

V&V Reference Report

L2 ASCDS Version : 7.6.7.1

Observation 5562 - L2 Version 002
Chandra X-Ray Center

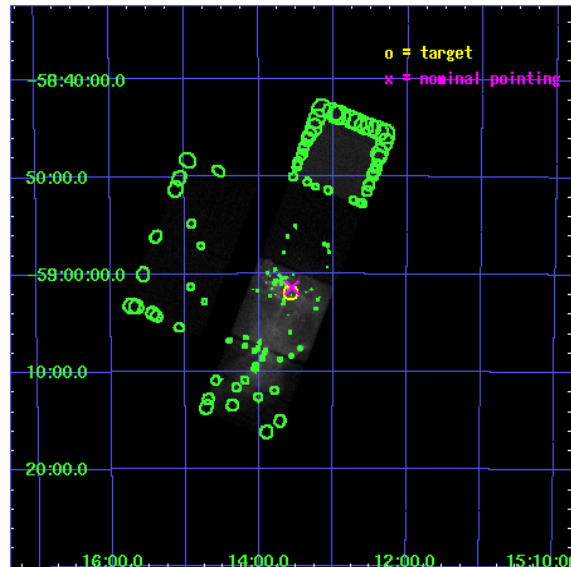
L2 Processing Date : Apr 7 2006

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1 Front

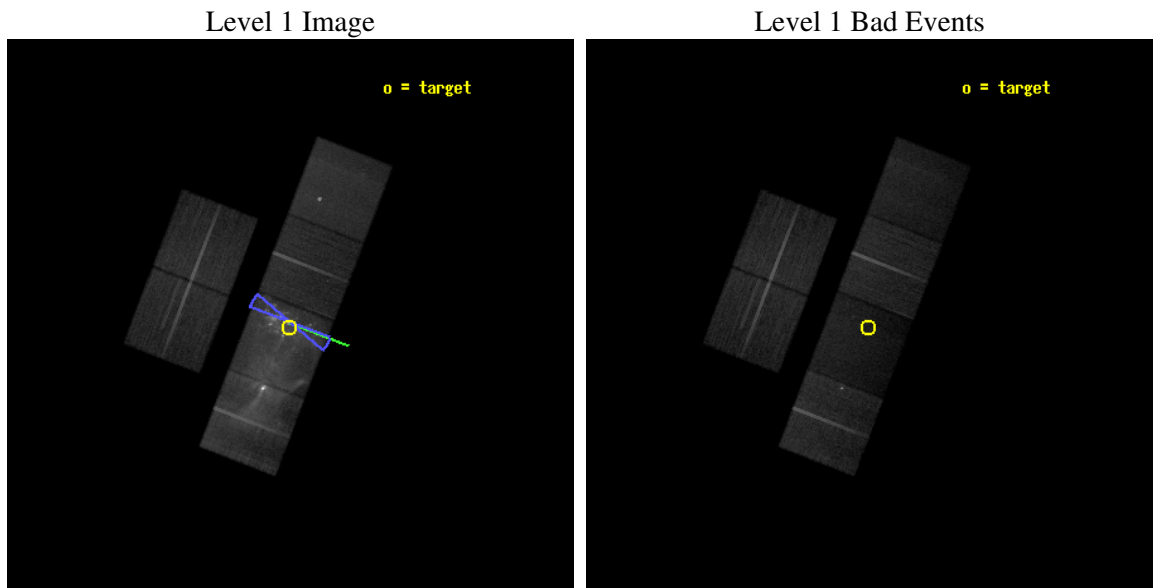
| | |
|----------|-------------------------------------------------------------------------------------------------------|
| seq_num | 500551 |
| obs_id | 5562 |
| title | A Chandra Study of the Interaction between the Plasma Nebula RCW89 and the pulsar jet of PSR B1509-58 |
| observer | Mr. Yoichi Yatsu |
| object | RCW89 |
| dtcycle | 0 |
| cycle | P |
| ra_targ | 228.3925 |
| dec_targ | -59.032778 |
| ra_nom | 228.38893380419 |
| dec_nom | -59.023295458021 |
| roll_nom | 111.06843436371 |
| revision | 2 |
| ontime | 29955.199888408 |
| livetime | 29575.889110565 |
| ontime2 | 29948.717927903 |
| ontime3 | 29951.958918154 |
| ontime5 | 29955.199888408 |
| ontime6 | 29951.958918124 |
| ontime7 | 29955.199888408 |
| ontime8 | 29955.199888408 |
| l2events | 590423 |



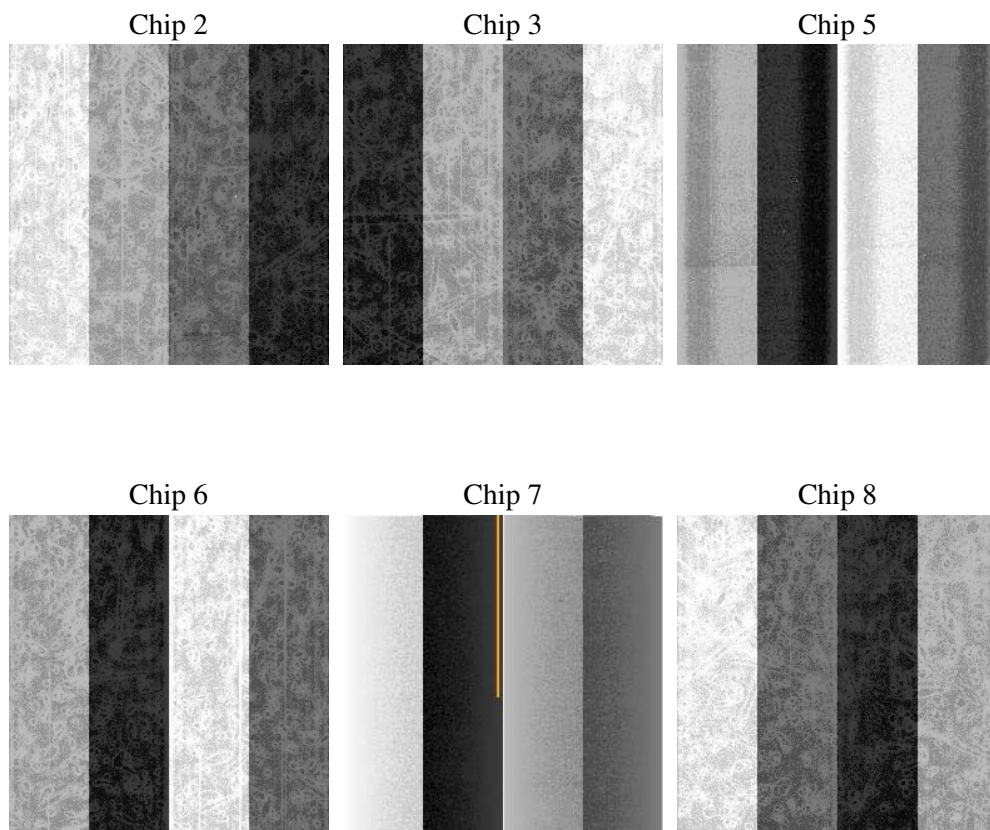
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | |
|----------|---------------------|
| obi_num | 0 |
| ascdsver | 7.6.7.1 |
| caldsver | 3.2.1 |
| date | 2006-04-07T17:56:54 |
| revision | 2 |

| | |
|----------------|-----------------|
| sched_exp_time | 30000.000000 |
| ontime | 29959.805110455 |
| ontime2 | 29953.323120028 |
| ontime3 | 29959.805130363 |
| ontime5 | 29959.805110455 |
| ontime6 | 29959.805130333 |
| ontime7 | 29959.805110455 |
| ontime8 | 29963.046100616 |
| l1events | 1512689 |

2.1.4 Events

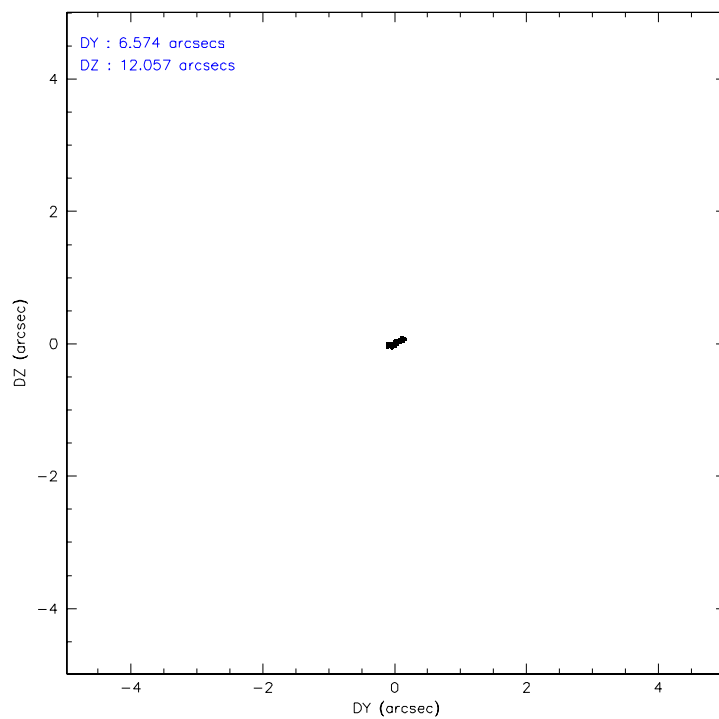
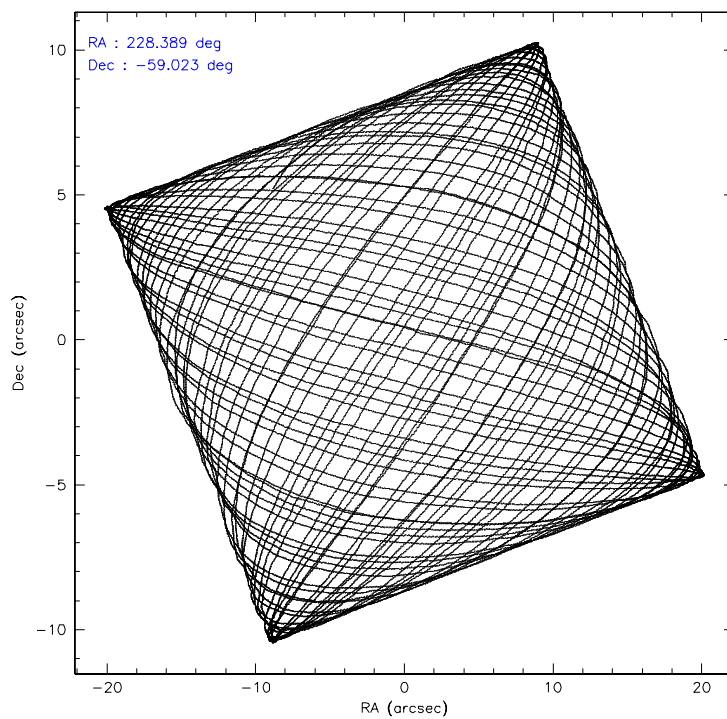
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 193737 | 180877 | 211101 | 186190 | 386575 | 354209 |
| rejected events | 172854 | 157791 | 106933 | 160522 | 95366 | 168231 |
| rejected % | 89% | 87% | 50% | 86% | 24% | 47% |

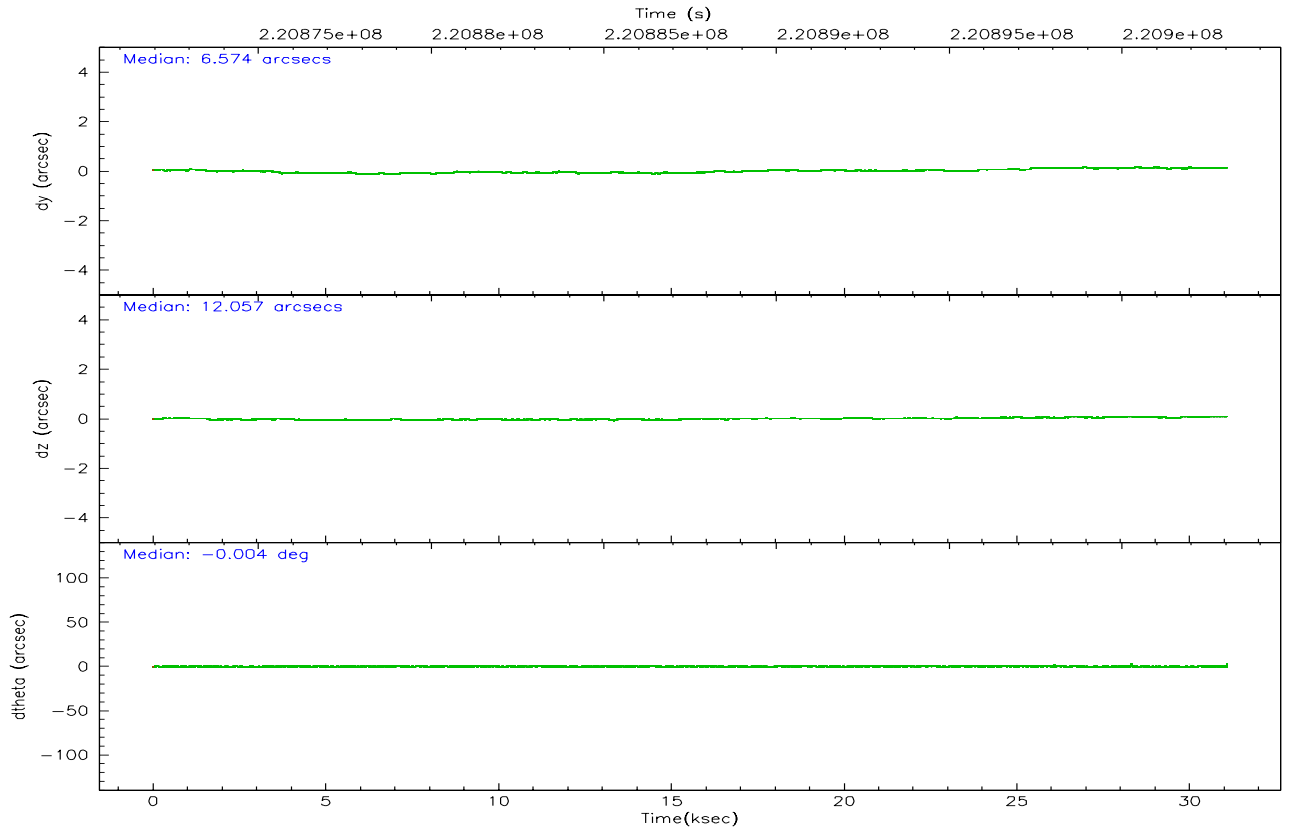
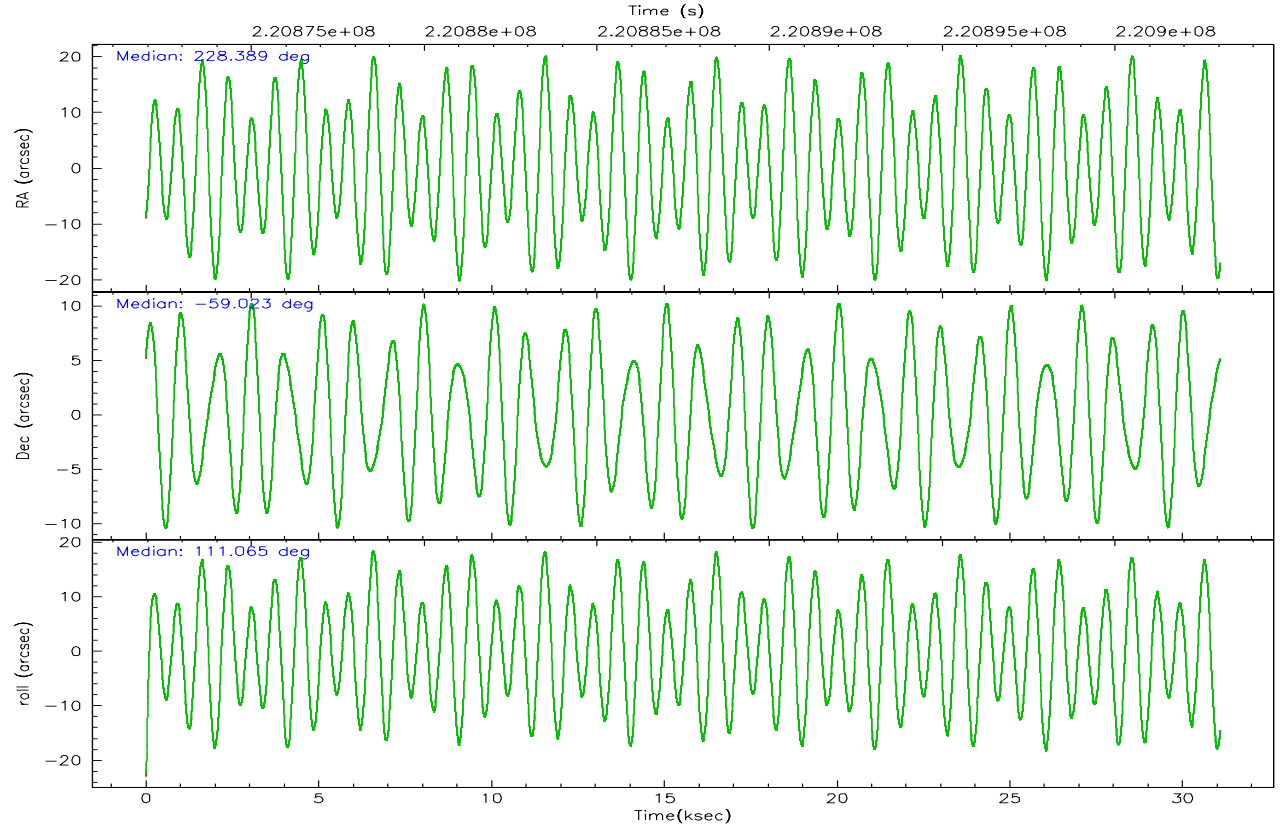
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|----------------|--------|--------|-------|--------|-------|--------|
| grade 0 events | 9278 | 11734 | 8061 | 12823 | 56808 | 117261 |
| | 4% | 6% | 3% | 6% | 14% | 33% |
| grade 1 events | 101 | 105 | 57 | 103 | 158 | 1151 |
| | 0% | 0% | 0% | 0% | 0% | 0% |
| grade 2 events | 4453 | 4109 | 31714 | 4697 | 82328 | 28050 |
| | 2% | 2% | 15% | 2% | 21% | 7% |
| grade 3 events | 2003 | 2071 | 2003 | 2275 | 27472 | 10936 |
| | 1% | 1% | 0% | 1% | 7% | 3% |
| grade 4 events | 2044 | 2069 | 1864 | 2132 | 27050 | 10431 |
| | 1% | 1% | 0% | 1% | 6% | 2% |
| grade 5 events | 4961 | 5941 | 12011 | 5982 | 14963 | 9823 |
| | 2% | 3% | 5% | 3% | 3% | 2% |
| grade 6 events | 3108 | 3110 | 60537 | 3746 | 97581 | 19333 |
| | 1% | 1% | 28% | 2% | 25% | 5% |
| grade 7 events | 167789 | 151738 | 94854 | 154432 | 80215 | 157224 |
| | 86% | 83% | 44% | 82% | 20% | 44% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|--------------------------------------|---------------------|----------------------|---------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 6 | 6 |
| Detector | ACIS-235678 | ACIS-235678 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | On-chip summing requested | N | N |
| Observation mode | POINTING | POINTING | Subarray requested | NONE | NONE |
| Pointing RA | 228.430543 | 228.3889338041869 | Alternating exposures requested | N | N |
| Pointing Dec | -59.040110 | -59.02329545802072 | Primary exposure time | 0.000000 | 3.2 |
| Pointing Roll | 110.947496 | 111.0684343637121 | | | |
| Roll angle | 300.000000 | 300.000000 | | | |
| Roll tolerance | 10.000000 | 10.000000 | | | |
| Roll constraint allows 180D rotation | Y | Y | | | |
| SIM focus pos (mm) | -0.684267 | -0.6828225247311905 | | | |
| SIM defocus (mm) | 0 | 0.001444936568705701 | | | |
| SIM translation stage pos (mm) | -190.132523 | -190.1400660498719 | | | |
| SIM translation stage offset (mm) | 0 | 0.00754346686406393 | | | |
| Observation start time | 220873039.184000 | 220871631.29711 | | | |
| Observation start date | 2004-12-31T09:36:15 | 2004-12-31T09:13:51 | | | |
| Observation end time | 220903039.184000 | 220903311.48603 | | | |
| Observation end date | 2004-12-31T17:56:15 | 2004-12-31T18:01:51 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



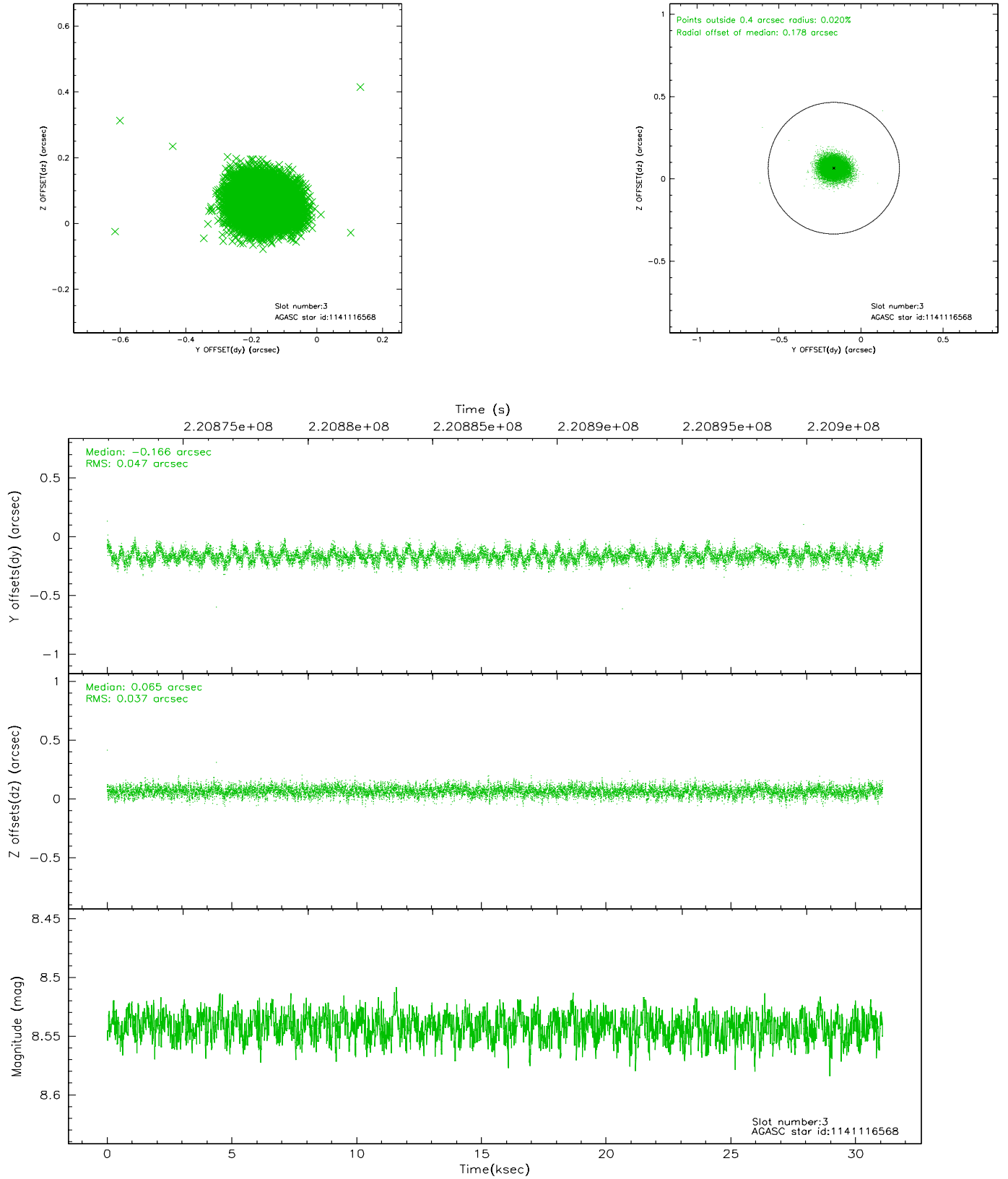


Slot Statistics

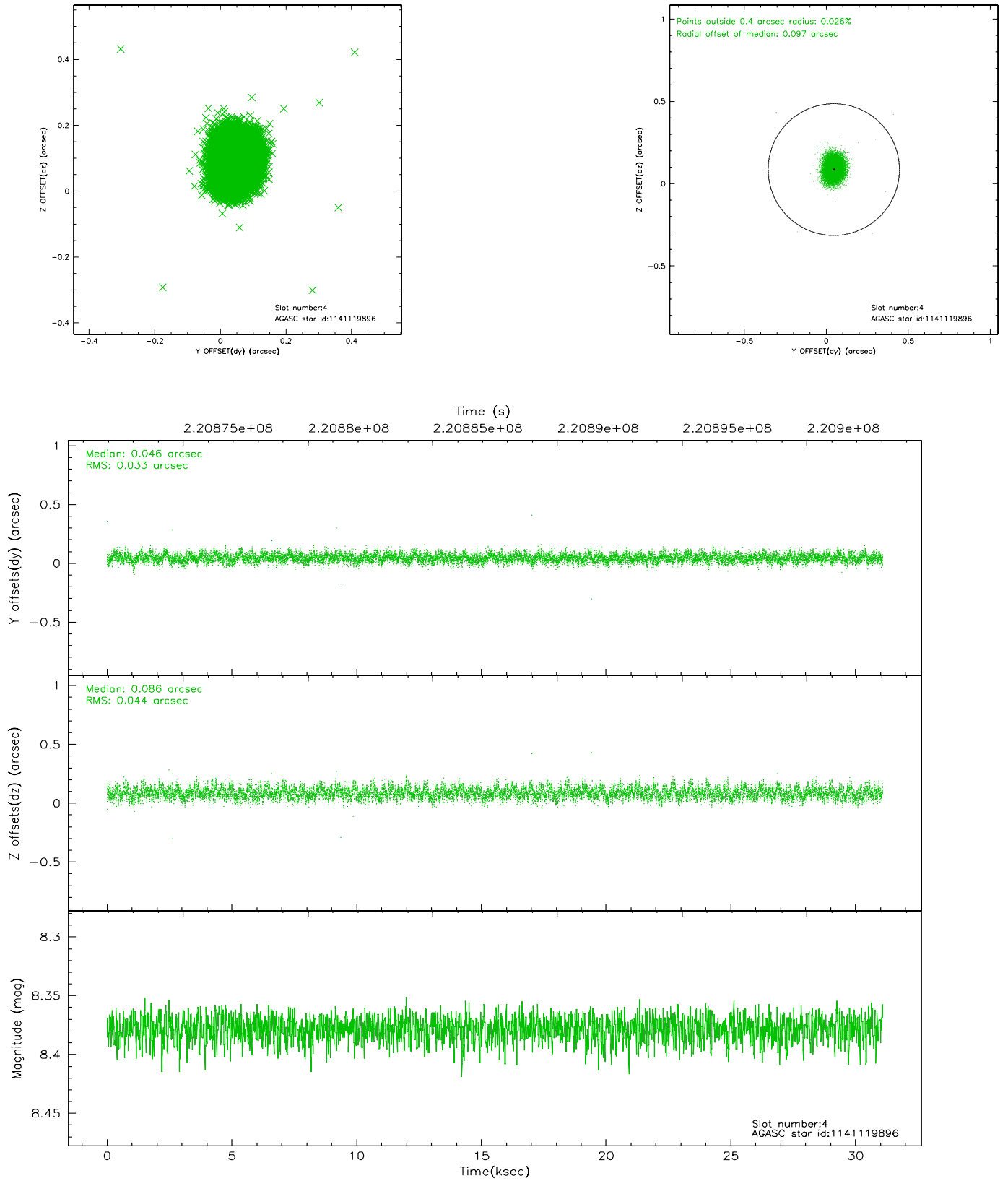
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------------|------|-------|--------|--------|-------|-------|------------|------------|----------|----------|
| 0 | FID | ACIS-S-2 | 7.10 | 7582 | -0.026 | -0.017 | 0.007 | 0.011 | 0.000000 | 0.000000 | -759.35 | -1733.38 |
| 1 | FID | ACIS-S-4 | 7.20 | 7582 | 0.033 | 0.017 | 0.005 | 0.009 | 0.000000 | 0.000000 | 2153.96 | 175.06 |
| 2 | FID | ACIS-S-5 | 7.23 | 7581 | -0.038 | 0.009 | 0.007 | 0.011 | 0.000000 | 0.000000 | -1812.12 | 168.81 |
| 3 | GUIDE | 1141116568 | 8.54 | 15162 | -0.166 | 0.065 | 0.063 | 0.103 | 228.578452 | -58.520066 | 1648.75 | -928.40 |
| 4 | GUIDE | 1141119896 | 8.38 | 15164 | 0.046 | 0.086 | 0.058 | 0.094 | 229.637327 | -59.405643 | -2037.82 | -1587.13 |
| 5 | GUIDE | 1141120488 | 8.76 | 15155 | -0.010 | -0.021 | 0.066 | 0.110 | 228.236450 | -59.504731 | -1435.91 | 929.45 |
| 6 | GUIDE | 1141114296 | 9.20 | 15153 | 0.018 | 0.044 | 0.076 | 0.123 | 227.097332 | -58.697525 | 2020.00 | 1897.30 |
| 7 | GUIDE | 1141118720 | 9.46 | 15147 | 0.103 | -0.176 | 0.102 | 0.163 | 227.772709 | -59.614232 | -1507.31 | 1859.96 |

2.4 Star Slots

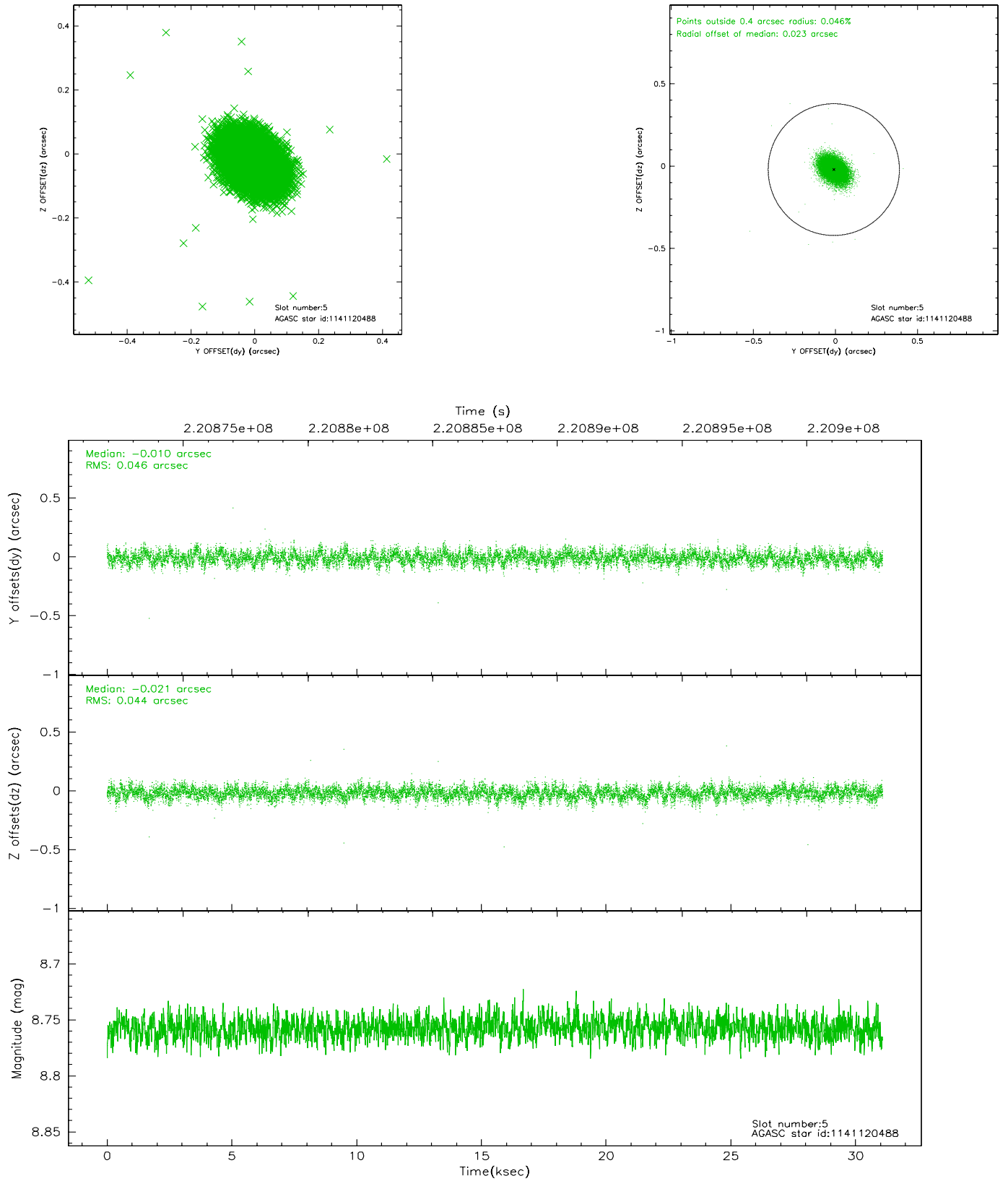
2.4.1 Slot 3



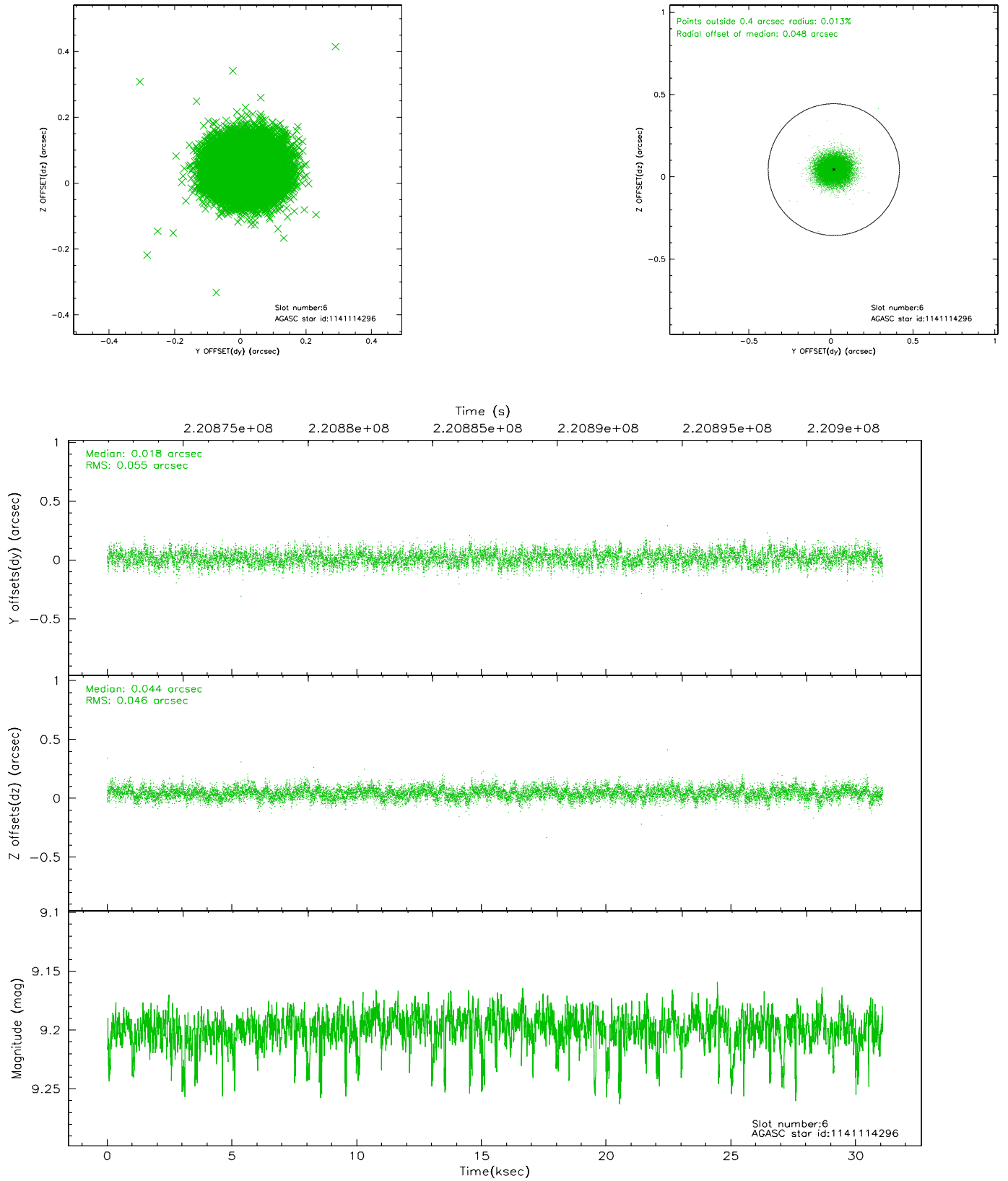
2.4.2 Slot 4



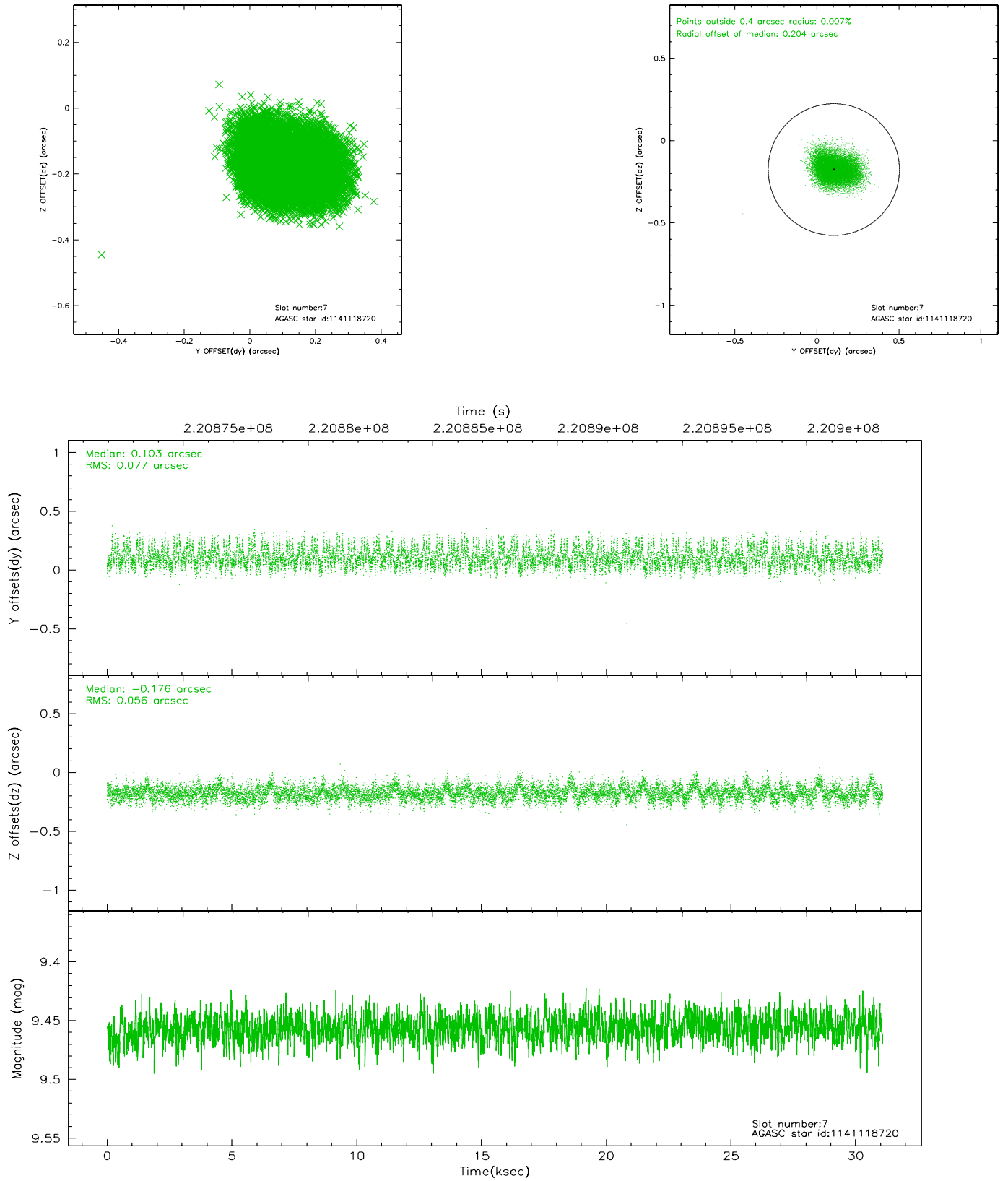
2.4.3 Slot 5



2.4.4 Slot 6

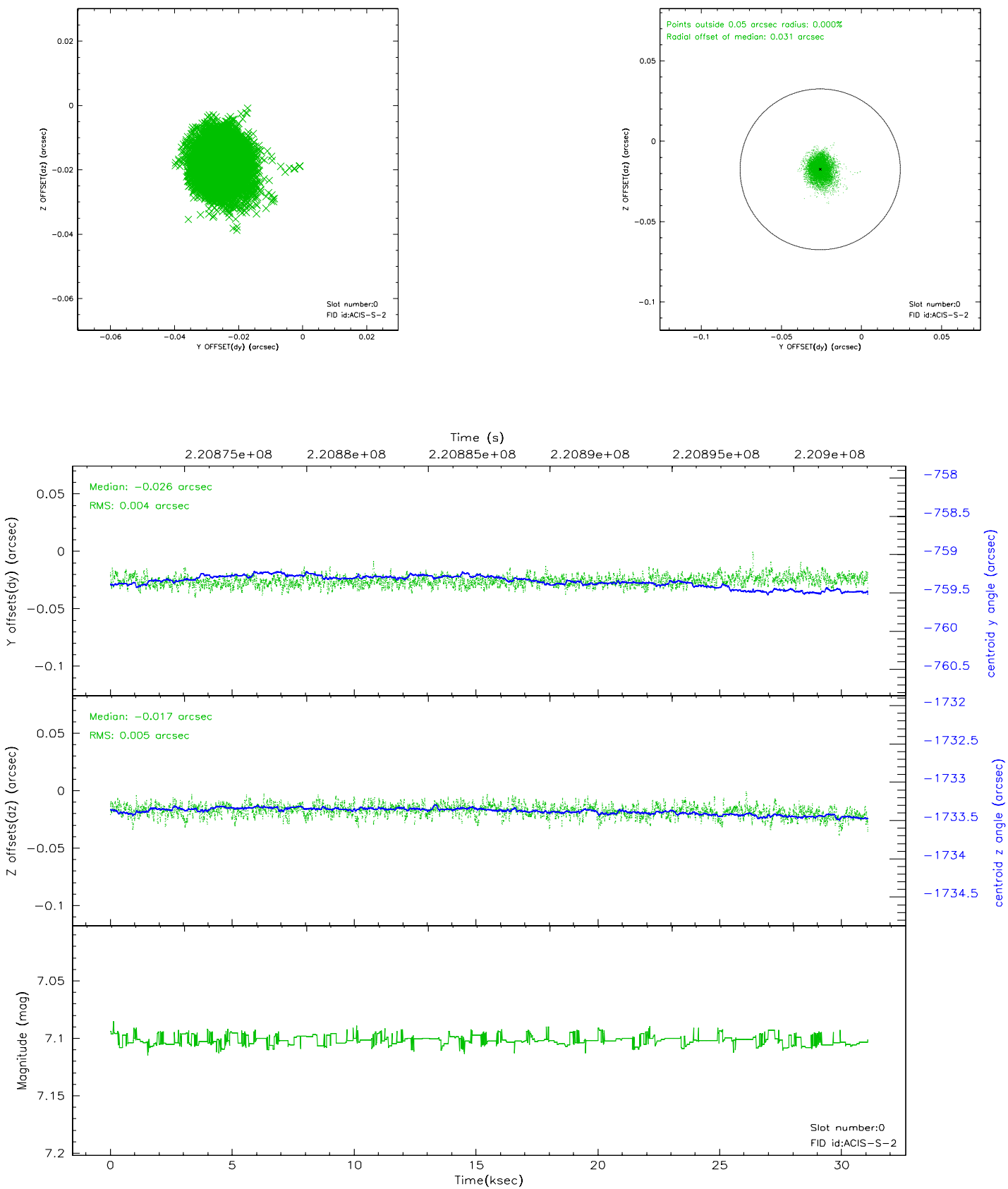


2.4.5 Slot 7

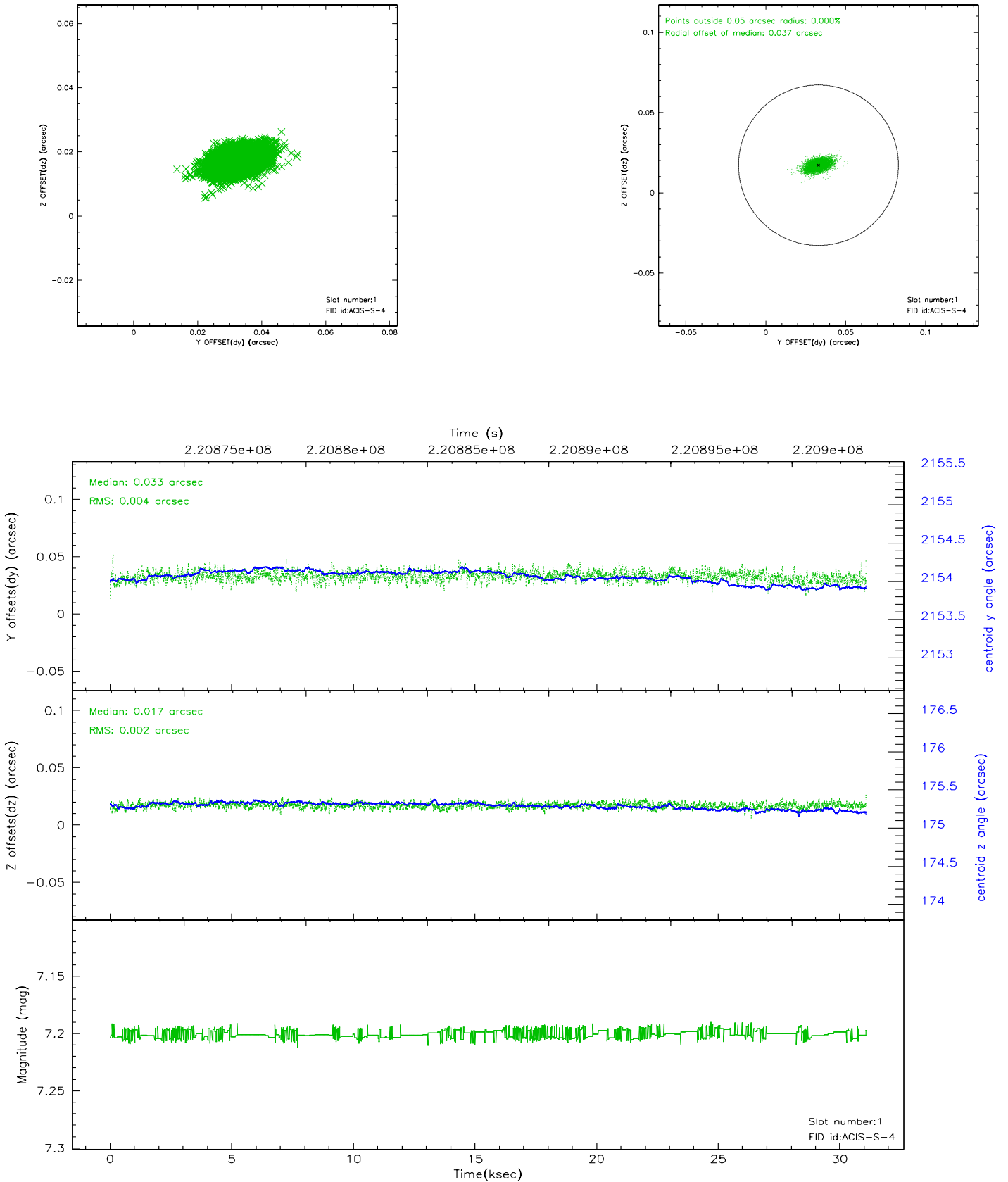


2.5 FID Slots

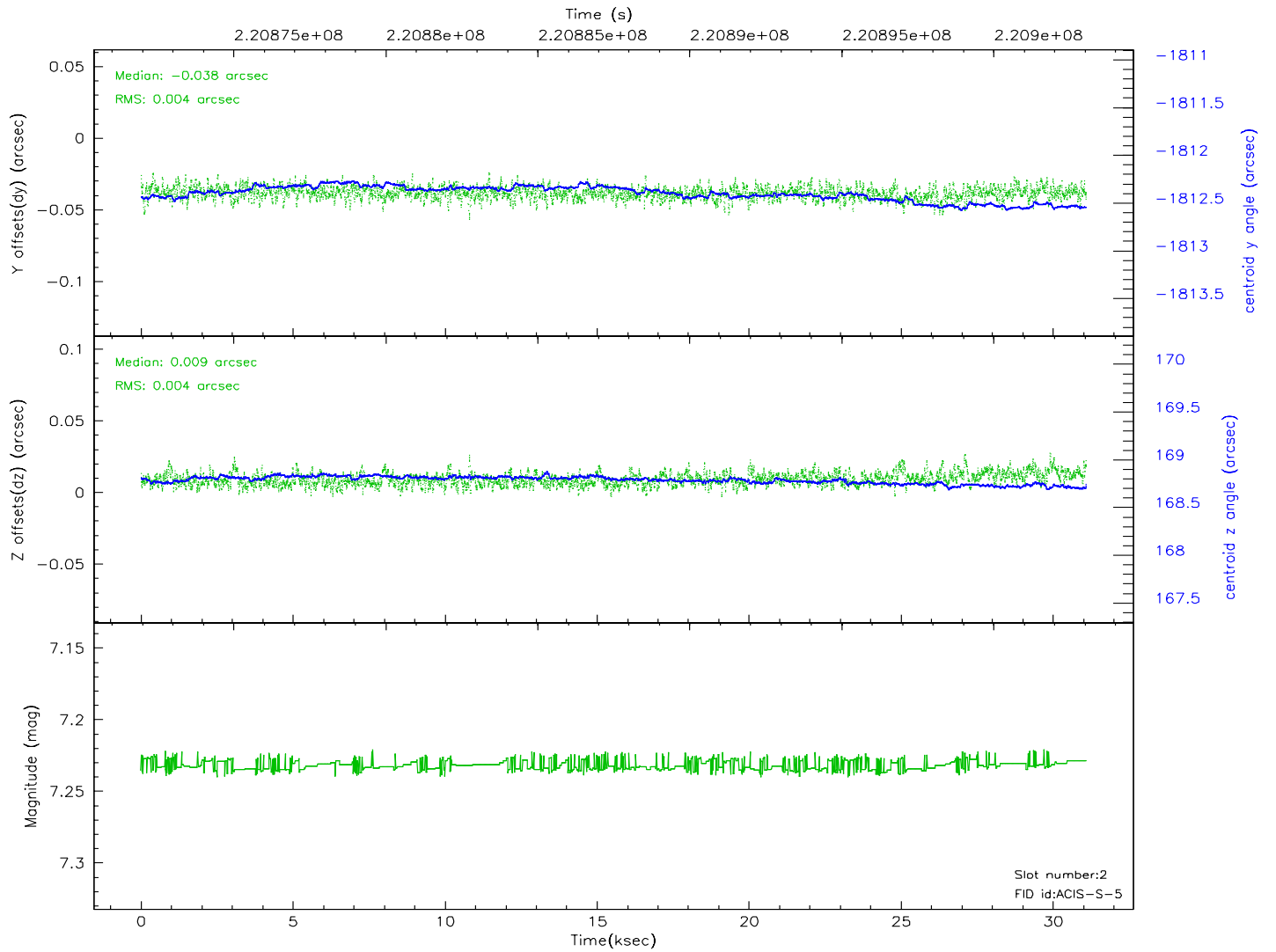
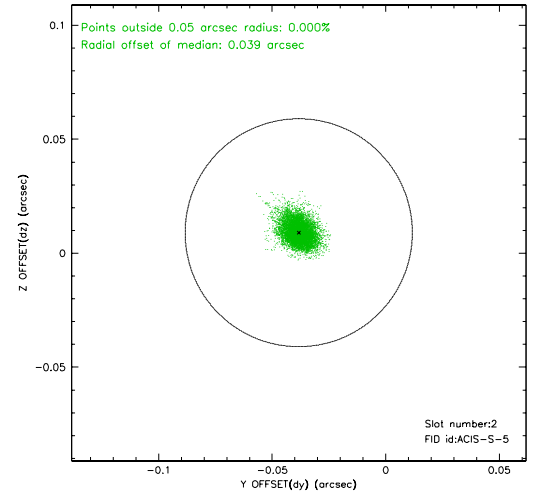
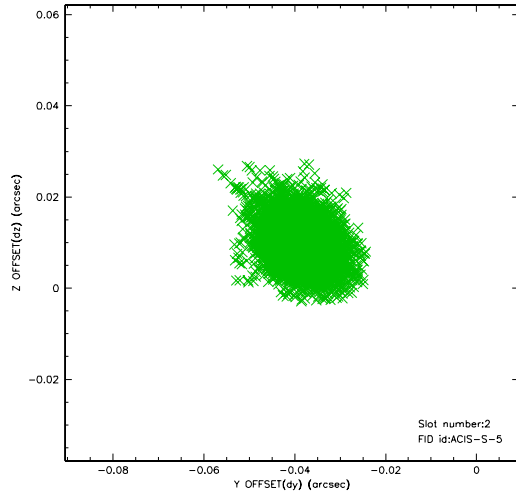
2.5.1 Slot 0



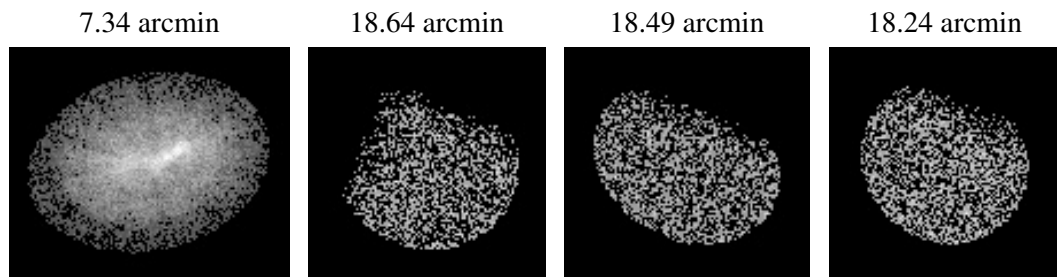
2.5.2 Slot 1



2.5.3 Slot 2



3 Point Sources



A Summary

A.1 Status

| | |
|----------------------------|---------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2006.04.07 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 29.95519 |

A.2 Comments

Roll constraint satisfied.