

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2086 - L2 Version 3
Chandra X-Ray Center

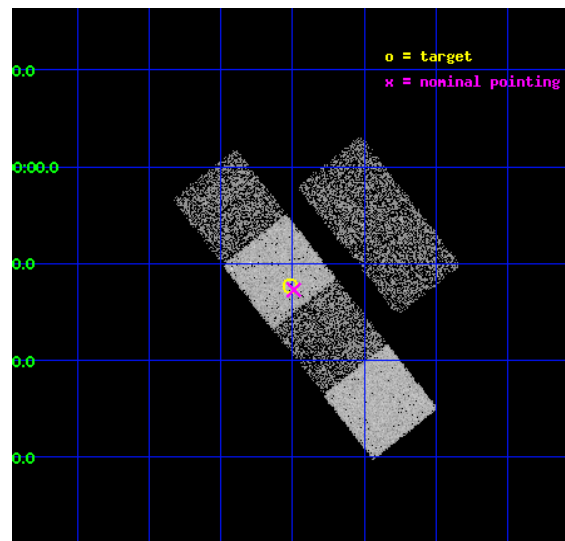
L2 Processing Date : Sep 20 2012

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1 Front

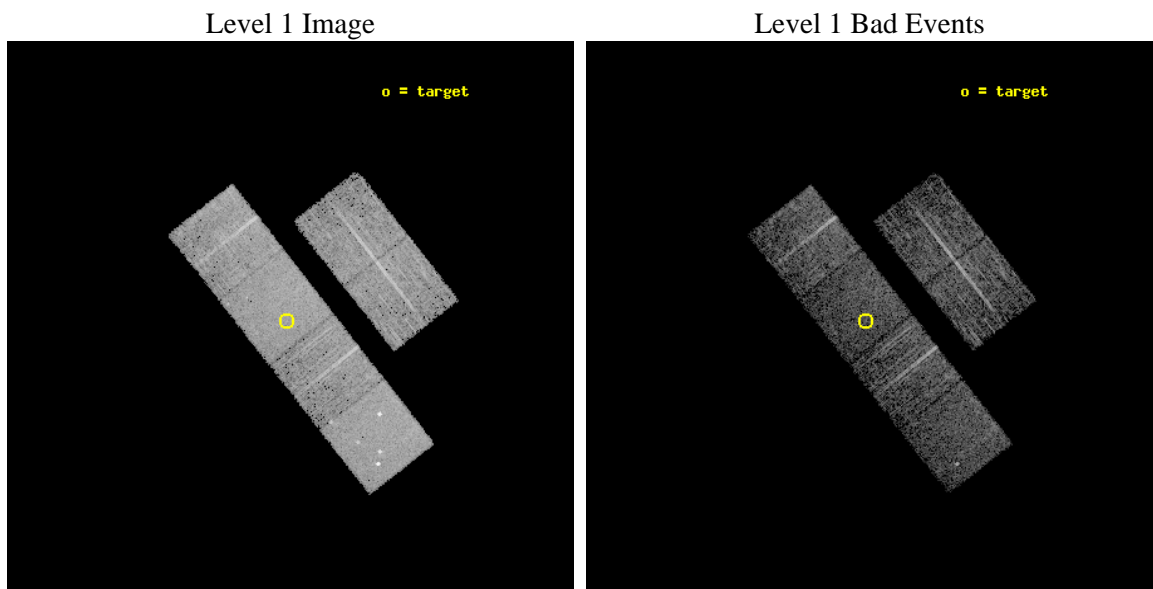
| | | |
|----------|--|---|
| seq_num | 700276 | Sequence number |
| obs_id | 2086 | Observation id |
| title | AN X-RAY STUDY OF THE MOST DISTANT QUASARS FROM THE SLOAN DIGITAL SKY SURVEY | Proposal title |
| observer | Prof. William Brandt | Principal investigator |
| object | SDSS160501-011220 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 241.255 | Observer's specified target RA [deg] |
| dec_targ | -1.205556 | Observer's specified target Dec [deg] |
| ra_nom | 241.24766703083 | Nominal RA [deg] |
| dec_nom | -1.2120789681359 | Nominal Dec [deg] |
| roll_nom | 231.82606564573 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 4697.6000043601 | Sum of GTIs [s] |
| livetime | 4638.1161645497 | Livetime [s] |
| ontime2 | 4697.6000043601 | Sum of GTIs [s] |
| ontime3 | 4697.6000043601 | Sum of GTIs [s] |
| ontime5 | 4697.6000043601 | Sum of GTIs [s] |
| ontime6 | 4697.6000043601 | Sum of GTIs [s] |
| ontime7 | 4697.6000043601 | Sum of GTIs [s] |
| ontime8 | 4697.6000043601 | Sum of GTIs [s] |
| l2events | 47045 | Number of level 2 events |



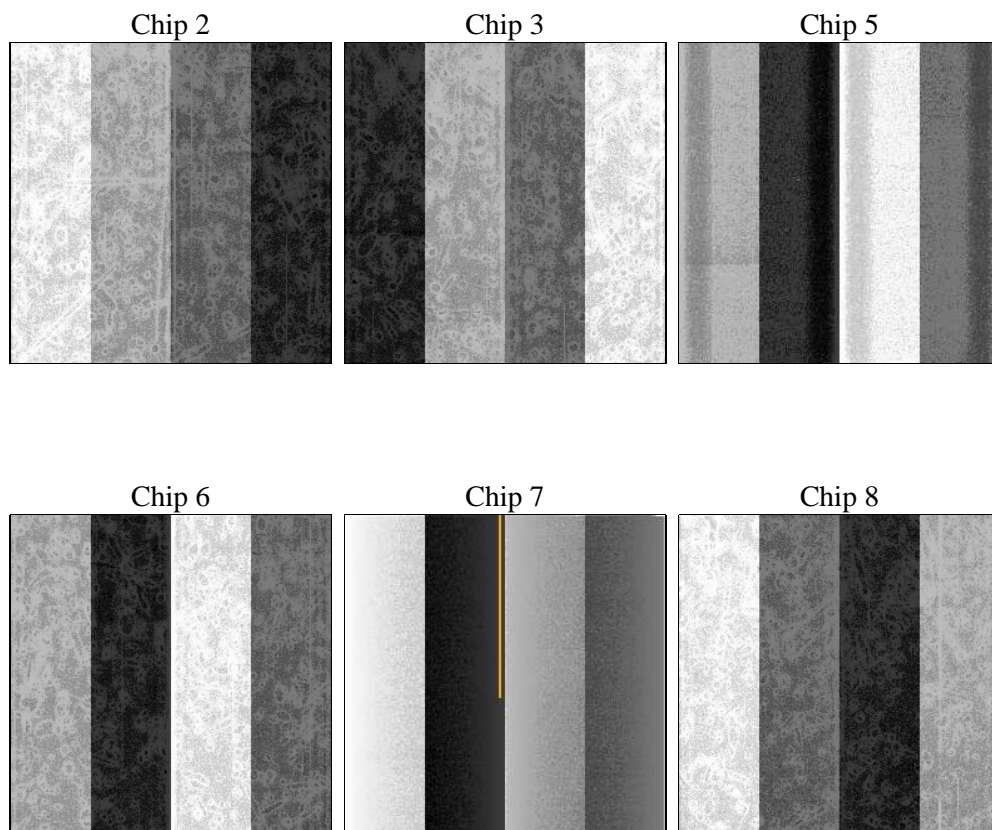
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 4700.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 4697.6000043601 | Sum of GTIs [s] |
| caldsver | 4.5.1.1 | | ontime2 | 4697.6000043601 | Sum of GTIs [s] |
| date | 2012-09-20T04:50:33 | Date and time of file creation | ontime3 | 4697.6000043601 | Sum of GTIs [s] |
| revision | 3 | Processing version of data | ontime5 | 4697.6000043601 | Sum of GTIs [s] |
| | | | ontime6 | 4697.6000043601 | Sum of GTIs [s] |
| | | | ontime7 | 4697.6000043601 | Sum of GTIs [s] |
| | | | ontime8 | 4697.6000043601 | Sum of GTIs [s] |
| | | | l1events | 222467 | Number of level 1 events |

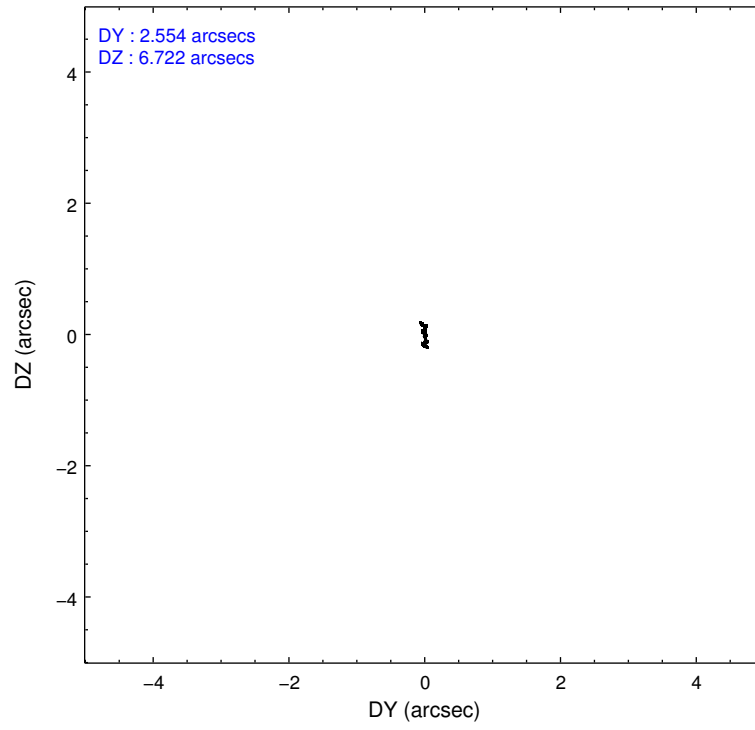
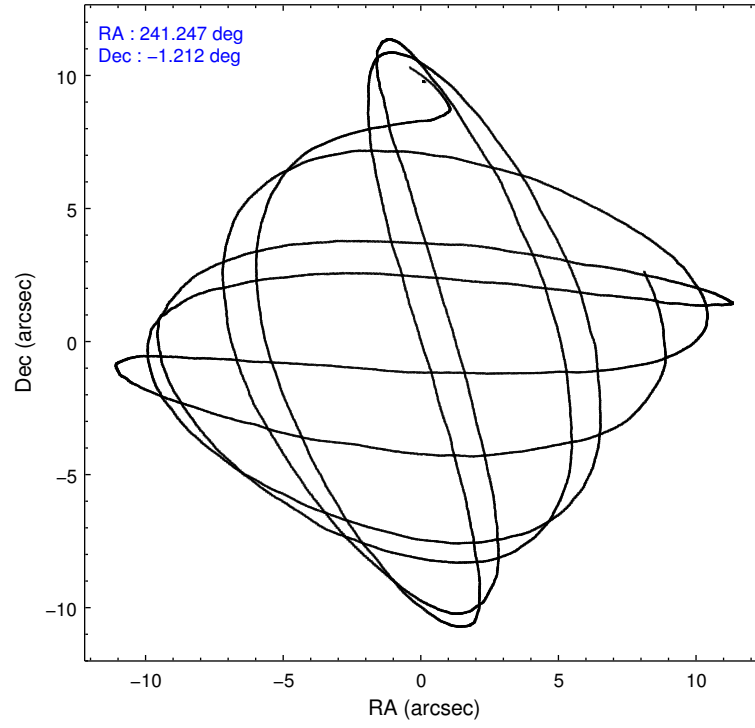
2.1.4 Events

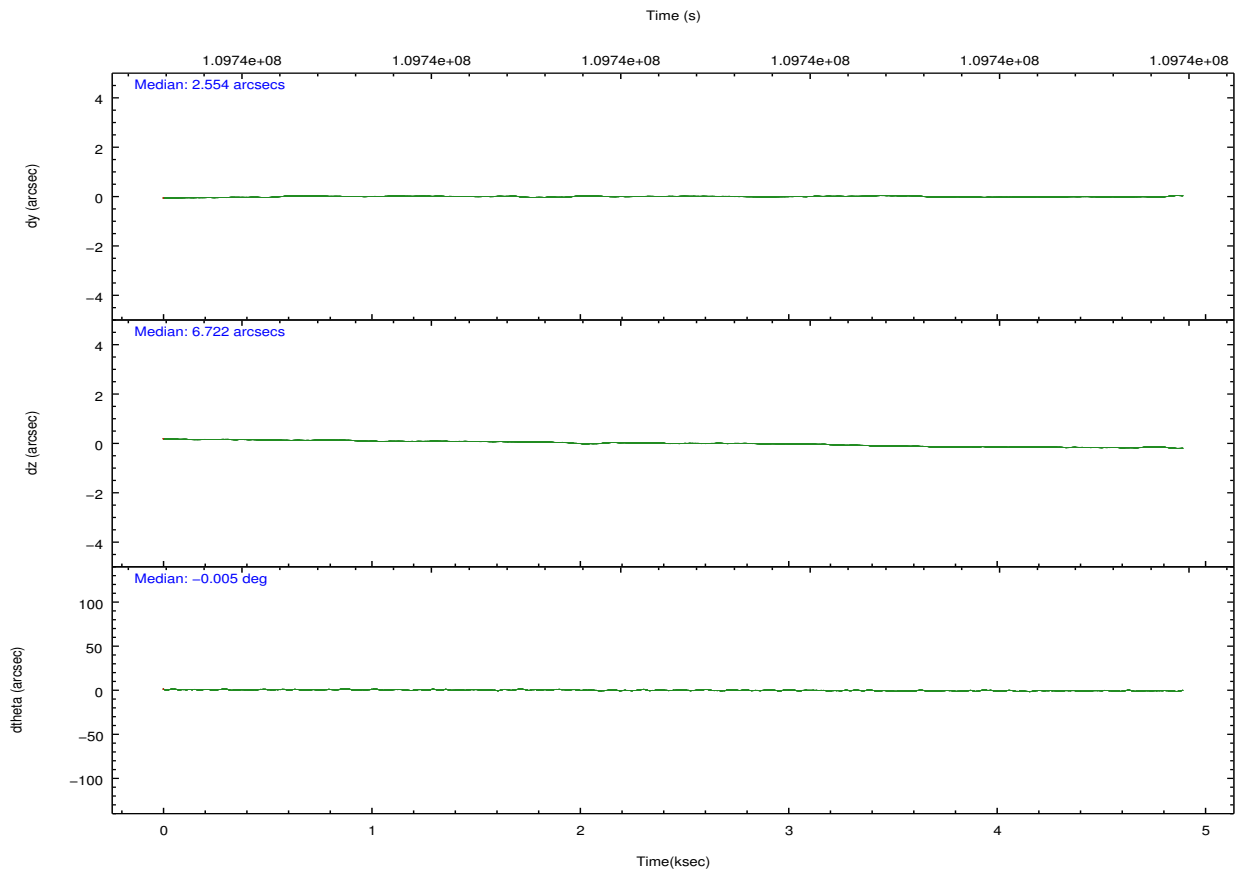
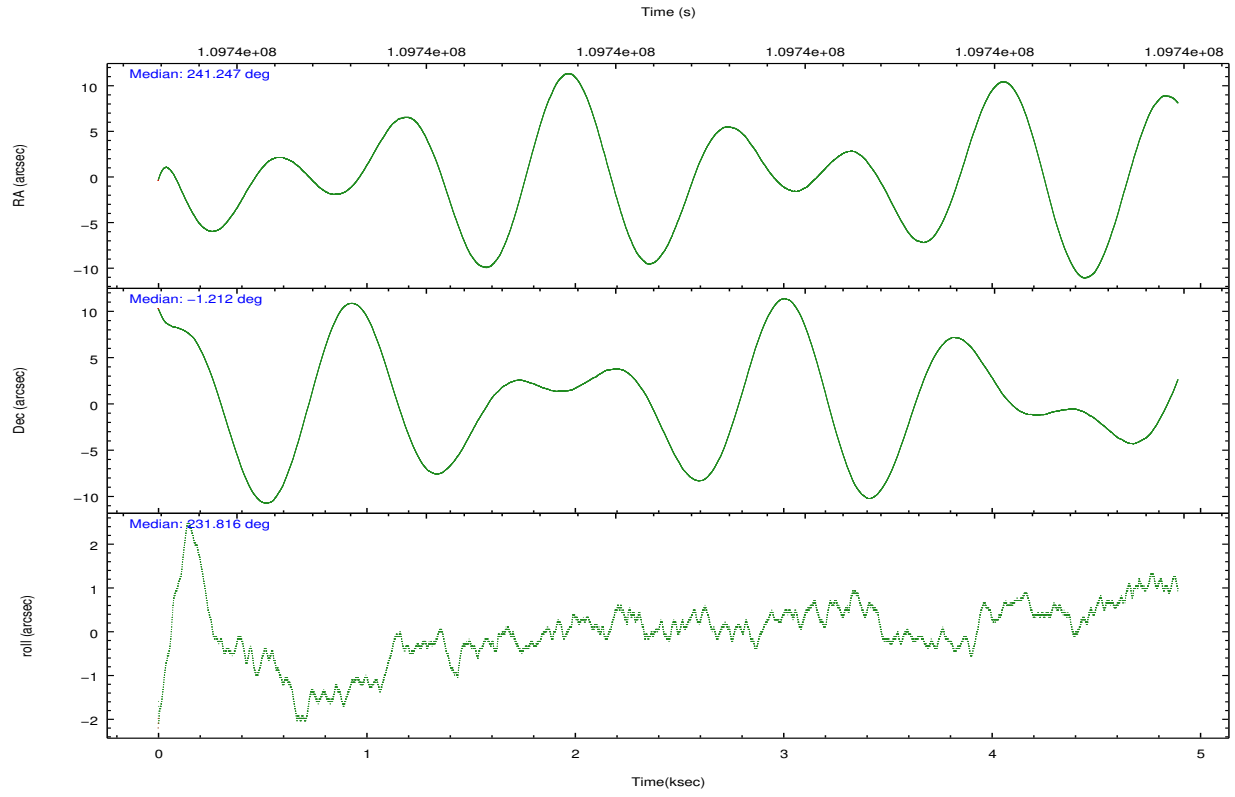
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 33714 | 31318 | 45622 | 32189 | 40340 | 39284 | grade 0 events | 1536 | 1489 | 3988 | 1467 | 1626 | 2537 |
| rejected events | 30108 | 27890 | 23716 | 28538 | 23828 | 31745 | | 4% | 4% | 8% | 4% | 4% | 6% |
| rejected % | 89% | 89% | 51% | 88% | 59% | 80% | grade 1 events | 15 | 15 | 264 | 5 | 38 | 20 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 732 | 674 | 6064 | 729 | 3232 | 1555 |
| | | | | | | | | 2% | 2% | 13% | 2% | 8% | 3% |
| | | | | | | | grade 3 events | 343 | 344 | 890 | 373 | 1583 | 777 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 1% |
| | | | | | | | grade 4 events | 344 | 306 | 856 | 354 | 1428 | 743 |
| | | | | | | | | 1% | 0% | 1% | 1% | 3% | 1% |
| | | | | | | | grade 5 events | 1123 | 1227 | 3242 | 1315 | 3965 | 1678 |
| | | | | | | | | 3% | 3% | 7% | 4% | 9% | 4% |
| | | | | | | | grade 6 events | 656 | 618 | 10123 | 731 | 8652 | 1931 |
| | | | | | | | | 1% | 1% | 22% | 2% | 21% | 4% |
| | | | | | | | grade 7 events | 28965 | 26645 | 20195 | 27215 | 19816 | 30043 |
| | | | | | | | | 85% | 85% | 44% | 84% | 49% | 76% |

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 | 241.251286 | 241.2476670308256 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -1.184993 | -1.212078968135862 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 231.669517 | 231.8260656457253 | [s] Primary exposure time | 0.000000 | 3.2 |
| [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) | 109739024.184000 | 109738039.82095 | | | |
| Observation start date | 2001-06-24T03:02:40 | 2001-06-24T02:47:19 | | | |
| [s] Observation end time (MET) | 109743724.184000 | 109744472.72121 | | | |
| Observation end date | 2001-06-24T04:21:00 | 2001-06-24T04:34:32 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



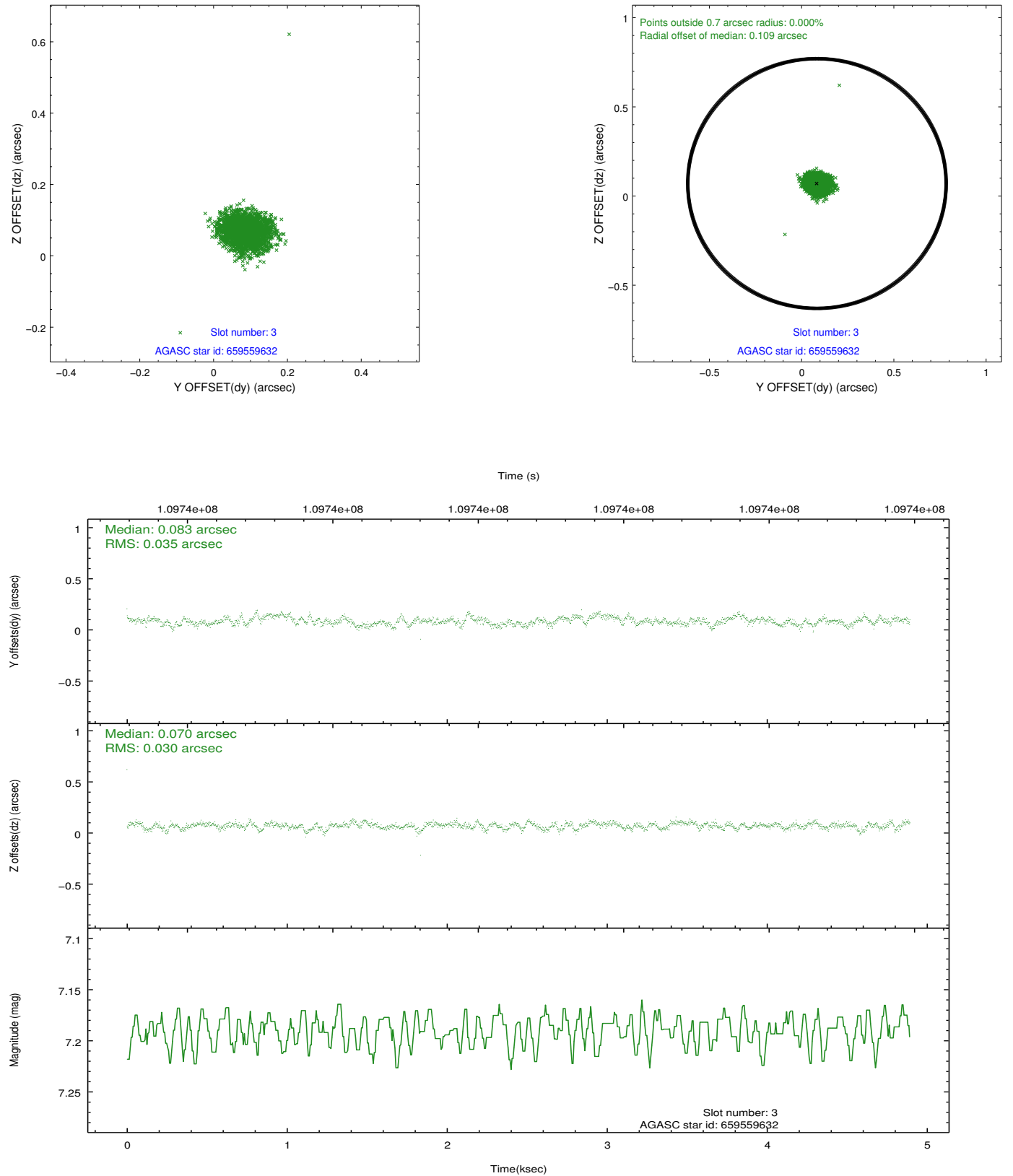


Slot Statistics

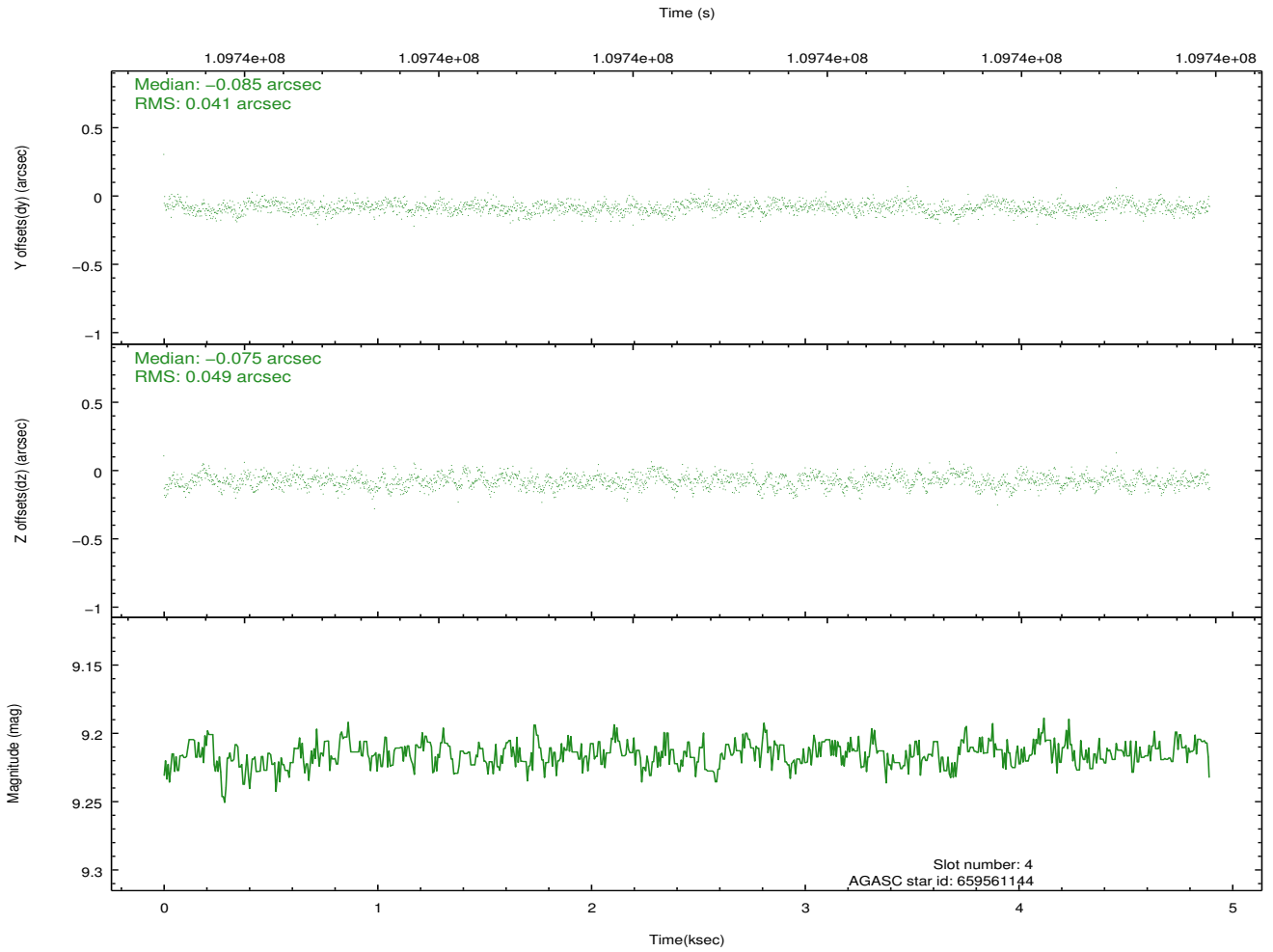
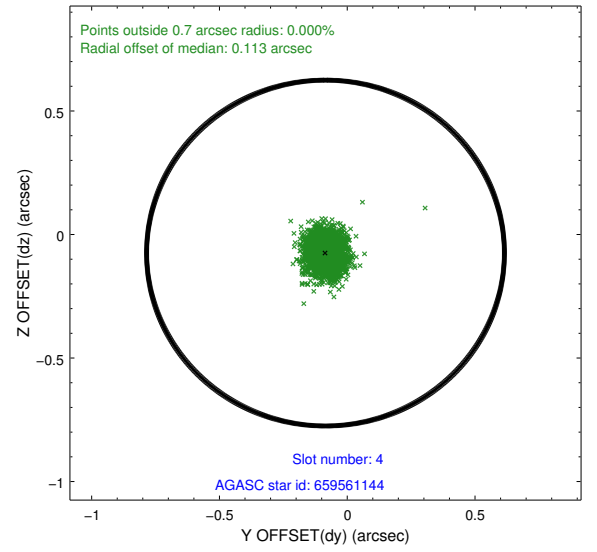
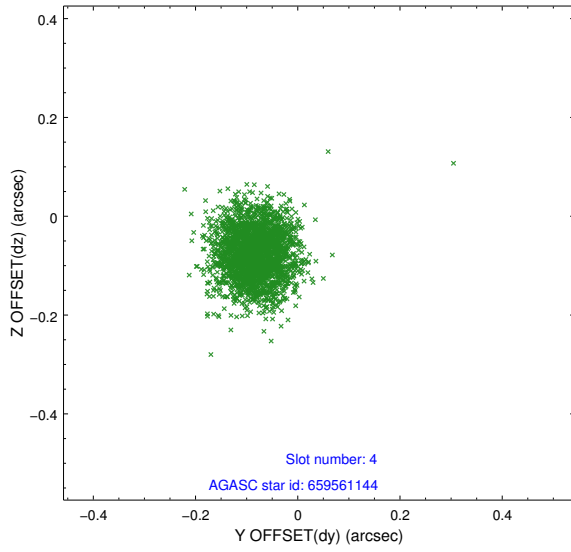
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|---------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.11 | 1194 | -0.023 | 0.002 | 0.007 | 0.011 | 0.000000 | 0.000000 | -755.19 | -1727.88 |
| 1 | FID | ACIS-S-4 | 7.20 | 1194 | -0.040 | 0.011 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2157.49 | 179.35 |
| 2 | FID | ACIS-S-5 | 7.24 | 1194 | 0.032 | -0.003 | 0.006 | 0.011 | 0.000000 | 0.000000 | -1806.38 | 174.39 |
| 3 | GUIDE | 659559632 | 7.19 | 2387 | 0.083 | 0.070 | 0.048 | 0.076 | 241.172548 | -1.160148 | 105.19 | -276.88 |
| 4 | GUIDE | 659561144 | 9.22 | 2387 | -0.085 | -0.075 | 0.067 | 0.108 | 241.115844 | -0.281180 | -2250.41 | -2400.15 |
| 5 | GUIDE | 659692296 | 9.05 | 2386 | 0.029 | -0.005 | 0.089 | 0.141 | 241.897508 | -0.946713 | -2117.21 | 1292.48 |
| 6 | GUIDE | 659691536 | 8.89 | 2388 | -0.035 | 0.006 | 0.082 | 0.136 | 242.007729 | -1.036235 | -2110.41 | 1805.14 |
| 7 | OMITTED | | 0.00 | 0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000000 | 0.000000 | 0.00 | 0.00 |

2.4 Star Slots

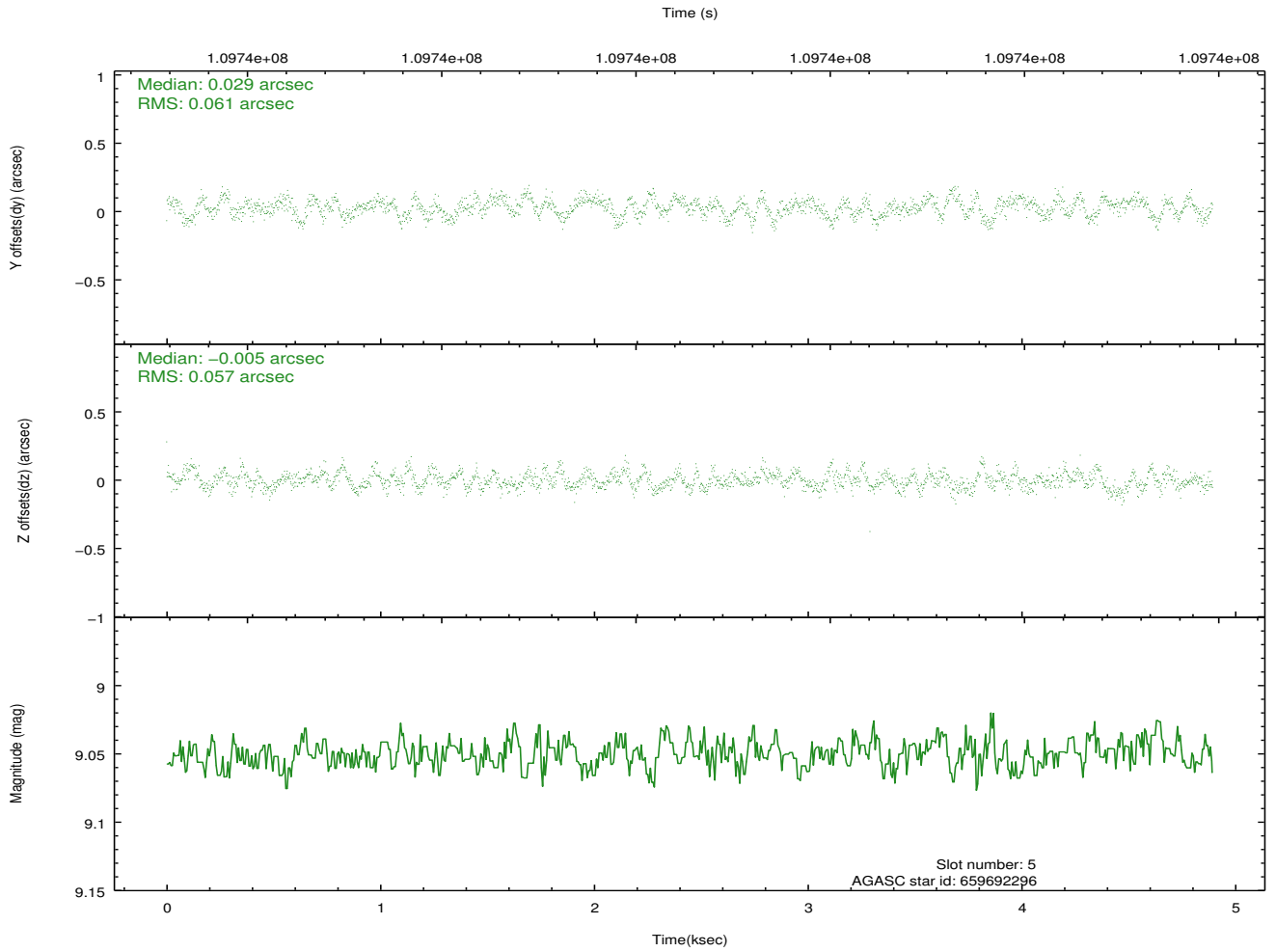
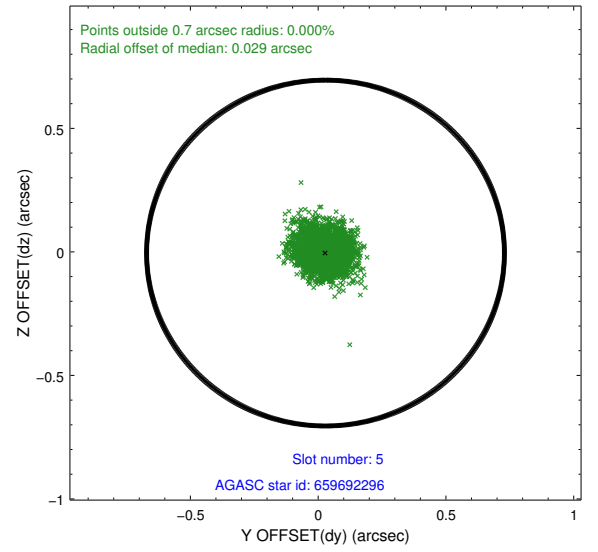
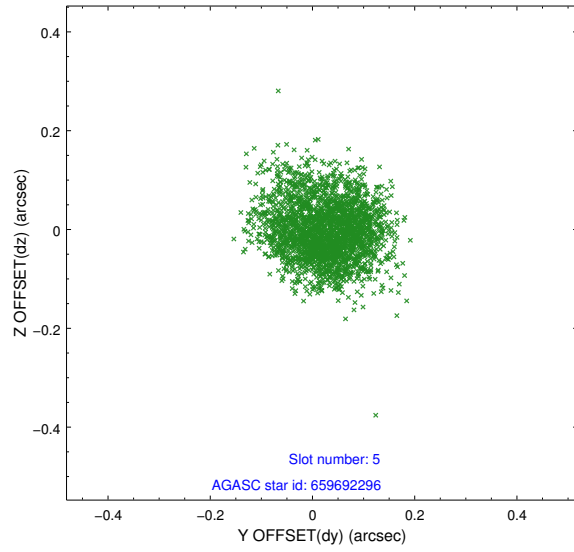
2.4.1 Slot 3



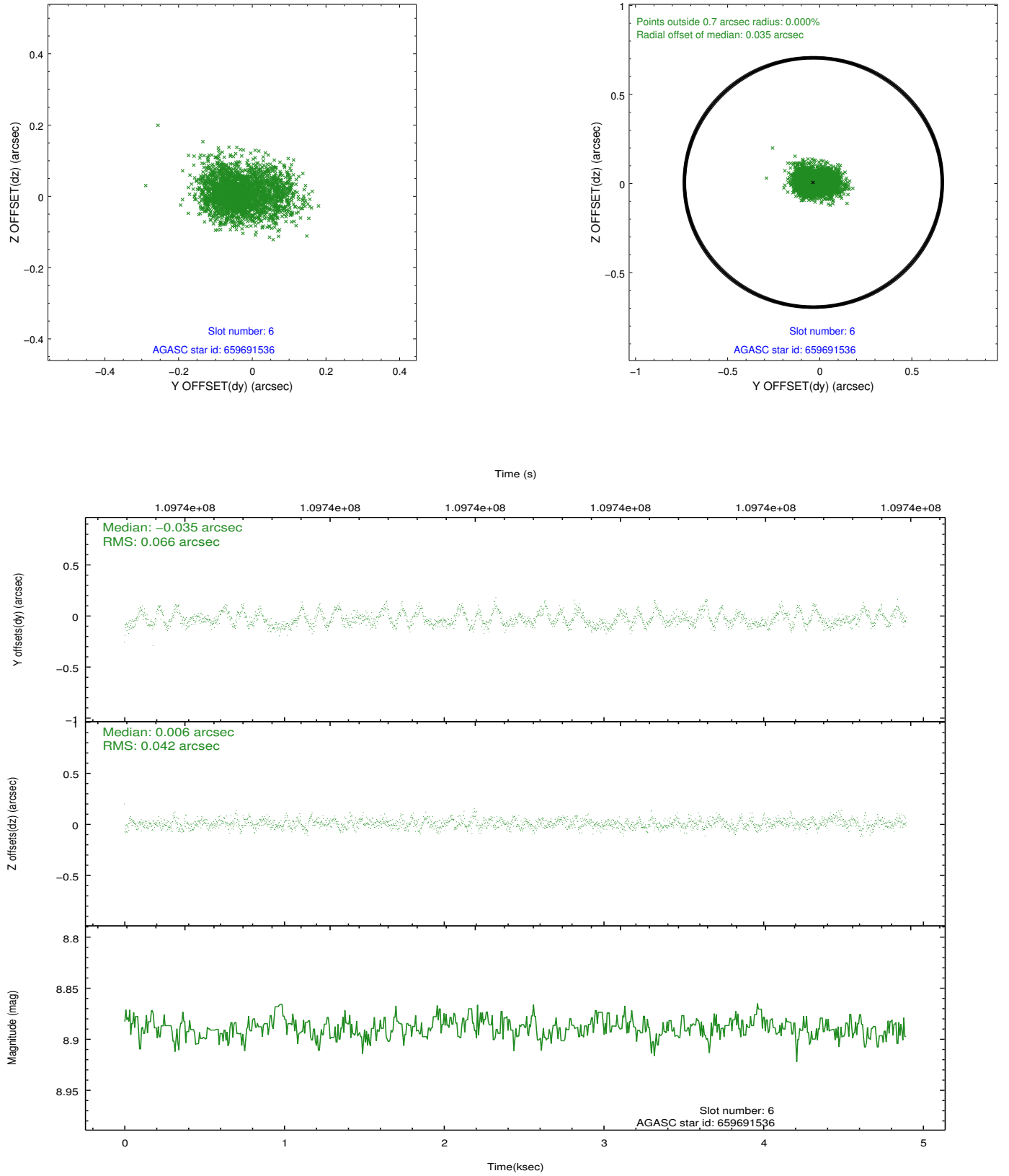
2.4.2 Slot 4



2.4.3 Slot 5

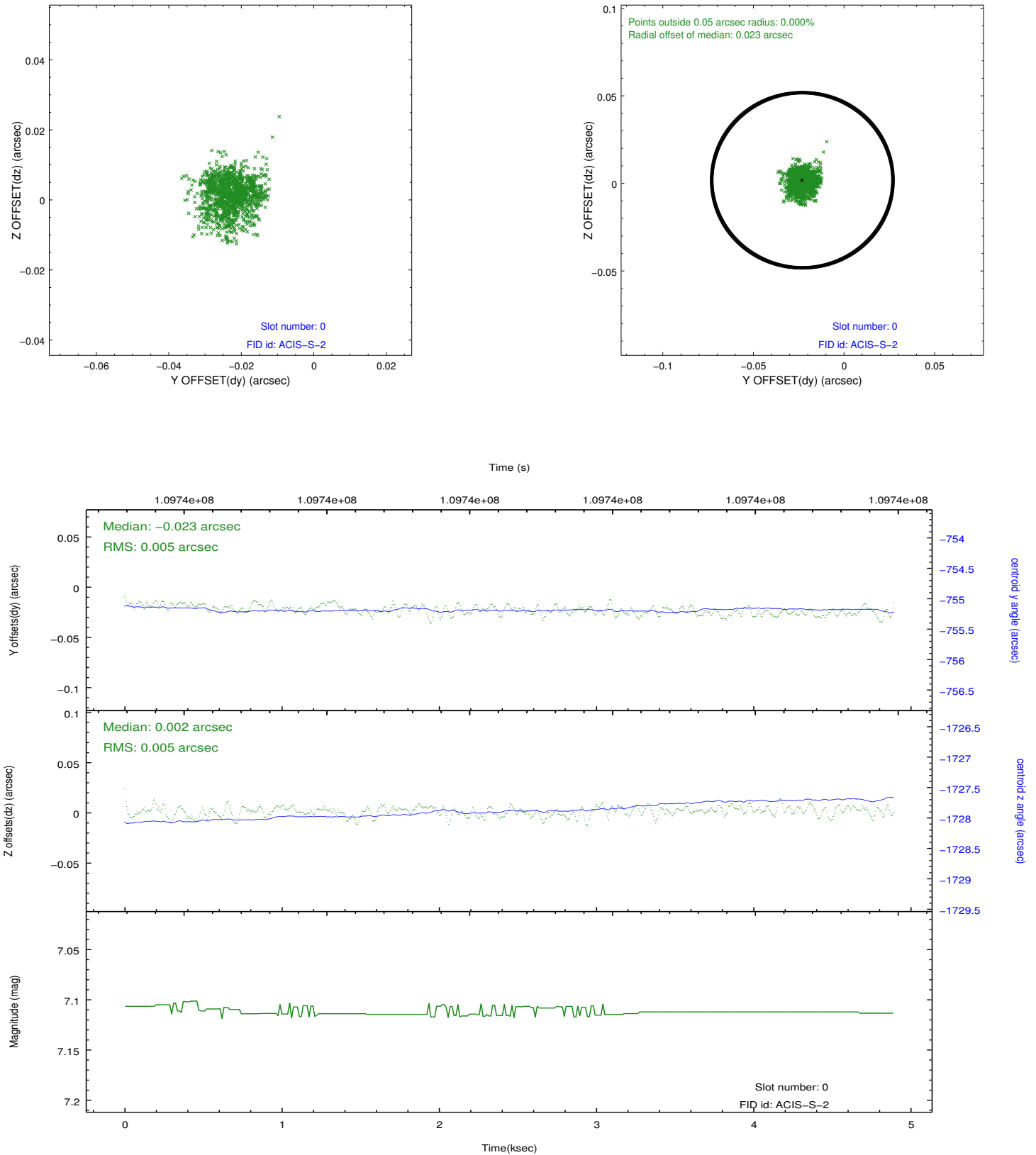


2.4.4 Slot 6

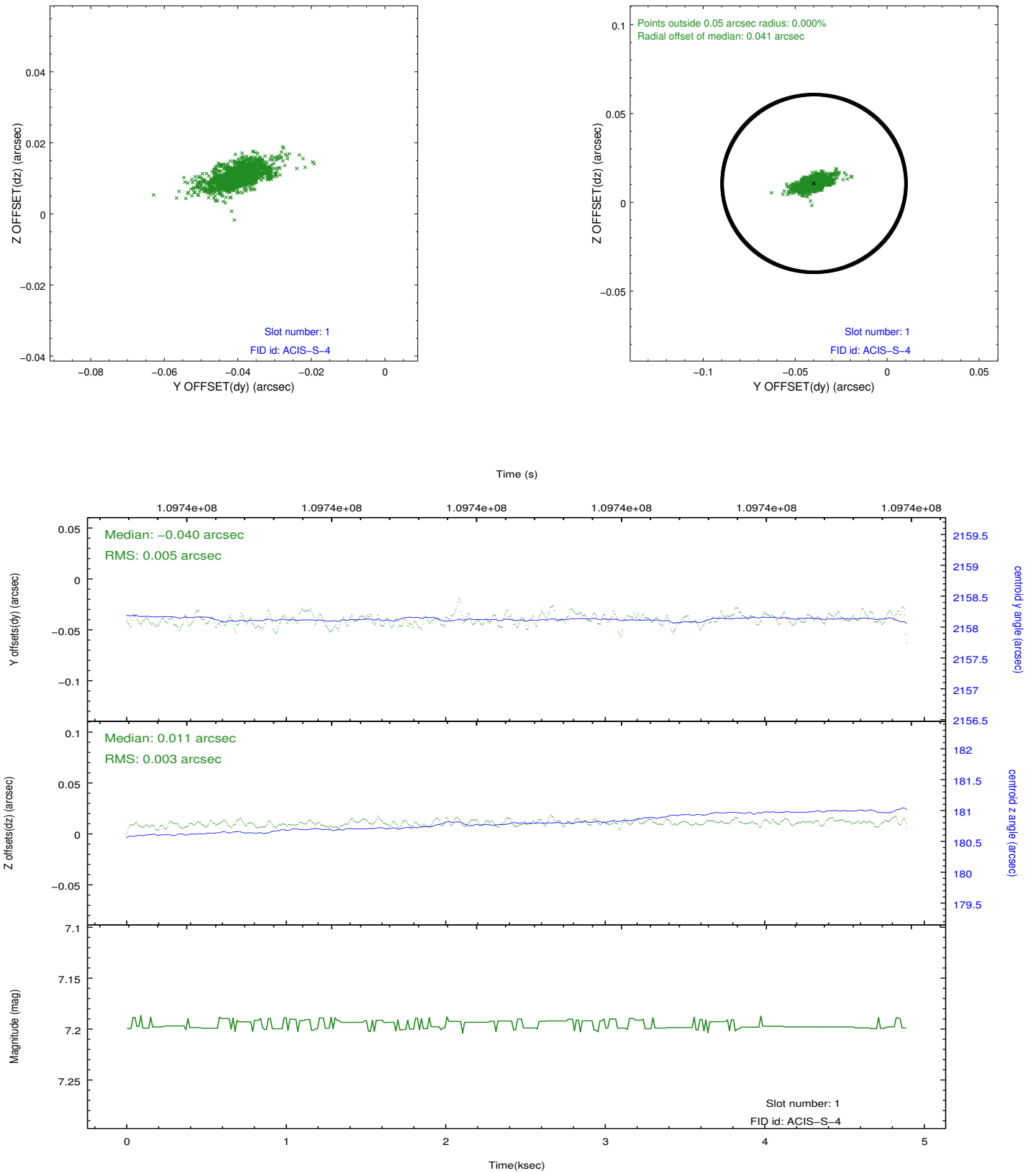


2.5 FID Slots

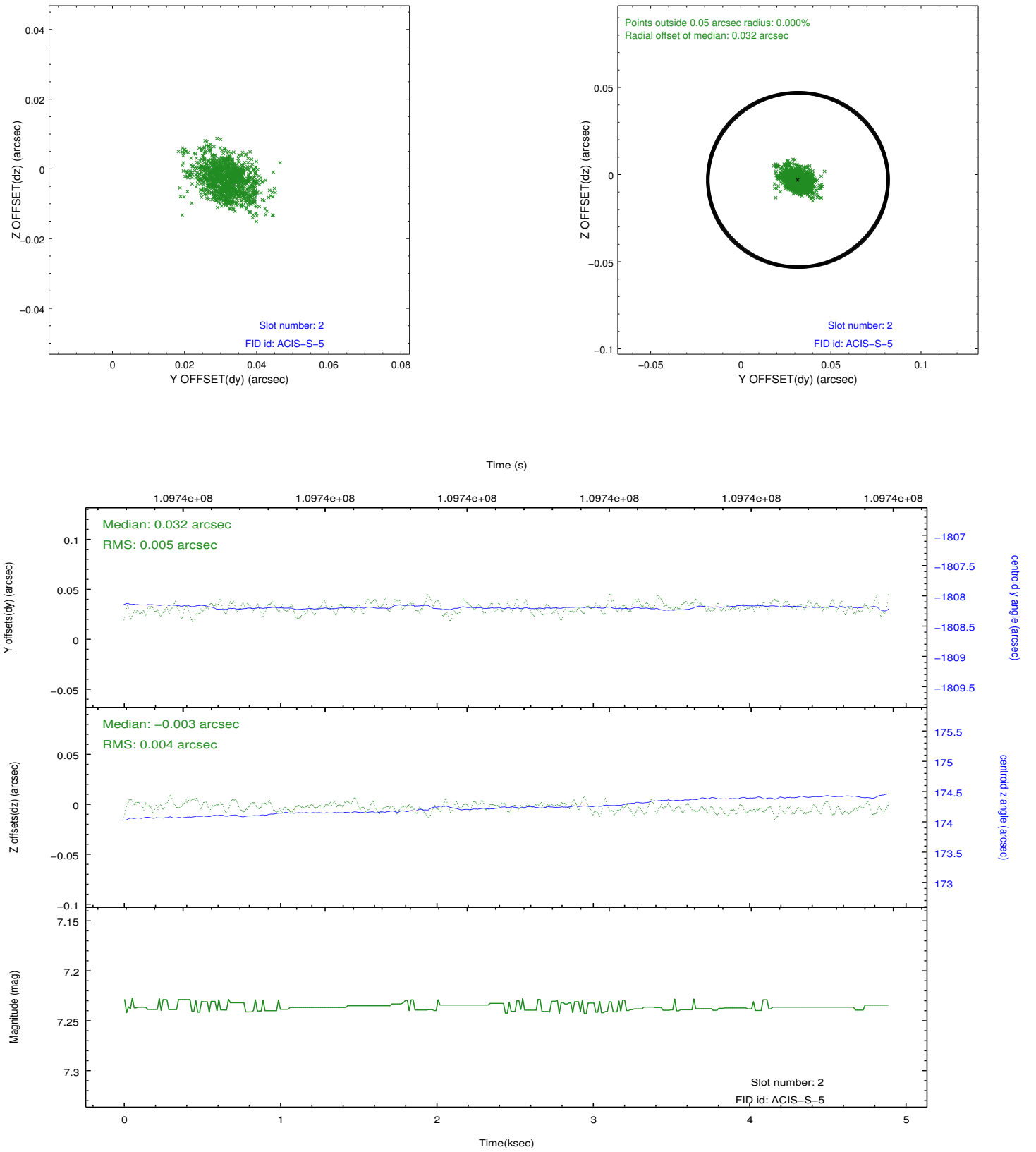
2.5.1 Slot 0



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) | 2012.09.21 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 4.7 |

A.2 Comments