |
| object | NGC 5954 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 233.64625 | Observer's specified target RA [deg] |
| dec_targ | 15.200278 | Observer's specified target Dec [deg] |
| ra_nom | 233.63708916004 | Nominal RA [deg] |
| dec_nom | 15.196383174742 | Nominal Dec [deg] |
| roll_nom | 213.64707838968 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 10159.200067282 | Sum of GTIs [s] |
| livetime | 9932.7337380541 | Livetime [s] |
| ontime2 | 10159.200067282 | Sum of GTIs [s] |
| ontime3 | 10159.200067282 | Sum of GTIs [s] |
| ontime5 | 10159.200067282 | Sum of GTIs [s] |
| ontime6 | 10159.200067282 | Sum of GTIs [s] |
| ontime7 | 10159.200067282 | Sum of GTIs [s] |
| ontime8 | 10159.200067282 | Sum of GTIs [s] |
| l2events | 53523 | Number of level 2 events |



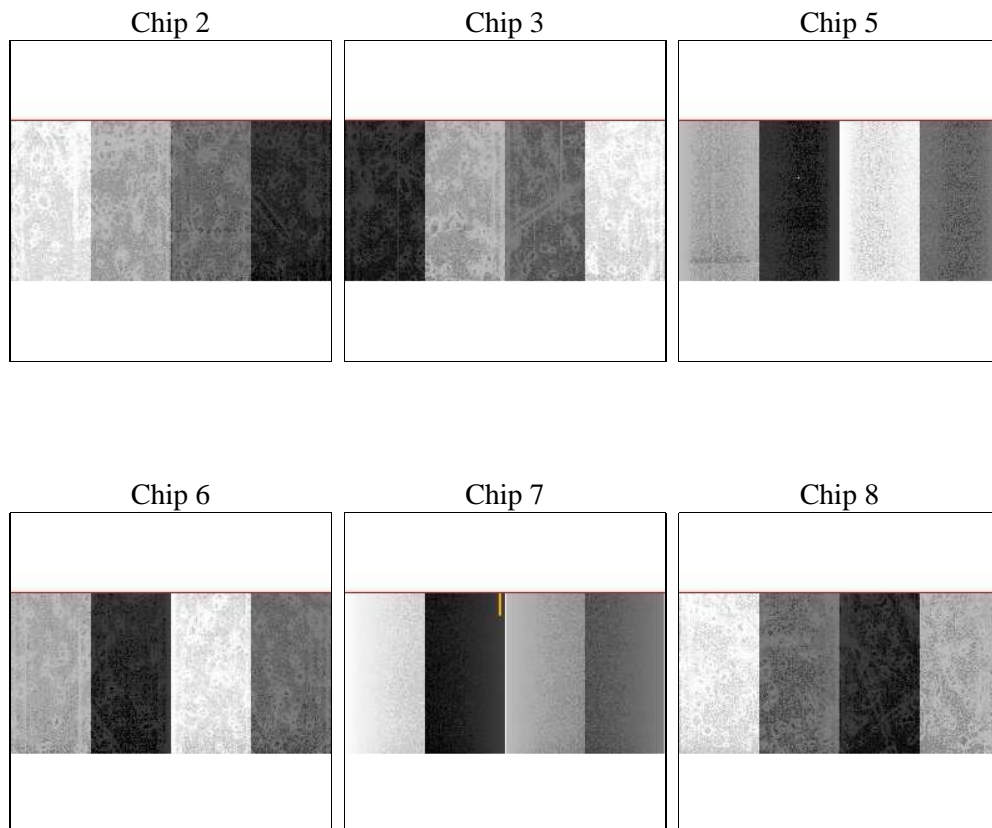
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 10000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 10159.200067282 | Sum of GTIs [s] |
| caldbver | 4.5.2 | | ontime2 | 10159.200067282 | Sum of GTIs [s] |
| date | 2012-10-09T03:46:20 | Date and time of file creation | ontime3 | 10159.200067282 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 10159.200067282 | Sum of GTIs [s] |
| | | | ontime6 | 10159.200067282 | Sum of GTIs [s] |
| | | | ontime7 | 10159.200067282 | Sum of GTIs [s] |
| | | | ontime8 | 10159.200067282 | Sum of GTIs [s] |
| | | | l1events | 255316 | Number of level 1 events |

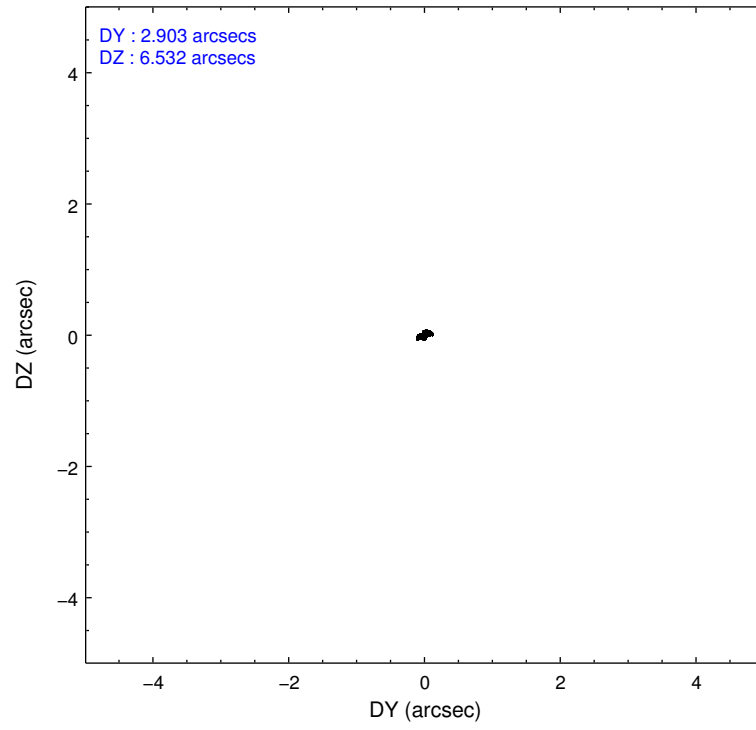
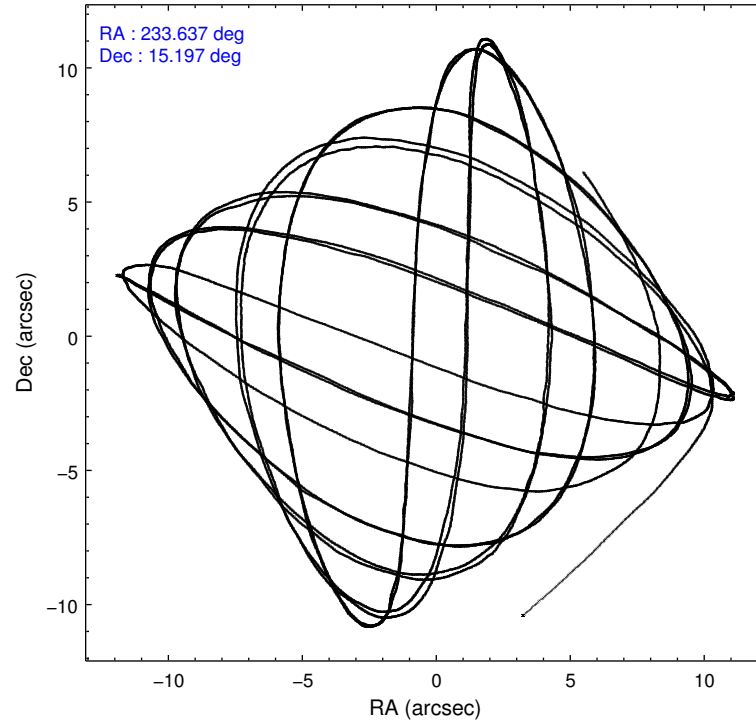
2.1.4 Events

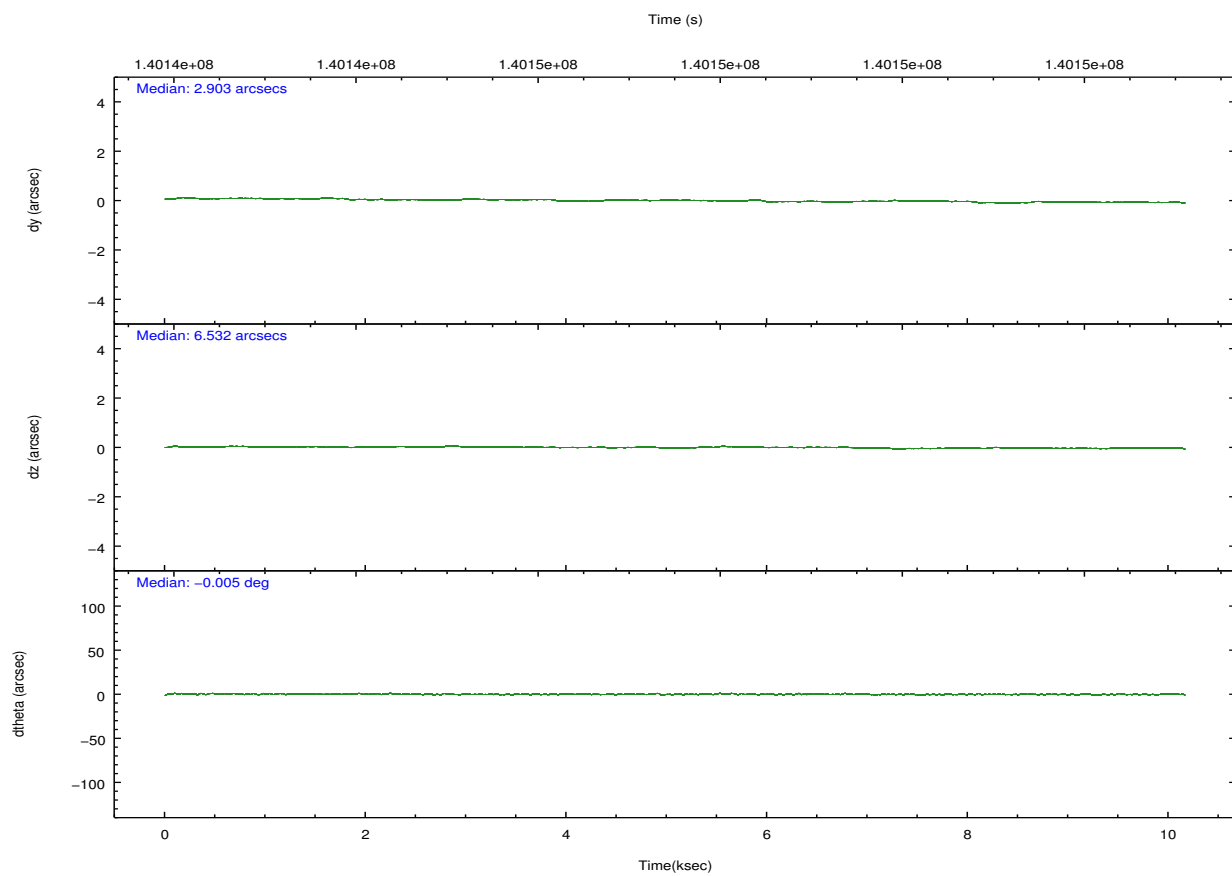
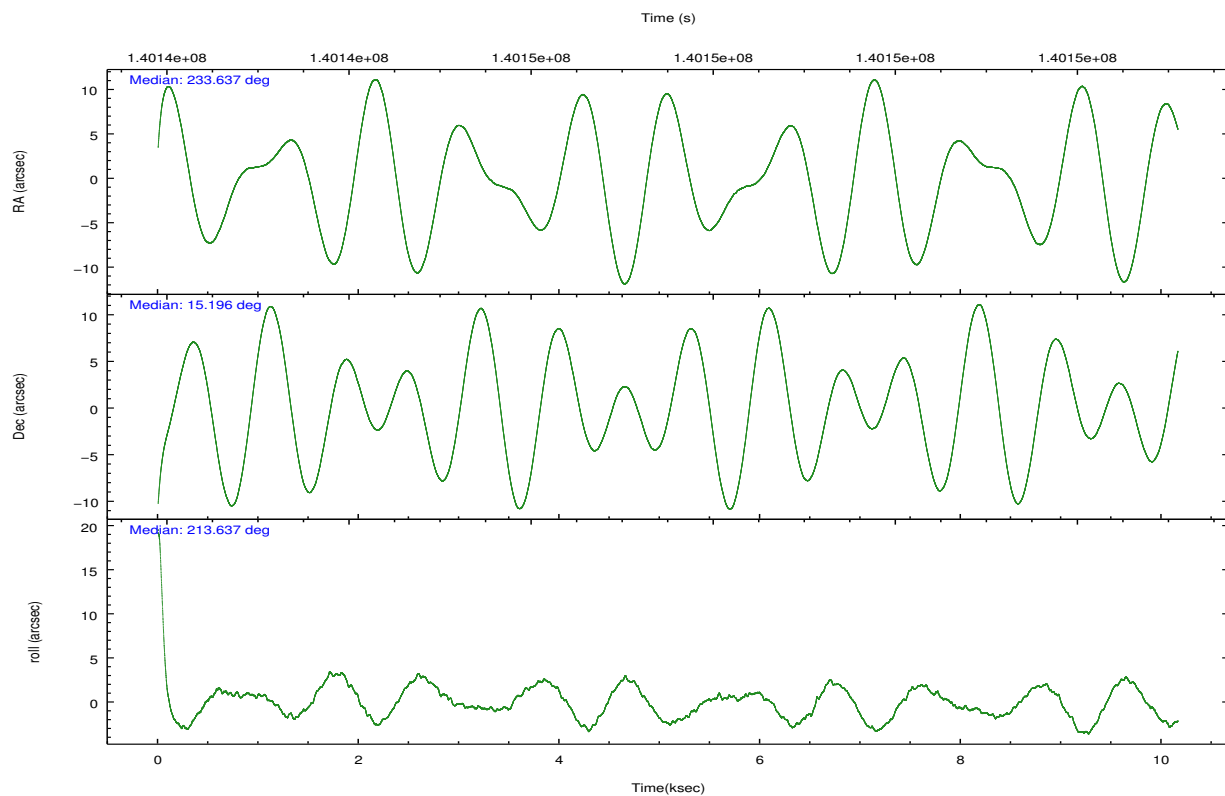
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 38053 | 33815 | 59928 | 34300 | 45071 | 44149 | grade 0 events | 1674 | 1669 | 12744 | 1806 | 2256 | 2804 |
| rejected events | 34056 | 29952 | 27121 | 30115 | 25802 | 35521 | | 4% | 4% | 21% | 5% | 5% | 6% |
| rejected % | 89% | 88% | 45% | 87% | 57% | 80% | grade 1 events | 8 | 12 | 82 | 10 | 40 | 20 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 823 | 748 | 7314 | 766 | 3944 | 1784 |
| | | | | | | | | 2% | 2% | 12% | 2% | 8% | 4% |
| | | | | | | | grade 3 events | 461 | 444 | 1190 | 478 | 1939 | 1027 |
| | | | | | | | | 1% | 1% | 1% | 1% | 4% | 2% |
| | | | | | | | grade 4 events | 447 | 461 | 1146 | 475 | 1927 | 900 |
| | | | | | | | | 1% | 1% | 1% | 1% | 4% | 2% |
| | | | | | | | grade 5 events | 1308 | 1257 | 3996 | 1461 | 4229 | 1809 |
| | | | | | | | | 3% | 3% | 6% | 4% | 9% | 4% |
| | | | | | | | grade 6 events | 681 | 648 | 11210 | 743 | 9644 | 2321 |
| | | | | | | | | 1% | 1% | 18% | 2% | 21% | 5% |
| | | | | | | | grade 7 events | 32651 | 28576 | 22246 | 28561 | 21092 | 33484 |
| | | | | | | | | 85% | 84% | 37% | 83% | 46% | 75% |

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 | 233.649248 | 233.6370891600427 | Subarray requested | CUSTOM | 1/2 |
| [deg] Pointing Dec | 15.220978 | 15.19638317474216 | Subarray start row | 257 | 257 |
| [deg] Pointing Roll | 213.487236 | 213.6470783896763 | Subarray row count | 512 | 512 |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | Alternating exposures requested | N | N |
| [mm] SIM defocus | 0 | 0.001444936568705701 | [s] Primary exposure time | 0.000000 | 1.8 |
| [mm] SIM translation stage pos | -190.132523 | -190.1425803651734 | | | |
| [mm] SIM translation stage offset | 0 | 0.01005778216563158 | | | |
| [s] Observation start time (MET) | 140142586.184000 | 140141620.76324 | | | |
| Observation start date | 2002-06-11T00:28:42 | 2002-06-11T00:13:40 | | | |
| [s] Observation end time (MET) | 140152586.184000 | 140153525.62623 | | | |
| Observation end date | 2002-06-11T03:15:22 | 2002-06-11T03:32:05 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



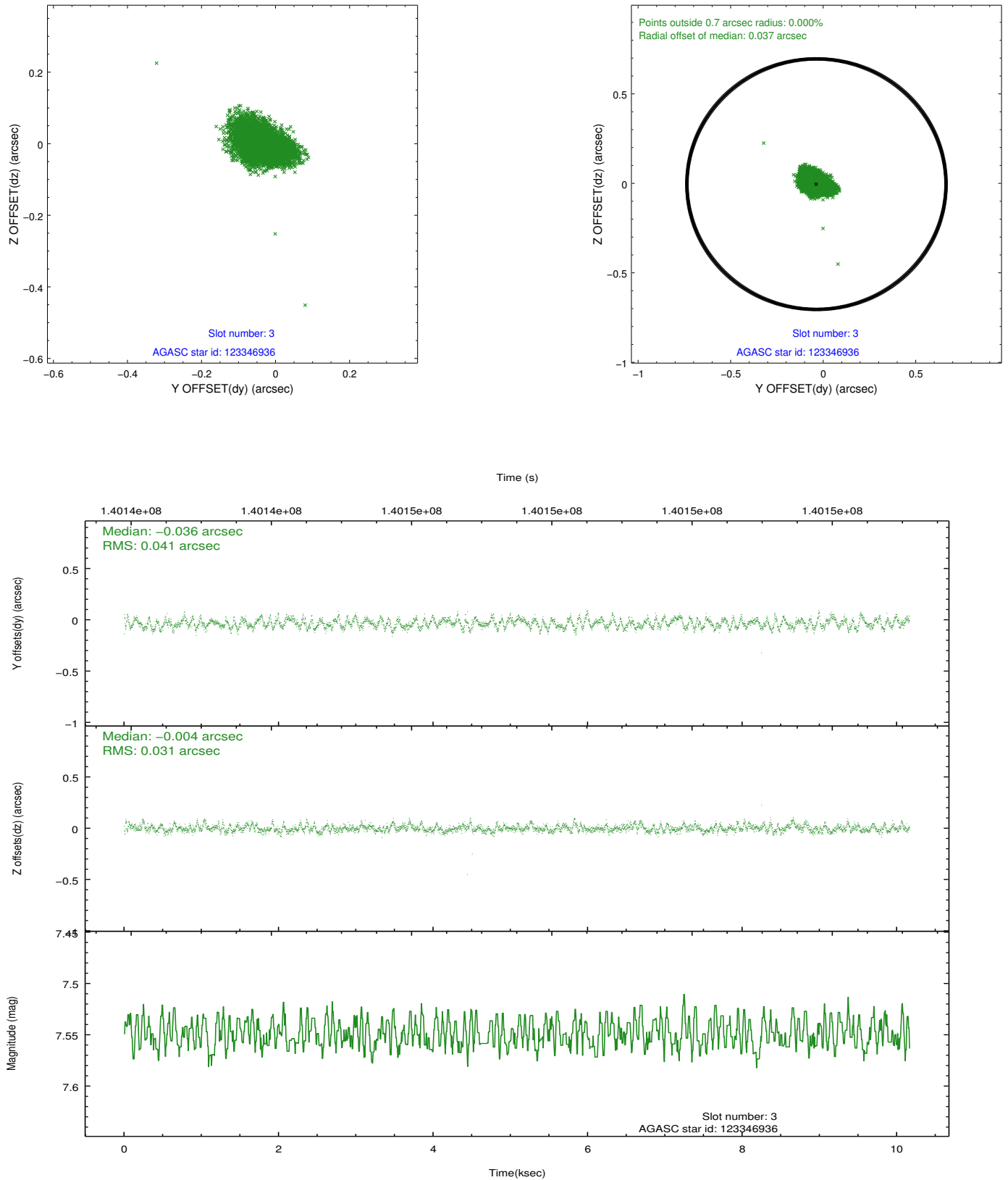


Slot Statistics

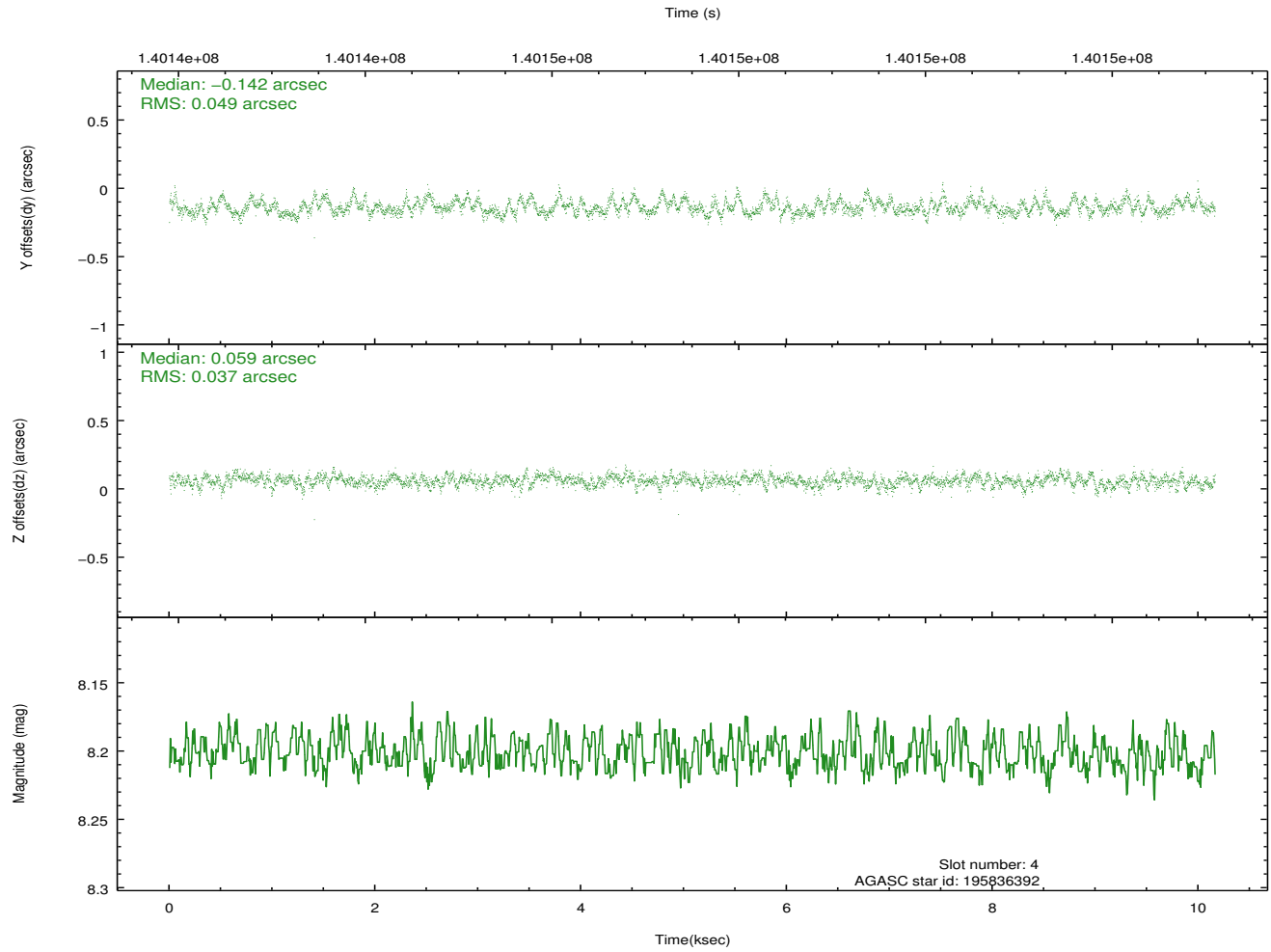
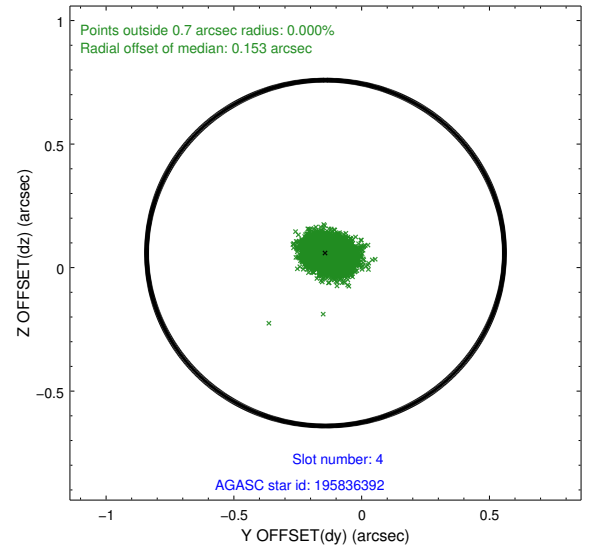
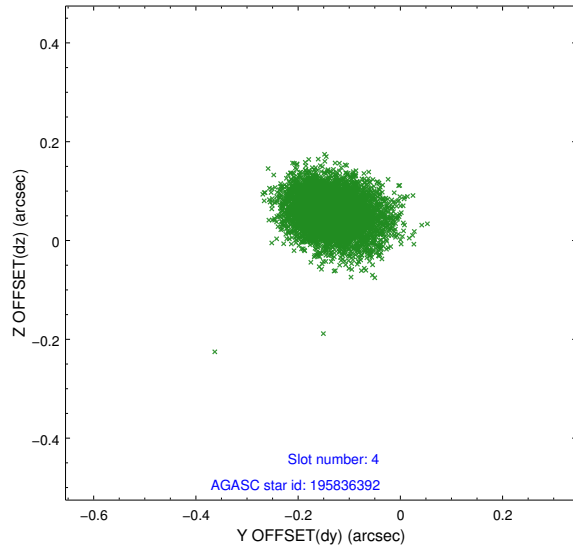
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 2479 | -0.028 | 0.009 | 0.006 | 0.010 | 0.000000 | 0.000000 | -755.54 | -1727.63 |
| 1 | FID | ACIS-S-4 | 7.21 | 2479 | -0.013 | 0.011 | 0.005 | 0.009 | 0.000000 | 0.000000 | 2157.48 | 180.36 |
| 2 | FID | ACIS-S-5 | 7.24 | 2479 | 0.010 | -0.012 | 0.006 | 0.011 | 0.000000 | 0.000000 | -1807.71 | 174.54 |
| 3 | GUIDE | 123346936 | 7.55 | 4959 | -0.036 | -0.004 | 0.054 | 0.088 | 234.177396 | 14.924785 | -945.53 | 1901.35 |
| 4 | GUIDE | 195836392 | 8.20 | 4958 | -0.142 | 0.059 | 0.064 | 0.108 | 233.098498 | 15.623872 | 790.92 | -2264.24 |
| 5 | GUIDE | 195828816 | 8.64 | 4959 | 0.078 | -0.161 | 0.062 | 0.101 | 233.538121 | 15.057744 | 646.48 | 276.68 |
| 6 | GUIDE | 195830320 | 8.93 | 4956 | 0.042 | 0.060 | 0.081 | 0.129 | 233.020814 | 15.074293 | 2111.76 | -766.68 |
| 7 | GUIDE | 195825568 | 9.44 | 4956 | 0.054 | 0.043 | 0.110 | 0.174 | 232.942550 | 15.135528 | 2216.37 | -1101.13 |

2.4 Star Slots

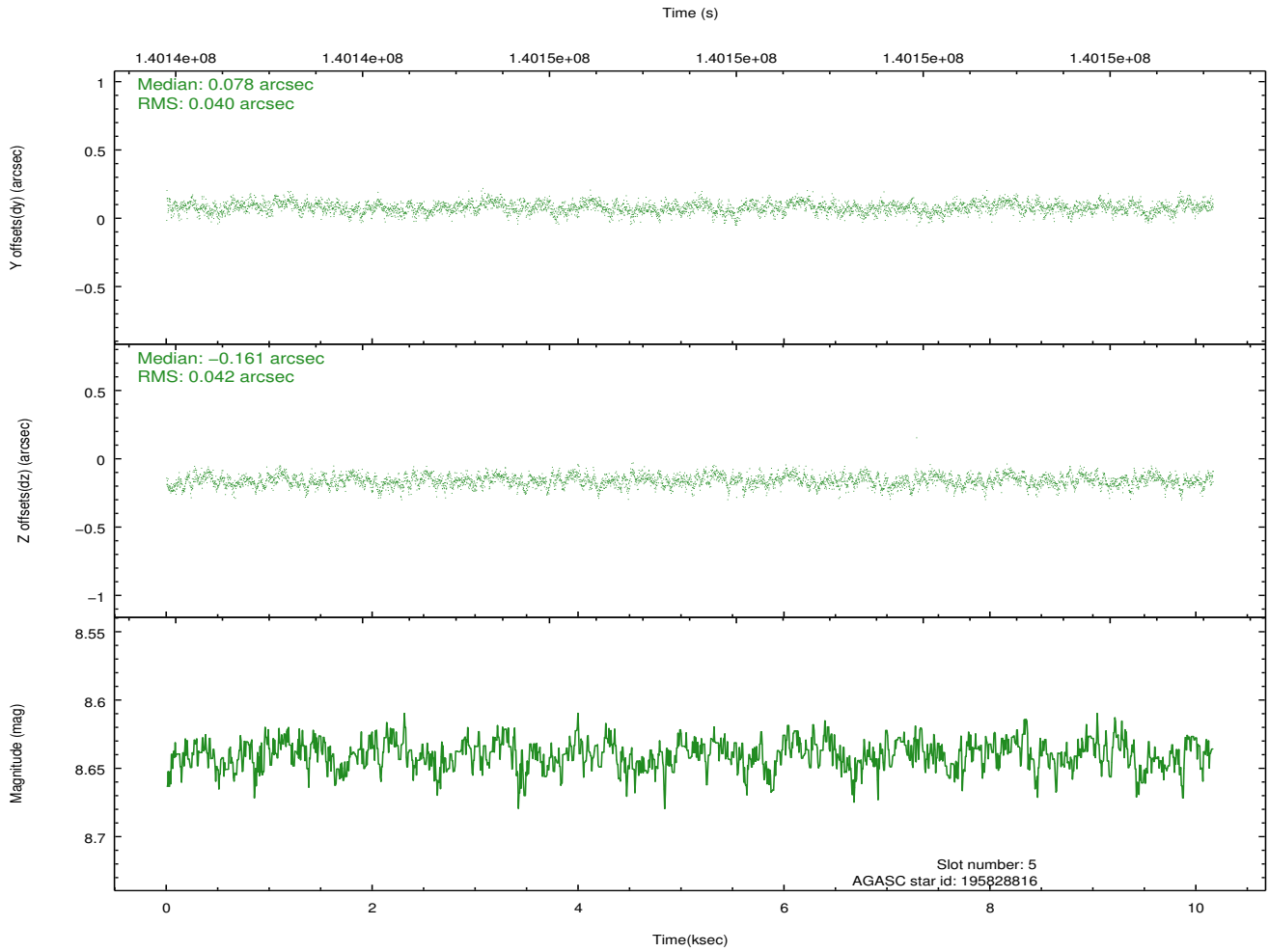
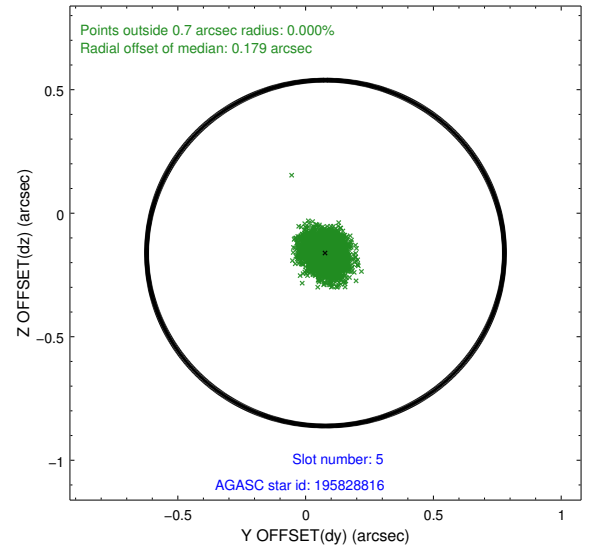
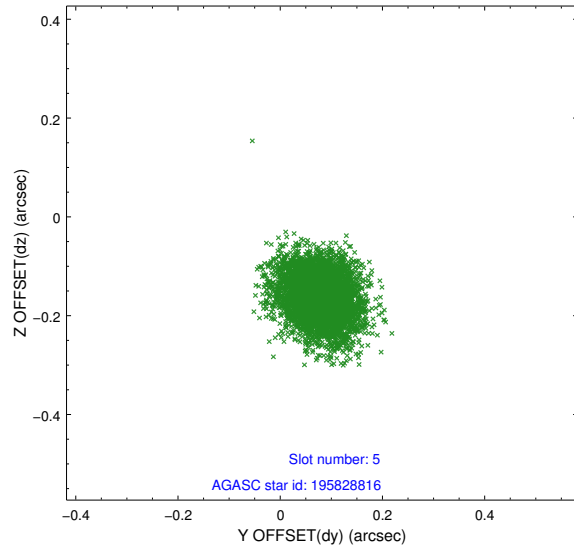
2.4.1 Slot 3



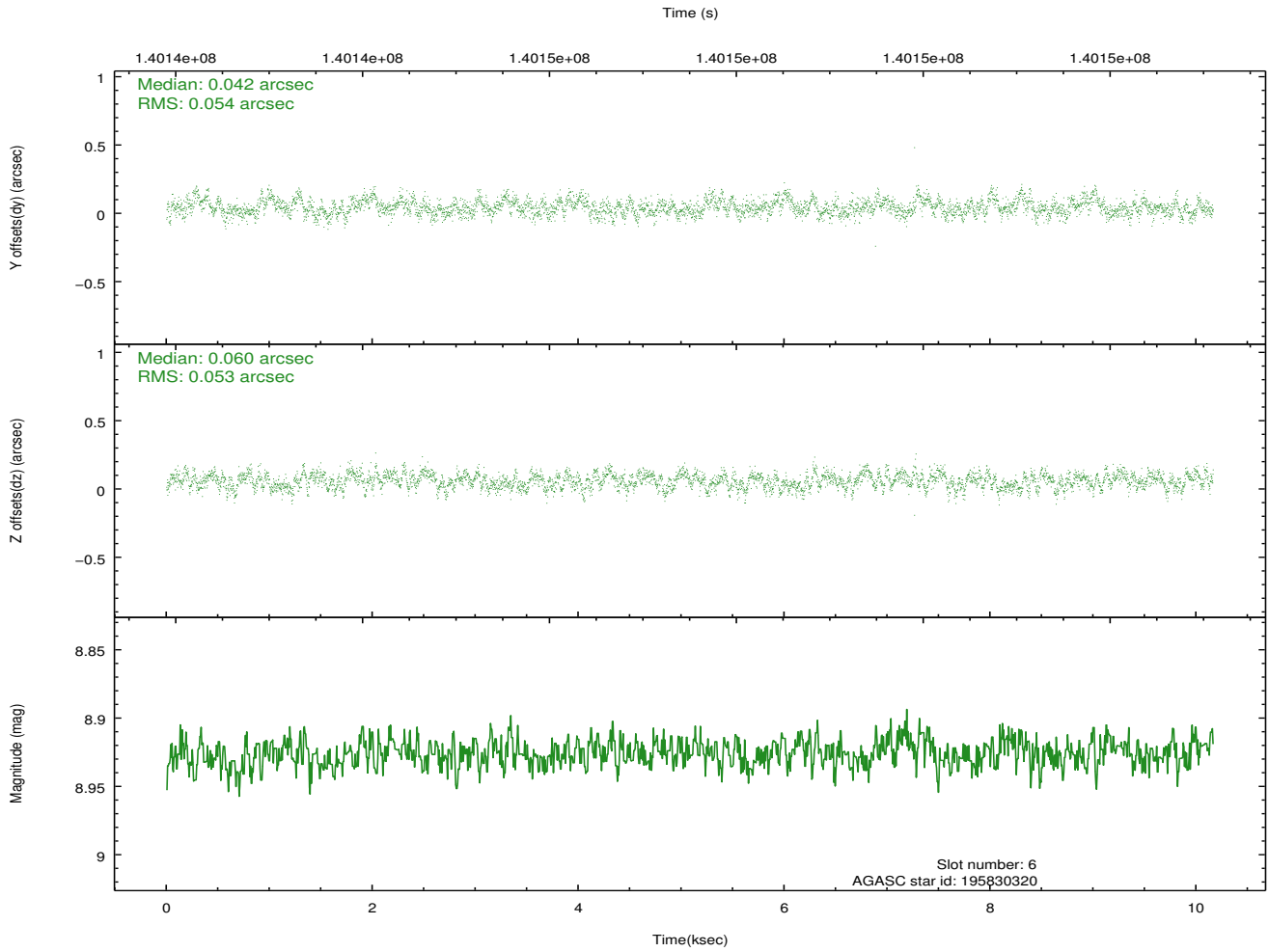
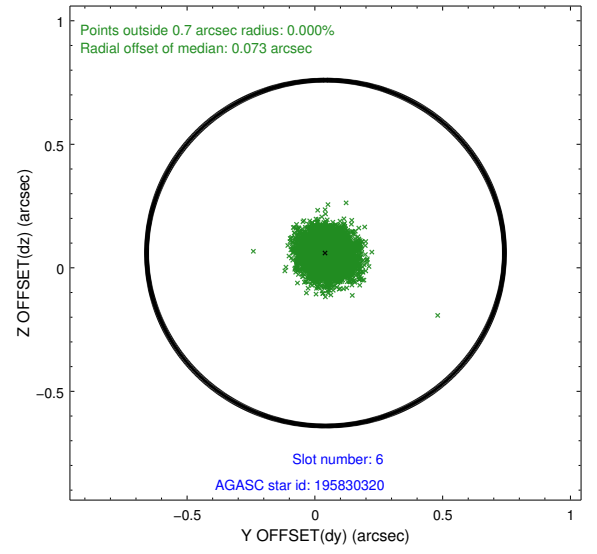
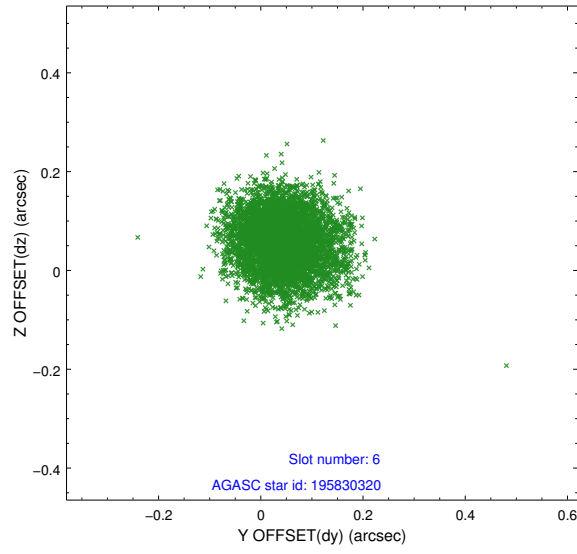
2.4.2 Slot 4



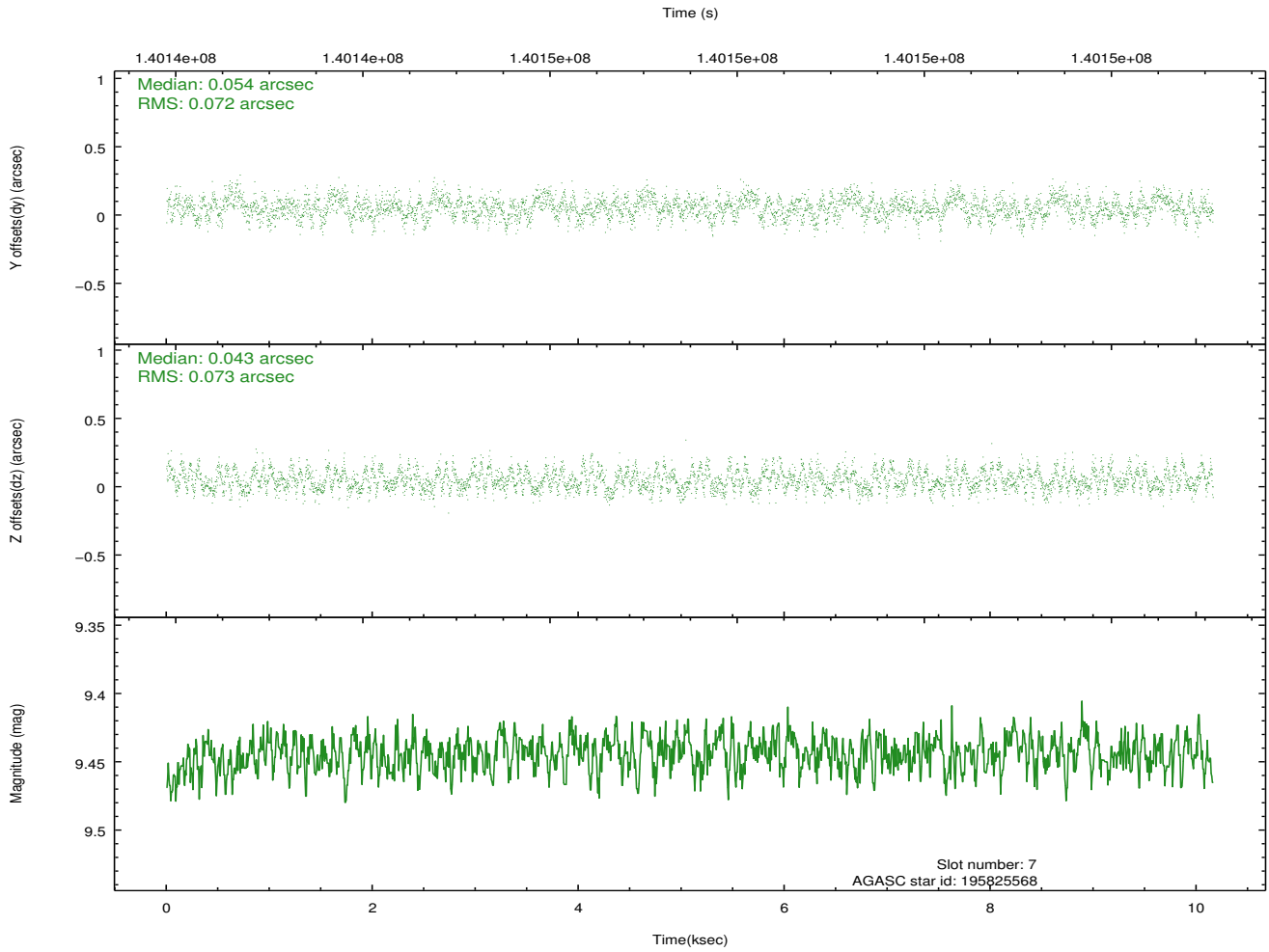
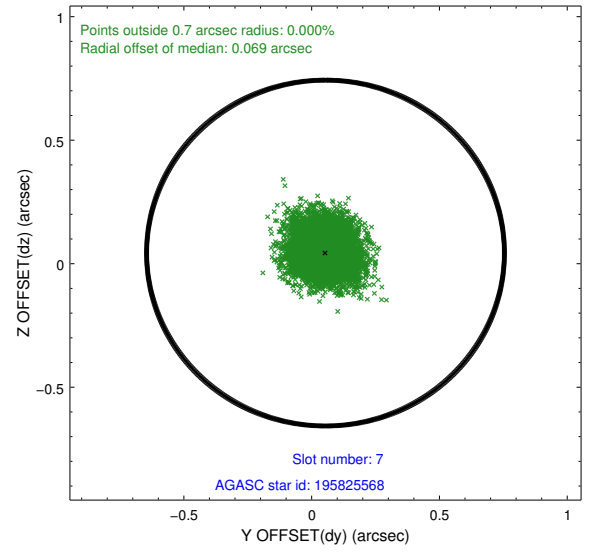
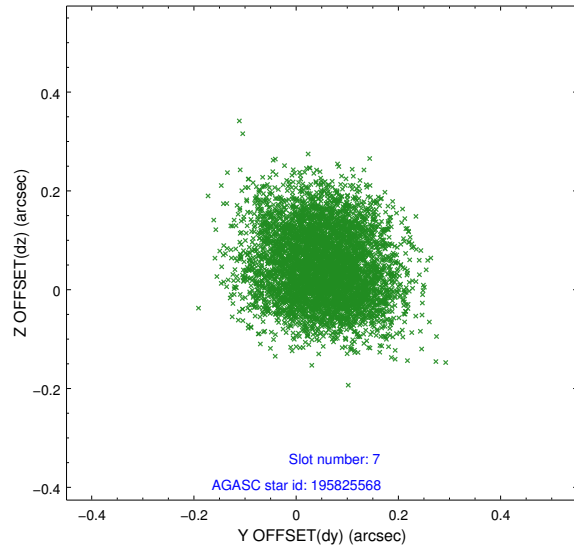
2.4.3 Slot 5



2.4.4 Slot 6

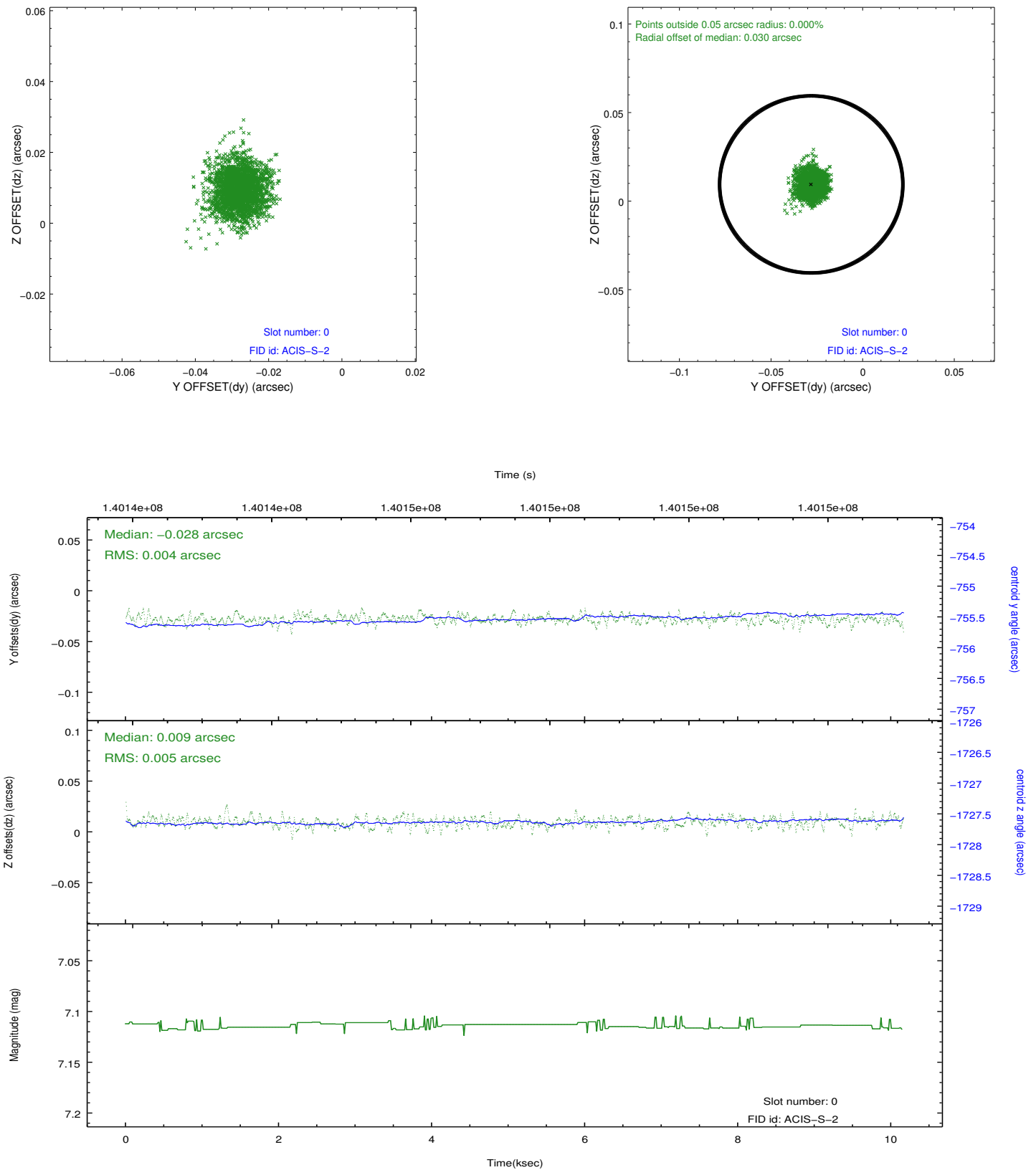


2.4.5 Slot 7

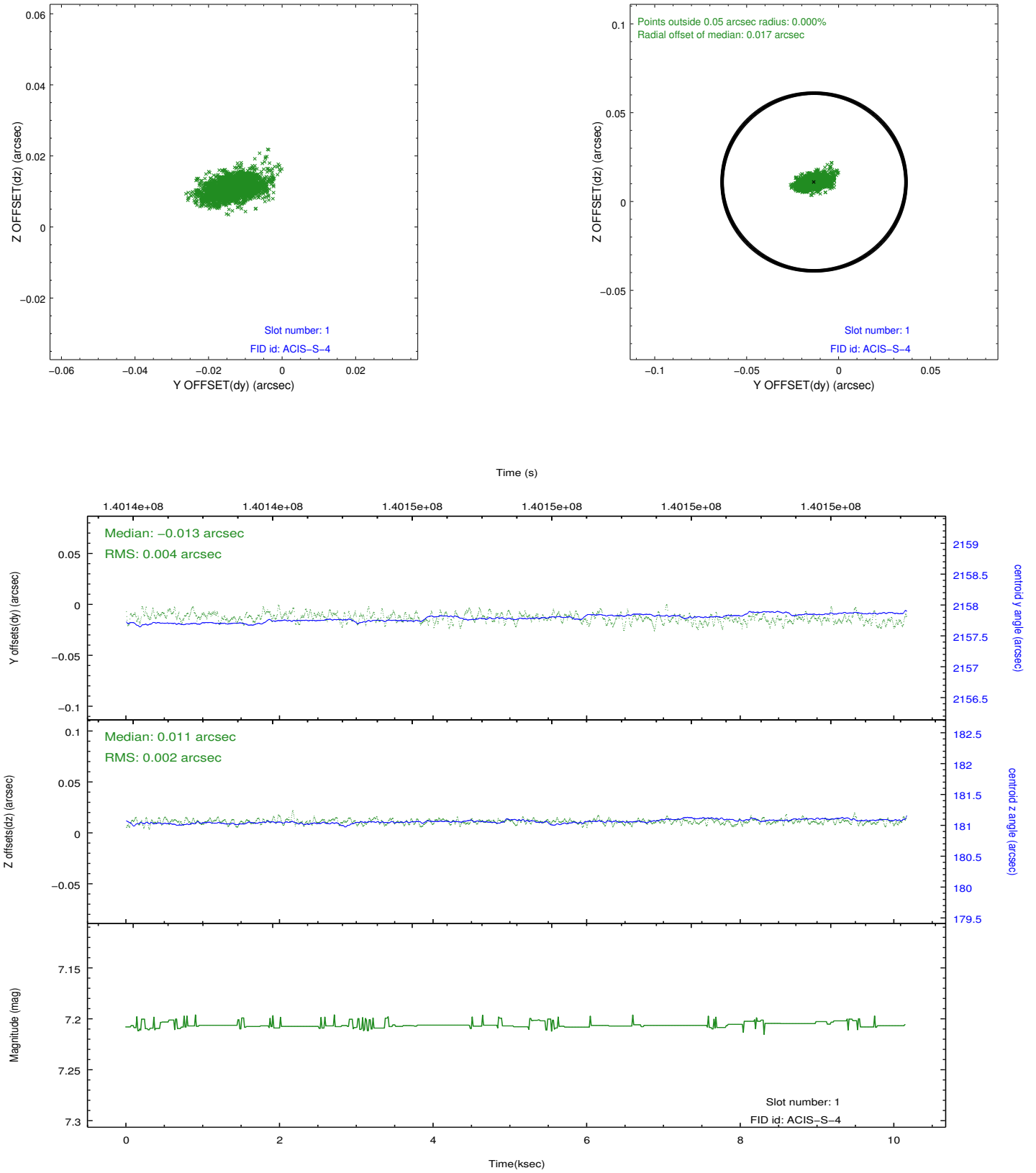


2.5 FID Slots

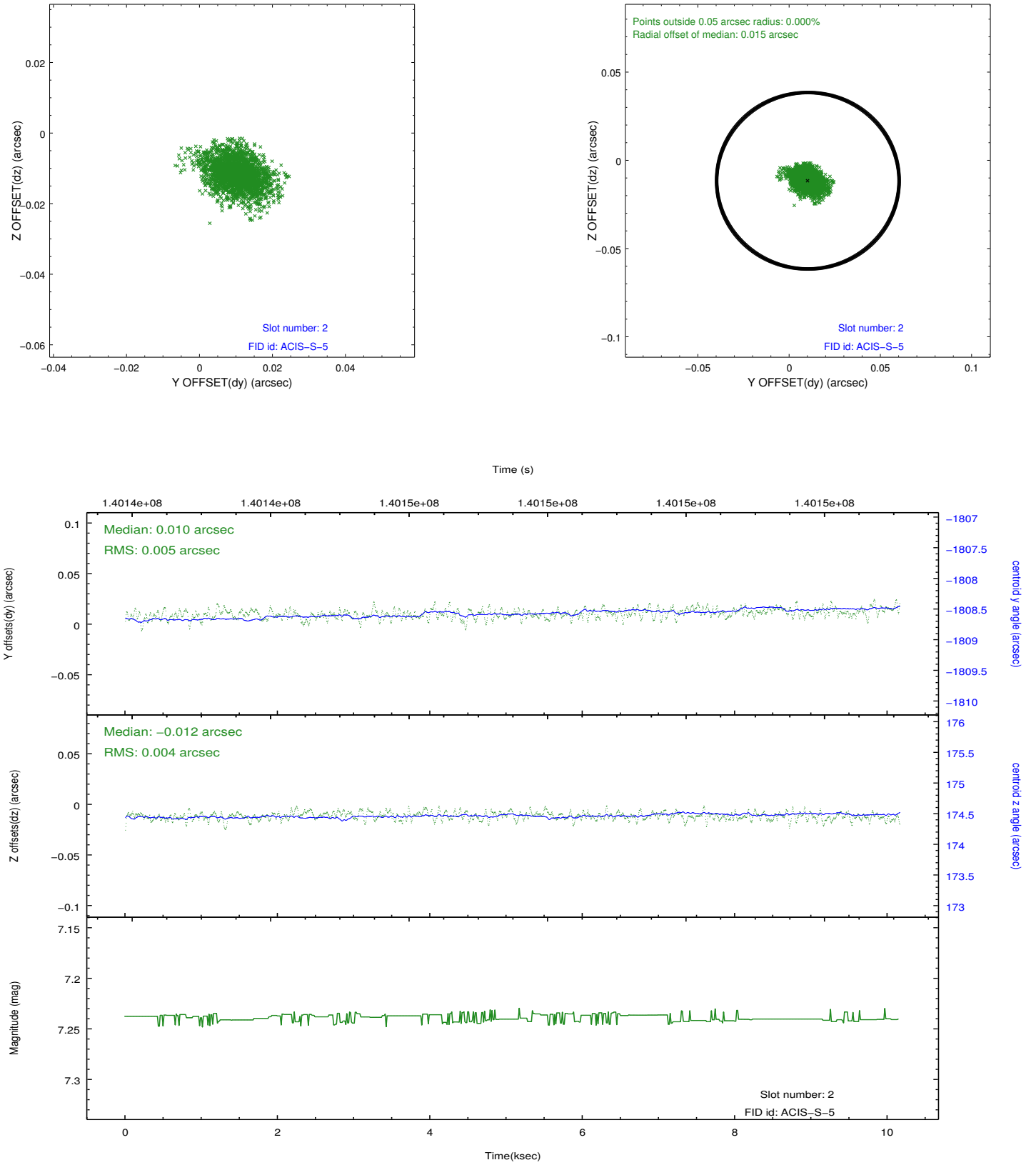
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.10.18 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 10.159 |

A.2 Comments