

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9954 - L2 Version 2
Chandra X-Ray Center

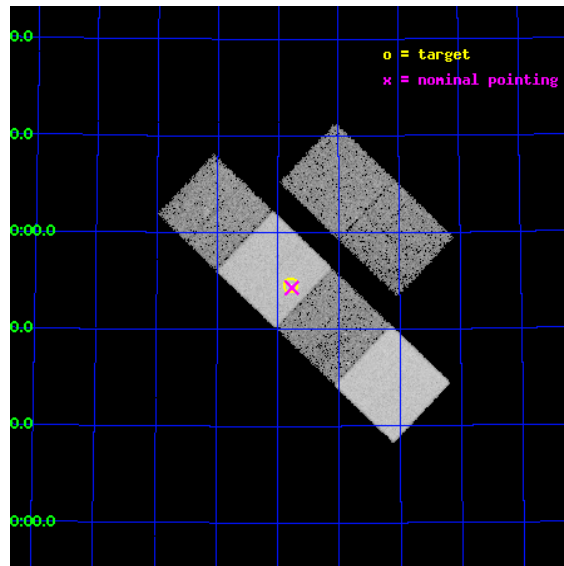
L2 Processing Date : May 26 2012

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1 Front

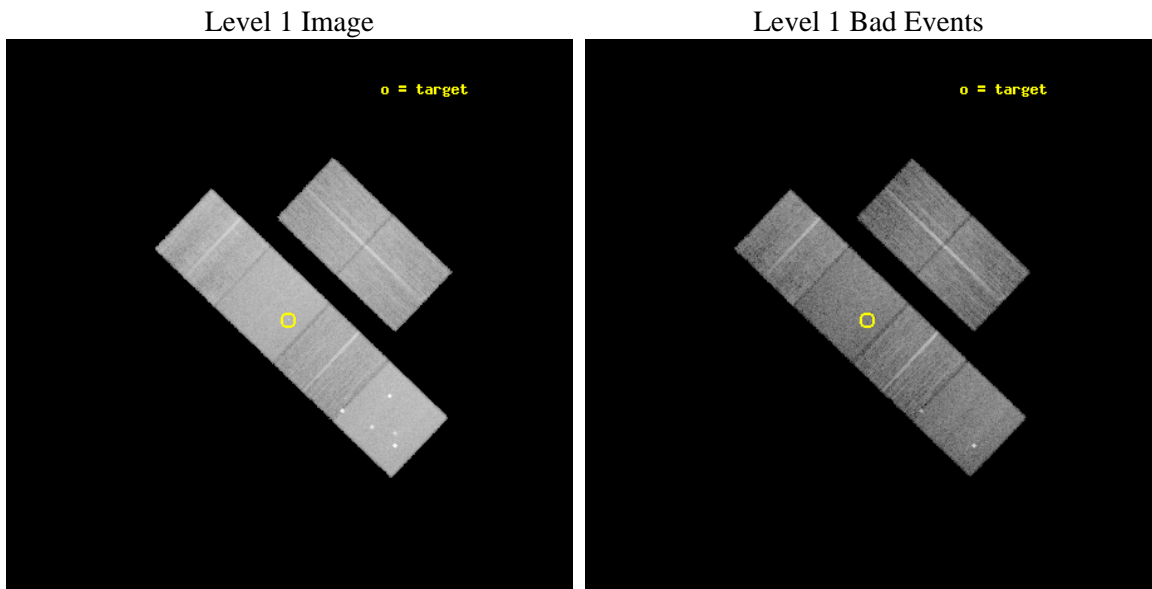
| | | |
|----------|--|---|
| seq_num | 300241 | Sequence number |
| obs_id | 9954 | Observation id |
| title | PlaN-B: The hyperactive coronae of interacting companions in planetary nebulae | Proposal title |
| observer | Prof. Orsola De Marco | Principal investigator |
| object | PN HFG 1 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 45.945833 | Observer's specified target RA [deg] |
| dec_targ | 64.909833 | Observer's specified target Dec [deg] |
| ra_nom | 45.942961335447 | Nominal RA [deg] |
| dec_nom | 64.90508752411 | Nominal Dec [deg] |
| roll_nom | 223.7103714563 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 11446.399957418 | Sum of GTIs [s] |
| livetime | 11301.458748963 | Livetime [s] |
| ontime2 | 11446.399957418 | Sum of GTIs [s] |
| ontime3 | 11446.399957418 | Sum of GTIs [s] |
| ontime5 | 11446.399957418 | Sum of GTIs [s] |
| ontime6 | 11446.399957418 | Sum of GTIs [s] |
| ontime7 | 11446.399957418 | Sum of GTIs [s] |
| ontime8 | 11446.399957418 | Sum of GTIs [s] |
| l2events | 191198 | Number of level 2 events |



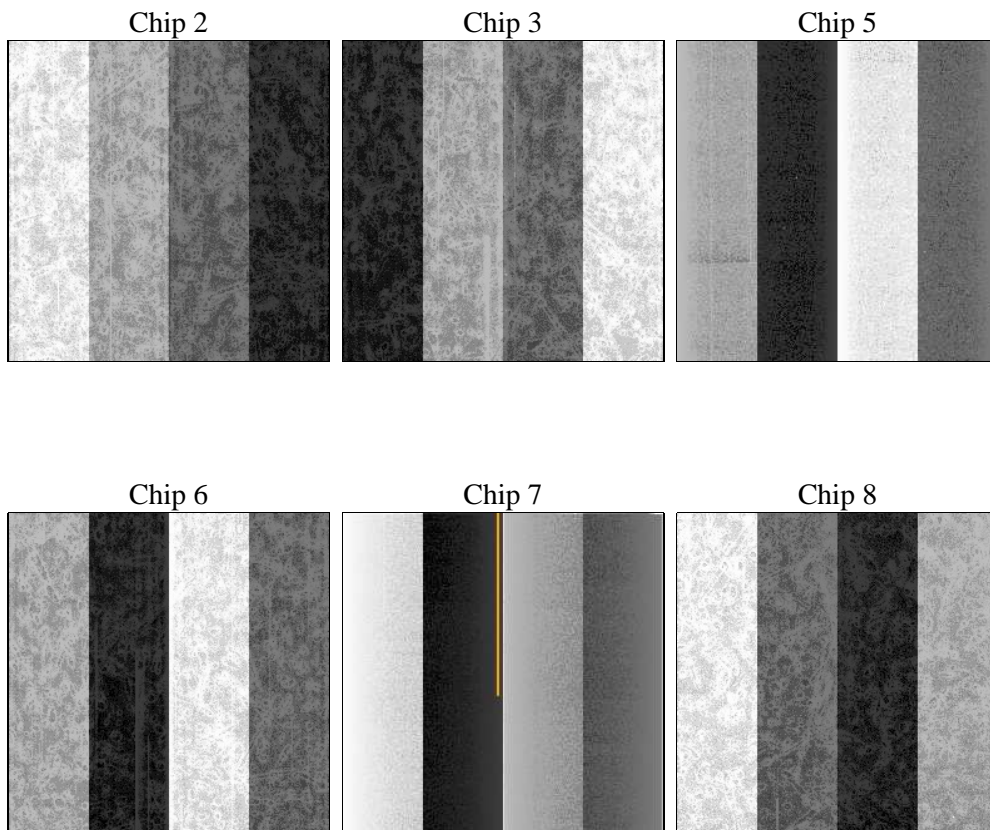
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 11500.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.4 | Processing system revision | ontime | 11446.399957418 | Sum of GTIs [s] |
| caldbver | 4.4.9 | | ontime2 | 11446.399957418 | Sum of GTIs [s] |
| date | 2012-05-26T04:48:34 | Date and time of file creation | ontime3 | 11446.399957418 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime5 | 11446.399957418 | Sum of GTIs [s] |
| | | | ontime6 | 11446.399957418 | Sum of GTIs [s] |
| | | | ontime7 | 11446.399957418 | Sum of GTIs [s] |
| | | | ontime8 | 11446.399957418 | Sum of GTIs [s] |
| | | | l1events | 832695 | Number of level 1 events |

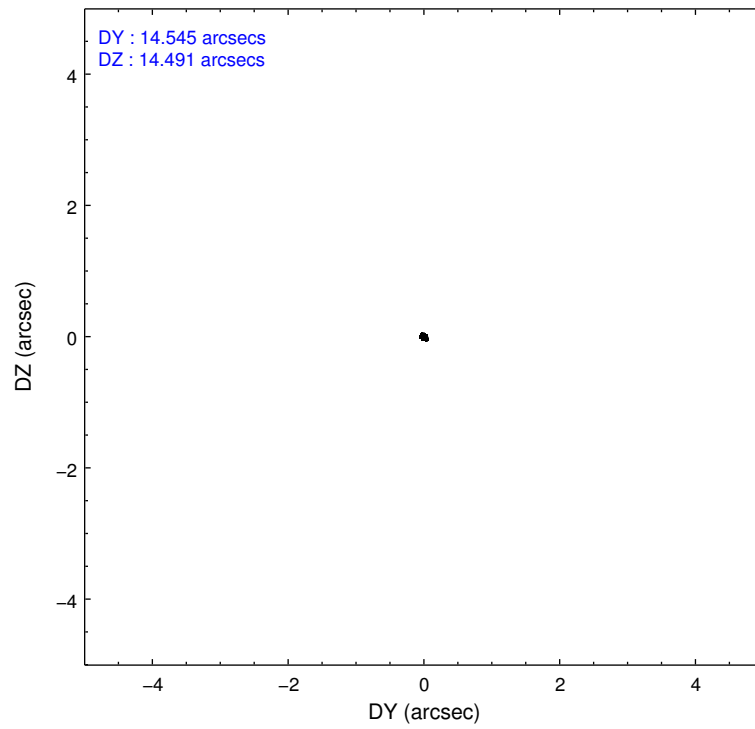
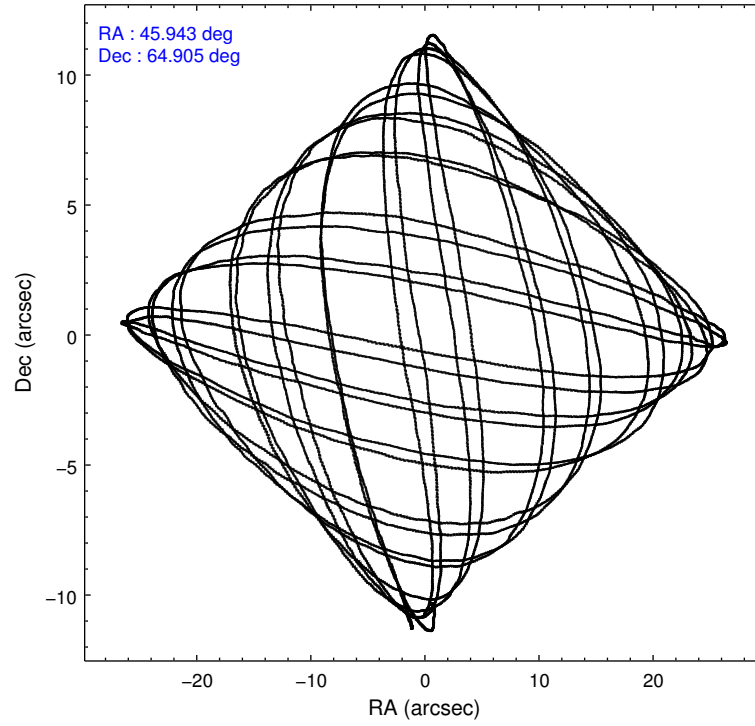
2.1.4 Events

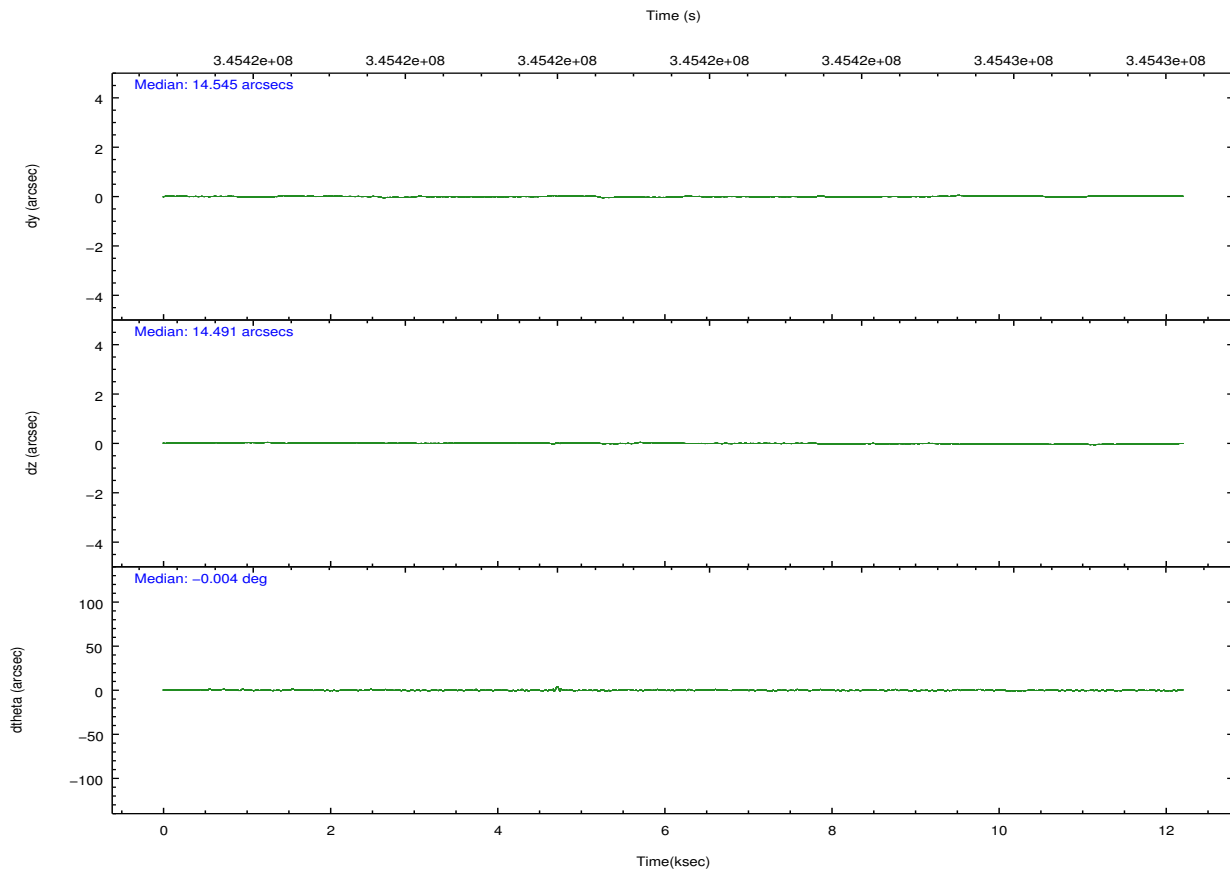
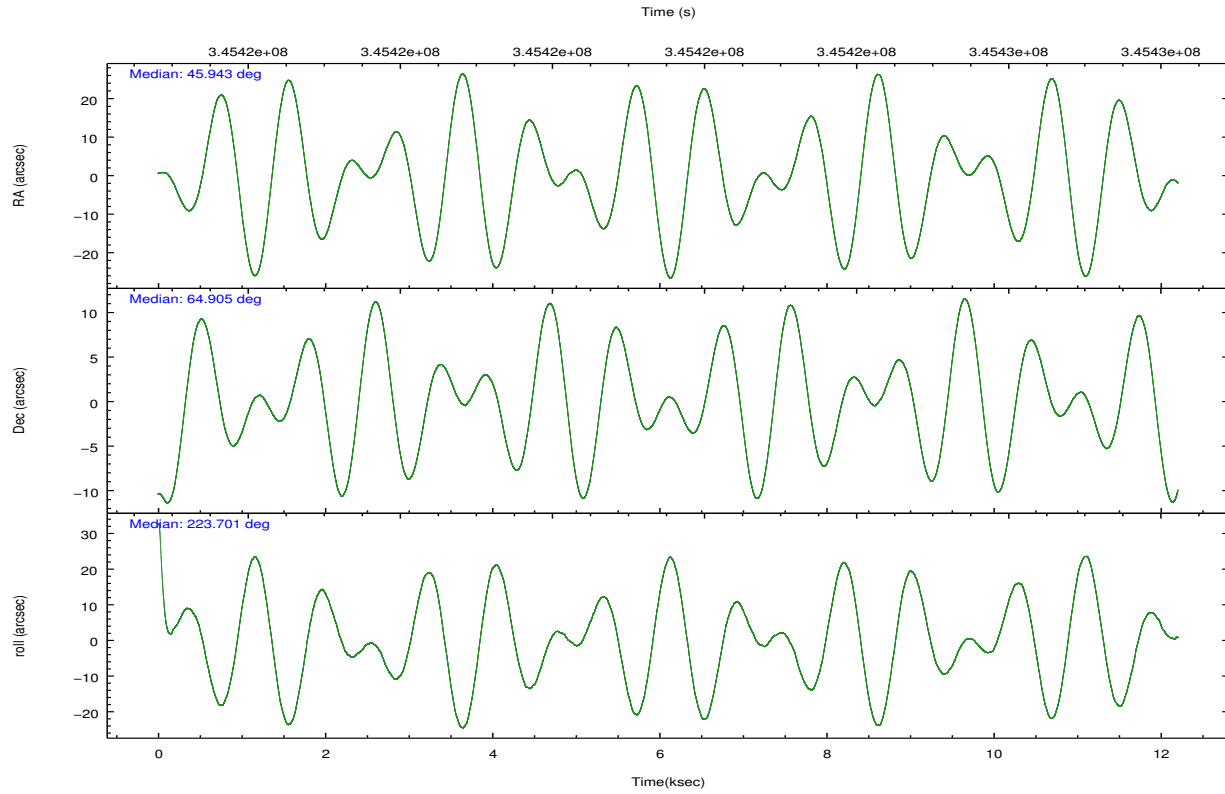
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|-------|-------|-------|-------|-------|--------|
| level 1 events | 116510 | 109900 | 185264 | 114368 | 159100 | 147553 | grade 0 events | 5433 | 5901 | 10320 | 5480 | 5356 | 10557 |
| rejected events | 103251 | 96190 | 98219 | 100380 | 93497 | 113054 | | 4% | 5% | 5% | 4% | 3% | 7% |
| rejected % | 88% | 87% | 53% | 87% | 58% | 76% | grade 1 events | 75 | 79 | 536 | 52 | 165 | 117 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 2931 | 2768 | 27369 | 3065 | 13541 | 7950 |
| | | | | | | | | 2% | 2% | 14% | 2% | 8% | 5% |
| | | | | | | | grade 3 events | 1236 | 1338 | 2841 | 1267 | 5395 | 3517 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 4 events | 1290 | 1312 | 2690 | 1313 | 5384 | 3346 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 5 events | 4705 | 5349 | 12666 | 5337 | 14717 | 7300 |
| | | | | | | | | 4% | 4% | 6% | 4% | 9% | 4% |
| | | | | | | | grade 6 events | 2377 | 2404 | 43875 | 2869 | 35976 | 9138 |
| | | | | | | | | 2% | 2% | 23% | 2% | 22% | 6% |
| | | | | | | | grade 7 events | 98463 | 90749 | 84967 | 94985 | 78566 | 105628 |
| | | | | | | | | 84% | 82% | 45% | 83% | 49% | 71% |

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 | CCD I0 on | N | N |
| Observation mode | POINTING | POINTING | CCD I1 on | N | N |
| [deg] Pointing RA | 45.960203 | 45.94296133544739 | CCD I2 on | O1 | Y |
| [deg] Pointing Dec | 64.931483 | 64.9050875241102 | CCD I3 on | O2 | Y |
| [deg] Pointing Roll | 223.538091 | 223.7103714563003 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | O3 | Y |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | Y | Y |
| [mm] SIM translation stage pos | -190.132523 | -190.1425803651734 | CCD S3 on | Y | Y |
| [mm] SIM translation stage offset | 0 | 0.01005778216563158 | CCD S4 on | O4 | Y |
| [s] Observation start time (MET) | 345416124.184000 | 345414903.61162 | CCD S5 on | N | N |
| Observation start date | 2008-12-11T20:54:19 | 2008-12-11T20:35:03 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 345427624.184000 | 345428458.21229 | On-chip summing requested | N | N |
| Observation end date | 2008-12-12T00:05:59 | 2008-12-12T00:20:58 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



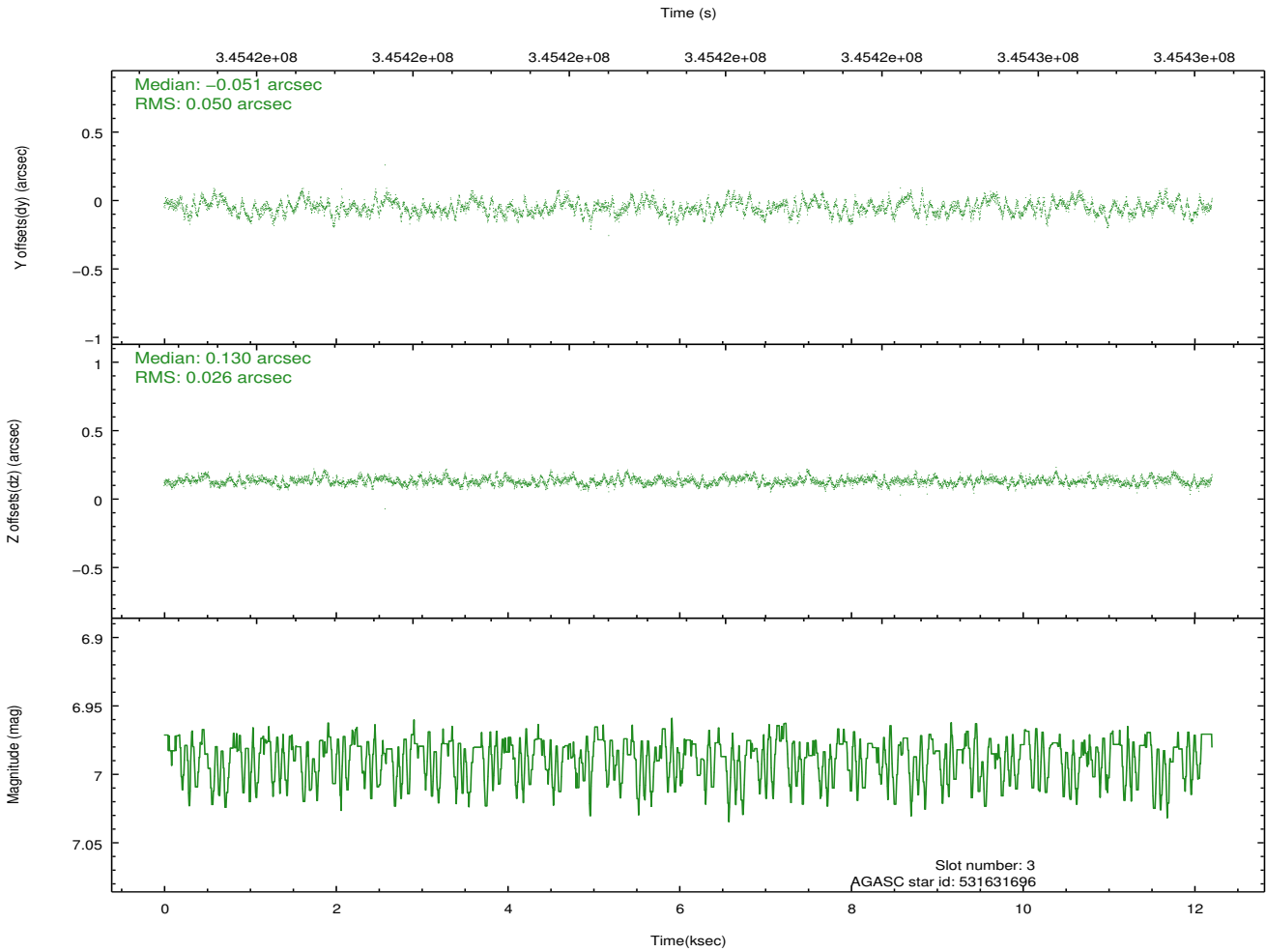
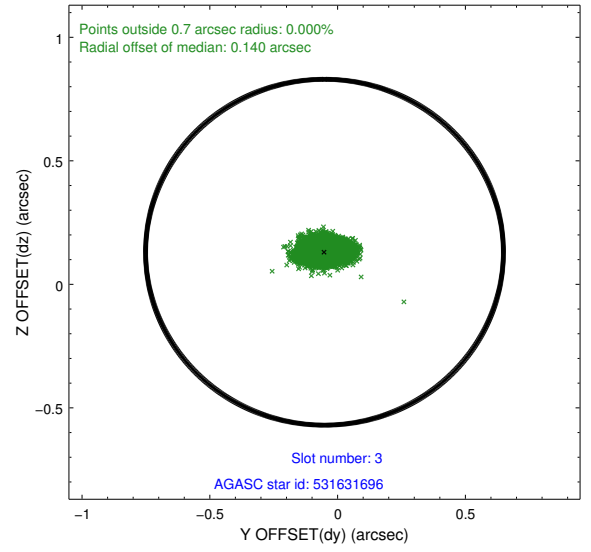
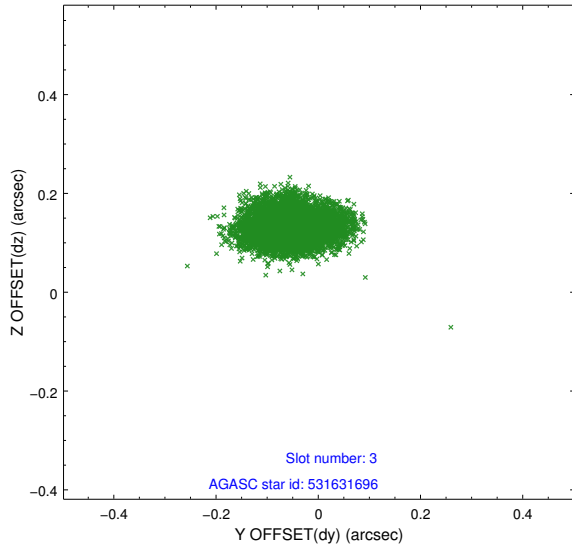


Slot Statistics

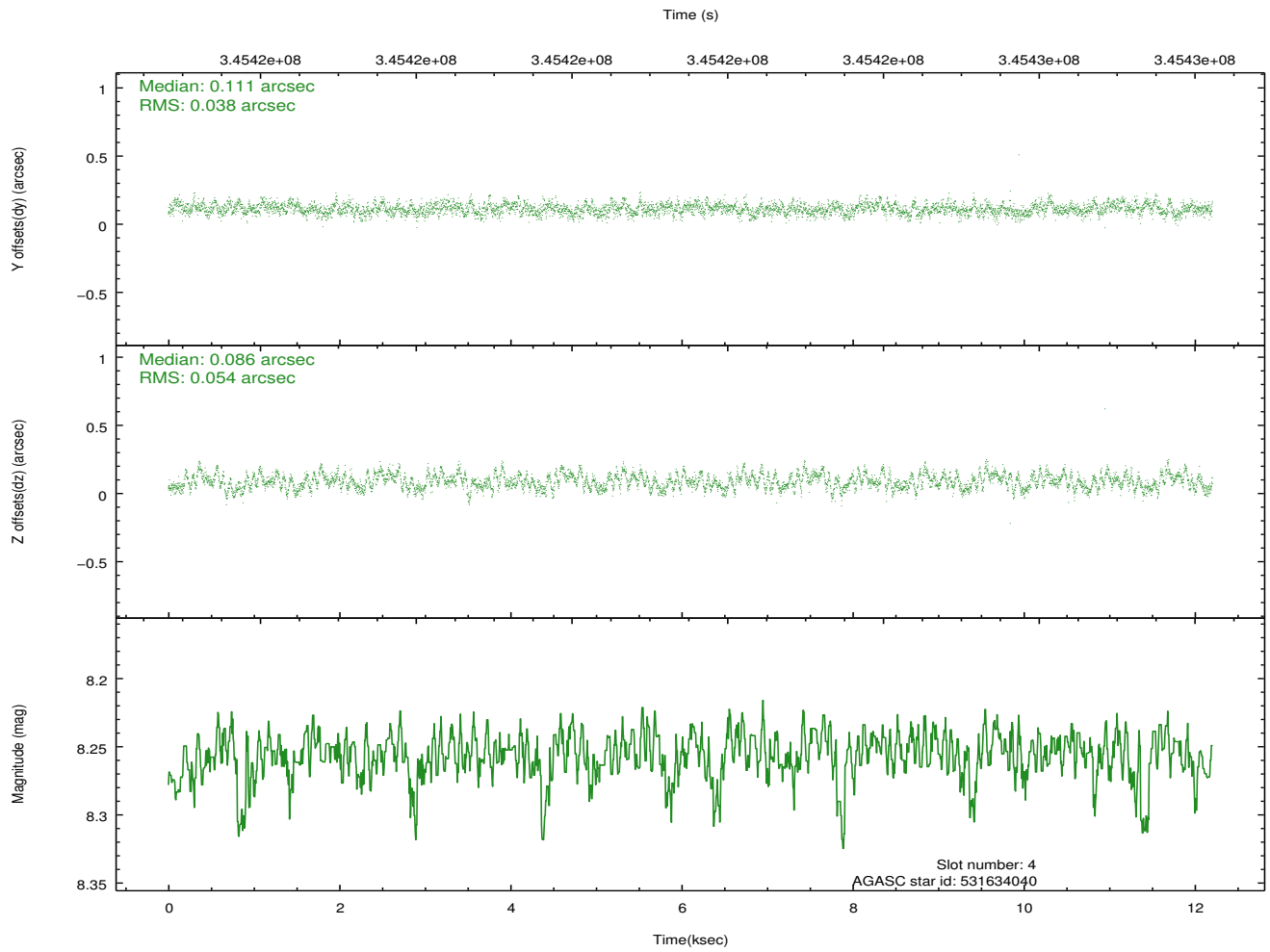
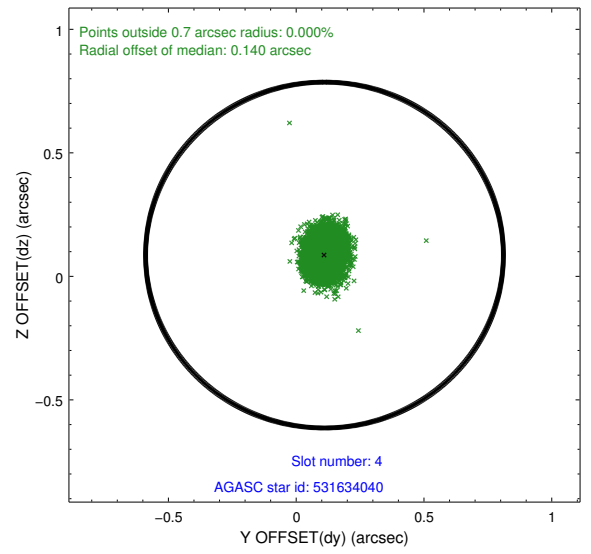
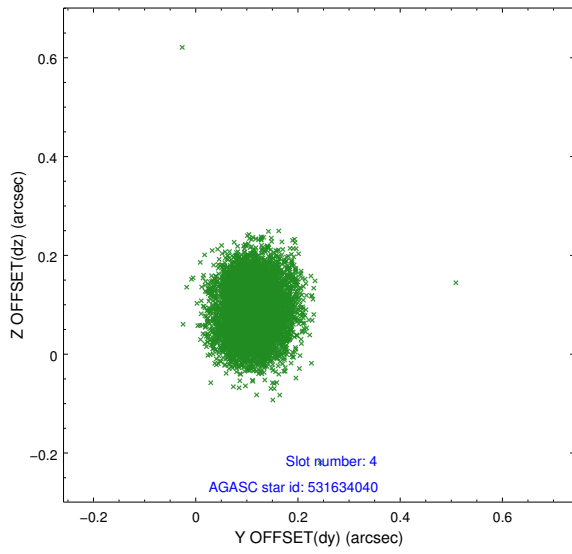
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|-----------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 6.95 | 2977 | -0.087 | -0.051 | 0.008 | 0.014 | 0.000000 | 0.000000 | -767.58 | -1735.86 |
| 1 | FID | ACIS-S-4 | 7.04 | 2977 | 0.228 | 0.056 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2145.82 | 172.32 |
| 2 | FID | ACIS-S-5 | 7.07 | 2977 | -0.172 | 0.004 | 0.007 | 0.013 | 0.000000 | 0.000000 | -1820.00 | 166.39 |
| 3 | GUIDE | 531631696 | 6.99 | 5954 | -0.051 | 0.130 | 0.059 | 0.099 | 46.420733 | 65.156710 | -1065.01 | -109.36 |
| 4 | GUIDE | 531634040 | 8.26 | 5954 | 0.111 | 0.086 | 0.070 | 0.111 | 46.519028 | 65.463382 | -1926.98 | -815.15 |
| 5 | GUIDE | 531635112 | 8.13 | 5952 | -0.067 | -0.045 | 0.068 | 0.104 | 46.301455 | 65.551692 | -1907.27 | -1269.64 |
| 6 | GUIDE | 531636064 | 8.65 | 5952 | 0.074 | -0.053 | 0.090 | 0.146 | 44.501969 | 65.078927 | 1220.39 | -1926.33 |
| 7 | GUIDE | 531636696 | 9.28 | 5950 | -0.066 | -0.117 | 0.121 | 0.186 | 46.956421 | 64.429271 | 115.31 | 2367.95 |

2.4 Star Slots

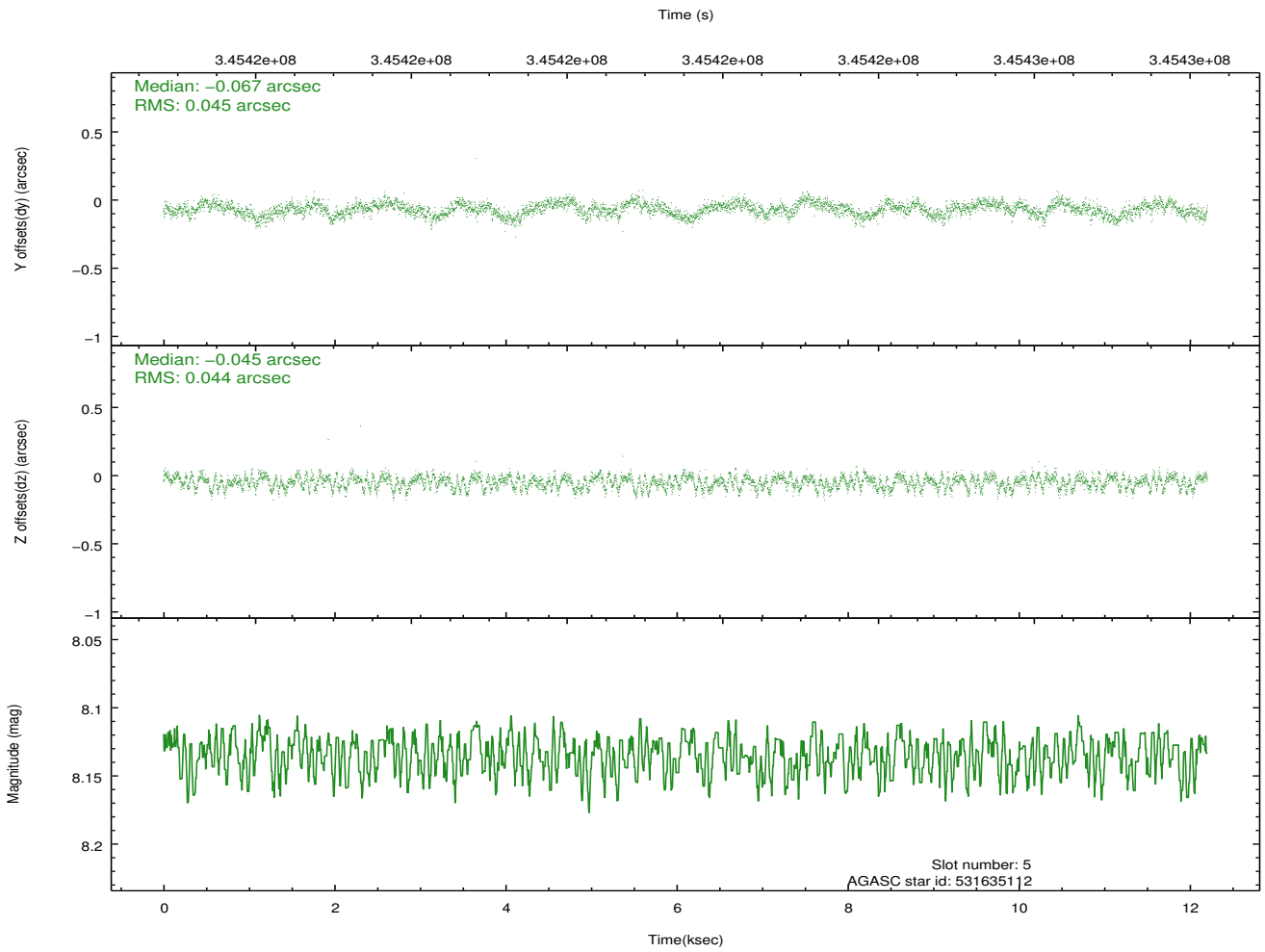
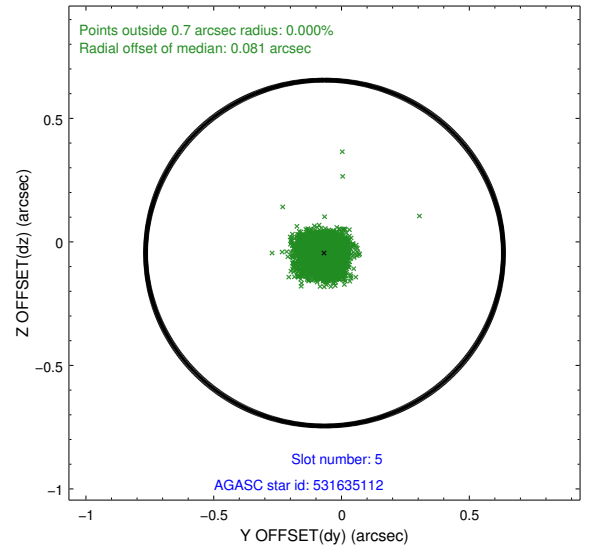
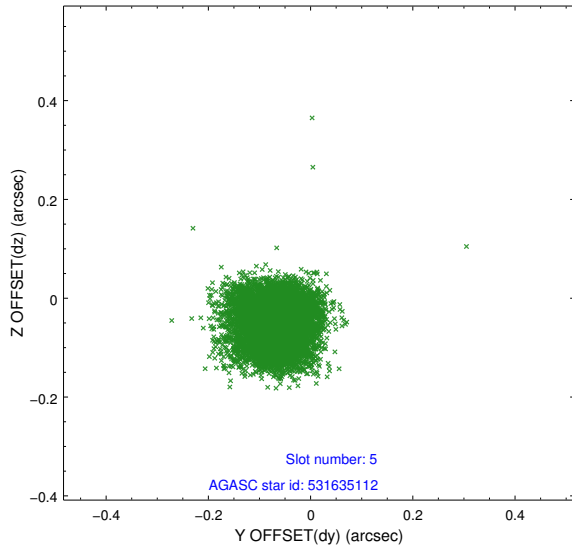
2.4.1 Slot 3



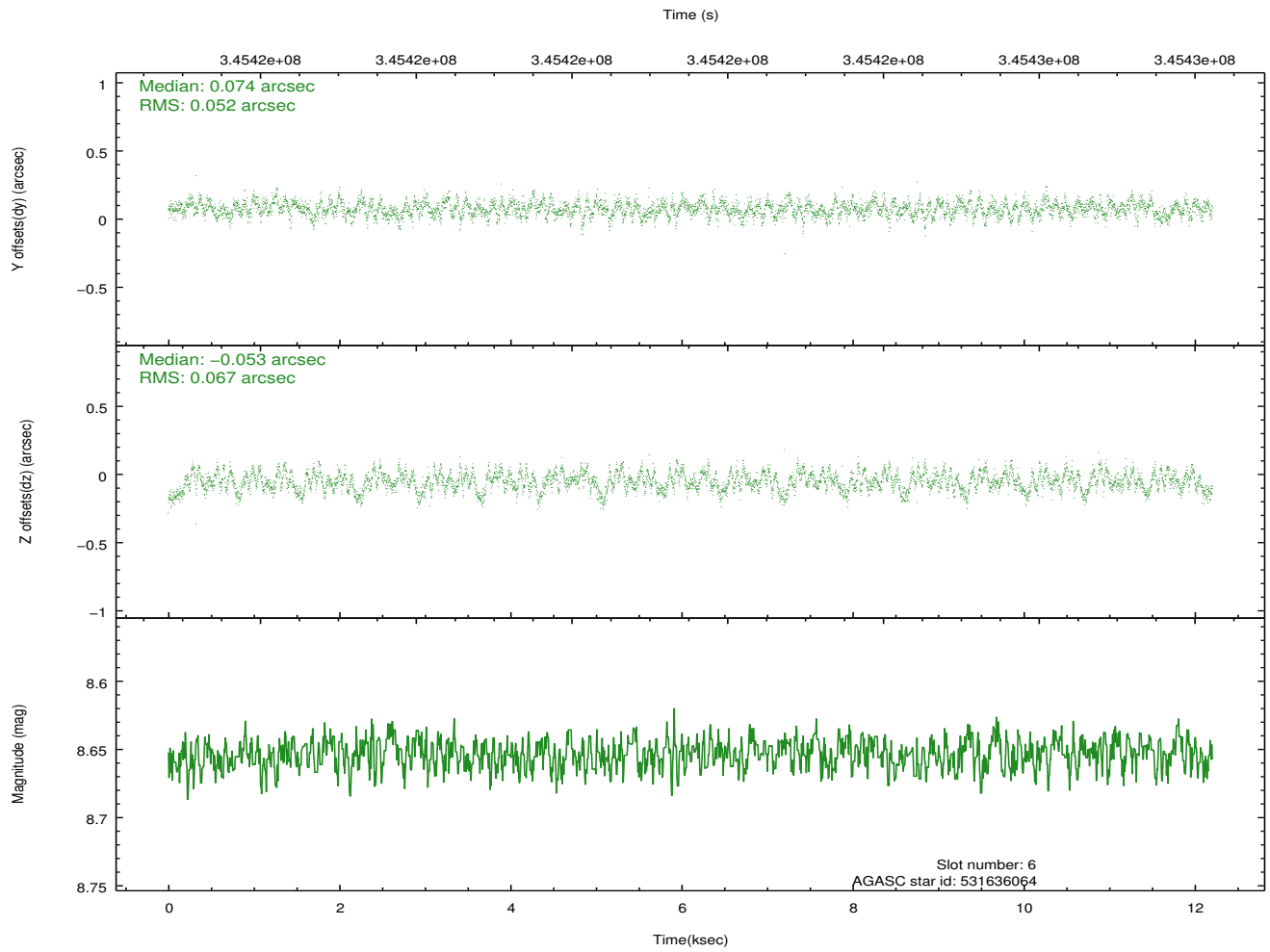
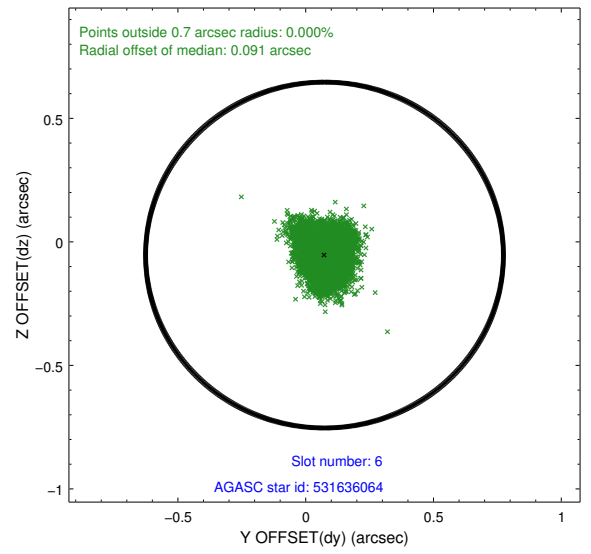
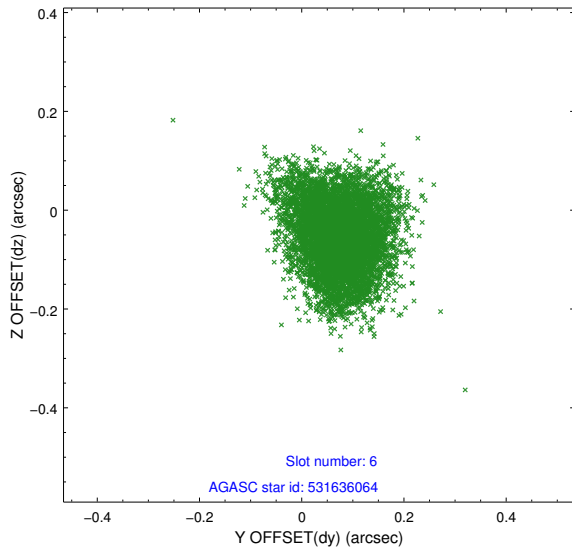
2.4.2 Slot 4



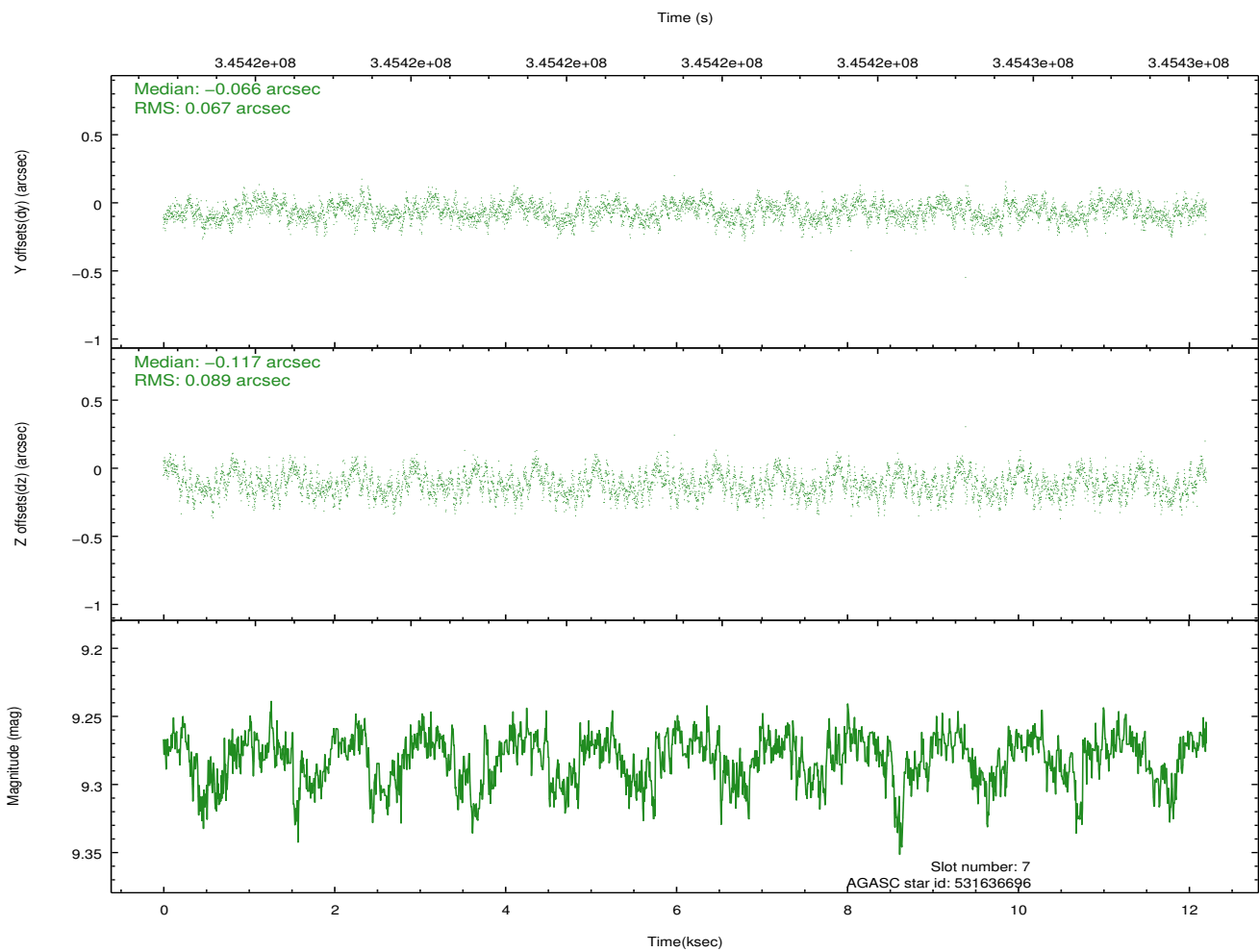
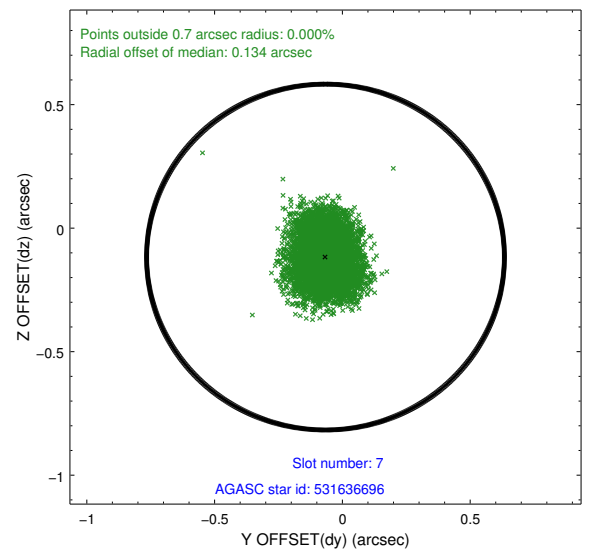
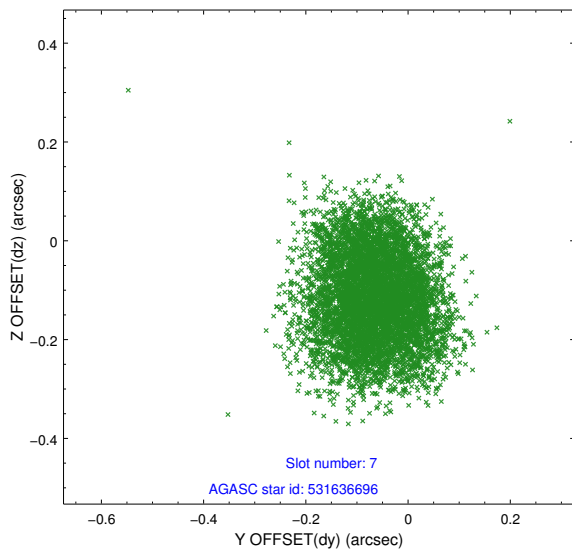
2.4.3 Slot 5



2.4.4 Slot 6

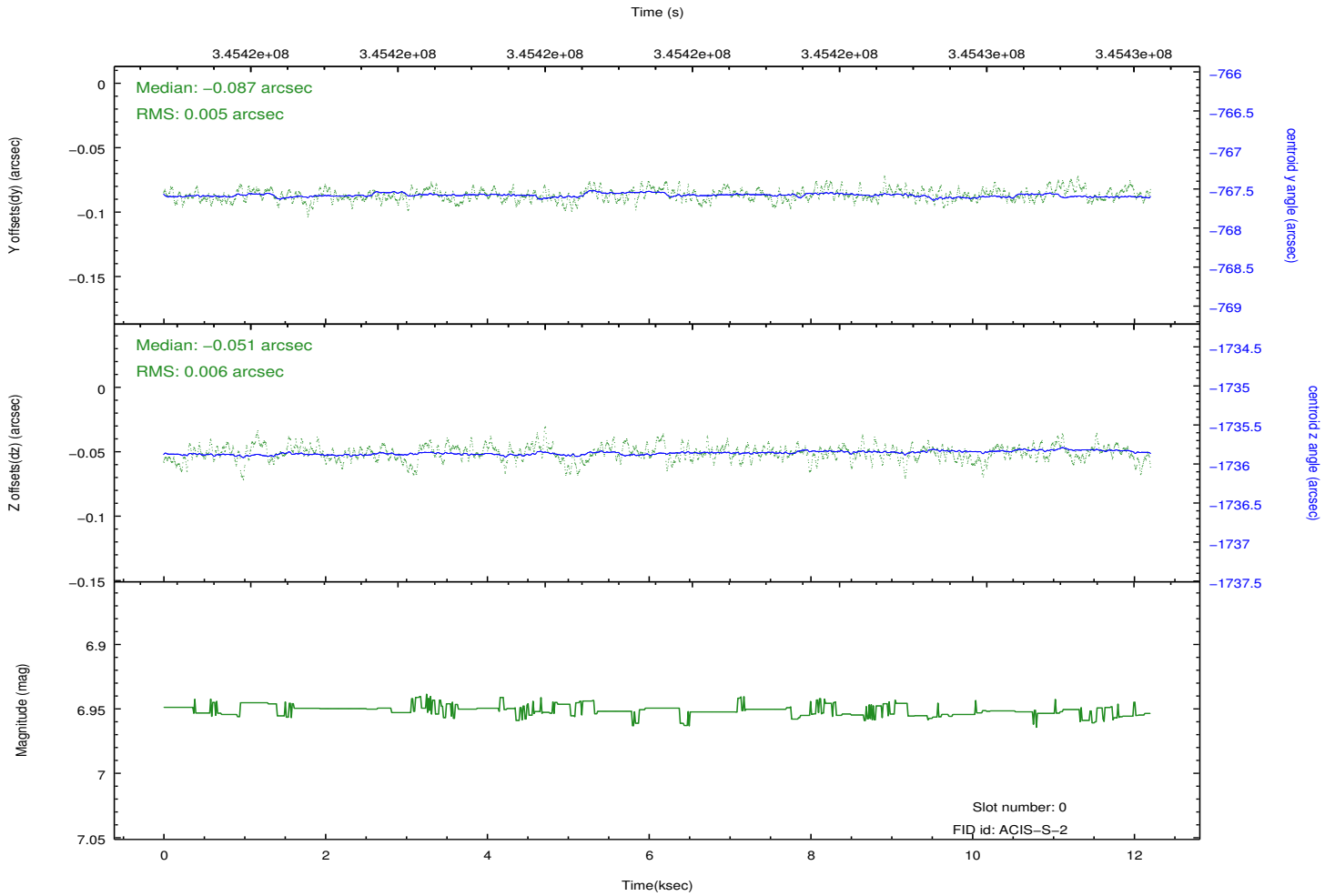
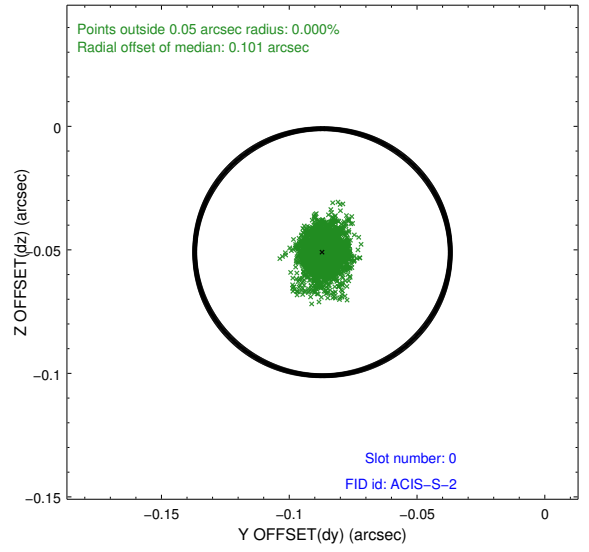
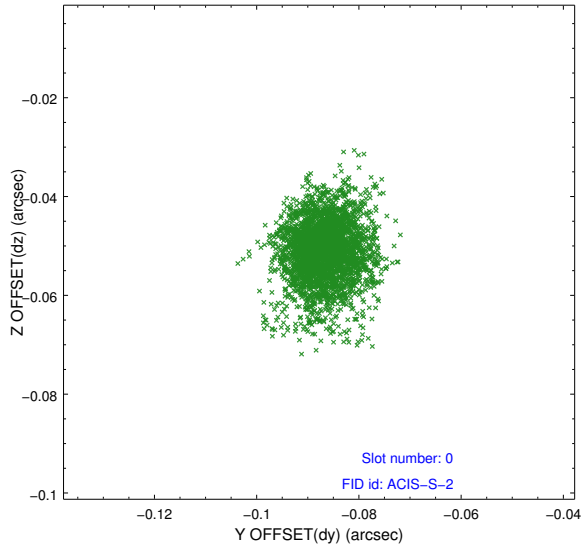


2.4.5 Slot 7

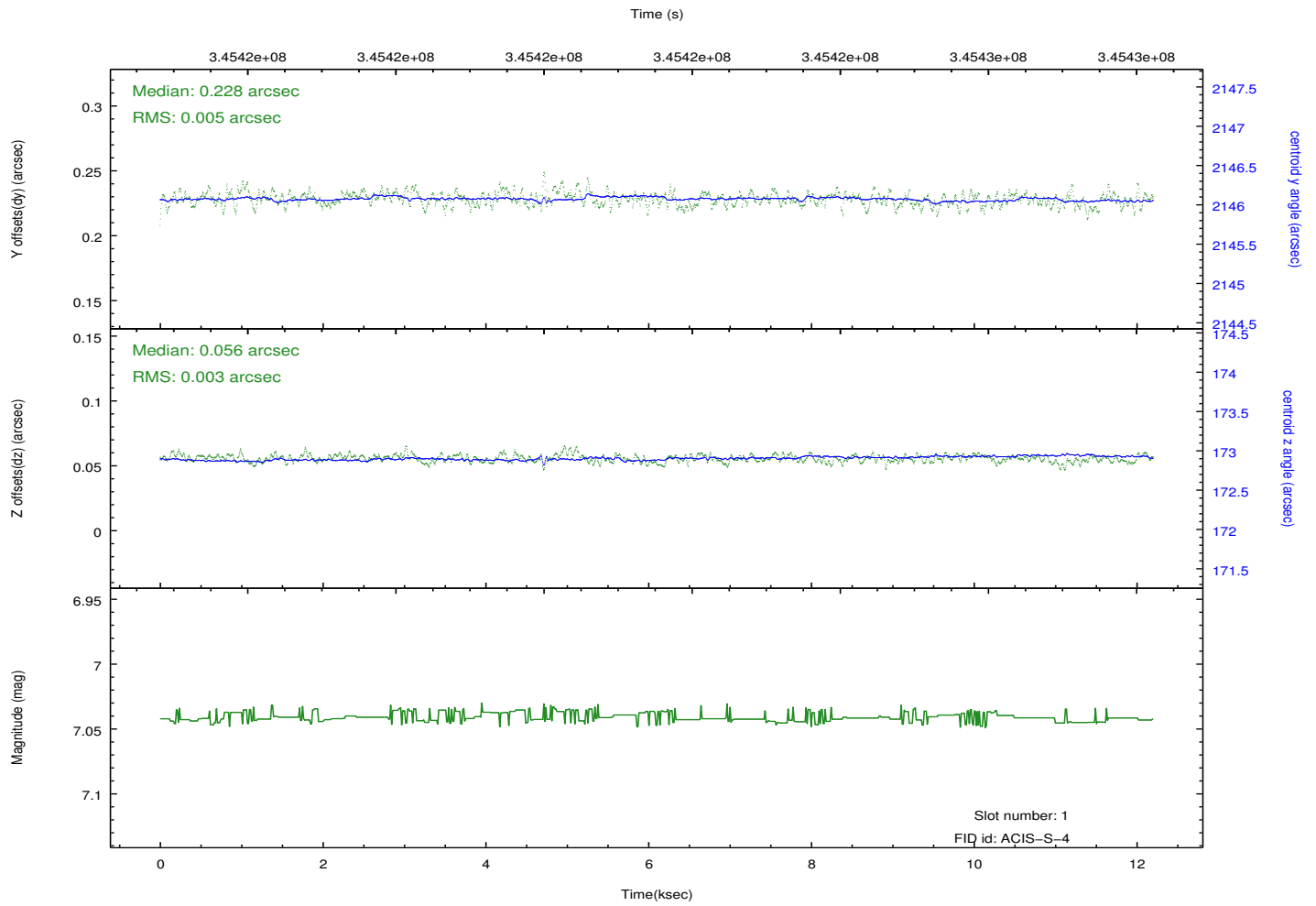
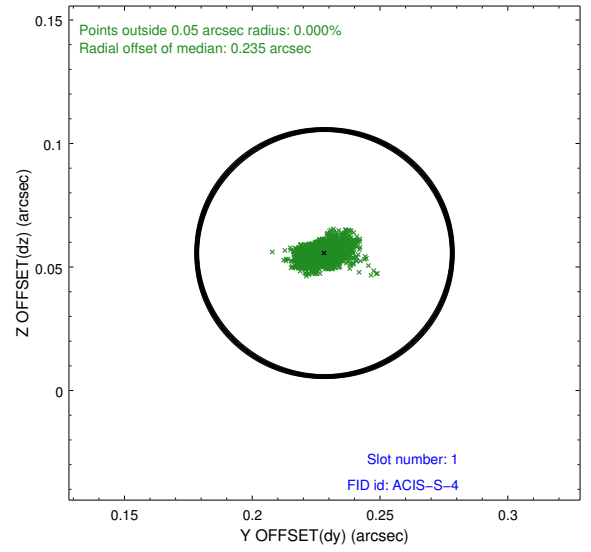
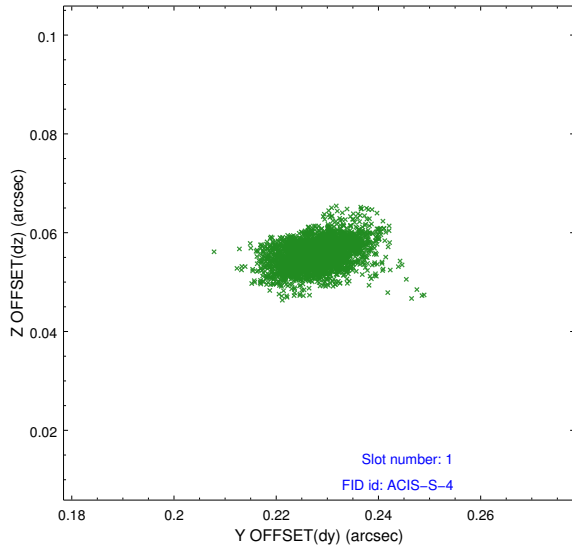


2.5 FID Slots

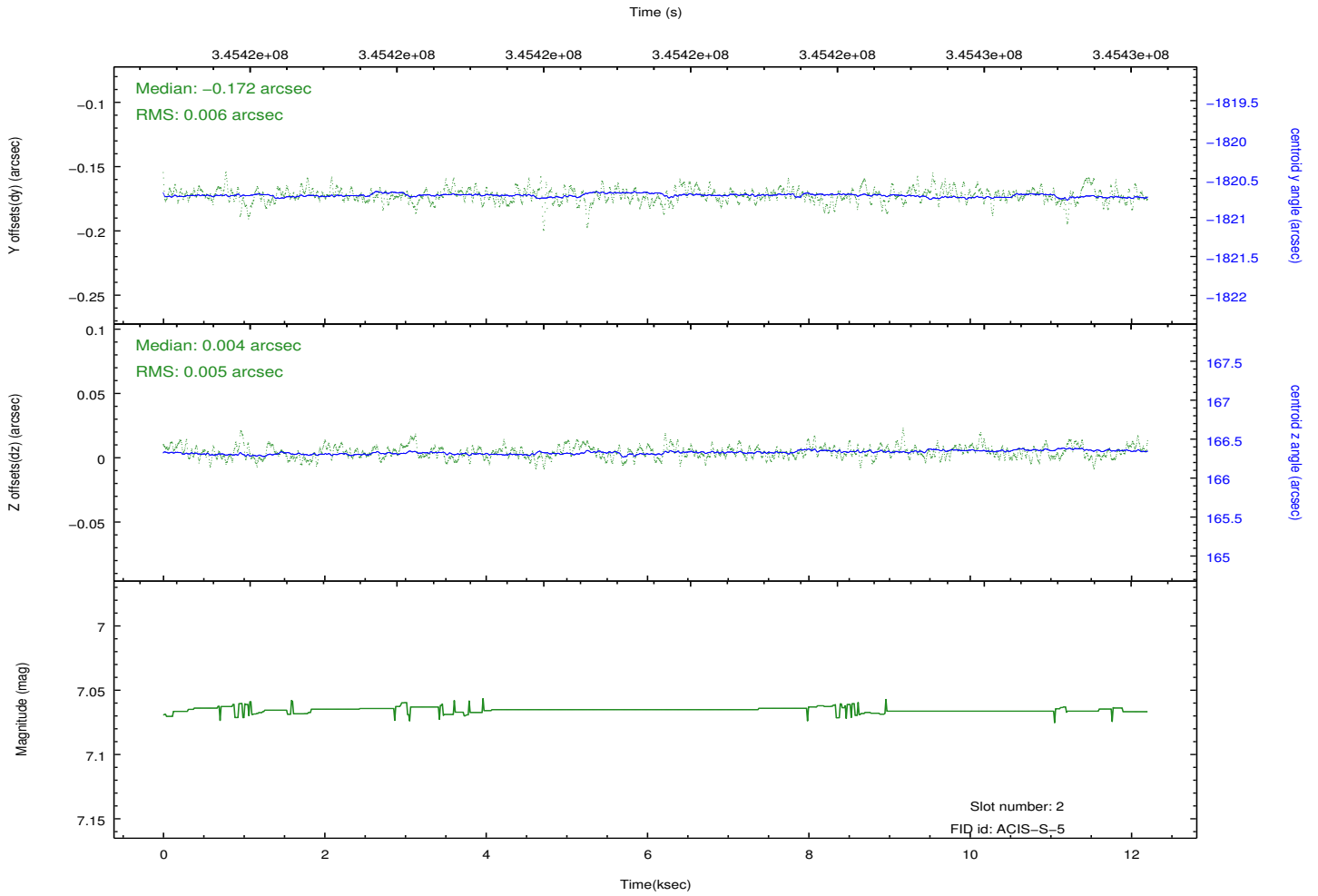
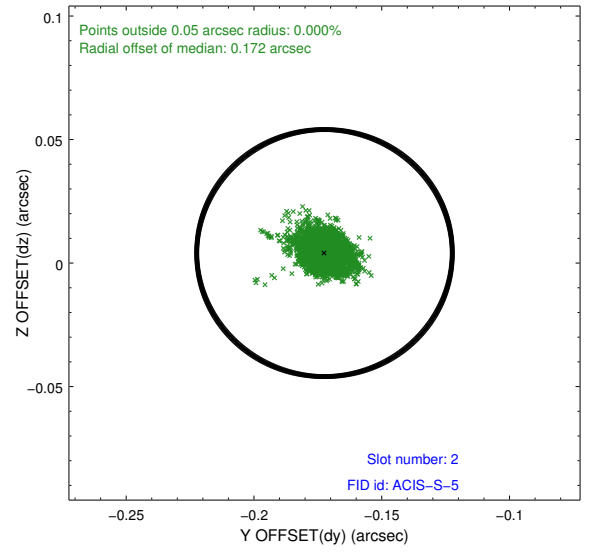
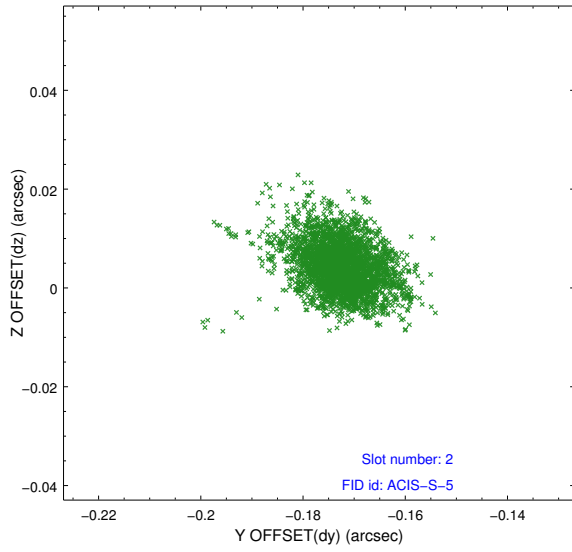
2.5.1 Slot 0



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) | 2012.06.01 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 11.4463999 |

A.2 Comments