

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 8893 - L2 Version 2
Chandra X-Ray Center

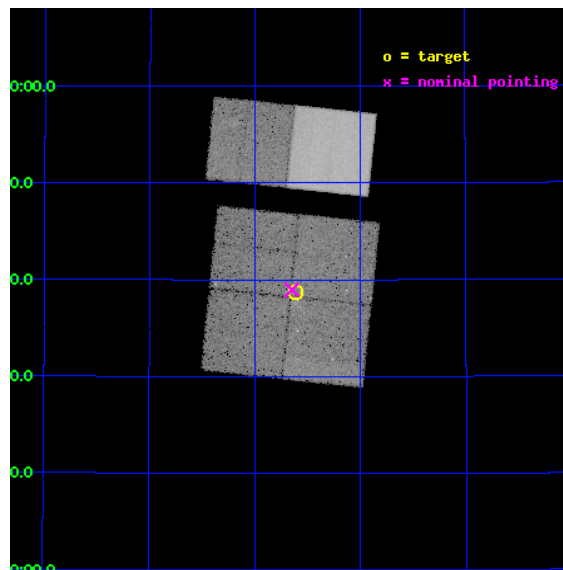
L2 Processing Date : May 9 2012

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1 Front

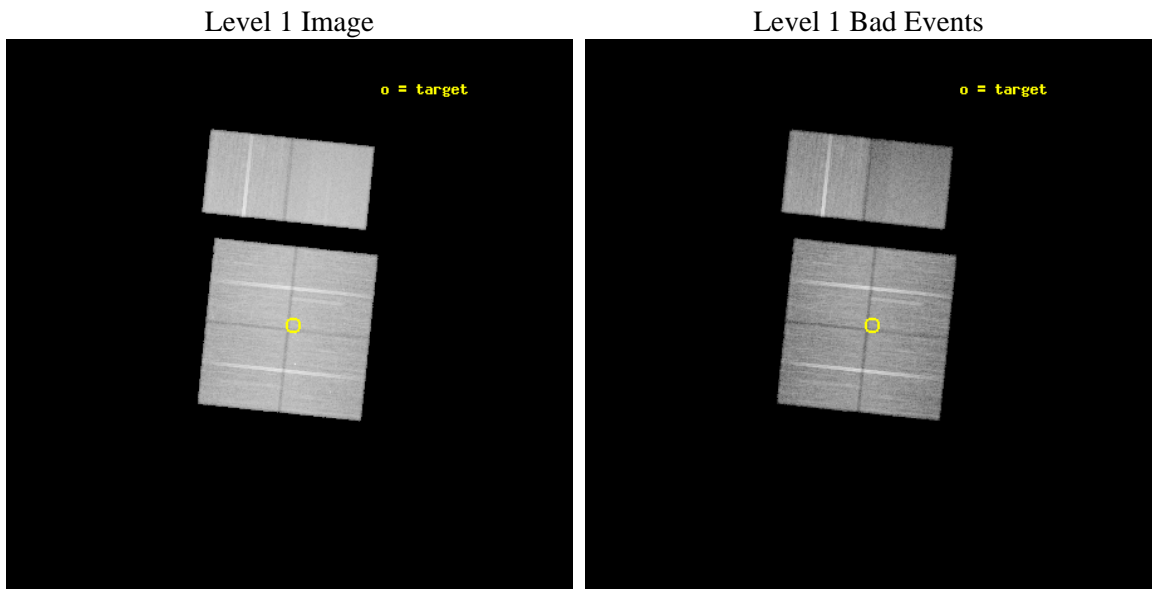
| | | |
|----------|---------------------------------------|---|
| seq_num | 200474 | Sequence number |
| obs_id | 8893 | Observation id |
| title | ACIS Mapping Observation of W75N/DR21 | Proposal title |
| observer | Professor Gordon Garmire | Principal investigator |
| object | W75N | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 309.652083 | Observer's specified target RA [deg] |
| dec_targ | 42.646194 | Observer's specified target Dec [deg] |
| ra_nom | 309.6621721249 | Nominal RA [deg] |
| dec_nom | 42.649376147725 | Nominal Dec [deg] |
| roll_nom | 5.9975941284579 | Nominal Roll [deg] |
| revision | 2 | Processing version of data |
| ontime | 30121.518016875 | Sum of GTIs [s] |
| livetime | 29740.101218744 | Livetime [s] |
| ontime0 | 30127.999887824 | Sum of GTIs [s] |
| ontime1 | 30127.999887824 | Sum of GTIs [s] |
| ontime2 | 30127.999887824 | Sum of GTIs [s] |
| ontime3 | 30121.518016875 | Sum of GTIs [s] |
| ontime6 | 30124.758877635 | Sum of GTIs [s] |
| ontime7 | 30127.999887824 | Sum of GTIs [s] |
| l2events | 227945 | Number of level 2 events |



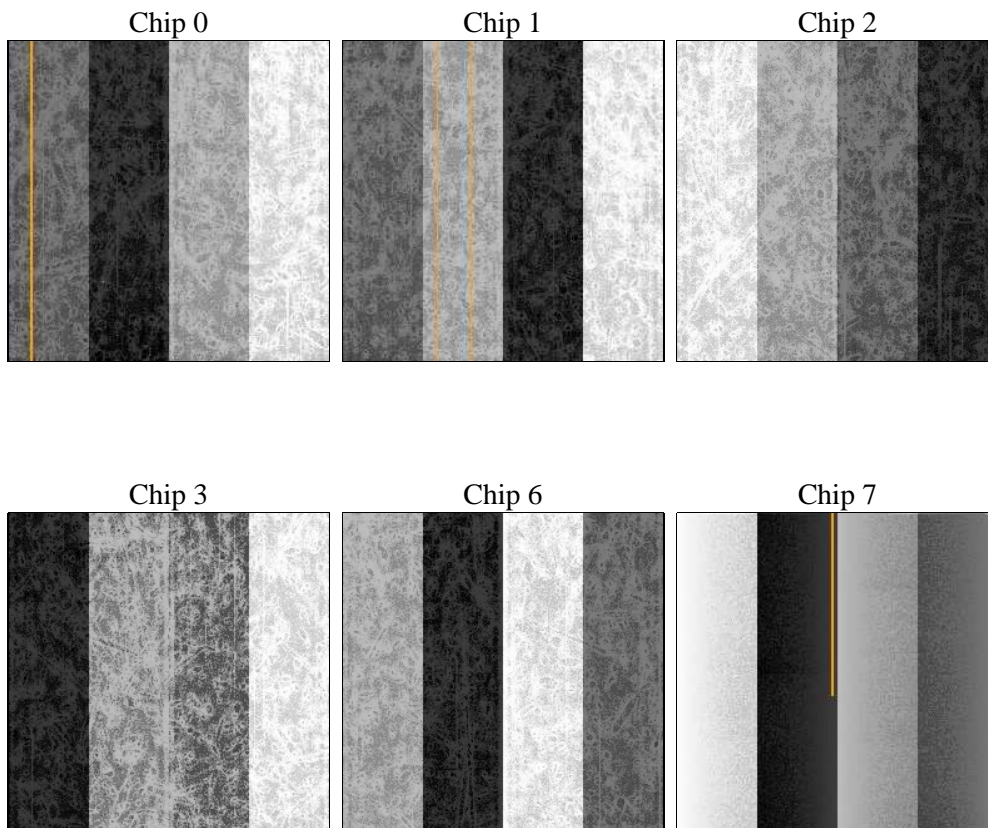
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 30000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.4 | Processing system revision | ontime | 30121.518016875 | Sum of GTIs [s] |
| caldsver | 4.4.9 | | ontime0 | 30127.999887824 | Sum of GTIs [s] |
| date | 2012-05-09T03:17:06 | Date and time of file creation | ontime1 | 30127.999887824 | Sum of GTIs [s] |
| revision | 2 | Processing version of data | ontime2 | 30127.999887824 | Sum of GTIs [s] |
| | | | ontime3 | 30121.518016875 | Sum of GTIs [s] |
| | | | ontime6 | 30124.758877635 | Sum of GTIs [s] |
| | | | ontime7 | 30127.999887824 | Sum of GTIs [s] |
| | | | l1events | 1479467 | Number of level 1 events |

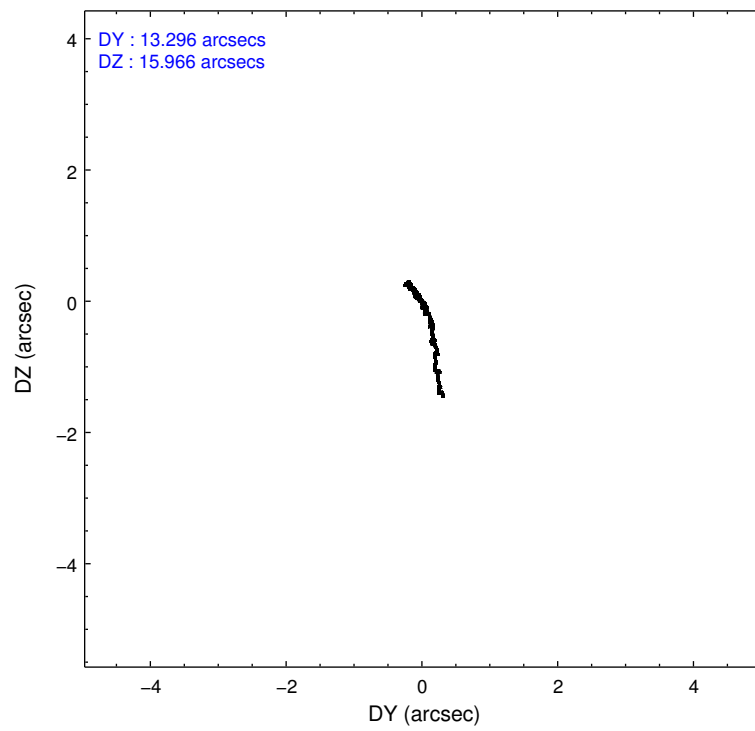
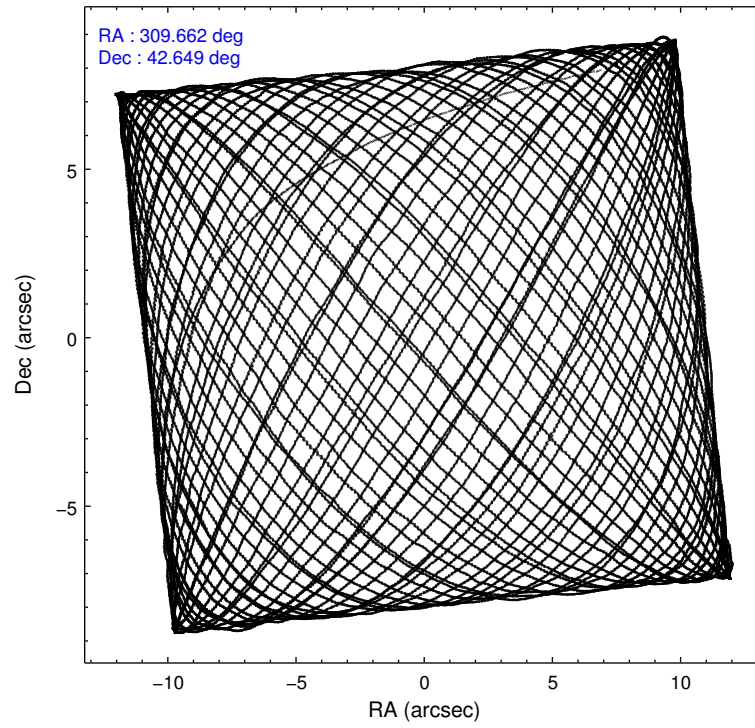
2.1.4 Events

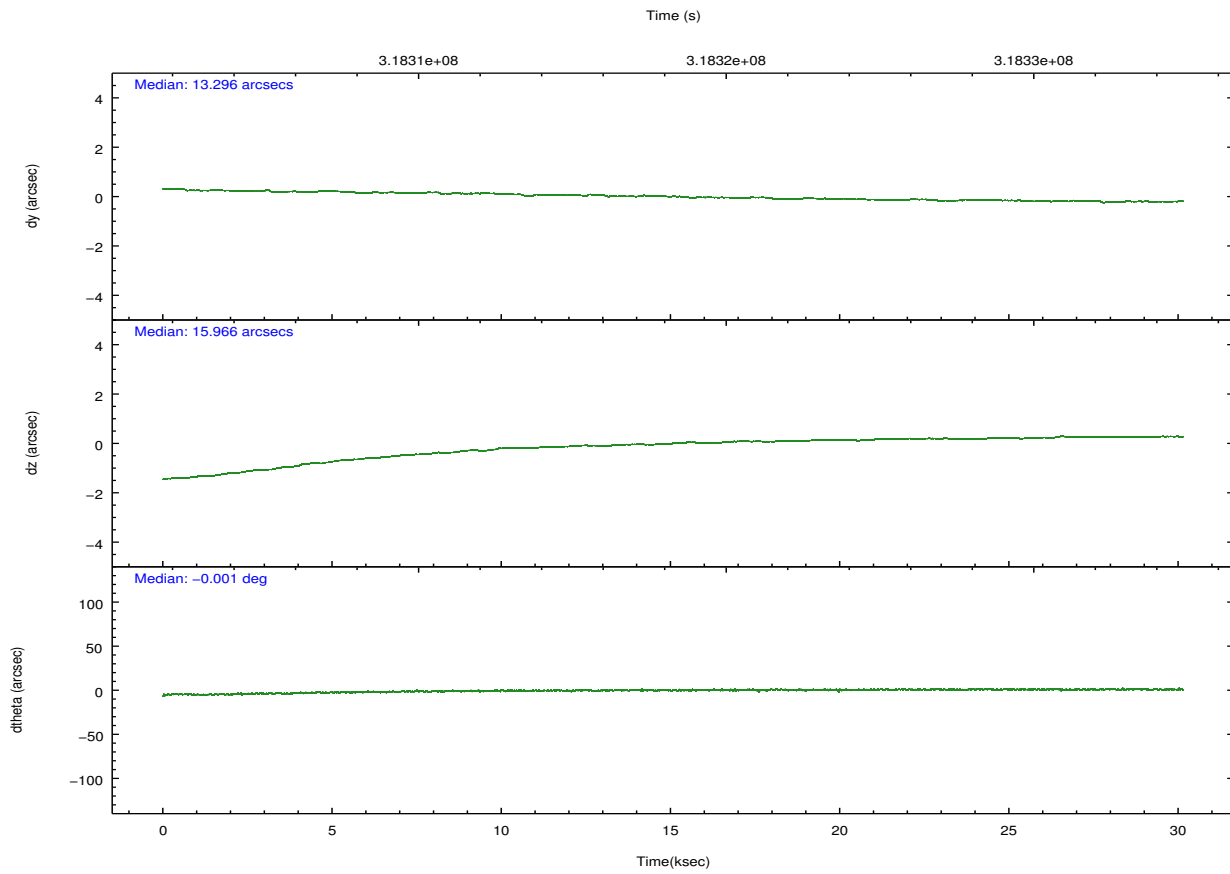
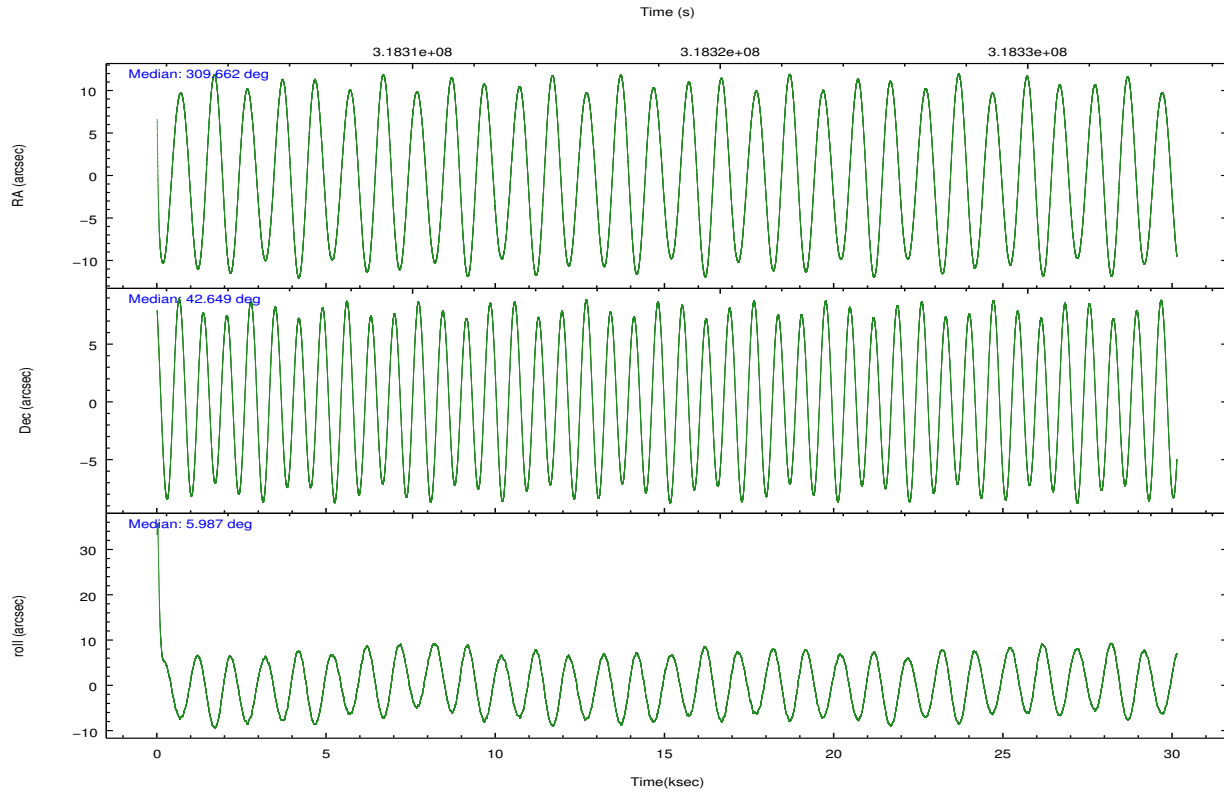
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 6 | ccd 7 |
|-----------------|--------|--------|--------|--------|--------|--------|----------------|--------|--------|--------|--------|--------|--------|
| level 1 events | 225141 | 228842 | 253817 | 238981 | 258645 | 274041 | grade 0 events | 8707 | 11765 | 9104 | 9237 | 9555 | 11796 |
| rejected events | 200591 | 199220 | 229573 | 214752 | 232426 | 149854 | | 3% | 5% | 3% | 3% | 3% | 4% |
| rejected % | 89% | 87% | 90% | 89% | 89% | 54% | grade 1 events | 125 | 108 | 134 | 154 | 129 | 347 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 6046 | 6455 | 5861 | 5233 | 5869 | 25155 |
| | | | | | | | | 2% | 2% | 2% | 2% | 2% | 9% |
| | | | | | | | grade 3 events | 2723 | 3014 | 2588 | 2684 | 2762 | 11658 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 4 events | 2594 | 3049 | 2573 | 2645 | 2775 | 11555 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 4% |
| | | | | | | | grade 5 events | 8454 | 9247 | 8230 | 9700 | 10379 | 28995 |
| | | | | | | | | 3% | 4% | 3% | 4% | 4% | 10% |
| | | | | | | | grade 6 events | 4718 | 5649 | 4363 | 4662 | 5543 | 65294 |
| | | | | | | | | 2% | 2% | 1% | 1% | 2% | 23% |
| | | | | | | | grade 7 events | 191774 | 189555 | 220964 | 204666 | 221633 | 119241 |
| | | | | | | | | 85% | 82% | 87% | 85% | 85% | 43% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-012367 | ACIS-012367 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | CCD I0 on | Y | Y |
| Observation mode | POINTING | POINTING | CCD I1 on | Y | Y |
| [deg] Pointing RA | 309.632022 | 309.6621721248979 | CCD I2 on | Y | Y |
| [deg] Pointing Dec | 42.633138 | 42.64937614772461 | CCD I3 on | Y | Y |
| [deg] Pointing Roll | 5.809321 | 5.997594128457935 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 | CCD S1 on | N | N |
| [mm] SIM defocus | 0 | 0.001439871863259334 | CCD S2 on | O1 | Y |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 | CCD S3 on | O2 | Y |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 | CCD S4 on | N | N |
| [s] Observation start time (MET) | 318303343.184000 | 318302136.53709 | CCD S5 on | N | N |
| Observation start date | 2008-02-02T01:34:38 | 2008-02-02T01:15:36 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 318333343.184000 | 318334407.63865 | On-chip summing requested | N | N |
| Observation end date | 2008-02-02T09:54:38 | 2008-02-02T10:13:27 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



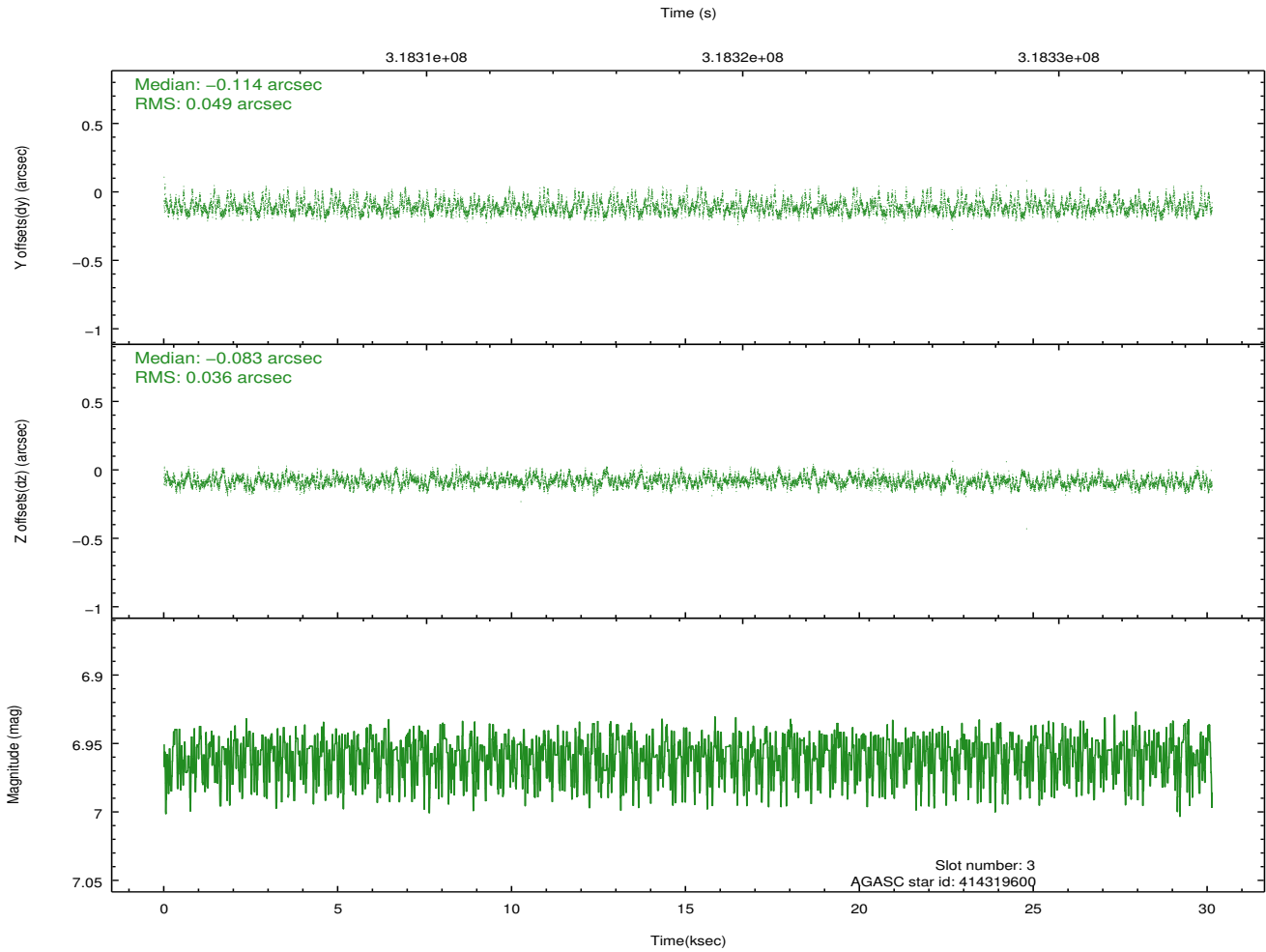
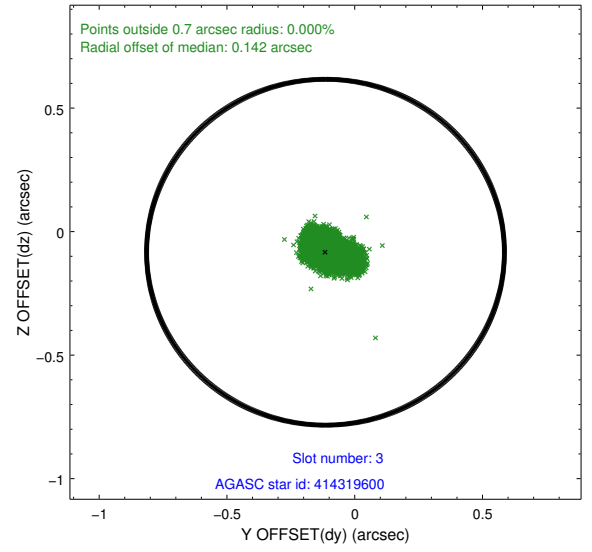
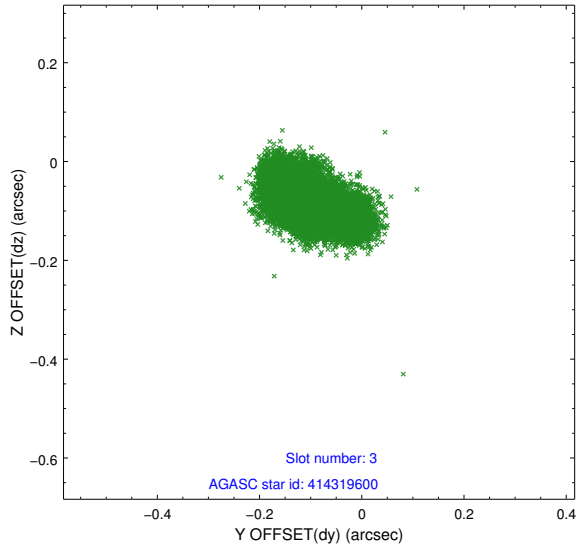


Slot Statistics

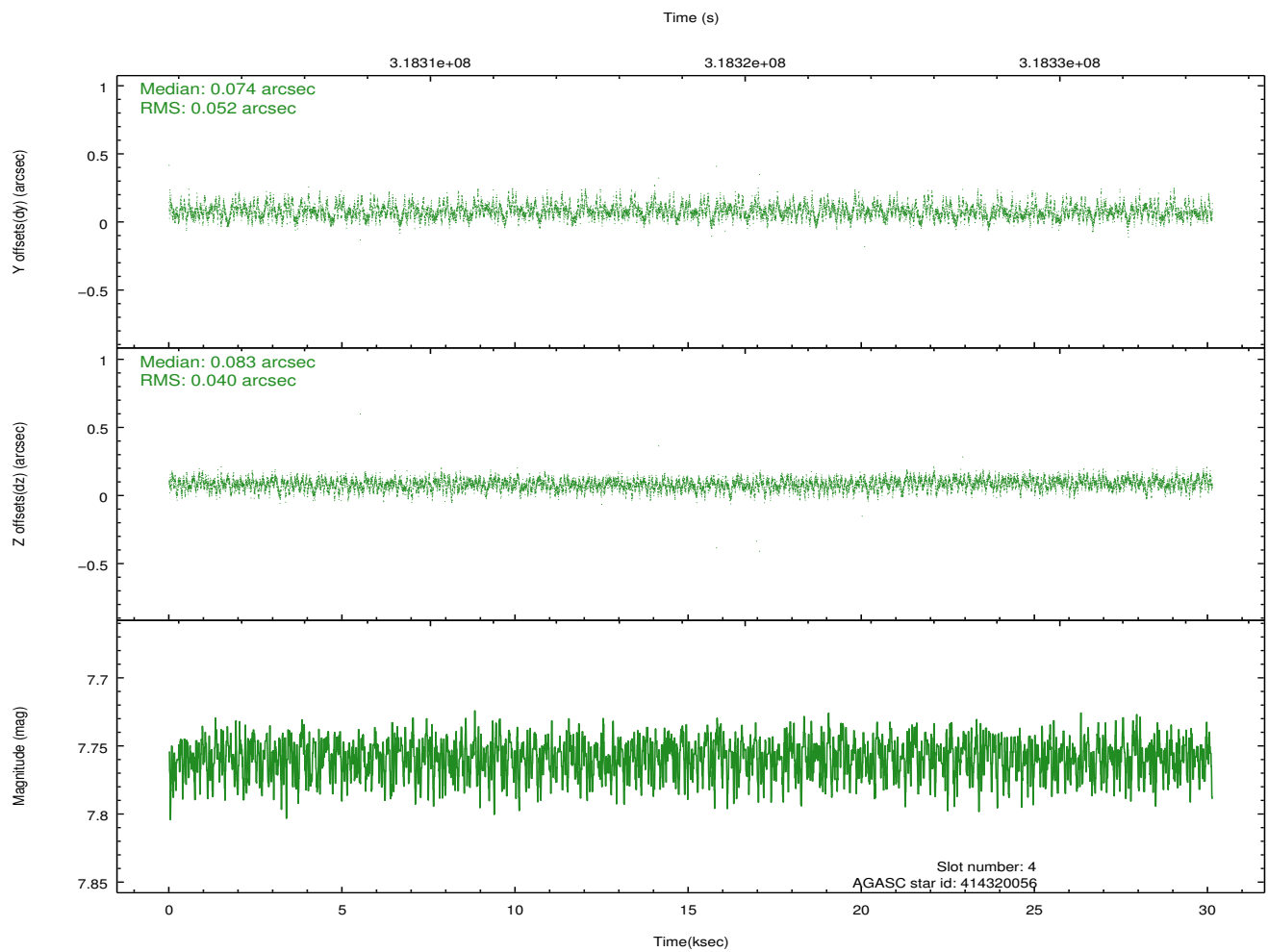
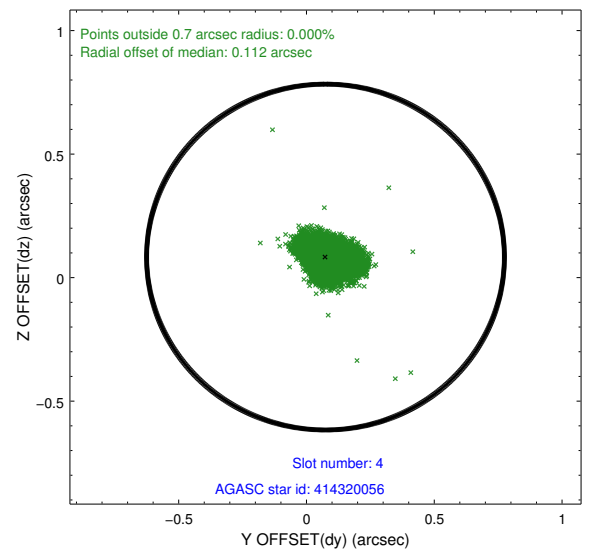
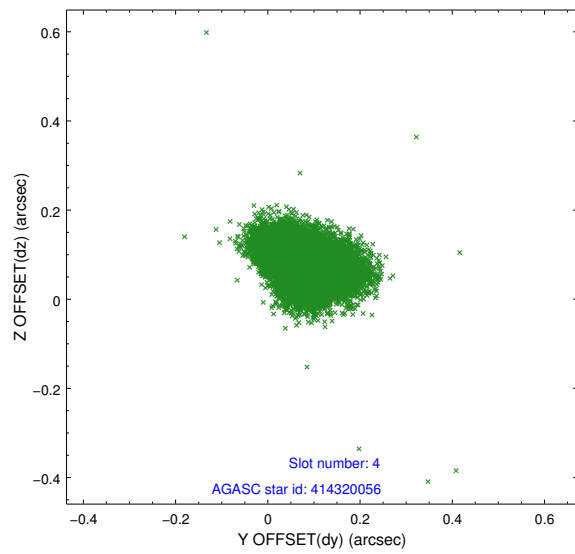
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-1 | 7.23 | 7350 | 0.054 | -0.044 | 0.020 | 0.051 | 0.000000 | 0.000000 | 926.24 | -839.45 |
| 1 | FID | ACIS-I-5 | 7.22 | 7349 | -0.203 | 0.057 | 0.013 | 0.023 | 0.000000 | 0.000000 | -1822.05 | 1058.15 |
| 2 | FID | ACIS-I-6 | 7.23 | 7349 | 0.054 | 0.058 | 0.013 | 0.039 | 0.000000 | 0.000000 | 391.75 | 1702.70 |
| 3 | GUIDE | 414319600 | 6.96 | 14700 | -0.114 | -0.083 | 0.064 | 0.110 | 309.887333 | 42.248554 | 536.61 | -1446.81 |
| 4 | GUIDE | 414320056 | 7.76 | 14698 | 0.074 | 0.083 | 0.068 | 0.112 | 309.345827 | 42.991186 | -619.00 | 1359.92 |
| 5 | GUIDE | 414322040 | 8.09 | 14696 | -0.061 | -0.016 | 0.064 | 0.098 | 309.251919 | 42.770338 | -949.00 | 595.30 |
| 6 | GUIDE | 416031440 | 7.71 | 14695 | -0.016 | 0.090 | 0.064 | 0.104 | 310.484743 | 42.524801 | 2213.28 | -604.70 |
| 7 | GUIDE | 416028784 | 8.00 | 14698 | 0.109 | -0.074 | 0.089 | 0.147 | 310.446946 | 42.008694 | 1943.30 | -2446.40 |

2.4 Star Slots

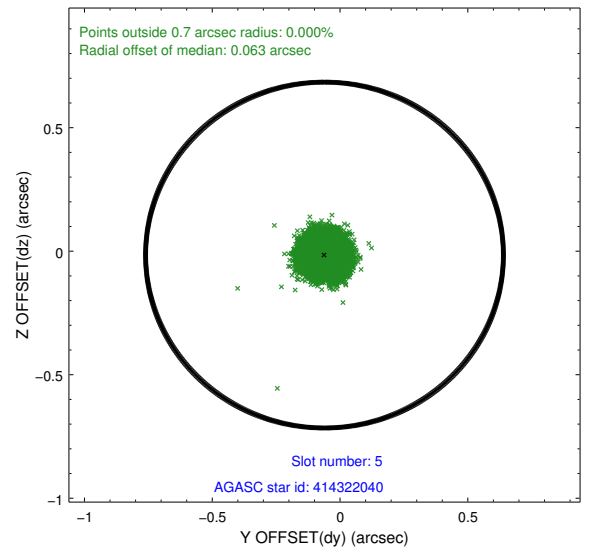
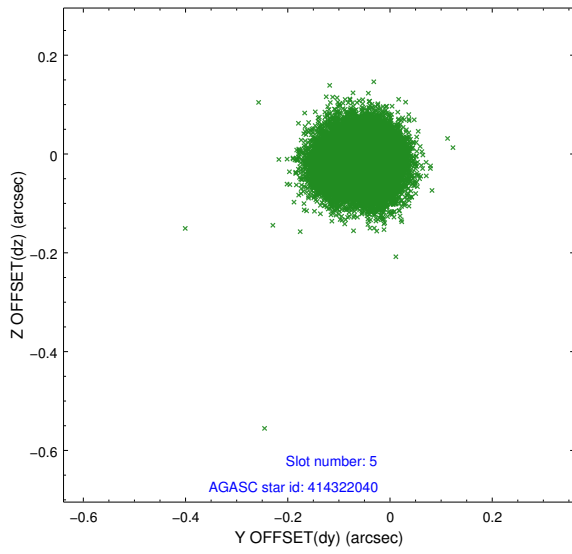
2.4.1 Slot 3



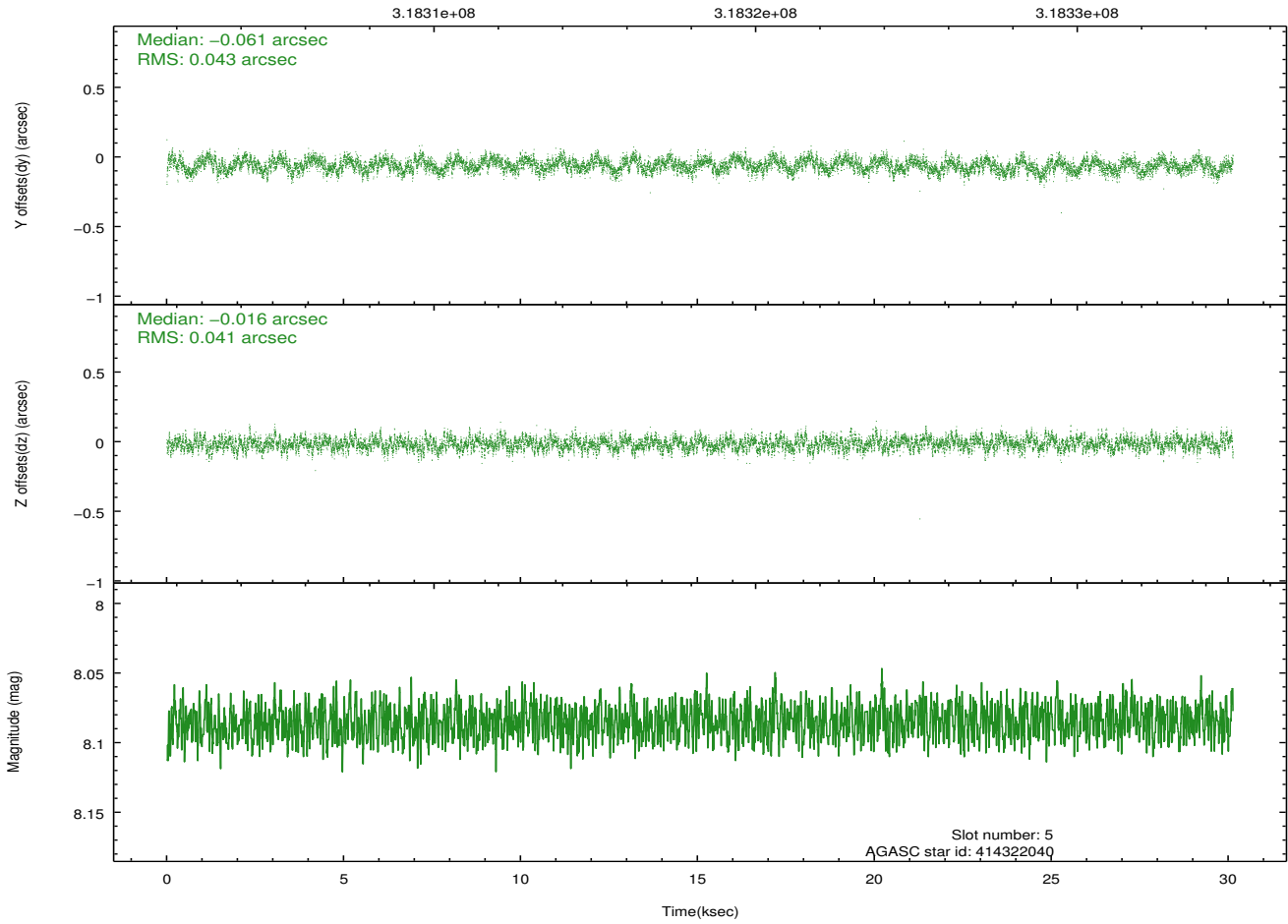
2.4.2 Slot 4



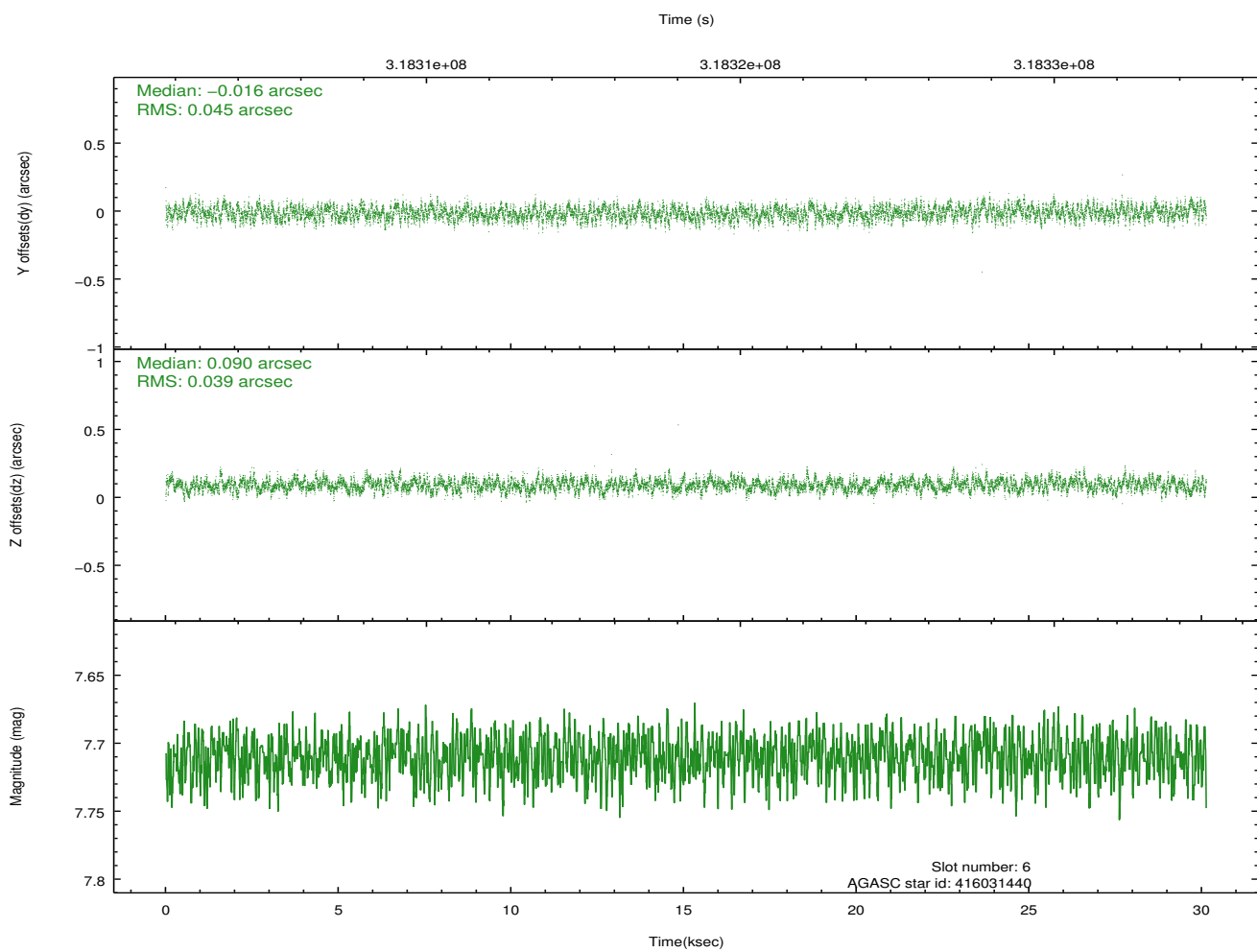
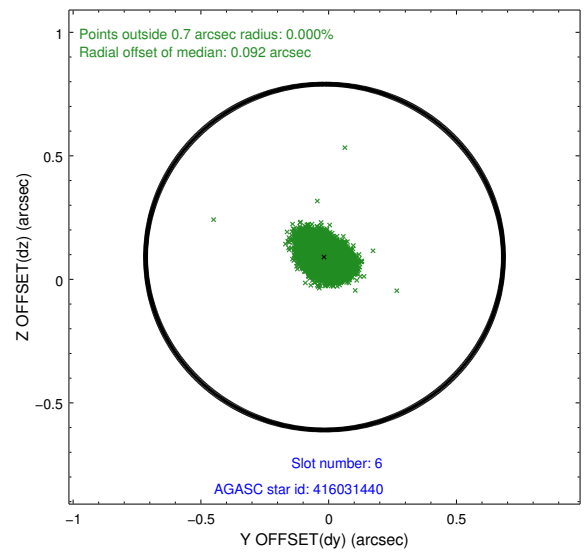
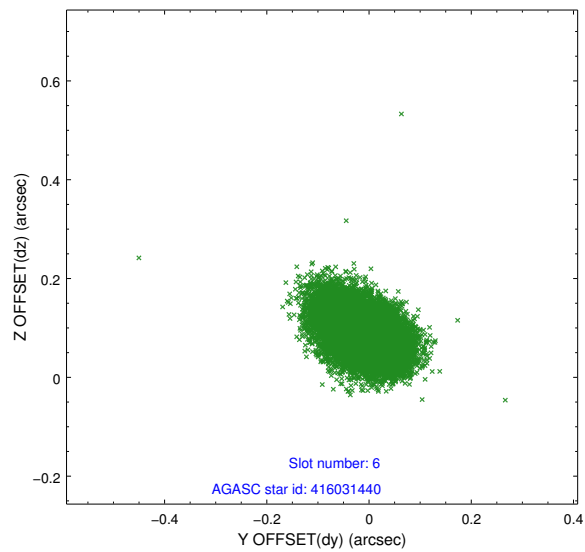
2.4.3 Slot 5



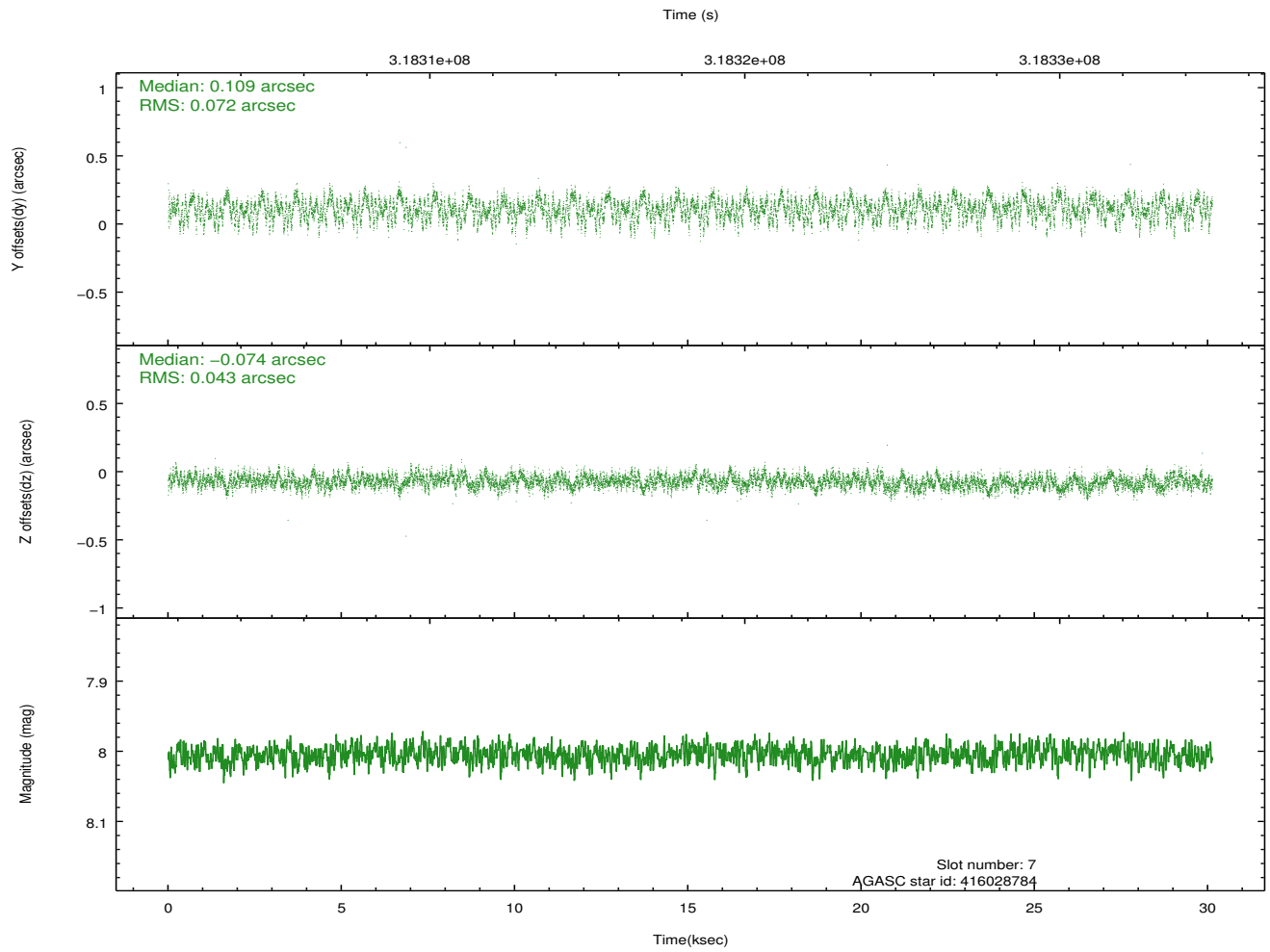
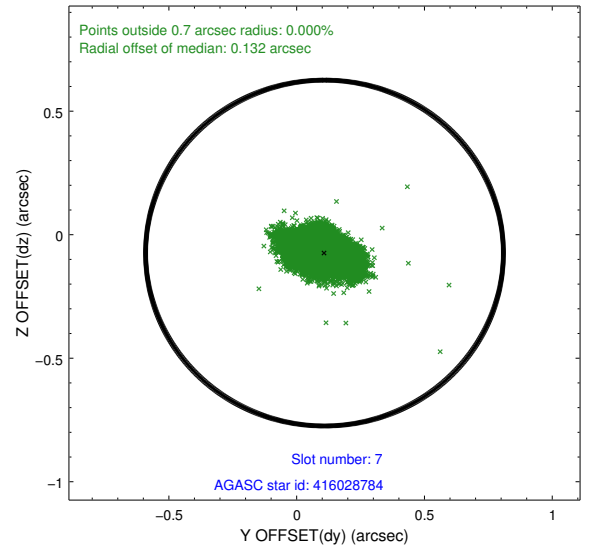
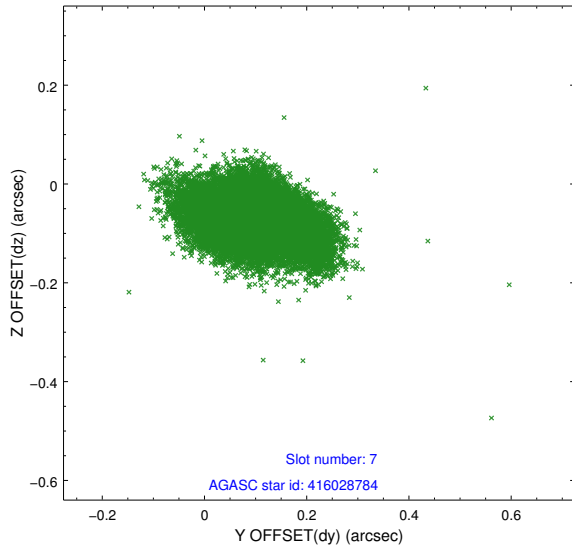
Time (s)



2.4.4 Slot 6

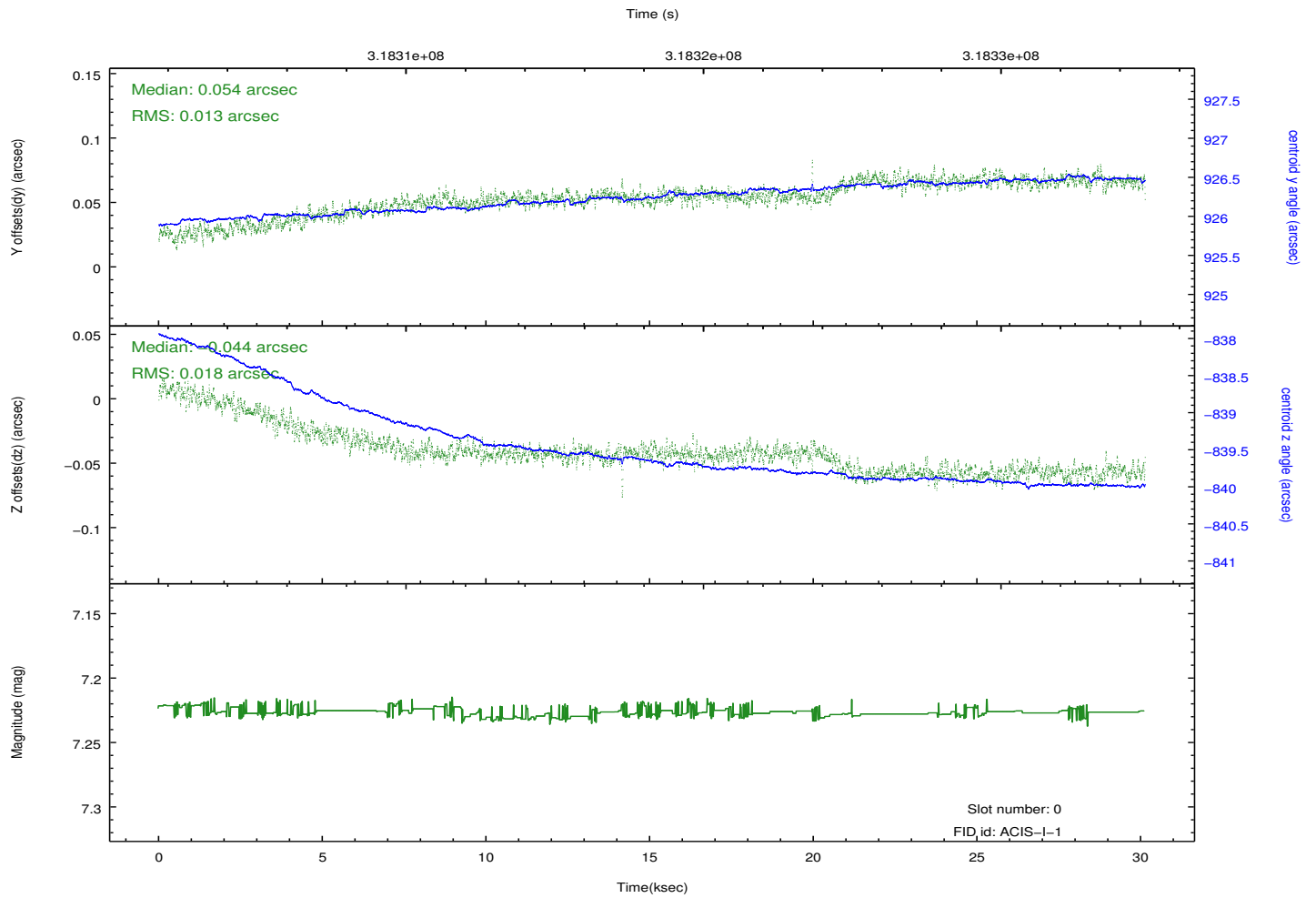
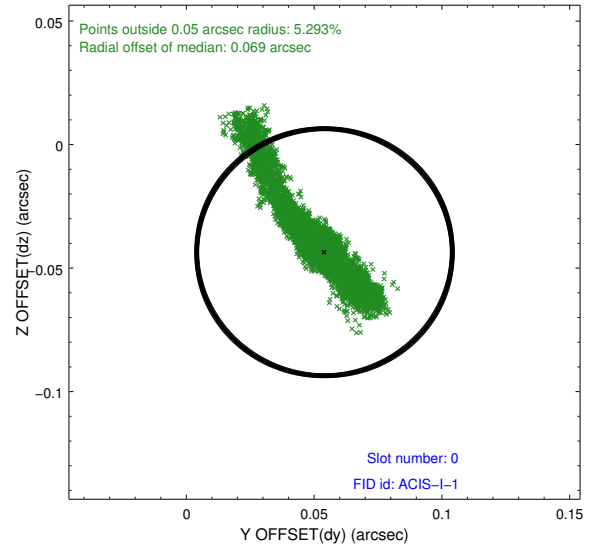
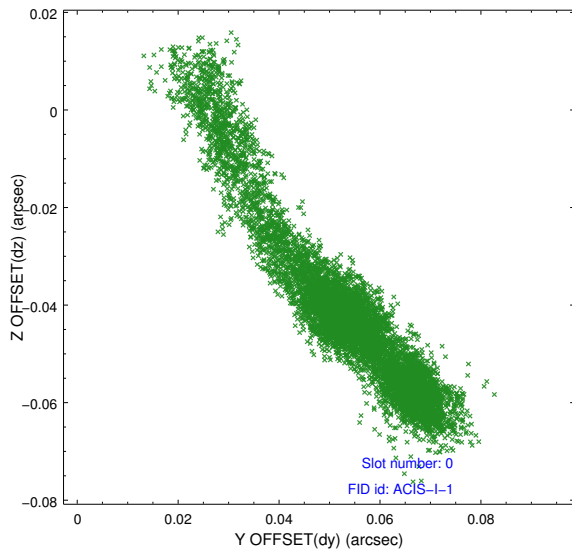


2.4.5 Slot 7

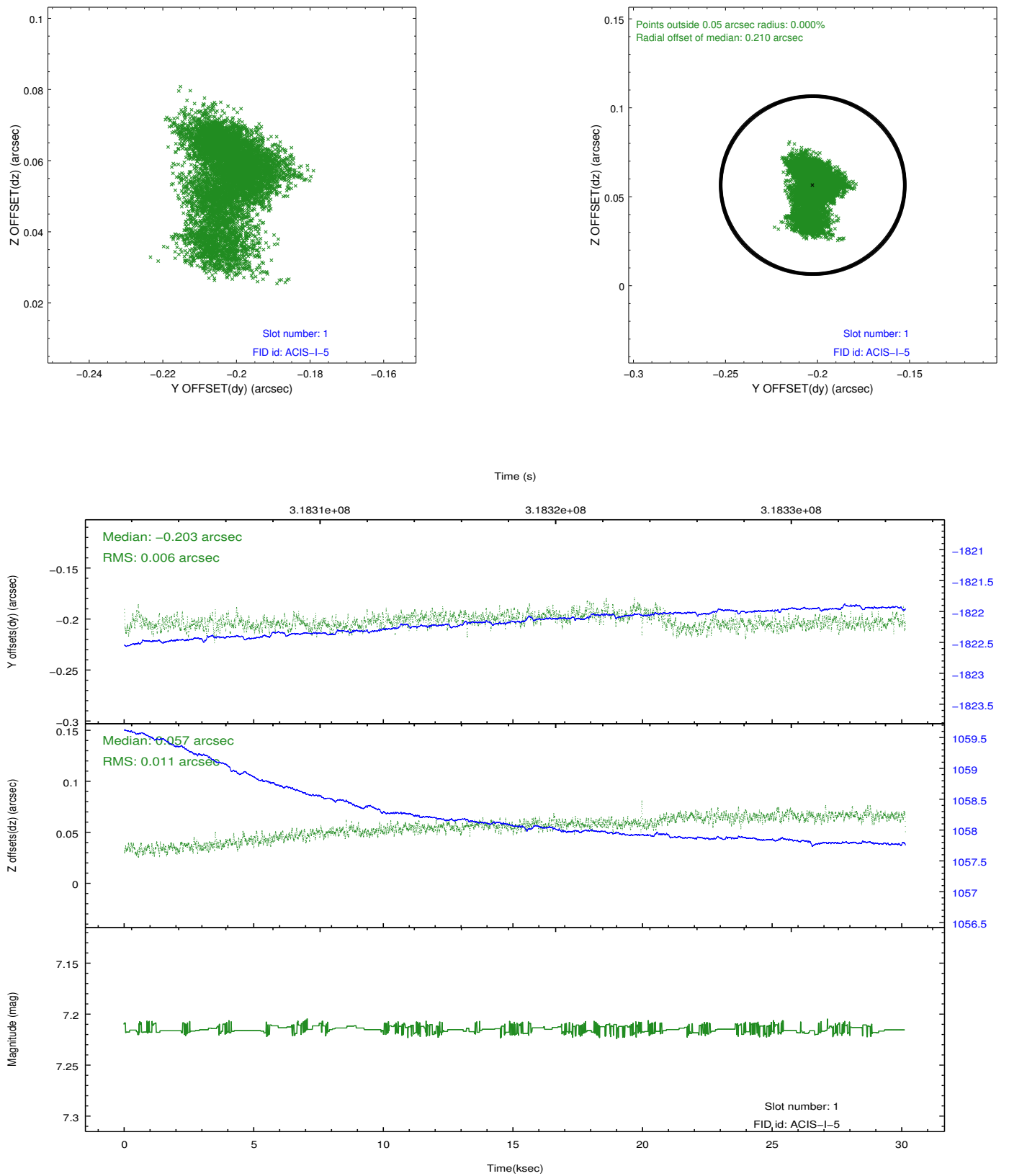


2.5 FID Slots

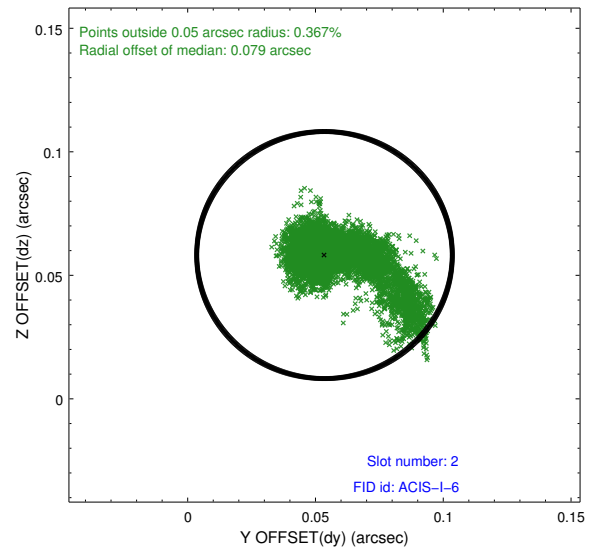
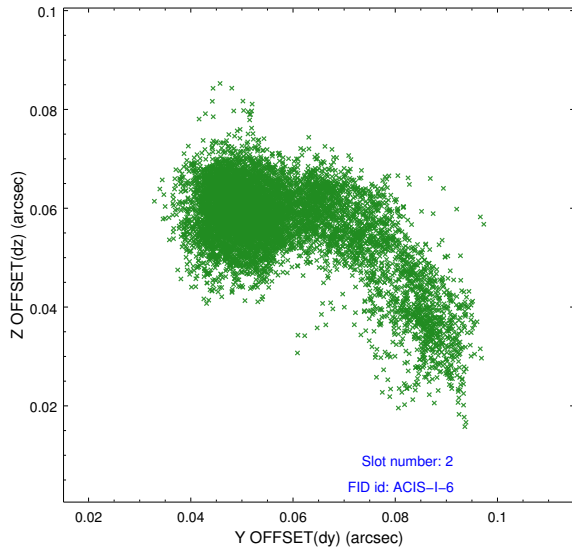
2.5.1 Slot 0



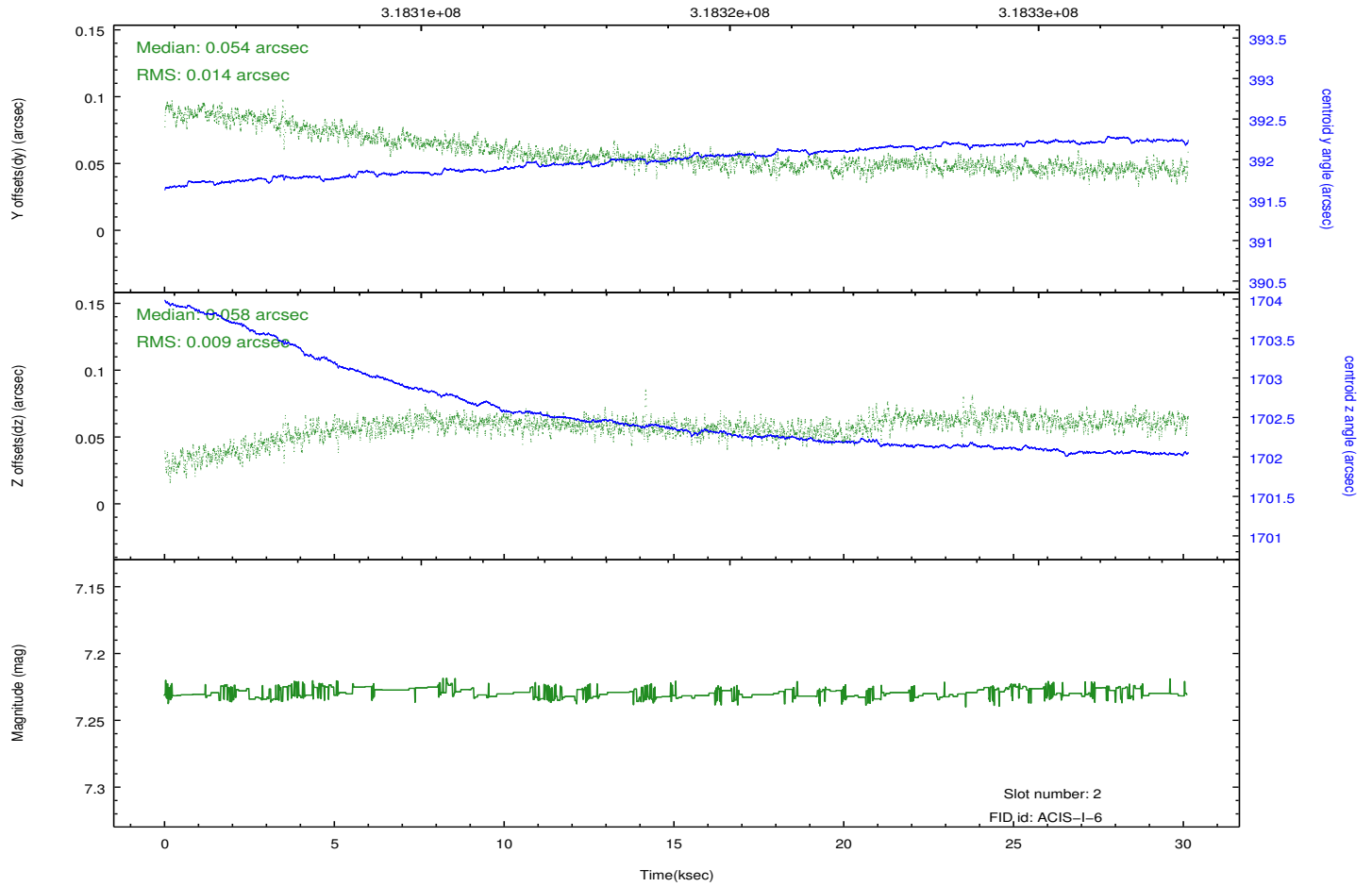
2.5.2 Slot 1



2.5.3 Slot 2



Time (s)



A Summary

A.1 Status

| | |
|----------------------------|------------|
| V&V Scientist | Jen Lauer |
| V&V Date (YYYY-MM-DD) | 2012.05.10 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 30.121518 |

A.2 Comments