

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2692 - L2 Version 3
Chandra X-Ray Center

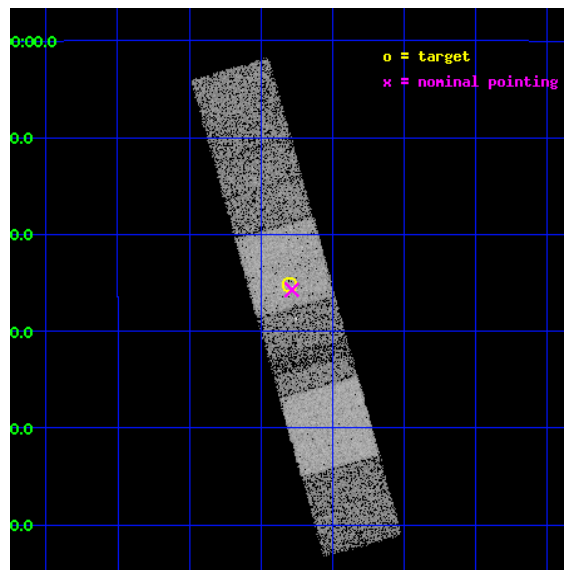
L2 Processing Date : Oct 13 2012

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Parameters | 4 |
| 2.1.3 | 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

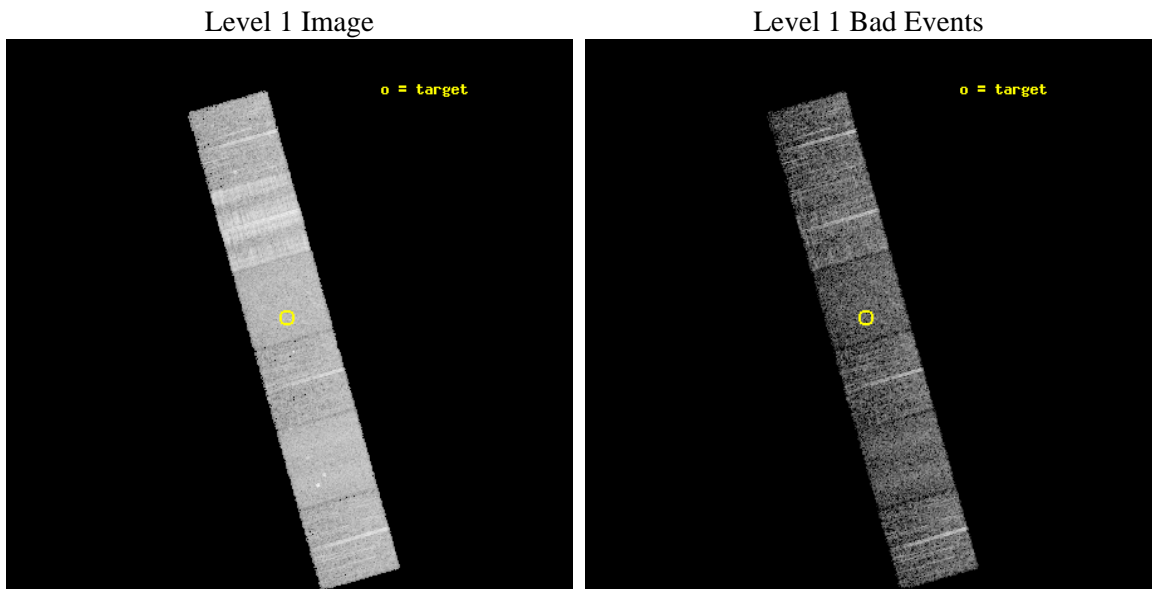
| | | |
|----------|--|---|
| seq_num | 400172 | Sequence number |
| obs_id | 2692 | Observation id |
| title | OBSERVATIONS OF THE TRANSIENT X-RAY PULSAR 2S 1845-024 | Proposal ti |
| observer | Dr. Mark Finger | Principal investigator |
| object | 2S 1845-024 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 282.075 | Observer's specified target RA [deg] |
| dec_targ | -2.42 | Observer's specified target Dec [deg] |
| ra_nom | 282.07085919854 | Nominal RA [deg] |
| dec_nom | -2.4286907424325 | Nominal Dec [deg] |
| roll_nom | 254.19635978531 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 4956.7999815345 | Sum of GTIs [s] |
| livetime | 4894.0339955417 | Livetime [s] |
| ontime4 | 4956.7999815345 | Sum of GTIs [s] |
| ontime5 | 4956.7999815345 | Sum of GTIs [s] |
| ontime6 | 4956.7999815345 | Sum of GTIs [s] |
| ontime7 | 4956.7999815345 | Sum of GTIs [s] |
| ontime8 | 4956.7999815345 | Sum of GTIs [s] |
| ontime9 | 4956.7999815345 | Sum of GTIs [s] |
| l2events | 63566 | Number of level 2 events |



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 1 | Obi number | sched_exp_time | 5000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 4956.7999815345 | Sum of GTIs [s] |
| caldsver | 4.5.2 | | ontime4 | 4956.7999815345 | Sum of GTIs [s] |
| date | 2012-10-14T00:32:14 | Date and time of file creation | ontime5 | 4956.7999815345 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime6 | 4956.7999815345 | Sum of GTIs [s] |
| | | | ontime7 | 4956.7999815345 | Sum of GTIs [s] |
| | | | ontime8 | 4956.7999815345 | Sum of GTIs [s] |
| | | | ontime9 | 4956.7999815345 | Sum of GTIs [s] |
| | | | l1events | 291465 | Number of level 1 events |

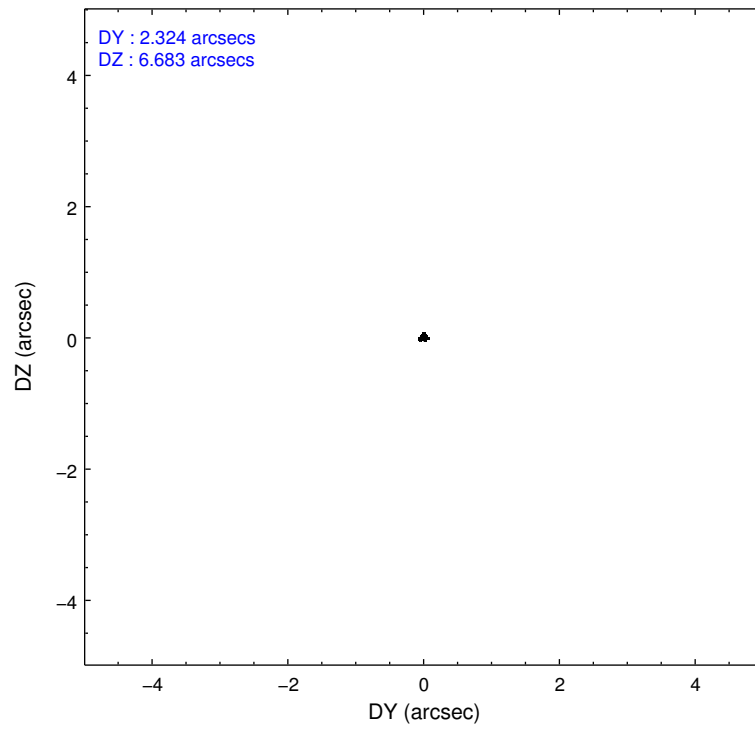
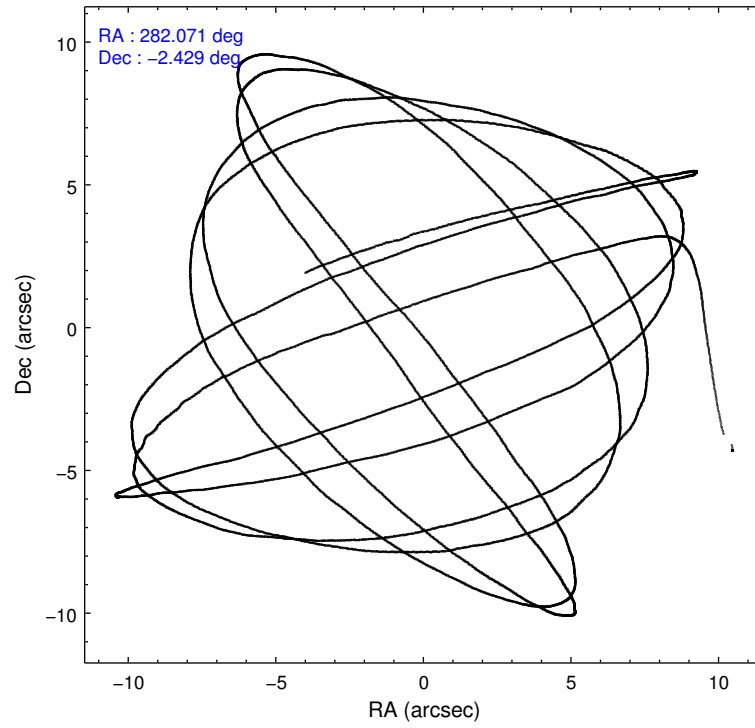
2.1.3 Events

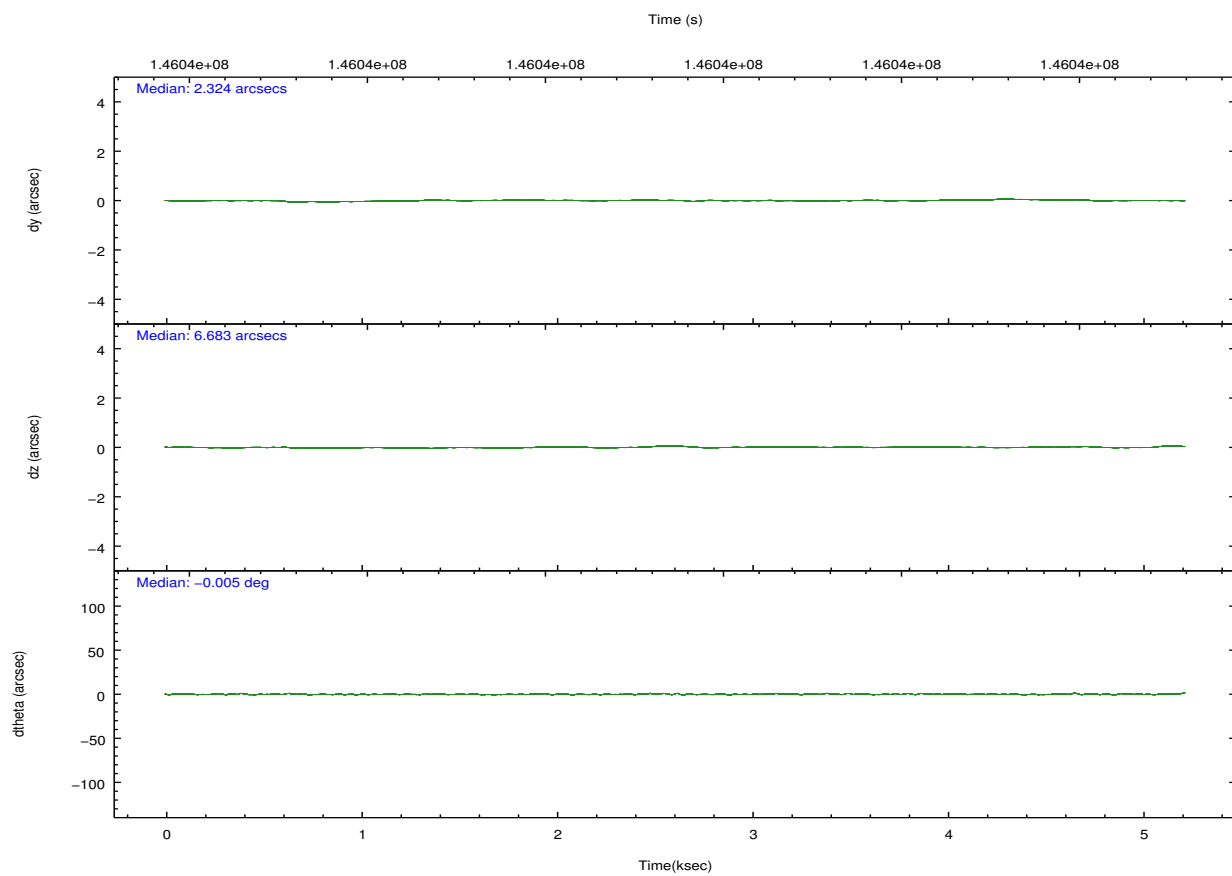
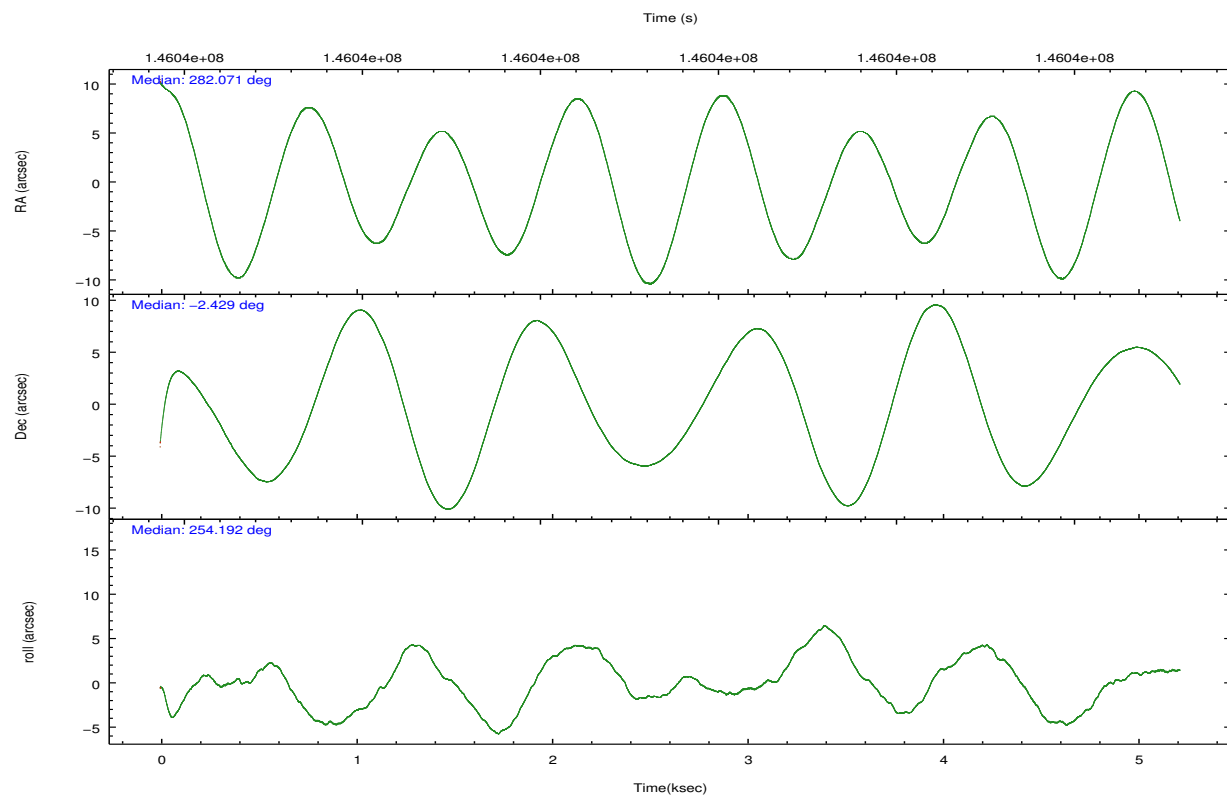
| | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 | | ccd 4 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | ccd 9 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 43389 | 49893 | 38421 | 44241 | 76904 | 38617 | grade 0 events | 2329 | 1869 | 2258 | 1165 | 13531 | 2042 |
| rejected events | 35121 | 27677 | 31283 | 26266 | 37645 | 31291 | | 5% | 3% | 5% | 2% | 17% | 5% |
| rejected % | 80% | 55% | 81% | 59% | 48% | 81% | grade 1 events | 26 | 72 | 14 | 30 | 116 | 13 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 3613 | 6550 | 2737 | 4522 | 6168 | 3026 |
| | | | | | | | | 8% | 13% | 7% | 10% | 8% | 7% |
| | | | | | | | grade 3 events | 302 | 760 | 323 | 1007 | 6814 | 311 |
| | | | | | | | | 0% | 1% | 0% | 2% | 8% | 0% |
| | | | | | | | grade 4 events | 315 | 728 | 323 | 989 | 6019 | 320 |
| | | | | | | | | 0% | 1% | 0% | 2% | 7% | 0% |
| | | | | | | | grade 5 events | 915 | 2195 | 1203 | 2703 | 1705 | 1143 |
| | | | | | | | | 2% | 4% | 3% | 6% | 2% | 2% |
| | | | | | | | grade 6 events | 1715 | 12321 | 1502 | 10301 | 6742 | 1632 |
| | | | | | | | | 3% | 24% | 3% | 23% | 8% | 4% |
| | | | | | | | grade 7 events | 34174 | 25398 | 30061 | 23524 | 35809 | 30130 |
| | | | | | | | | 78% | 50% | 78% | 53% | 46% | 78% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-456789 | ACIS-456789 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | GRADED | GRADED | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 282.063726 | 282.0708591985419 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -2.402389 | -2.428690742432455 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 254.039419 | 254.1963597853142 | [s] Primary exposure time | 0.000000 | 3.2 |
| [s] Window start time (MET) | 144201664.184000 | 144201664.184000 | | | |
| [s] Window stop time (MET) | 146793664.184000 | 146793664.184000 | | | |
| [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) | 146039330.184000 | 146038355.80539 | | | |
| Observation start date | 2002-08-18T06:27:46 | 2002-08-18T06:12:35 | | | |
| [s] Observation end time (MET) | 146044330.184000 | 146044628.80564 | | | |
| Observation end date | 2002-08-18T07:51:06 | 2002-08-18T07:57:08 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



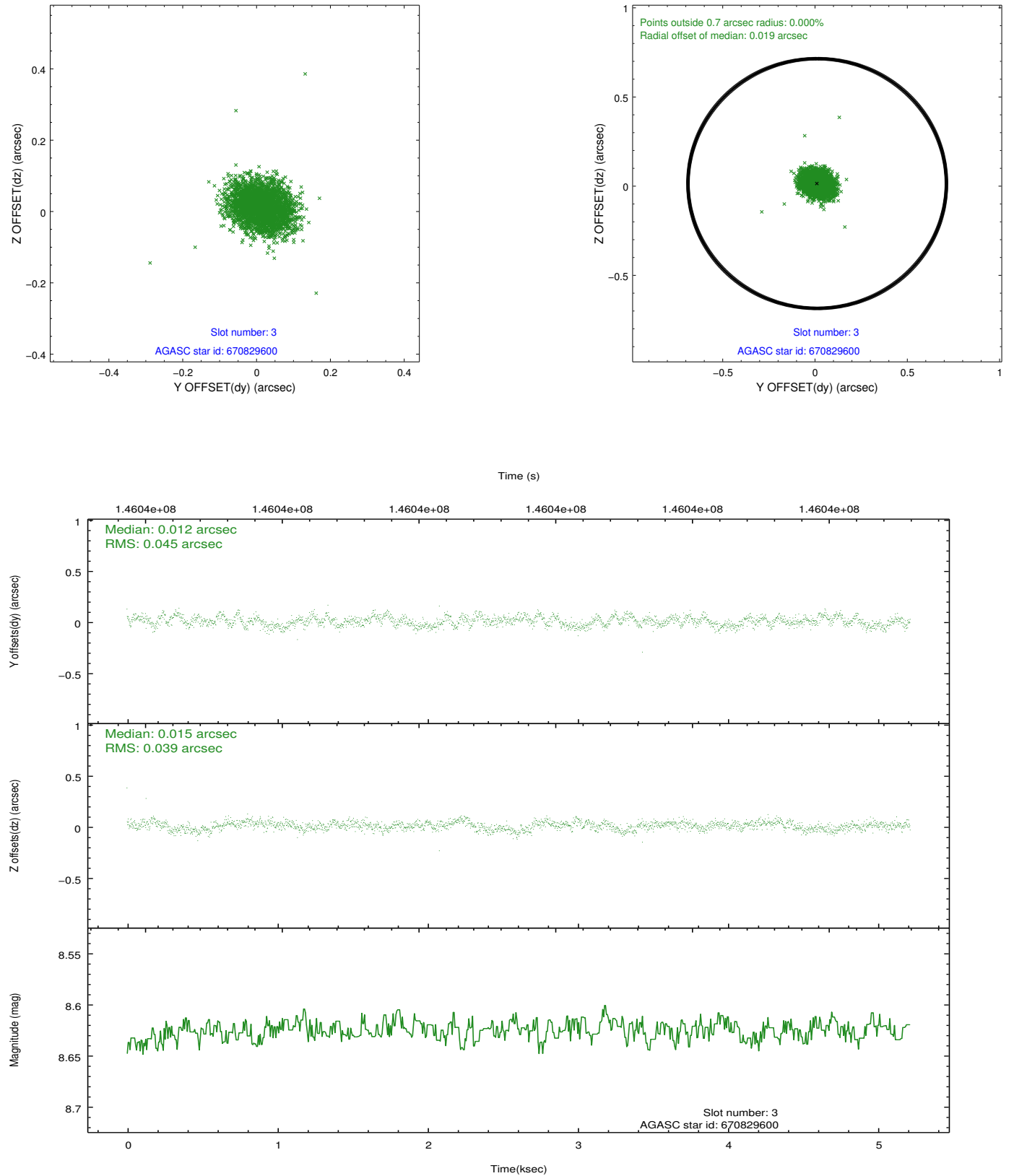


Slot Statistics

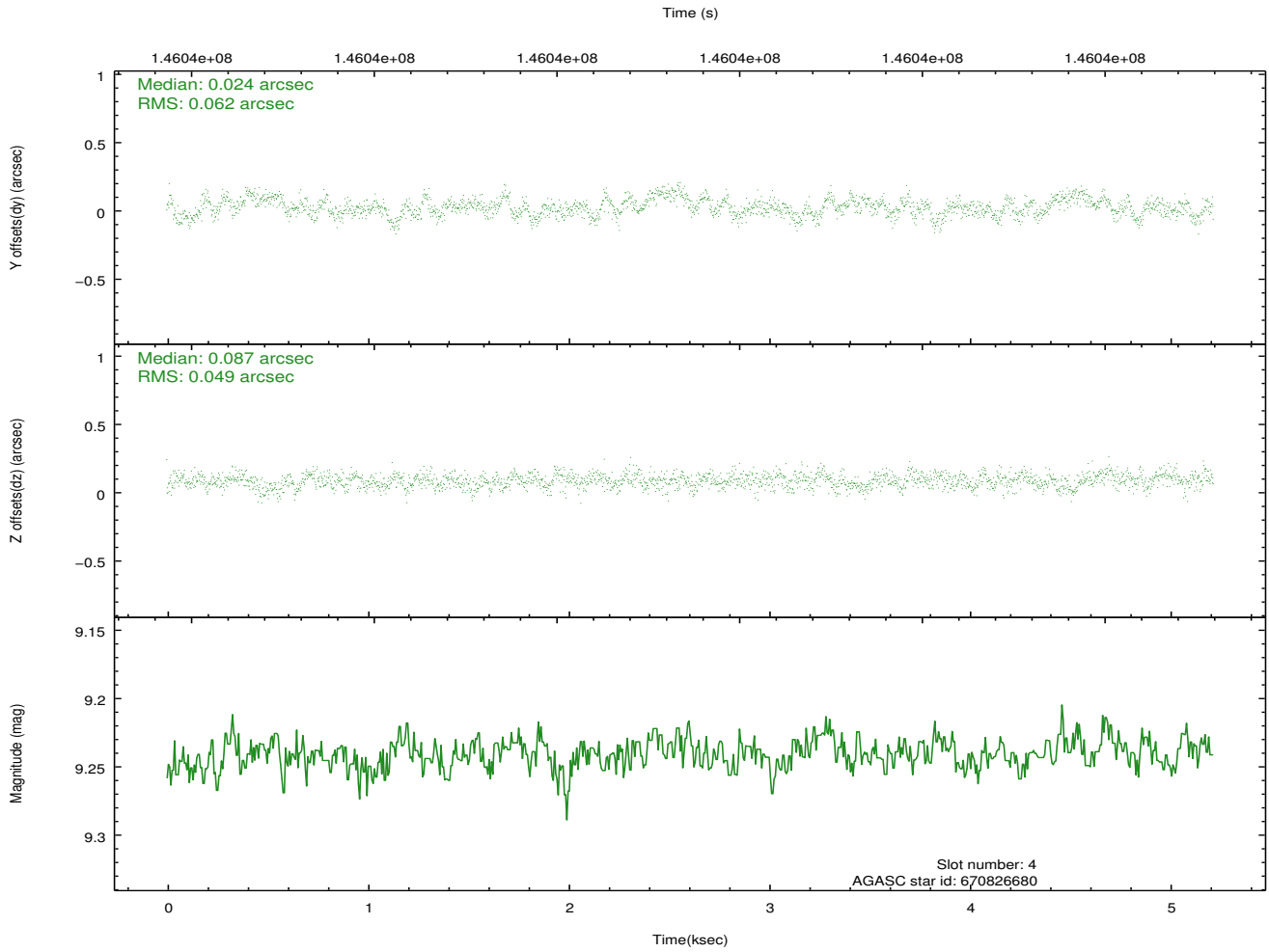
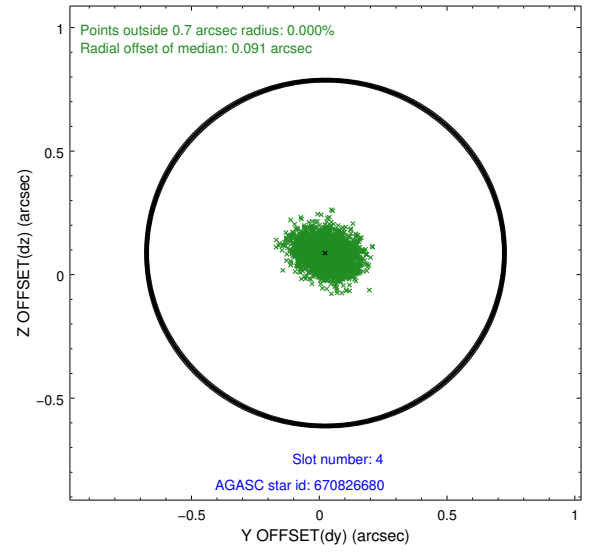
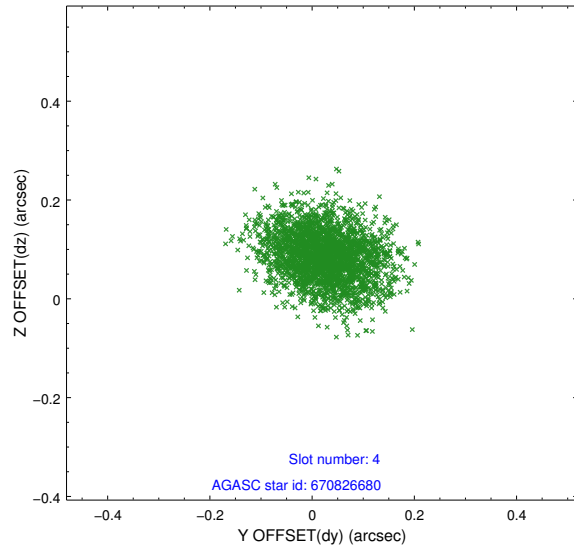
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.12 | 1273 | -0.031 | 0.010 | 0.007 | 0.011 | 0.000000 | 0.000000 | -754.96 | -1727.84 |
| 1 | FID | ACIS-S-4 | 7.20 | 1273 | -0.028 | 0.013 | 0.005 | 0.009 | 0.000000 | 0.000000 | 2157.78 | 179.48 |
| 2 | FID | ACIS-S-5 | 7.24 | 1273 | 0.028 | -0.014 | 0.007 | 0.012 | 0.000000 | 0.000000 | -1806.27 | 174.40 |
| 3 | GUIDE | 670829600 | 8.62 | 2546 | 0.012 | 0.015 | 0.064 | 0.100 | 282.227270 | -3.031765 | 2016.41 | 1187.51 |
| 4 | GUIDE | 670826680 | 9.24 | 2545 | 0.024 | 0.087 | 0.084 | 0.137 | 282.619566 | -2.432067 | -446.28 | 1951.13 |
| 5 | GUIDE | 670829768 | 7.53 | 2546 | -0.082 | 0.009 | 0.063 | 0.095 | 281.927934 | -2.010470 | -1222.65 | -858.05 |
| 6 | GUIDE | 670828544 | 9.73 | 2523 | -0.028 | -0.037 | 0.113 | 0.191 | 281.777864 | -2.435541 | 396.85 | -957.13 |
| 7 | GUIDE | 670827744 | 9.52 | 2545 | 0.083 | -0.076 | 0.092 | 0.150 | 281.699180 | -2.020401 | -961.29 | -1640.67 |

2.4 Star Slots

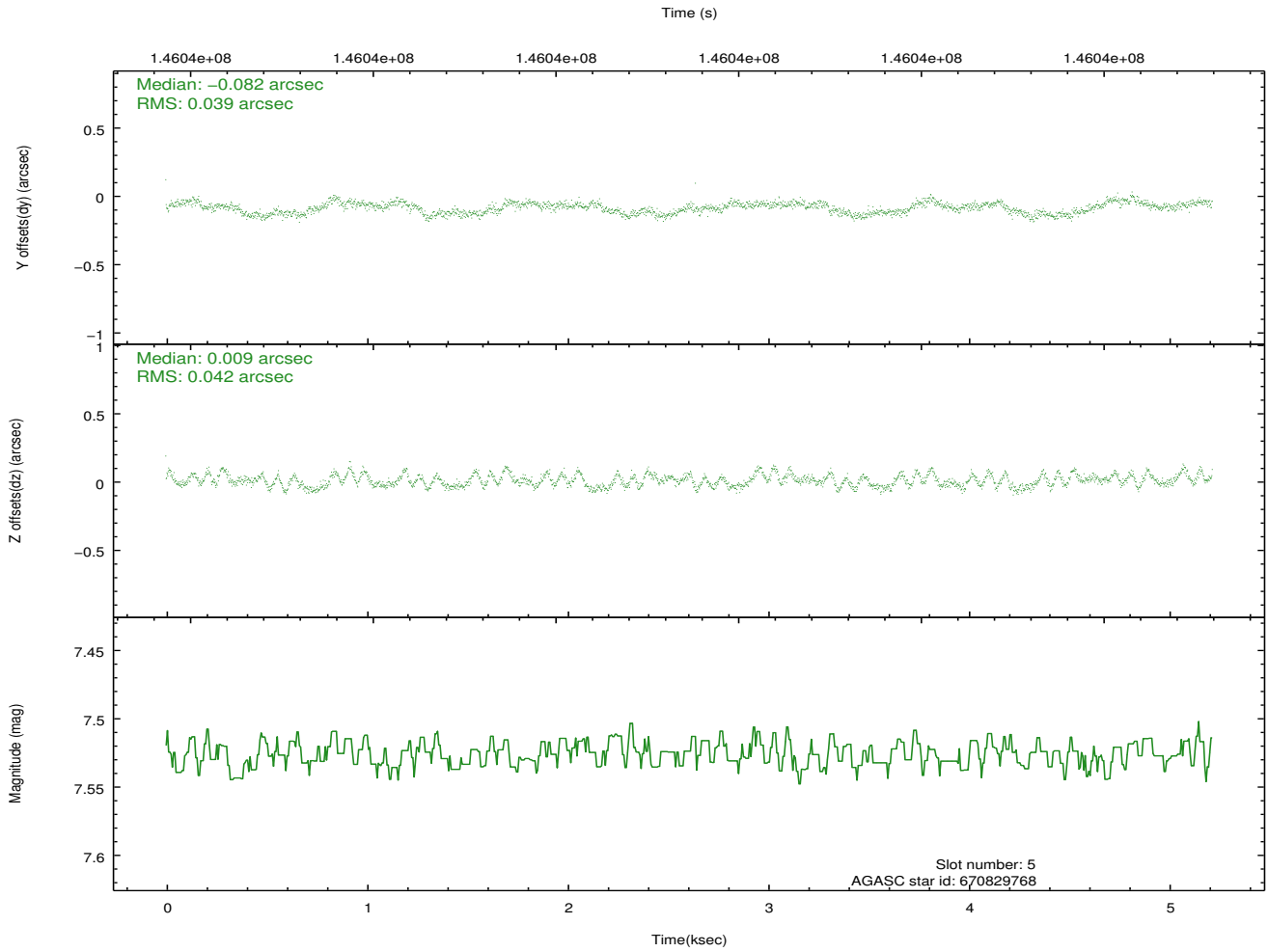
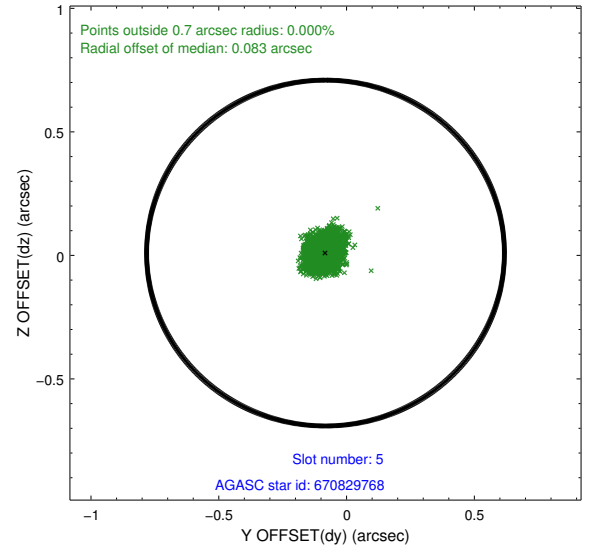
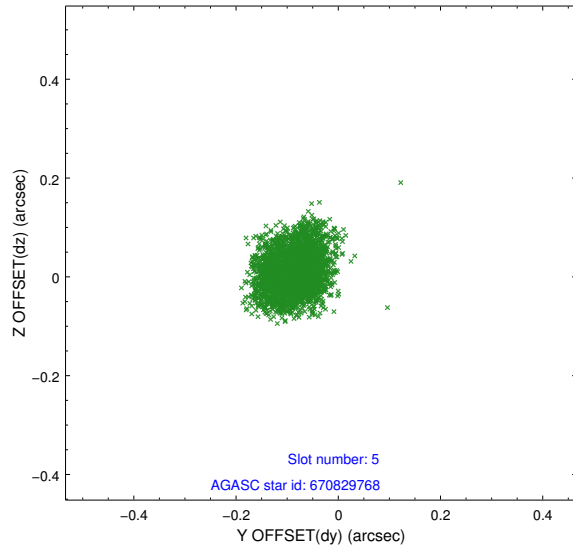
2.4.1 Slot 3



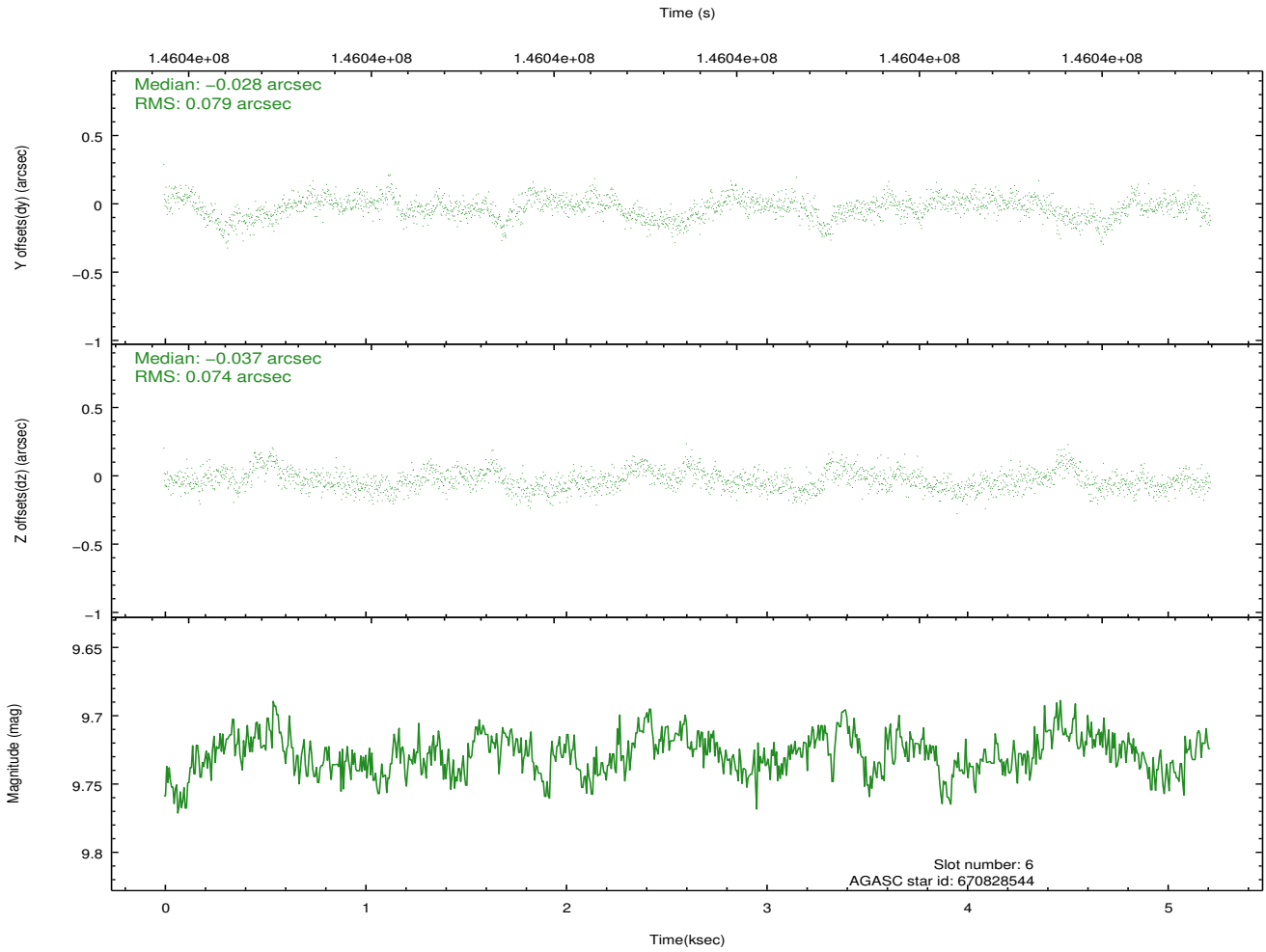
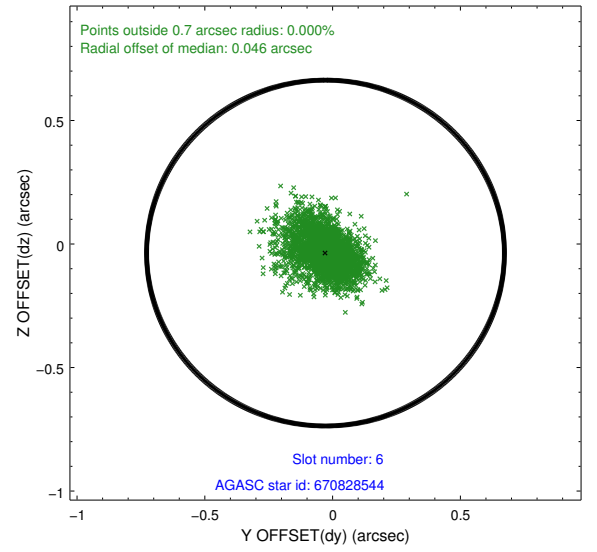
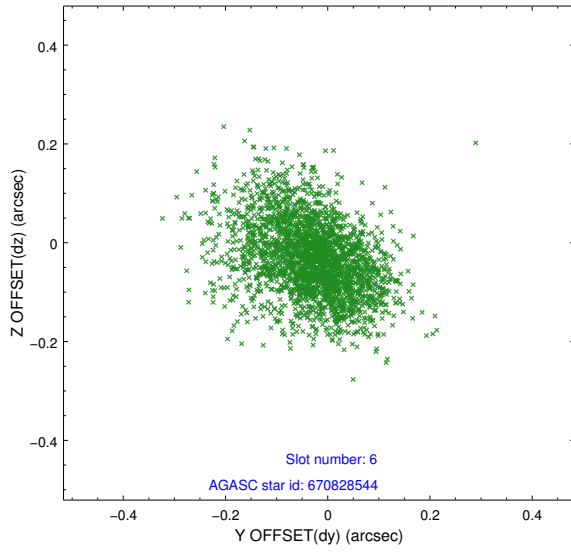
2.4.2 Slot 4



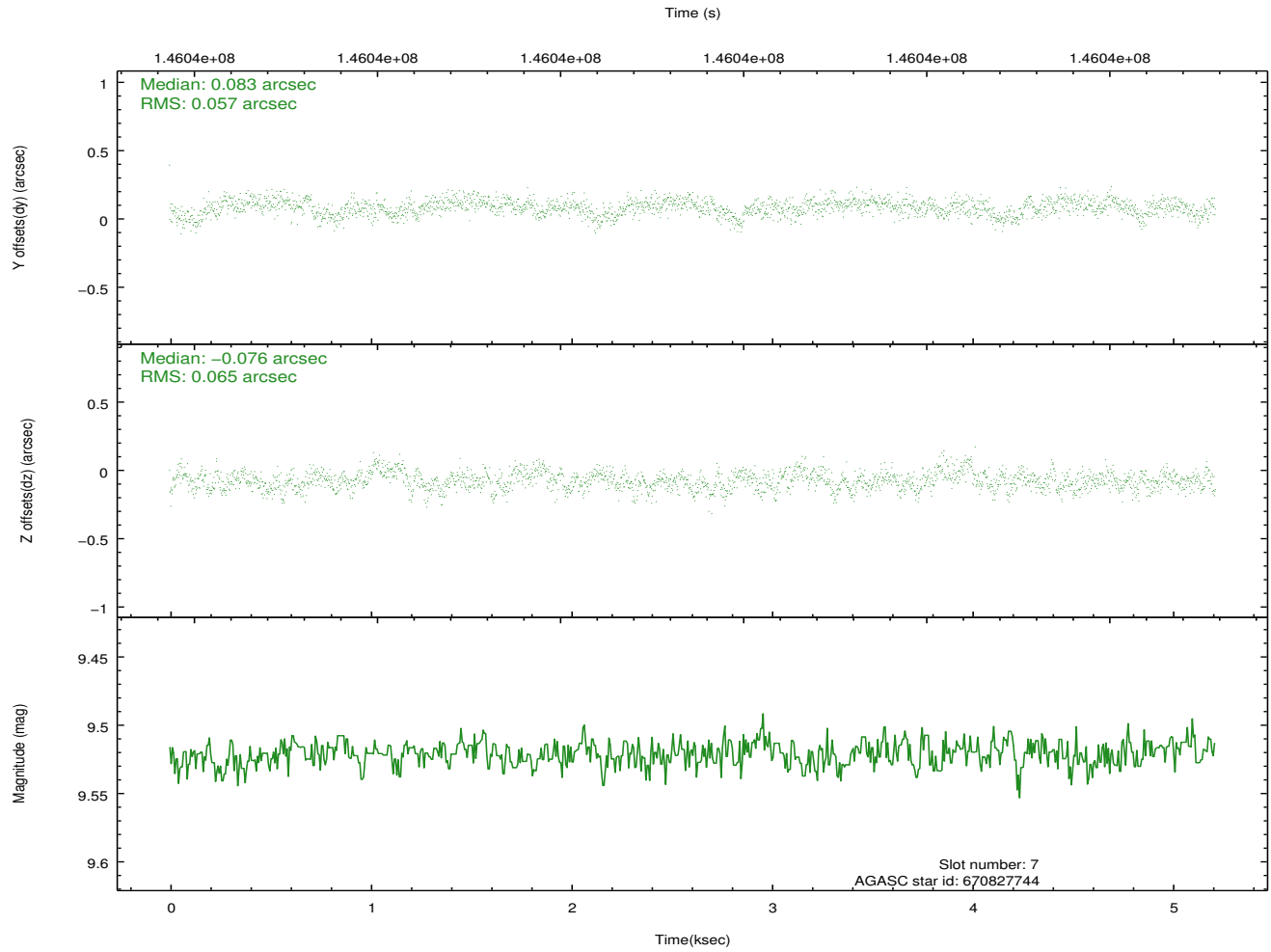
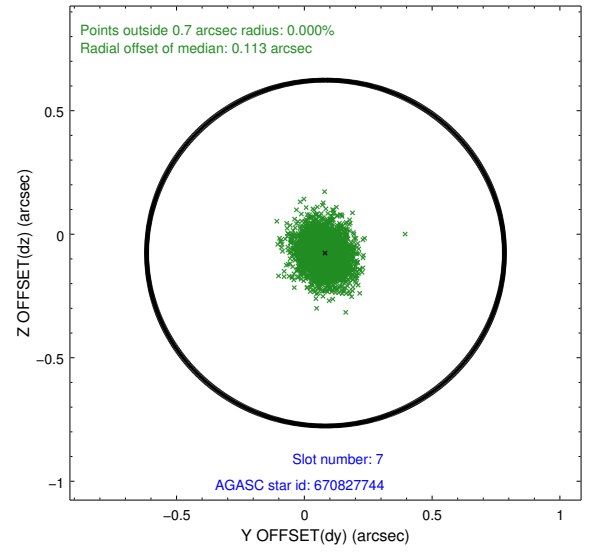
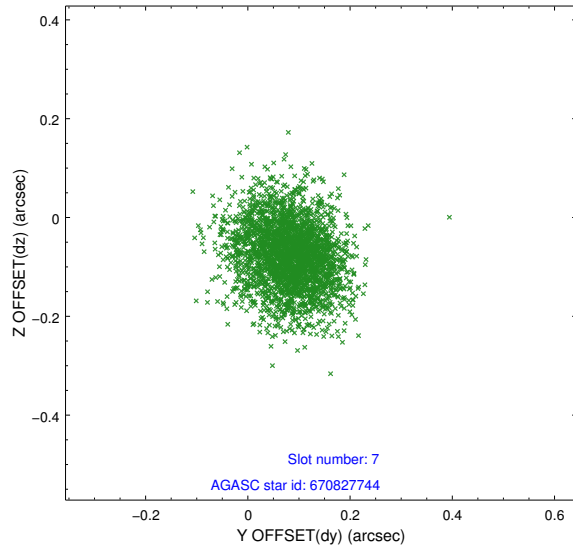
2.4.3 Slot 5



2.4.4 Slot 6

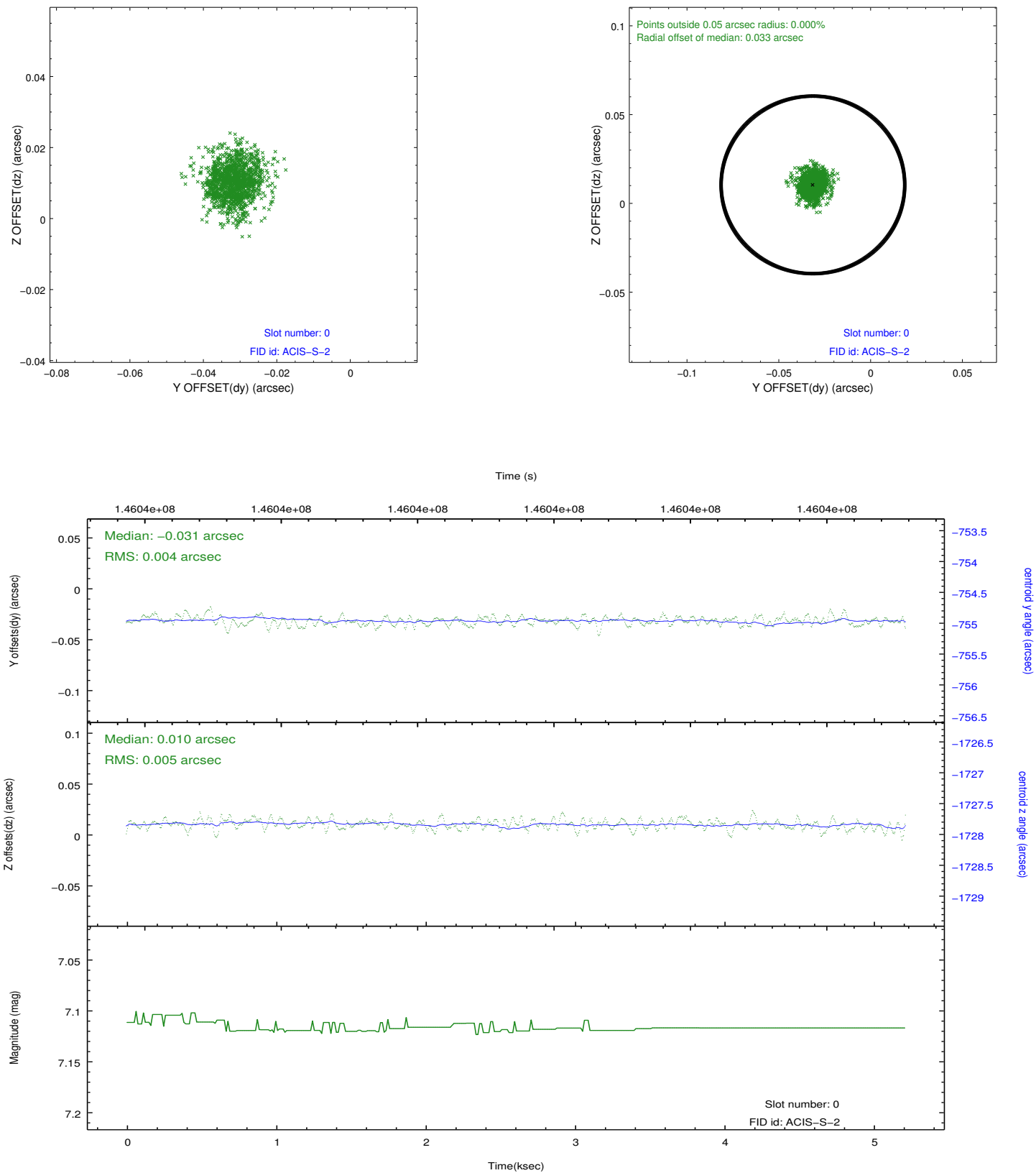


2.4.5 Slot 7

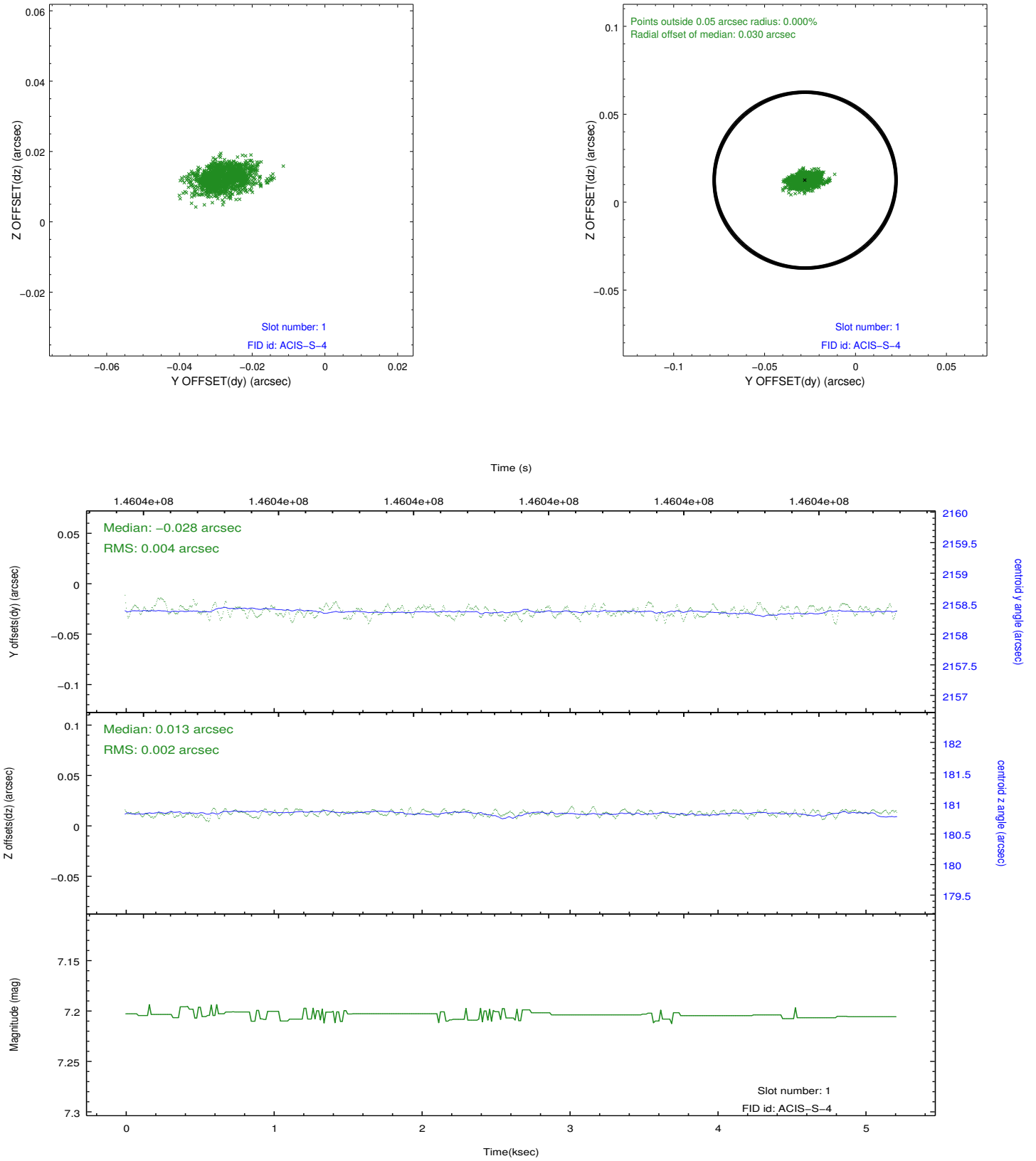


2.5 FID Slots

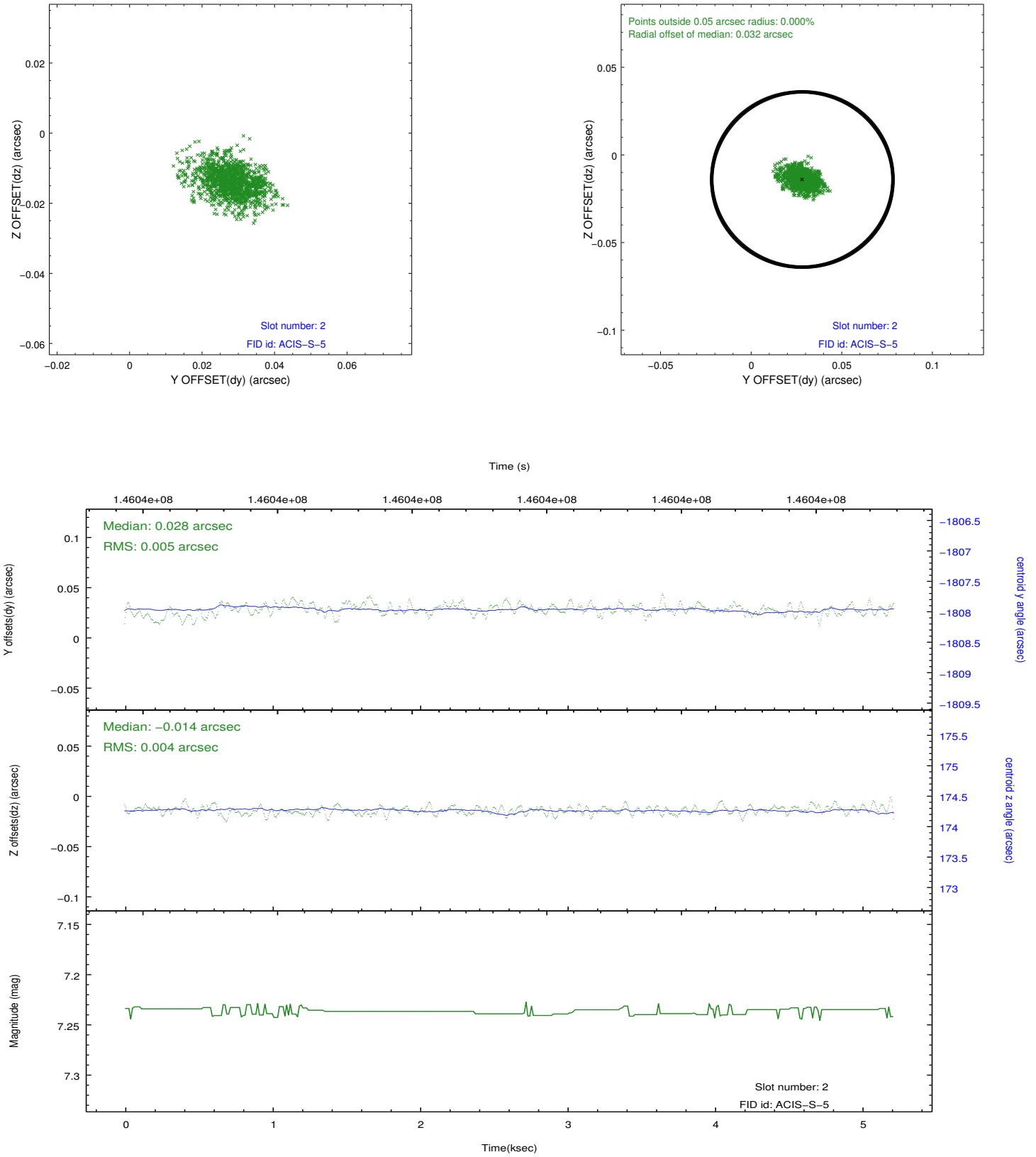
2.5.1 Slot 0



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) | 2012.10.23 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 4.959 |

A.2 Comments

Window constraint met.