

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 4114 - L2 Version 3
Chandra X-Ray Center

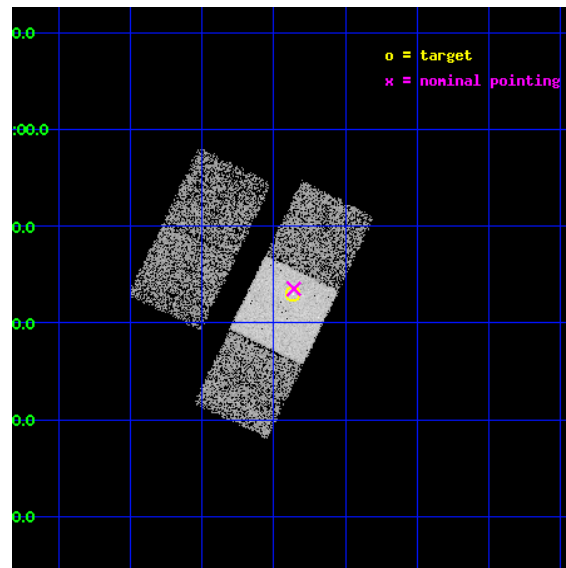
L2 Processing Date : Oct 27 2012

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Bias | 3 |
| 2.1.3 | Parameters | 4 |
| 2.1.4 | Events | 4 |
| 2.2 | Compared Parameters | 5 |
| 2.3 | Aspect | 6 |
| 2.4 | Star Slots | 9 |
| 2.4.1 | Slot 3 | 9 |
| 2.4.2 | Slot 4 | 10 |
| 2.4.3 | Slot 5 | 11 |
| 2.4.4 | Slot 6 | 12 |
| 2.4.5 | Slot 7 | 13 |
| 2.5 | FID Slots | 14 |
| 2.5.1 | Slot 0 | 14 |
| 2.5.2 | Slot 1 | 15 |
| 2.5.3 | Slot 2 | 16 |
| A | Summary | 17 |
| A.1 | Status | 17 |
| A.2 | Comments | 17 |

1 Front

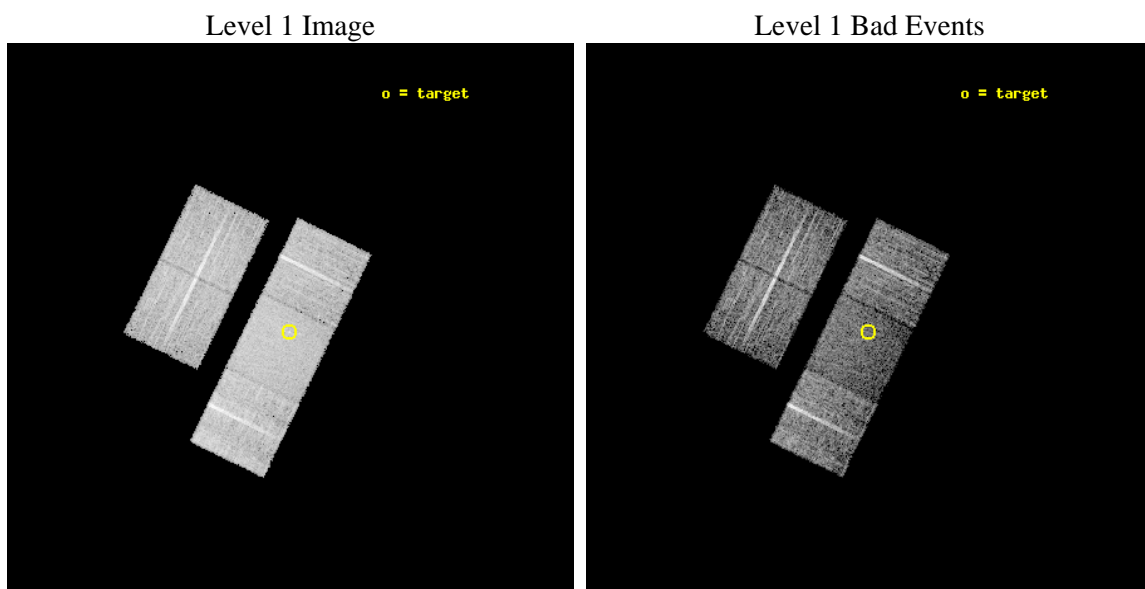
| | | |
|----------|---|---|
| seq_num | 700793 | Sequence number |
| obs_id | 4114 | Observation id |
| title | THE X-RAY PROPERTIES OF ULTRALUMINOUS INFRARED GALAXIES (ULIGS) | Pr |
| observer | Professor Andrew Wilson | Principal investigator |
| object | F17208-0014 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 260.8425 | Observer's specified target RA [deg] |
| dec_targ | -0.283917 | Observer's specified target Dec [deg] |
| ra_nom | 260.83984958095 | Nominal RA [deg] |
| dec_nom | -0.27465397956275 | Nominal Dec [deg] |
| roll_nom | 116.04990771785 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 9306.1999820769 | Sum of GTIs [s] |
| livetime | 9184.6076281863 | Livetime [s] |
| ontime2 | 9306.1999820769 | Sum of GTIs [s] |
| ontime3 | 9306.1999820769 | Sum of GTIs [s] |
| ontime6 | 9306.1999820769 | Sum of GTIs [s] |
| ontime7 | 9306.1999820769 | Sum of GTIs [s] |
| ontime8 | 9306.1999820769 | Sum of GTIs [s] |
| l2events | 44319 | Number of level 2 events |



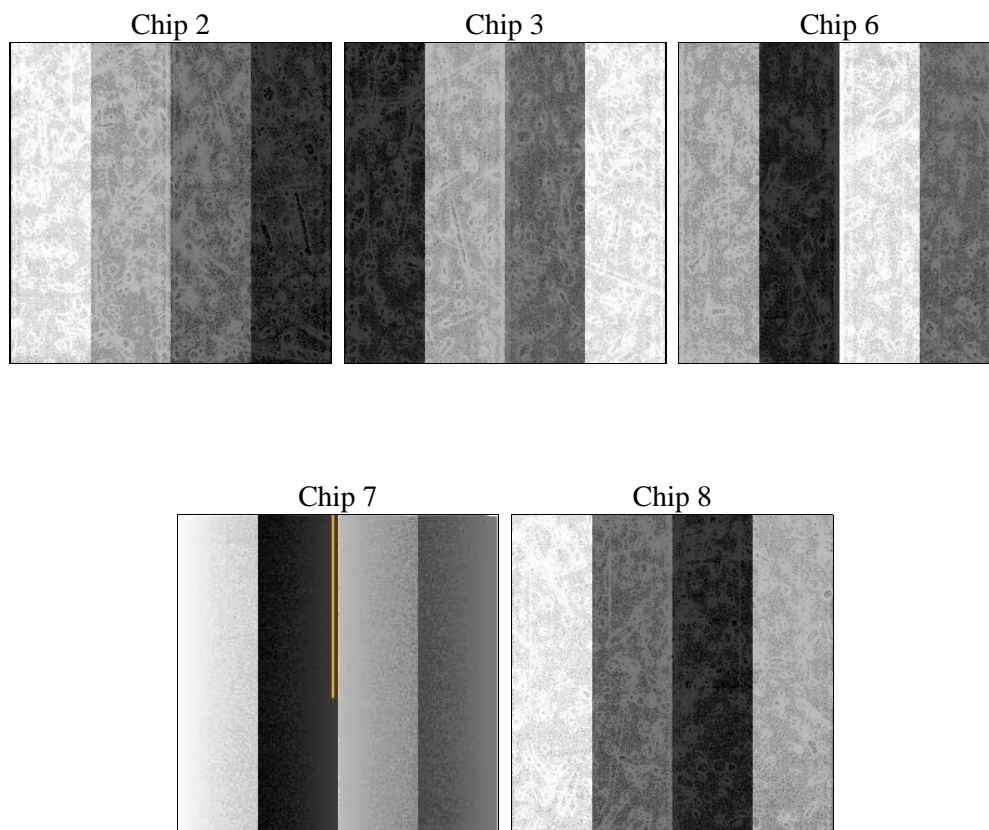
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 9200.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 9306.1999820769 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime2 | 9306.1999820769 | Sum of GTIs [s] |
| date | 2012-10-27T16:09:14 | Date and time of file creation | ontime3 | 9306.1999820769 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime6 | 9306.1999820769 | Sum of GTIs [s] |
| | | | ontime7 | 9306.1999820769 | Sum of GTIs [s] |
| | | | ontime8 | 9306.1999820769 | Sum of GTIs [s] |
| | | | l1events | 263934 | Number of level 1 events |

2.1.4 Events

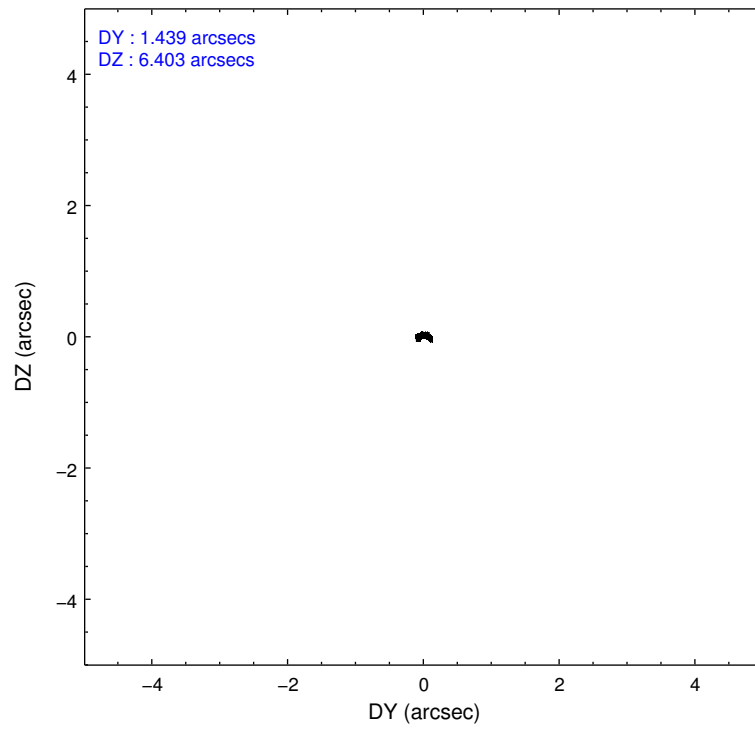
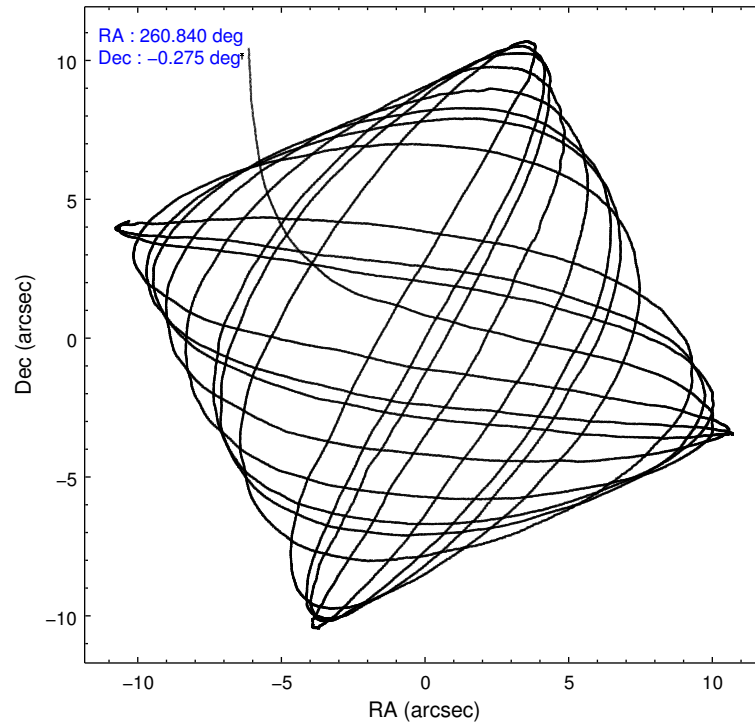
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|
| level 1 events | 48656 | 47495 | 49546 | 55877 | 62360 |
| rejected events | 43613 | 42634 | 44021 | 29367 | 48255 |
| rejected % | 89% | 89% | 88% | 52% | 77% |

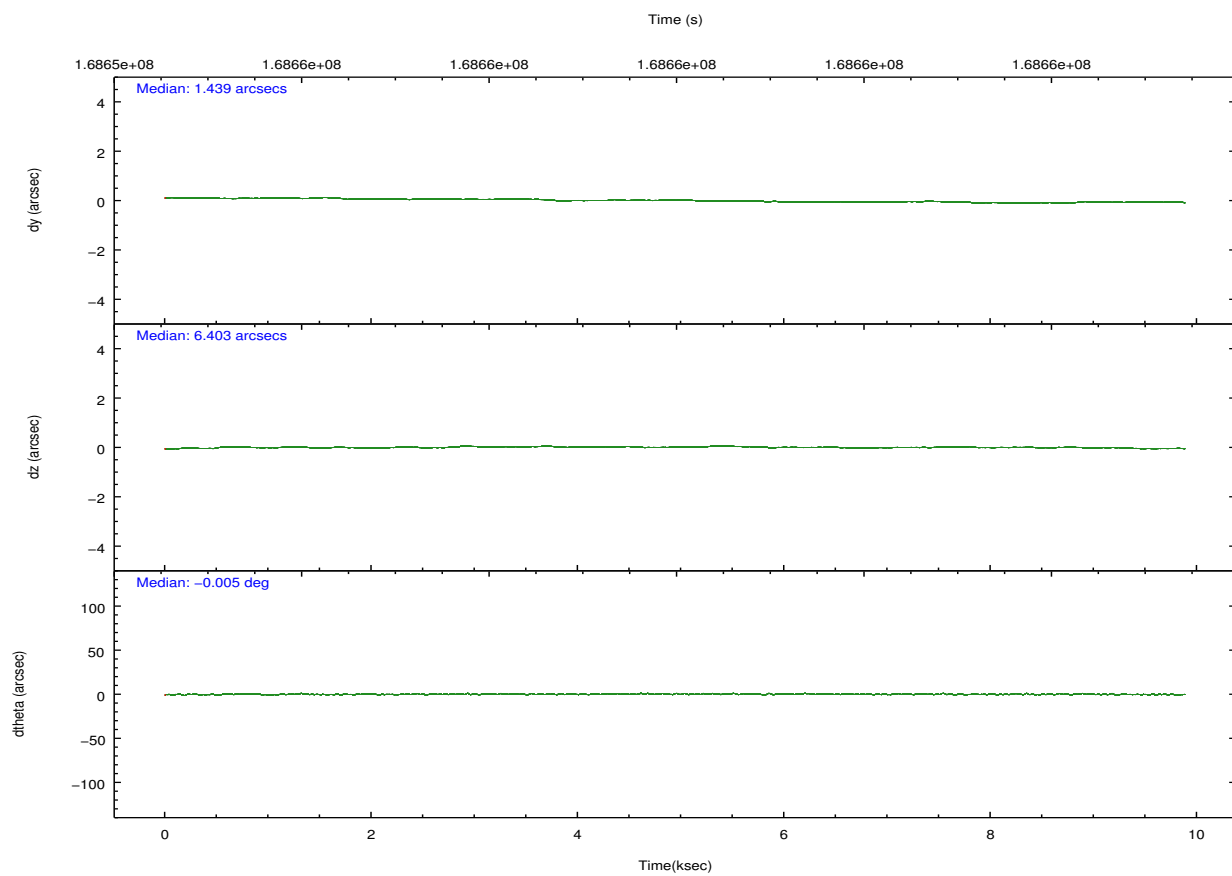
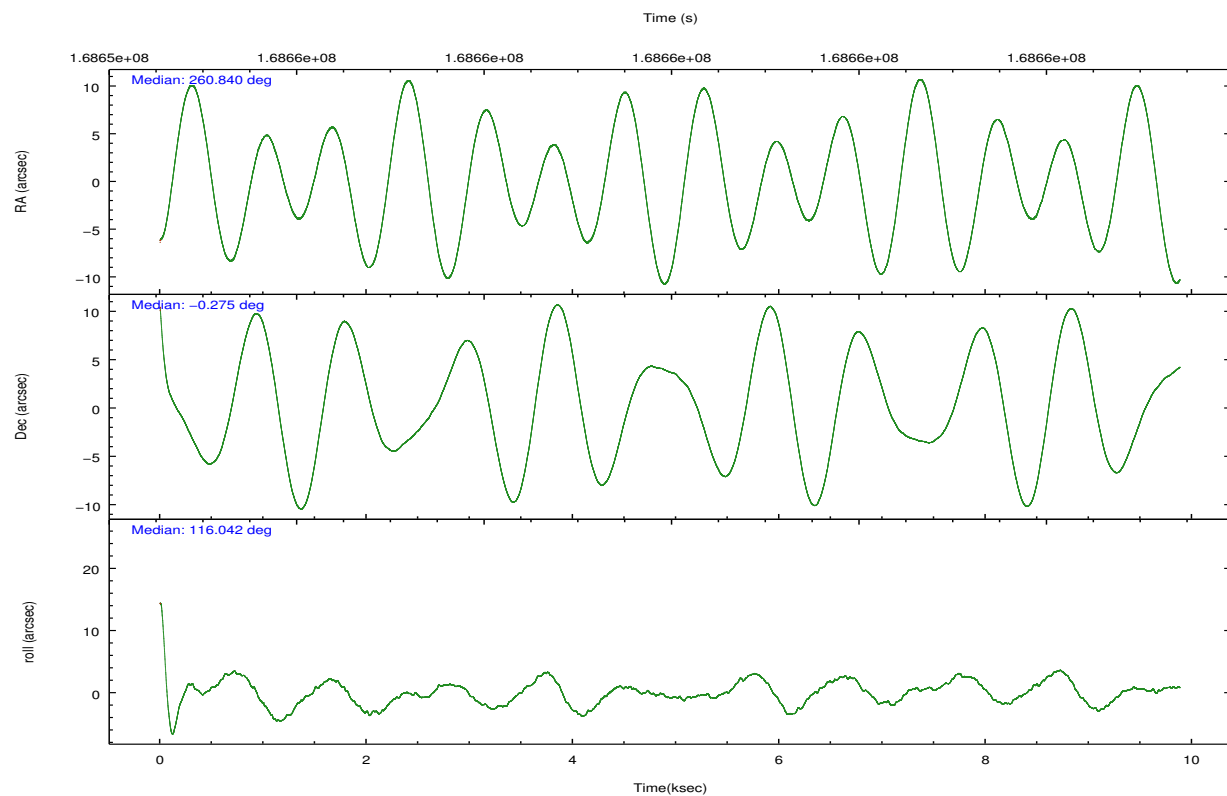
| | ccd 2 | ccd 3 | ccd 6 | ccd 7 | ccd 8 |
|----------------|-------|-------|-------|-------|-------|
| grade 0 events | 2003 | 1949 | 2245 | 2834 | 4523 |
| | 4% | 4% | 4% | 5% | 7% |
| grade 1 events | 19 | 24 | 22 | 45 | 46 |
| | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 1101 | 1001 | 1101 | 5104 | 3010 |
| | 2% | 2% | 2% | 9% | 4% |
| grade 3 events | 538 | 522 | 592 | 2613 | 1554 |
| | 1% | 1% | 1% | 4% | 2% |
| grade 4 events | 555 | 544 | 527 | 2581 | 1428 |
| | 1% | 1% | 1% | 4% | 2% |
| grade 5 events | 1488 | 1836 | 1948 | 5673 | 2662 |
| | 3% | 3% | 3% | 10% | 4% |
| grade 6 events | 847 | 845 | 1063 | 13383 | 3593 |
| | 1% | 1% | 2% | 23% | 5% |
| grade 7 events | 42105 | 40774 | 42048 | 23644 | 45544 |
| | 86% | 85% | 84% | 42% | 73% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-23678 | ACIS-23678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 260.862635 | 260.8398495809516 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -0.289520 | -0.2746539795627549 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 115.893368 | 116.0499077178524 | [s] Primary exposure time | 0.000000 | 3.1 |
| [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) | 168655729.184000 | 168654523.06285 | | | |
| Observation start date | 2003-05-07T00:47:45 | 2003-05-07T00:28:43 | | | |
| [s] Observation end time (MET) | 168664929.184000 | 168665396.26331 | | | |
| Observation end date | 2003-05-07T03:21:05 | 2003-05-07T03:29:56 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



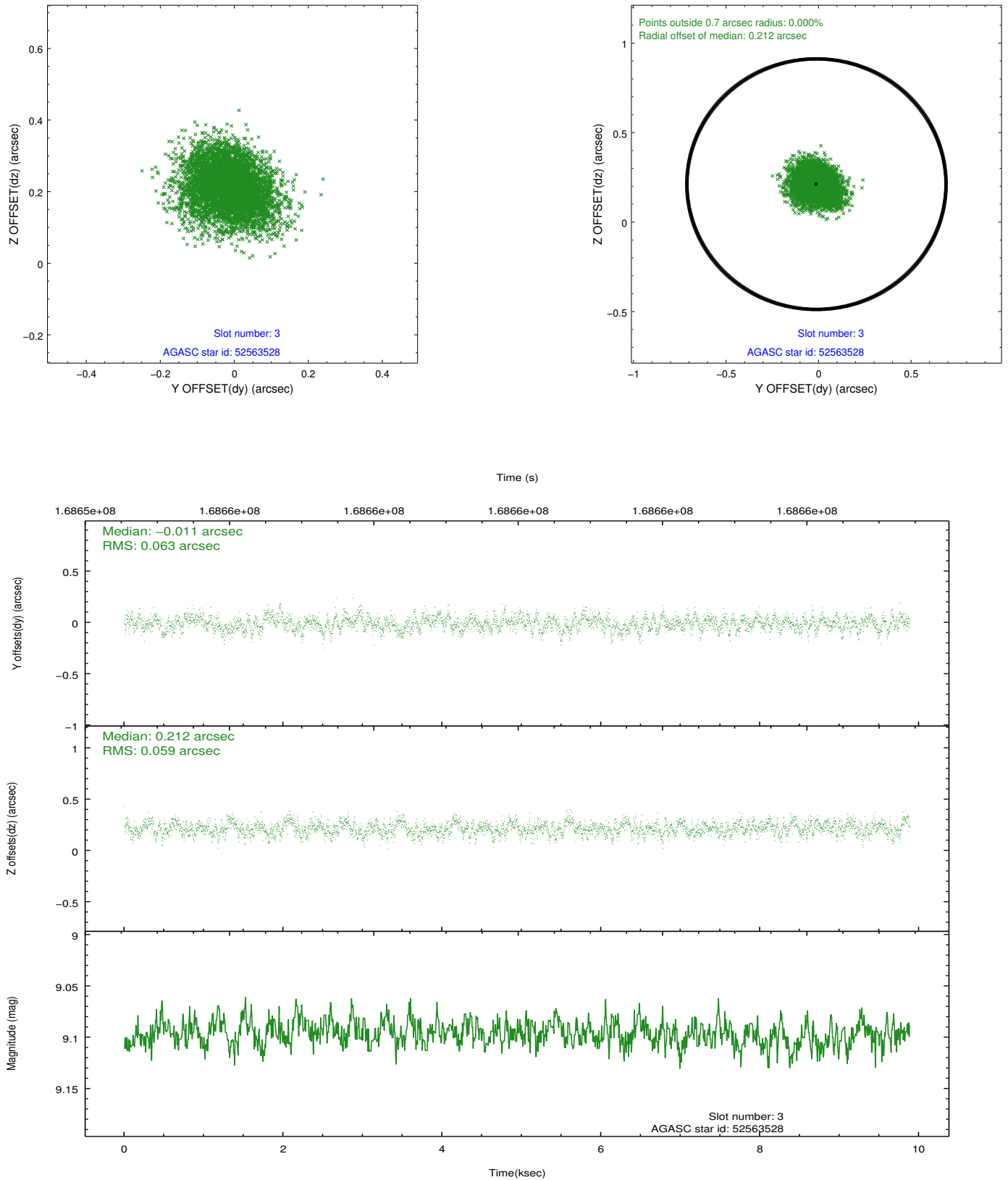


Slot Statistics

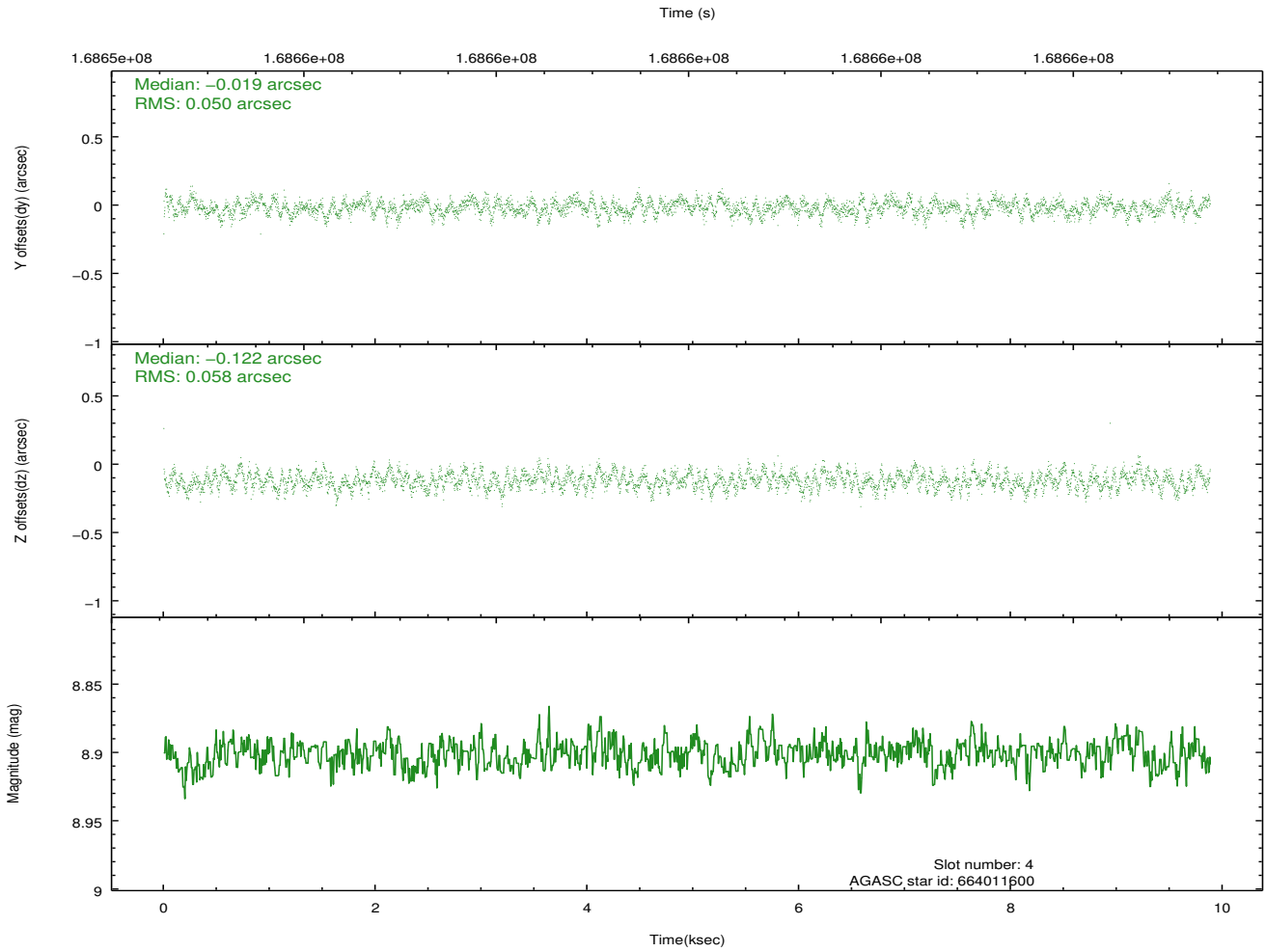
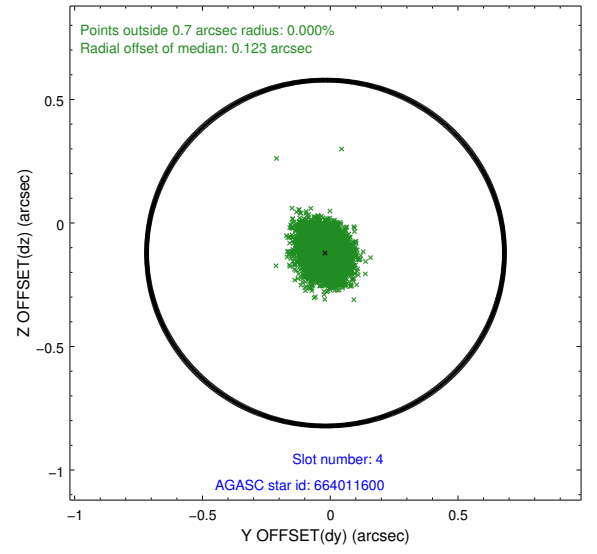
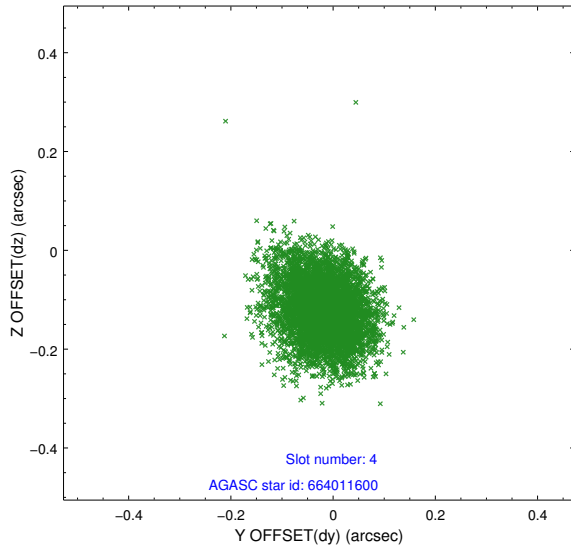
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 2411 | -0.063 | -0.006 | 0.007 | 0.012 | 0.000000 | 0.000000 | -754.07 | -1727.57 |
| 1 | FID | ACIS-S-4 | 7.21 | 2411 | 0.027 | 0.032 | 0.006 | 0.010 | 0.000000 | 0.000000 | 2159.02 | 180.45 |
| 2 | FID | ACIS-S-5 | 7.24 | 2411 | 0.005 | -0.017 | 0.006 | 0.011 | 0.000000 | 0.000000 | -1806.19 | 174.61 |
| 3 | GUIDE | 52563528 | 9.10 | 4820 | -0.011 | 0.212 | 0.093 | 0.149 | 261.026194 | 0.511271 | 2336.85 | -1788.11 |
| 4 | GUIDE | 664011600 | 8.90 | 4819 | -0.019 | -0.122 | 0.082 | 0.131 | 260.243376 | -0.230998 | 1163.55 | 1913.36 |
| 5 | GUIDE | 664013280 | 8.61 | 4818 | 0.142 | -0.193 | 0.066 | 0.106 | 260.370956 | -0.768322 | -777.67 | 2345.11 |
| 6 | GUIDE | 664015800 | 9.13 | 4822 | -0.104 | -0.154 | 0.081 | 0.128 | 260.129461 | -0.165769 | 1553.02 | 2180.78 |
| 7 | GUIDE | 664149304 | 9.28 | 4820 | -0.004 | 0.251 | 0.110 | 0.169 | 261.553964 | -0.165151 | -683.25 | -2433.66 |

2.4 Star Slots

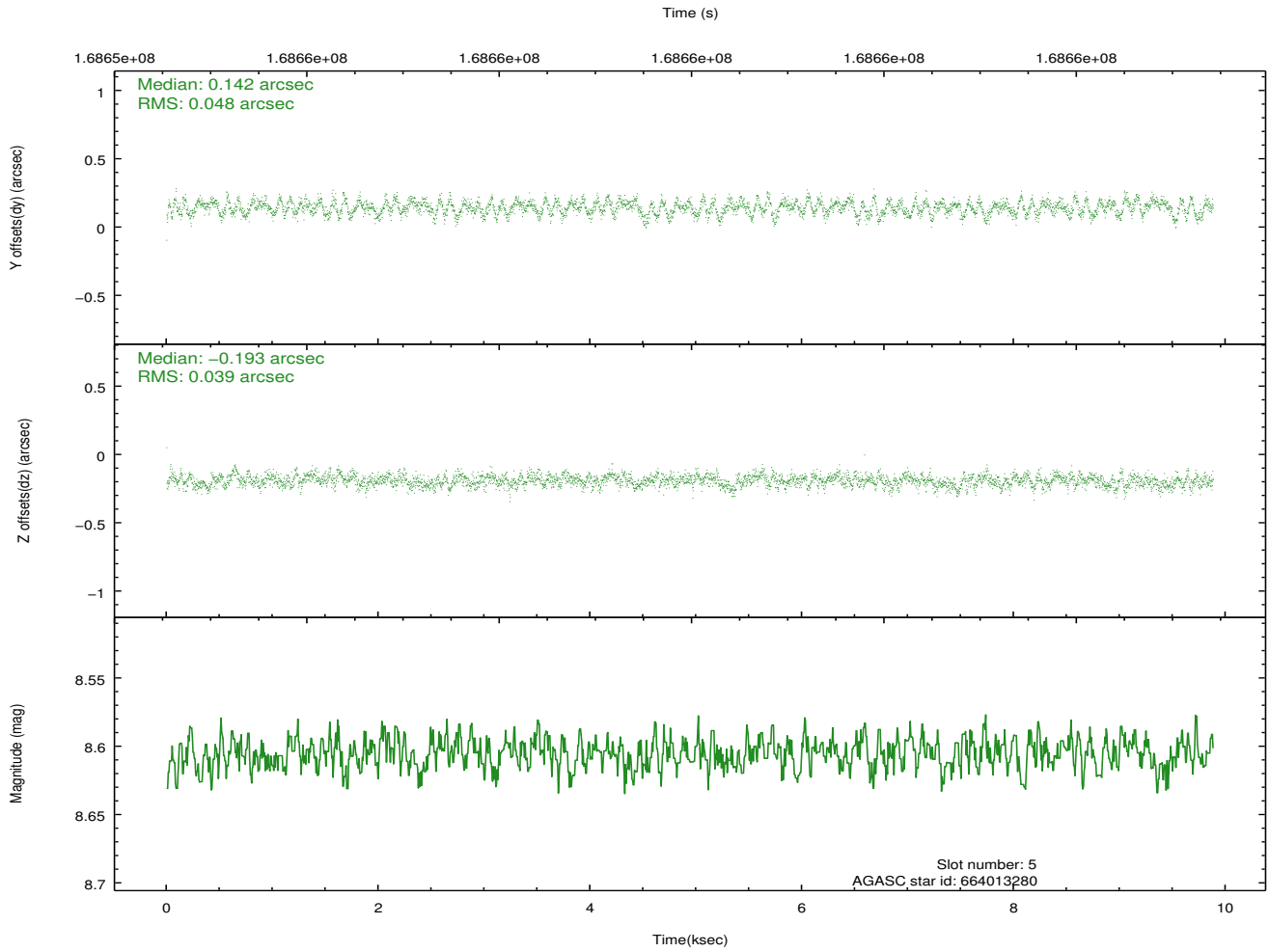
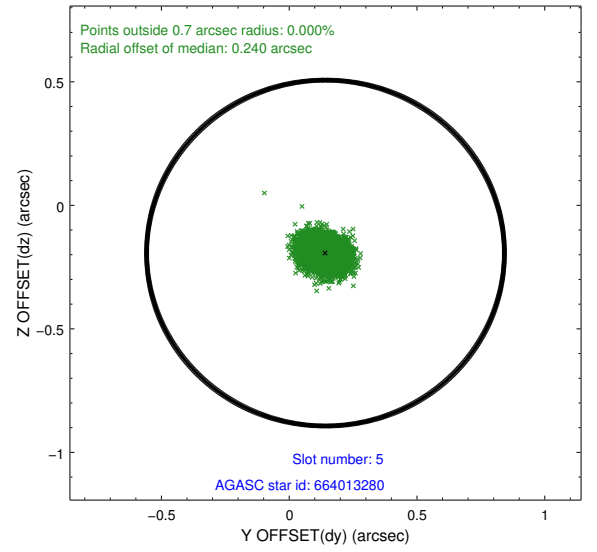
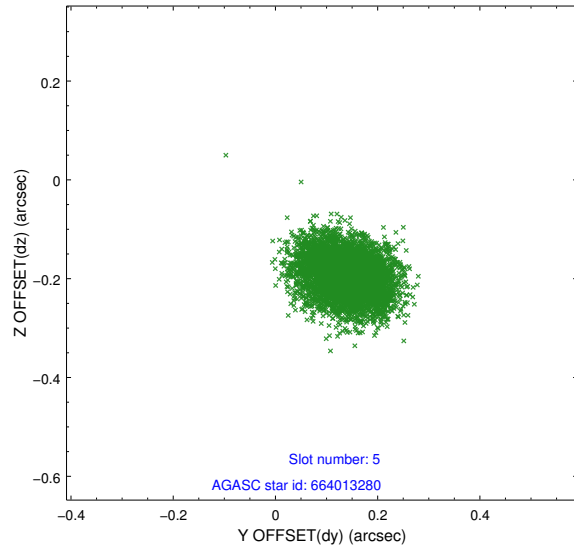
2.4.1 Slot 3



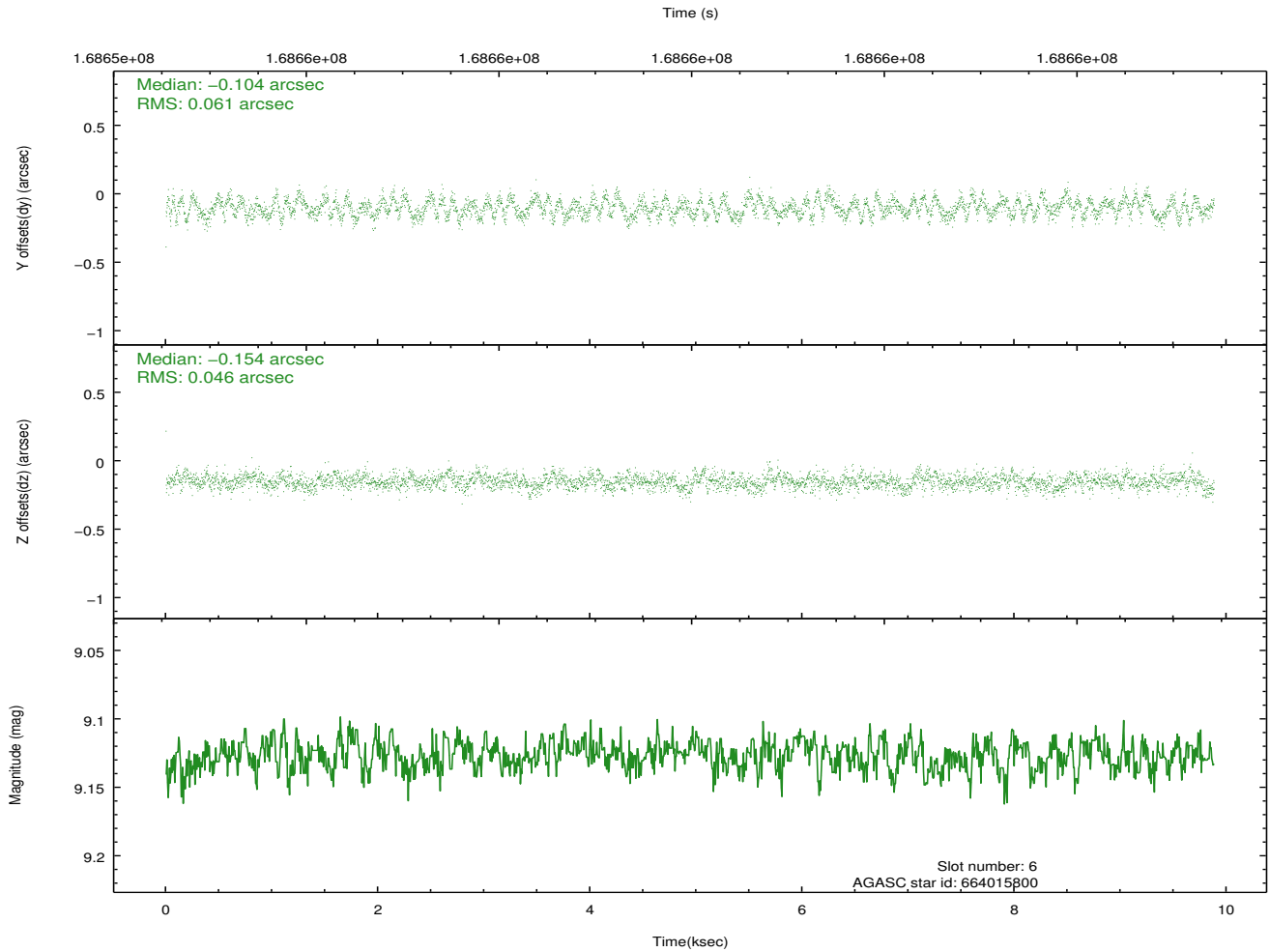
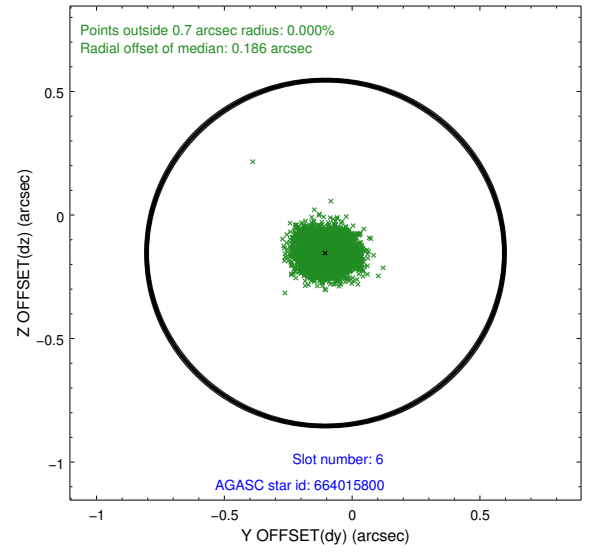
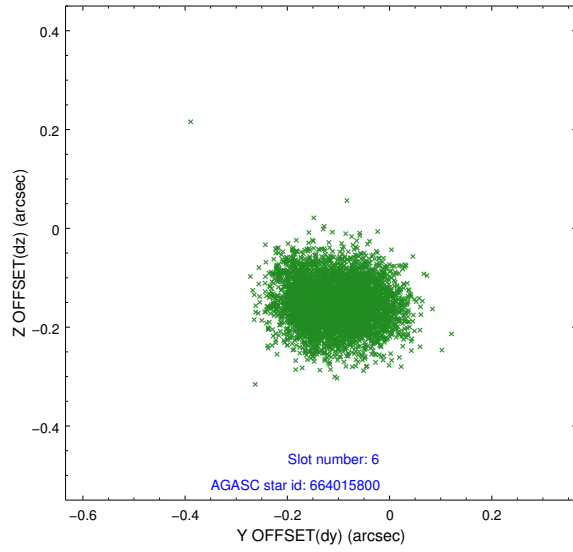
2.4.2 Slot 4



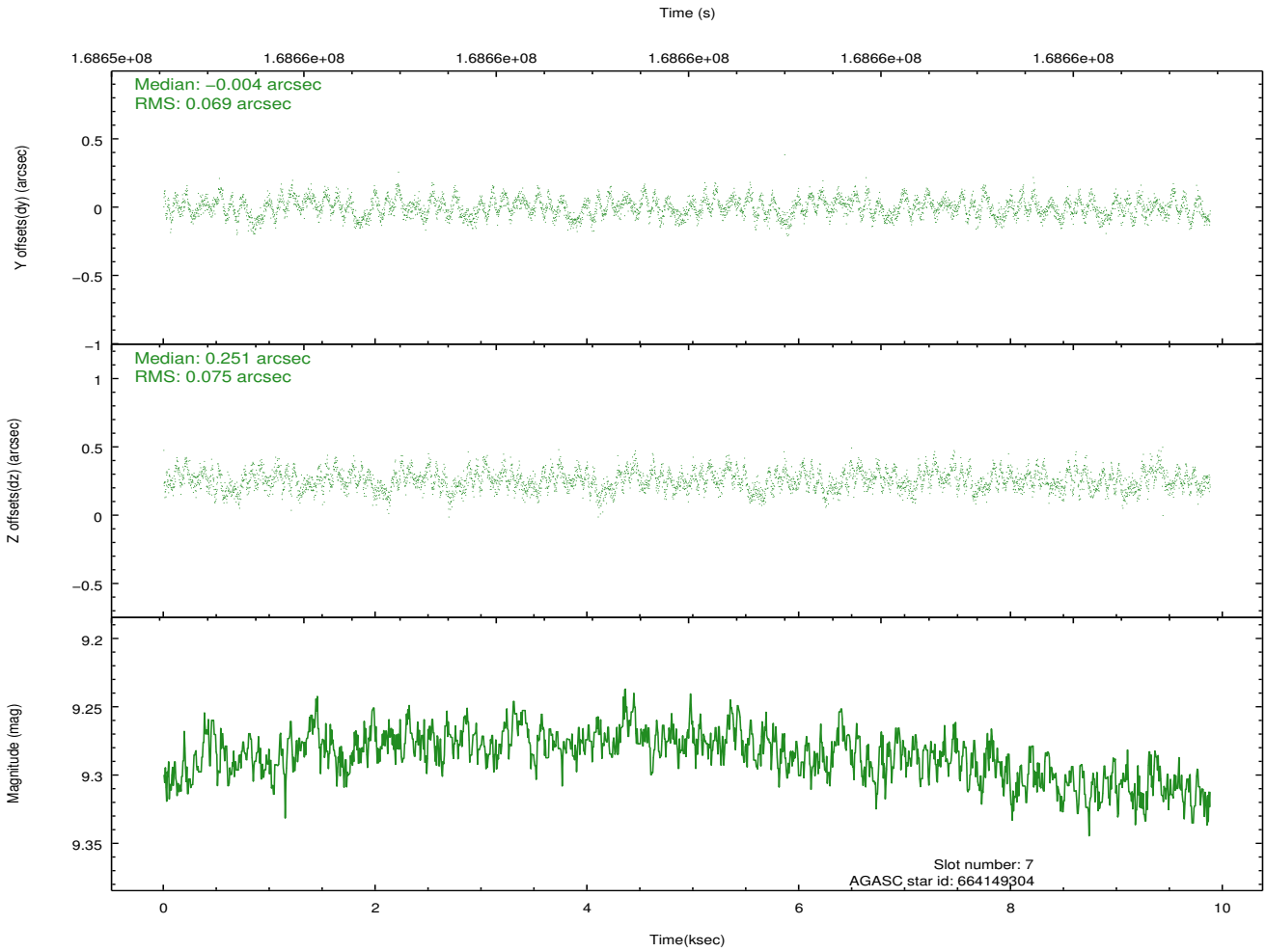
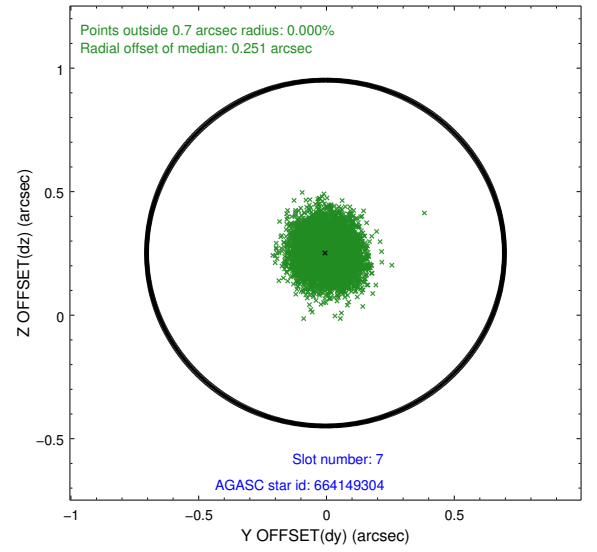
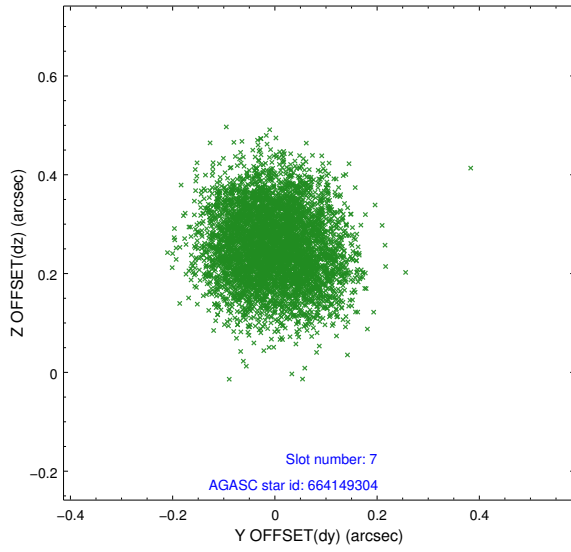
2.4.3 Slot 5



2.4.4 Slot 6

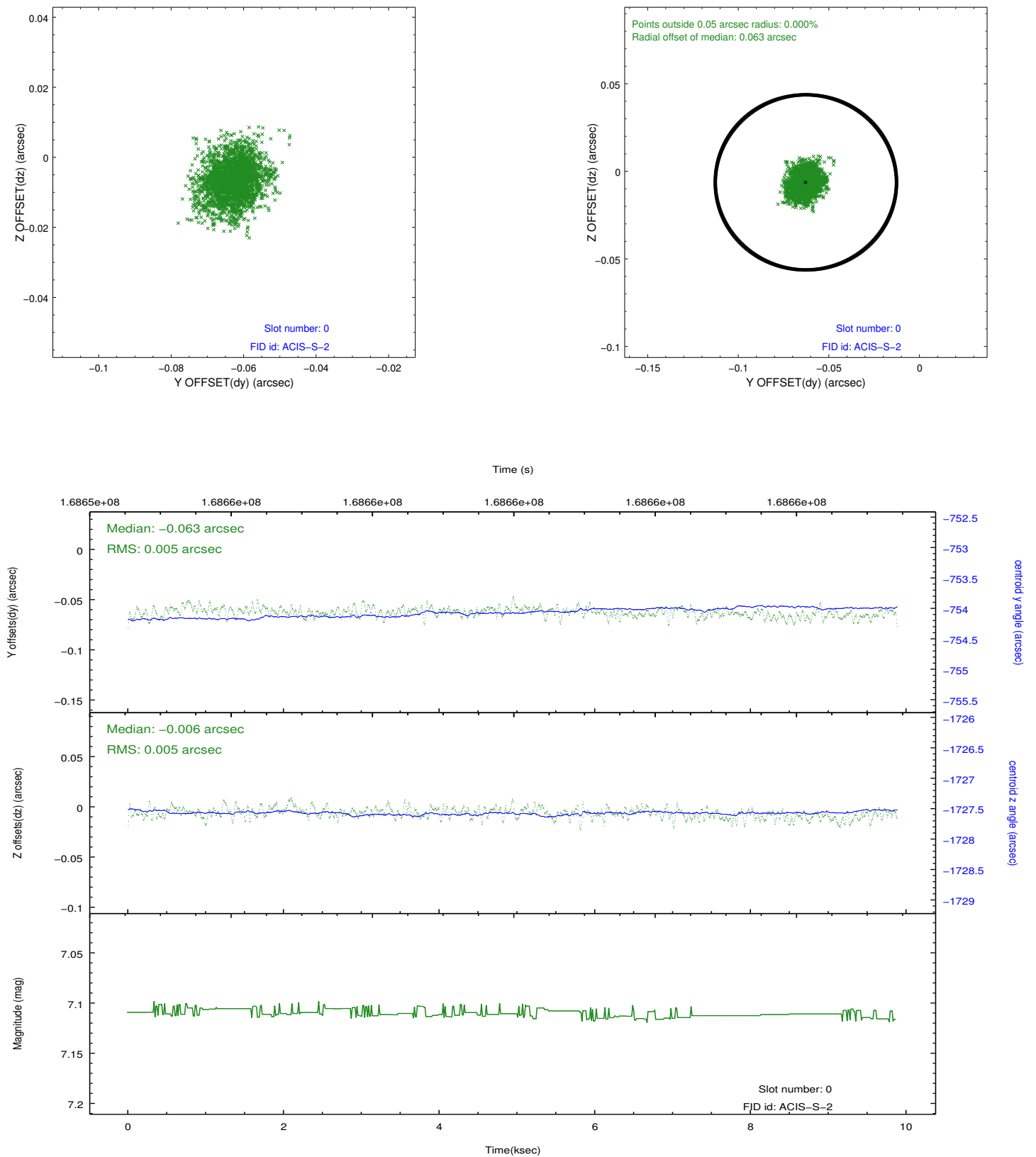


2.4.5 Slot 7

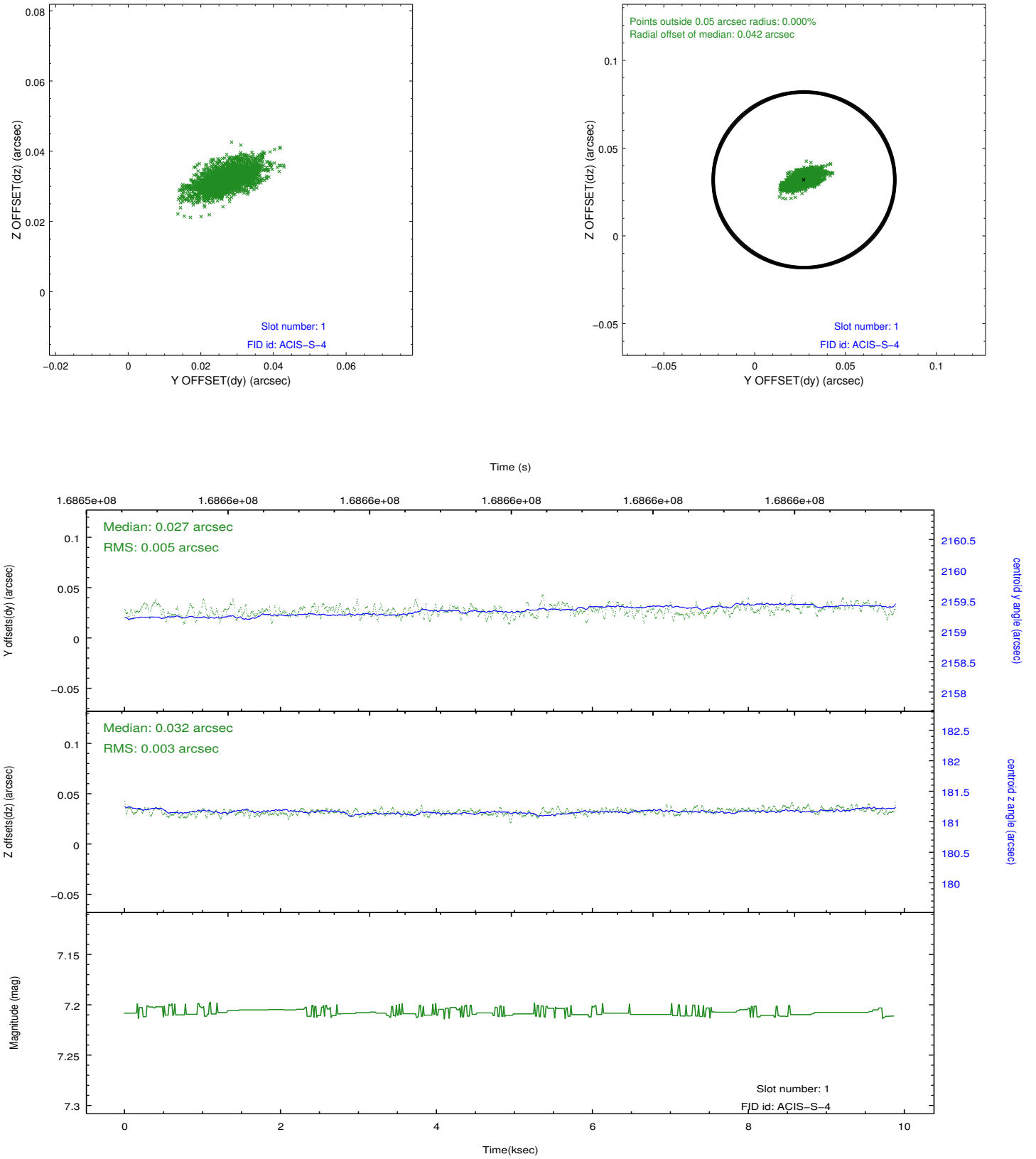


2.5 FID Slots

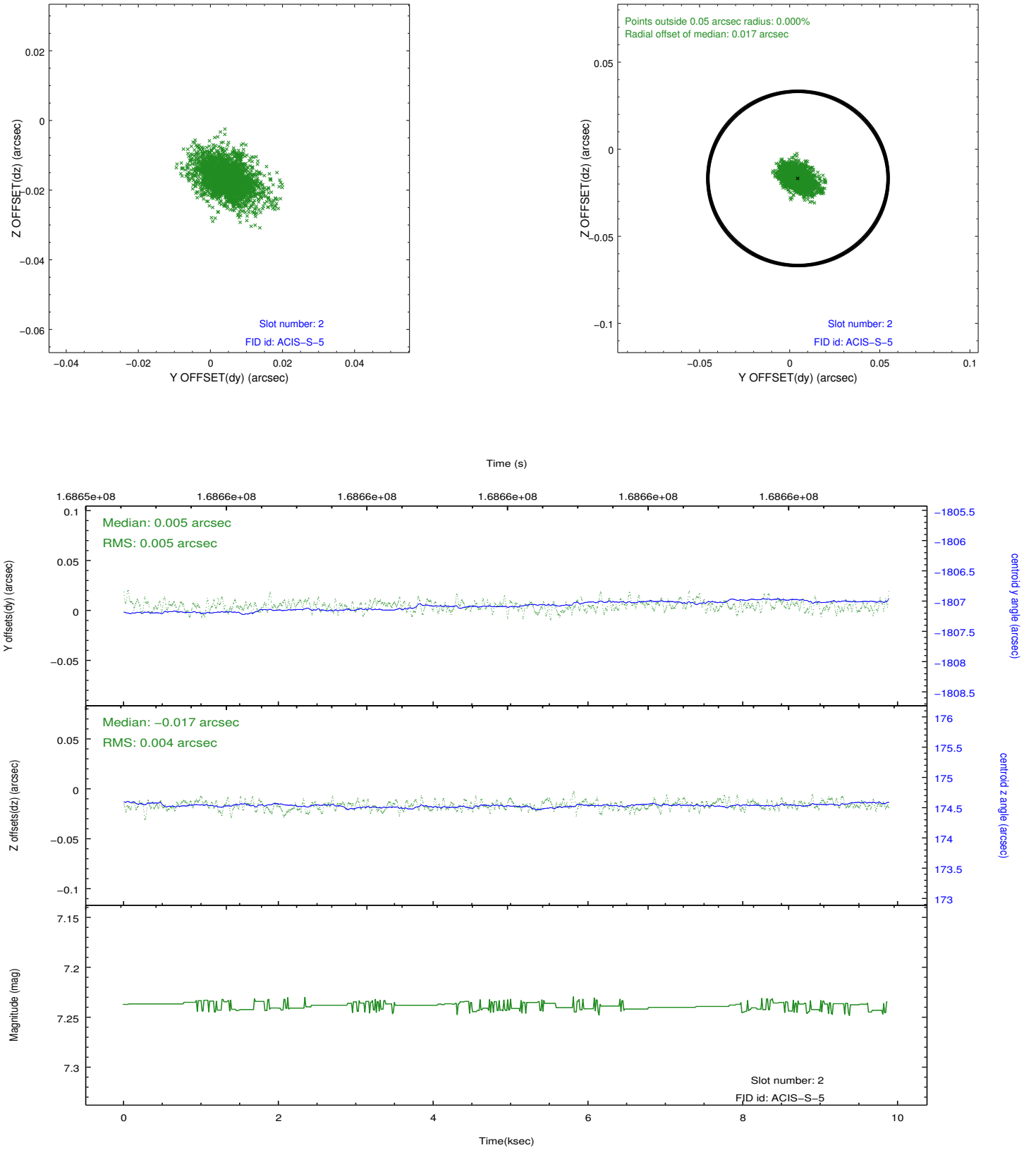
2.5.1 Slot 0



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) | 2012.11.14 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 9.309 |

A.2 Comments