

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 18937 - L2 Version 1
Chandra X-Ray Center

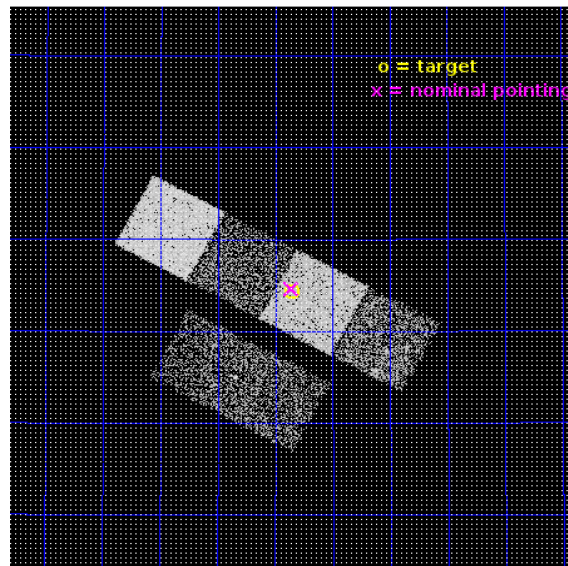
L2 Processing Date : Nov 18 2016

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1 Front

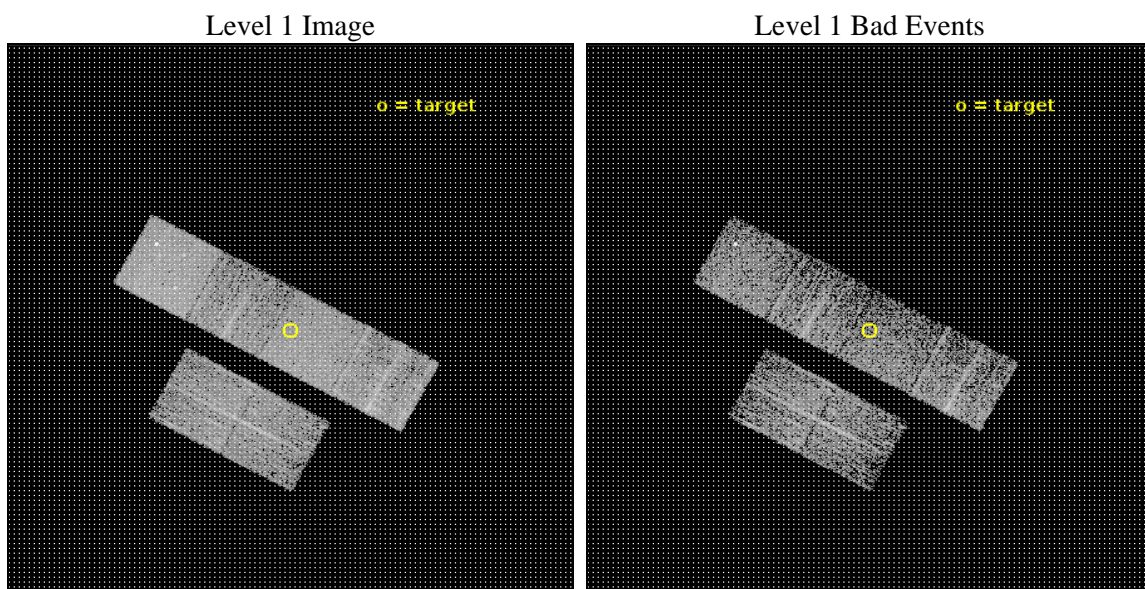
| | | |
|----------|--|---|
| seq_num | 201130 | Sequence number |
| obs_id | 18937 | Observation id |
| title | Probing the Dynamo Mechanism in Fully Convective Stars | Proposal ti |
| observer | Nicholas Wright | Principal investigator |
| object | 2MASS J13505181+3644168 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 207.713333 | Observer's specified target RA [deg] |
| dec_targ | 36.7385 | Observer's specified target Dec [deg] |
| ra_nom | 207.71470428497 | Nominal RA [deg] |
| dec_nom | 36.743798669638 | Nominal Dec [deg] |
| roll_nom | 28.236238716418 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 2956.7453329563 | Sum of GTIs [s] |
| livetime | 2919.3052432121 | Livetime [s] |
| ontime2 | 2956.7863729 | Sum of GTIs [s] |
| ontime3 | 2956.6222128868 | Sum of GTIs [s] |
| ontime5 | 2956.7042928934 | Sum of GTIs [s] |
| ontime6 | 2953.4222528934 | Sum of GTIs [s] |
| ontime7 | 2956.7453329563 | Sum of GTIs [s] |
| ontime8 | 2956.5811729431 | Sum of GTIs [s] |
| l2events | 35176 | Number of level 2 events |



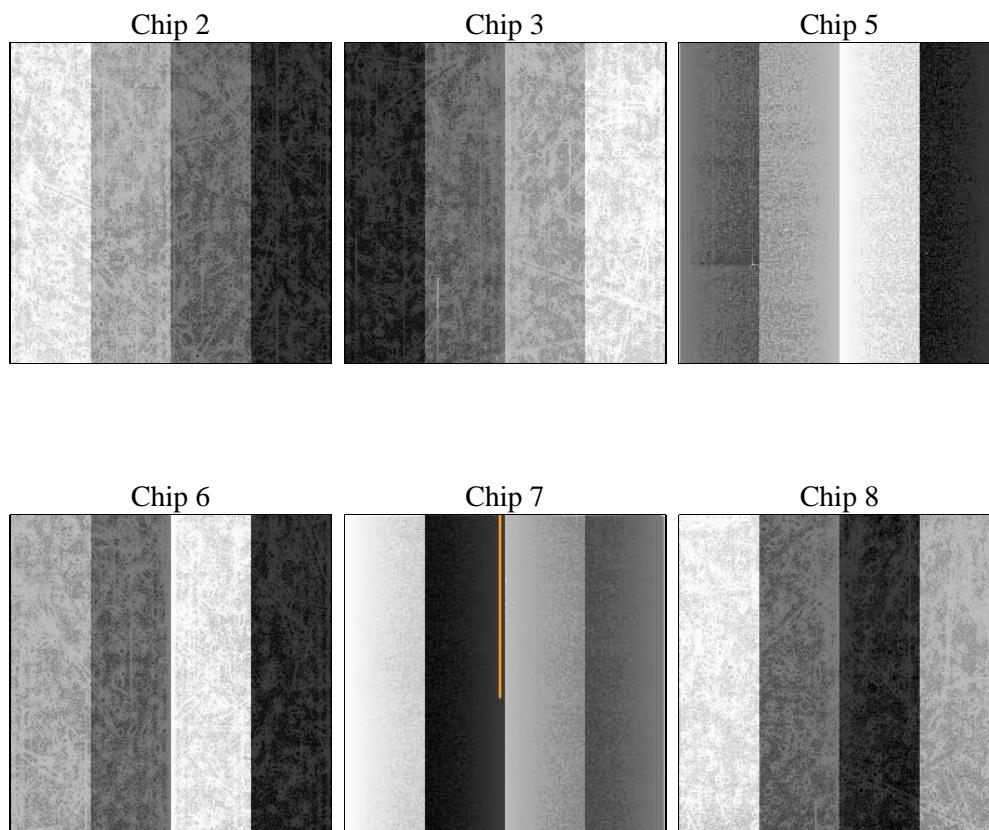
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 3000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.5.2 | Processing system revision | ontime | 2956.7453329563 | Sum of GTIs [s] |
| caldsver | 4.7.2 | | ontime2 | 2956.7863729 | Sum of GTIs [s] |
| date | 2016-11-18T19:36:28 | Date and time of file creation | ontime3 | 2956.6222128868 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime5 | 2956.7042928934 | Sum of GTIs [s] |
| | | | ontime6 | 2953.4222528934 | Sum of GTIs [s] |
| | | | ontime7 | 2956.7453329563 | Sum of GTIs [s] |
| | | | ontime8 | 2956.5811729431 | Sum of GTIs [s] |
| | | | l1events | 149135 | Number of level 1 events |

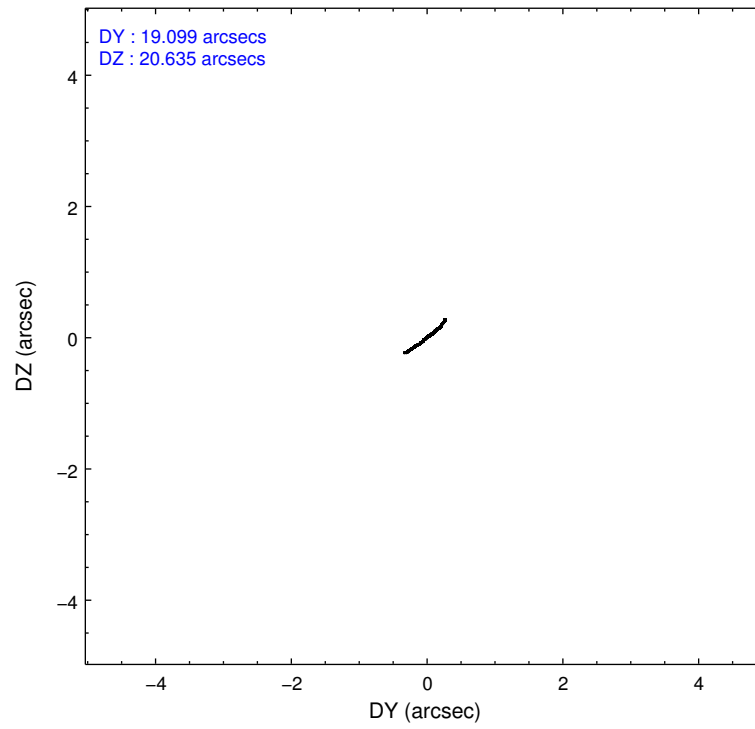
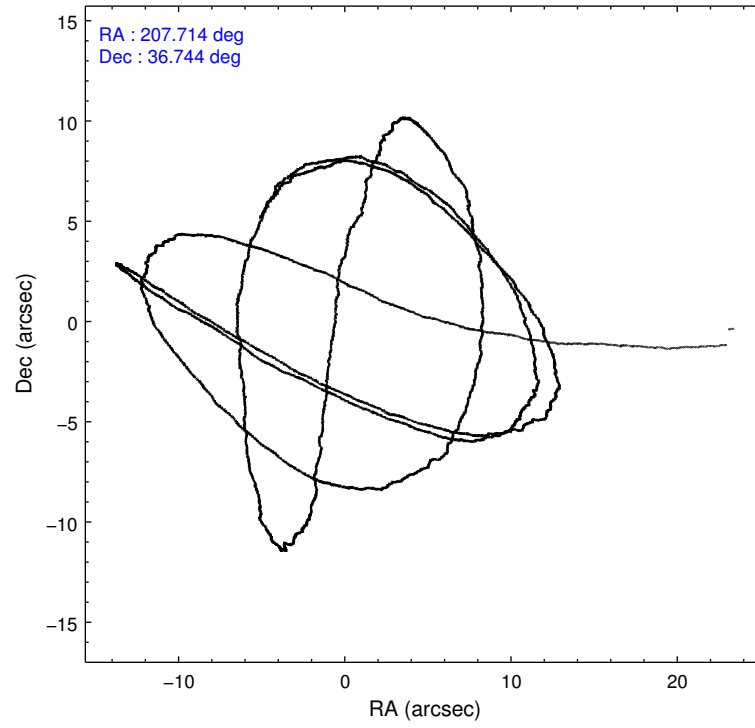
2.1.4 Events

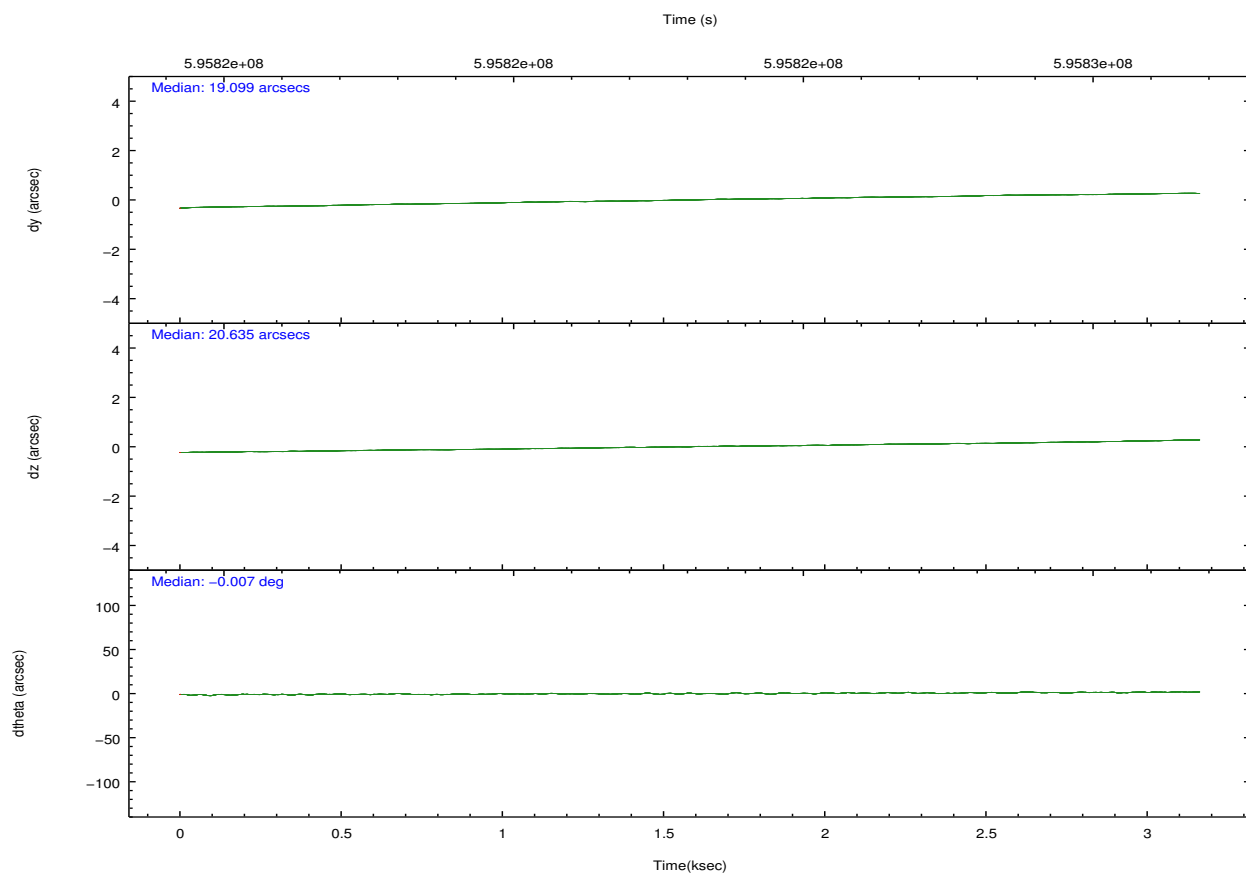
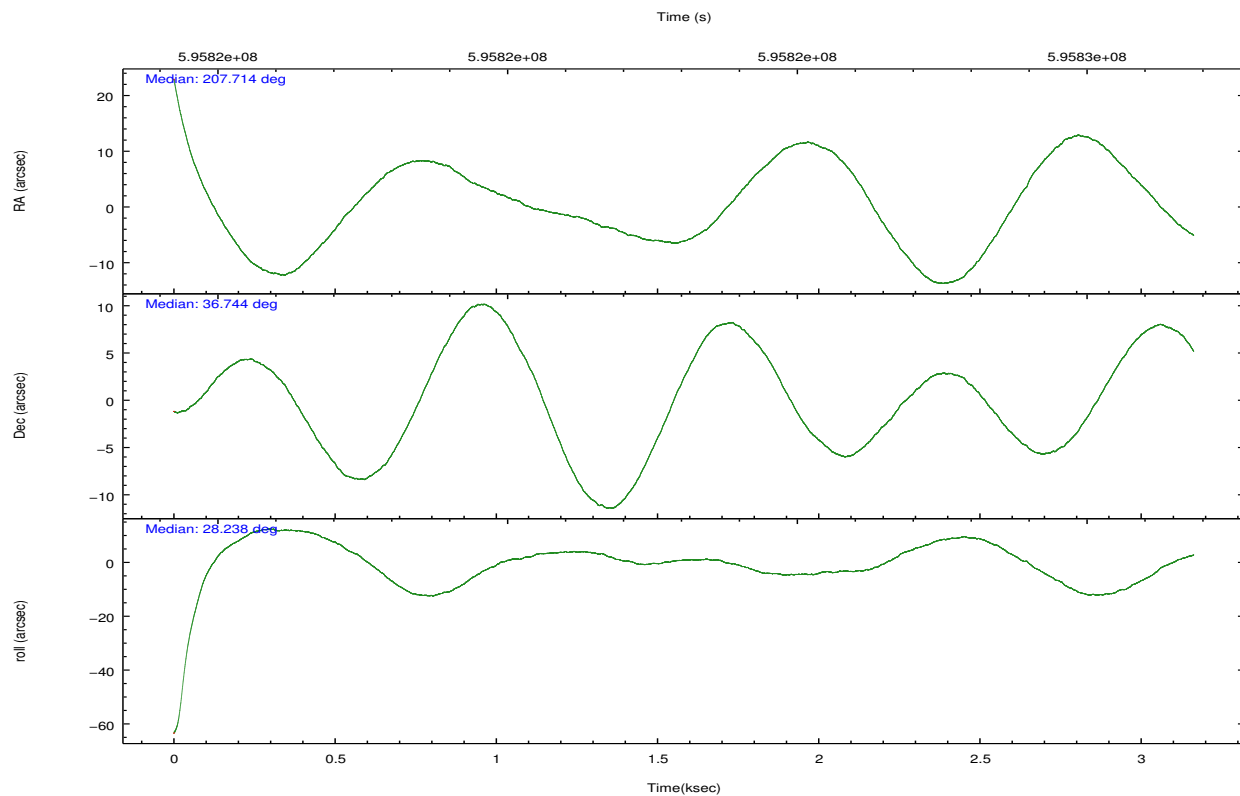
| | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 | | ccd 2 | ccd 3 | ccd 5 | ccd 6 | ccd 7 | ccd 8 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 22221 | 19514 | 34280 | 20056 | 26225 | 26839 | grade 0 events | 767 | 780 | 1591 | 798 | 1031 | 2154 |
| rejected events | 19948 | 17410 | 17781 | 17694 | 14650 | 19621 | | 3% | 3% | 4% | 3% | 3% | 8% |
| rejected % | 89% | 89% | 51% | 88% | 55% | 73% | grade 1 events | 11 | 15 | 91 | 13 | 38 | 19 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 604 | 454 | 5098 | 558 | 2381 | 1789 |
| | | | | | | | | 2% | 2% | 14% | 2% | 9% | 6% |
| | | | | | | | grade 3 events | 221 | 225 | 577 | 233 | 998 | 687 |
| | | | | | | | | 0% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 4 events | 246 | 213 | 514 | 253 | 994 | 675 |
| | | | | | | | | 1% | 1% | 1% | 1% | 3% | 2% |
| | | | | | | | grade 5 events | 891 | 941 | 2441 | 970 | 2726 | 1460 |
| | | | | | | | | 4% | 4% | 7% | 4% | 10% | 5% |
| | | | | | | | grade 6 events | 440 | 436 | 8770 | 525 | 6199 | 1922 |
| | | | | | | | | 1% | 2% | 25% | 2% | 23% | 7% |
| | | | | | | | grade 7 events | 19041 | 16450 | 15198 | 16706 | 11858 | 18133 |
| | | | | | | | | 85% | 84% | 44% | 83% | 45% | 67% |

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 | VFAINT | VFAINT | CCD I0 on | N | N |
| Observation mode | POINTING | POINTING | CCD I1 on | N | N |
| [deg] Pointing RA | 207.697051 | 207.7147042849744 | CCD I2 on | O1 | Y |
| [deg] Pointing Dec | 36.720179 | 36.74379866963772 | CCD I3 on | O2 | Y |
| [deg] Pointing Roll | 28.090392 | 28.23623871641794 | CCD S0 on | N | N |
| [mm] SIM focus pos | -0.684267 | -0.6828225247311905 | CCD S1 on | Y | Y |
| [mm] SIM defocus | 0 | 0.001444936568705701 | CCD S2 on | Y | Y |
| [mm] SIM translation stage pos | -190.132523 | -190.1400660498719 | CCD S3 on | Y | Y |
| [mm] SIM translation stage offset | 0 | 0.00754346686406393 | CCD S4 on | Y | Y |
| [s] Observation start time (MET) | 595823200.184000 | 595821484.94411 | CCD S5 on | N | N |
| Observation start date | 2016-11-18T02:25:32 | 2016-11-18T01:58:04 | Number of optional ACIS chips dropped | 0 | 0 |
| [s] Observation end time (MET) | 595826200.184000 | 595826536.1444 | On-chip summing requested | N | N |
| Observation end date | 2016-11-18T03:15:32 | 2016-11-18T03:22:16 | Subarray requested | NONE | NONE |
| Read mode | TIMED | TIMED | Alternating exposures requested | N | N |
| | | | [s] Primary exposure time | 0.000000 | 3.2 |

2.3 Aspect



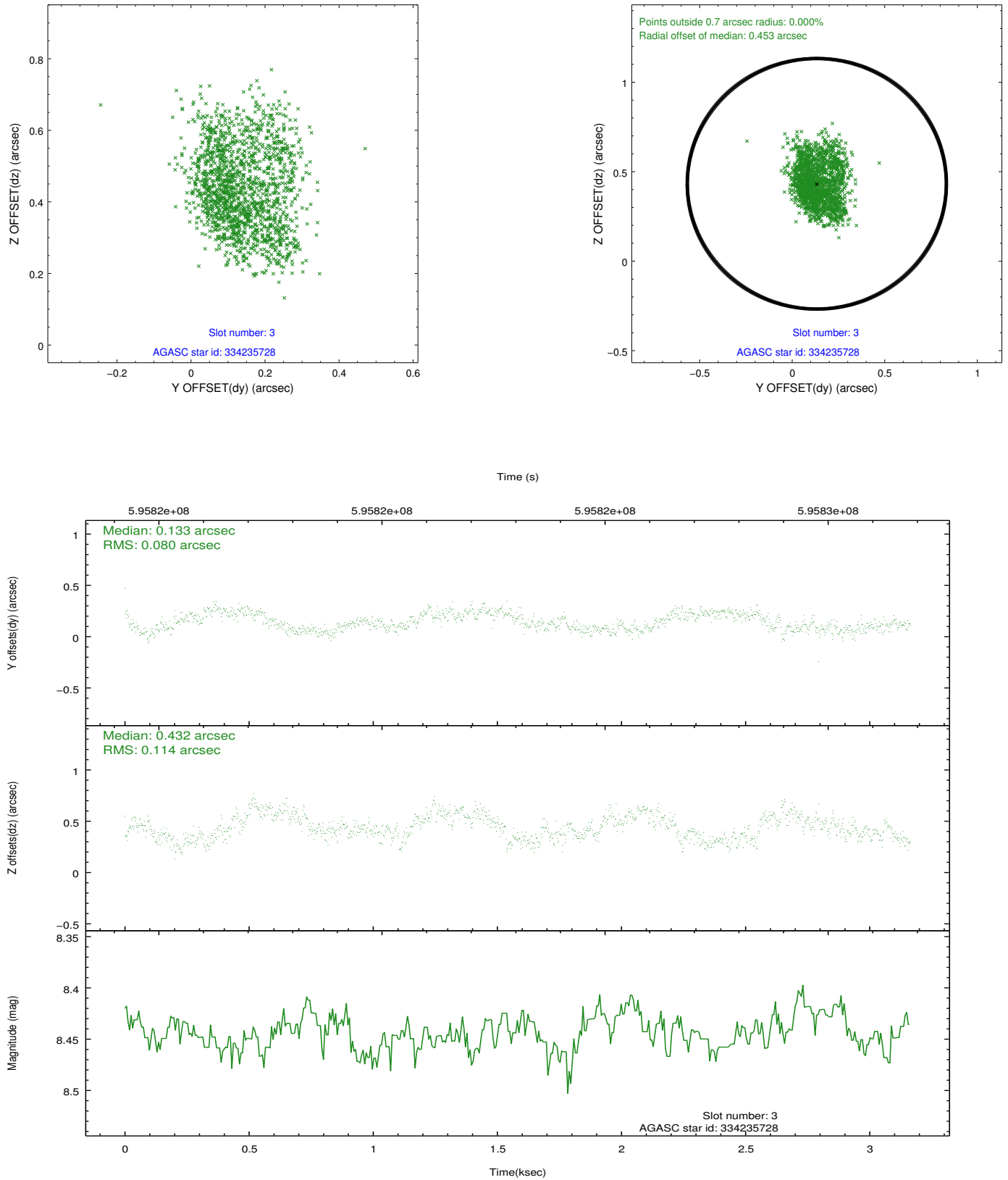


Slot Statistics

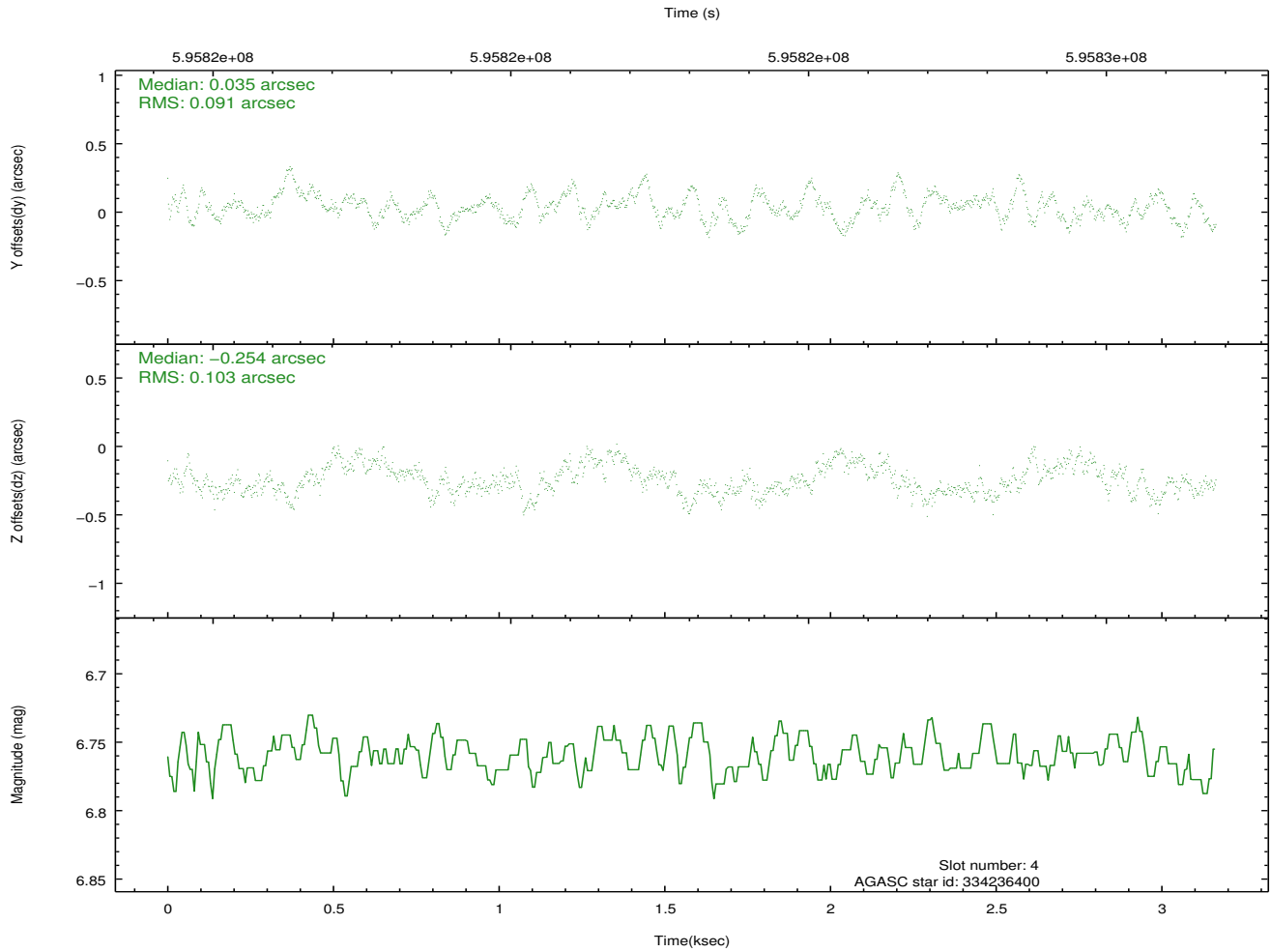
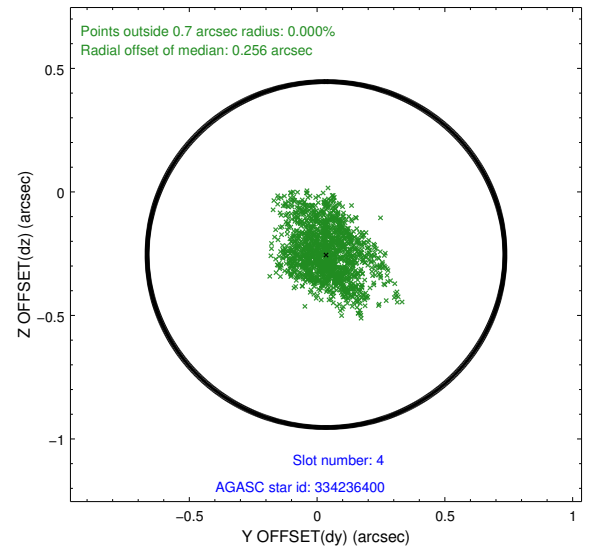
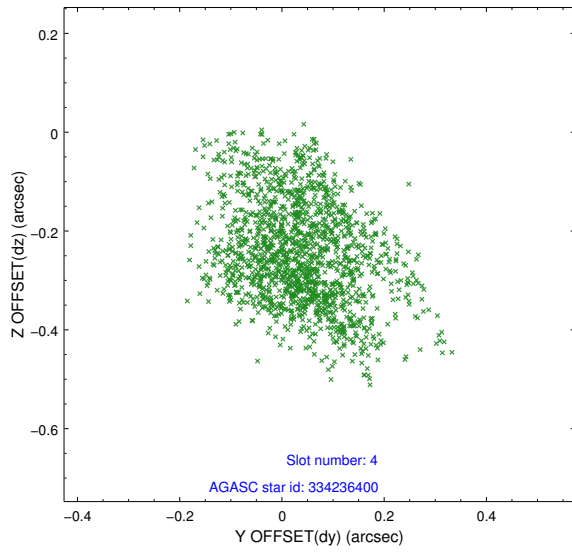
| slot | status | used | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | | ACIS-S-1 | 6.98 | 772 | 0.016 | -0.086 | 0.008 | 0.014 | 0.000000 | 0.000000 | 923.94 | -1737.85 |
| 1 | FID | | ACIS-S-4 | 7.01 | 772 | 0.358 | 0.056 | 0.009 | 0.012 | 0.000000 | 0.000000 | 2142.72 | 164.41 |
| 2 | FID | | ACIS-S-5 | 7.01 | 772 | -0.403 | 0.042 | 0.008 | 0.013 | 0.000000 | 0.000000 | -1822.85 | 160.11 |
| 3 | GUIDE | used | 334235728 | 8.44 | 1544 | 0.133 | 0.432 | 0.149 | 0.231 | 207.920052 | 36.096274 | -484.73 | -2286.21 |
| 4 | GUIDE | used | 334236400 | 6.76 | 1544 | 0.035 | -0.254 | 0.145 | 0.234 | 207.437180 | 36.632820 | -810.84 | 76.01 |
| 5 | GUIDE | used | 334238584 | 9.79 | 1529 | -0.202 | 0.134 | 0.362 | 0.519 | 208.271539 | 36.930909 | 1817.87 | -105.75 |
| 6 | GUIDE | used | 334240456 | 9.66 | 1542 | 0.067 | 0.019 | 0.240 | 0.357 | 208.586878 | 36.656106 | 2166.00 | -1404.17 |
| 7 | GUIDE | used | 334235264 | 9.68 | 1532 | -0.032 | -0.291 | 0.176 | 0.292 | 208.305476 | 36.925208 | 1896.38 | -170.09 |

2.4 Star Slots

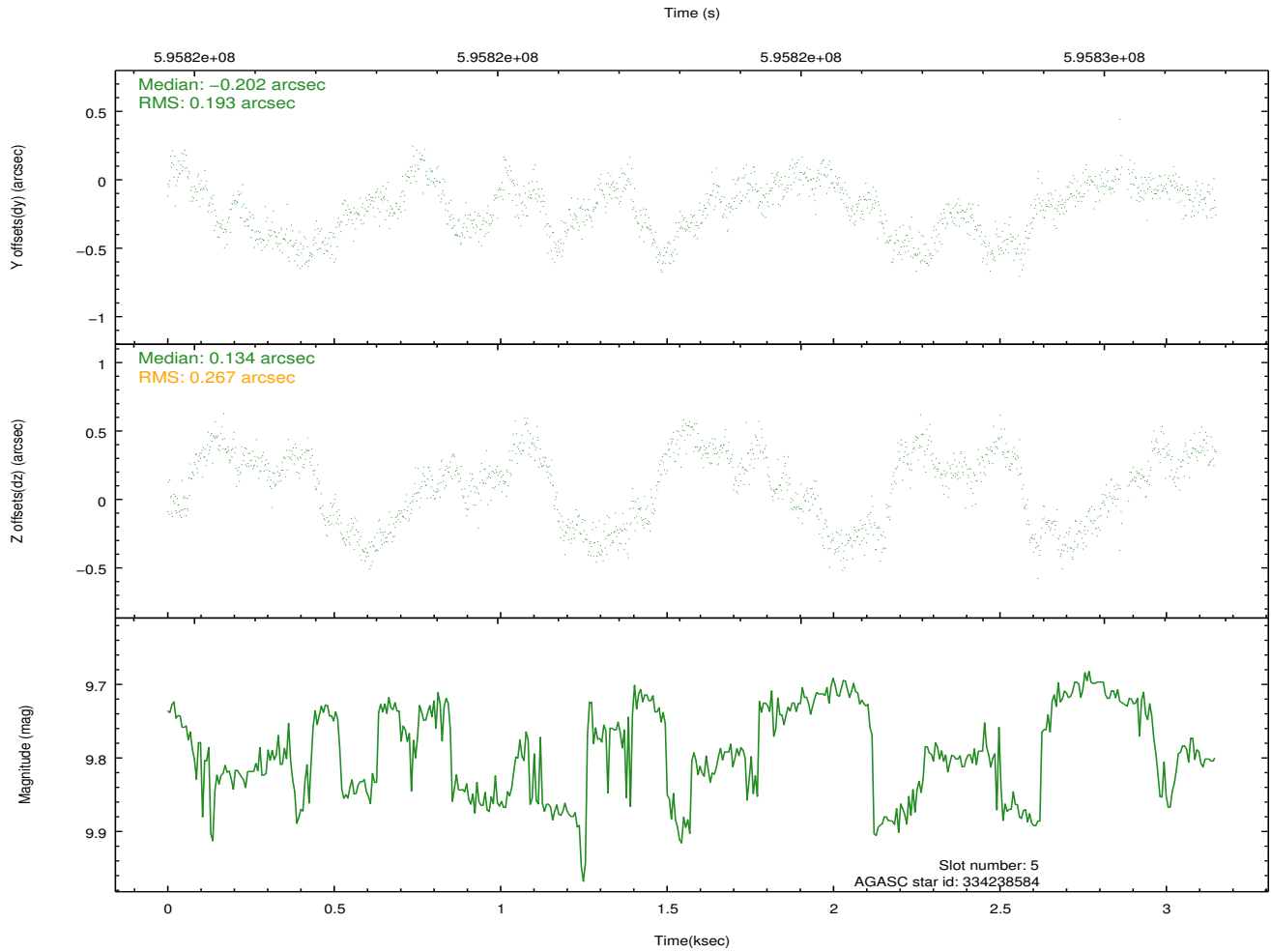
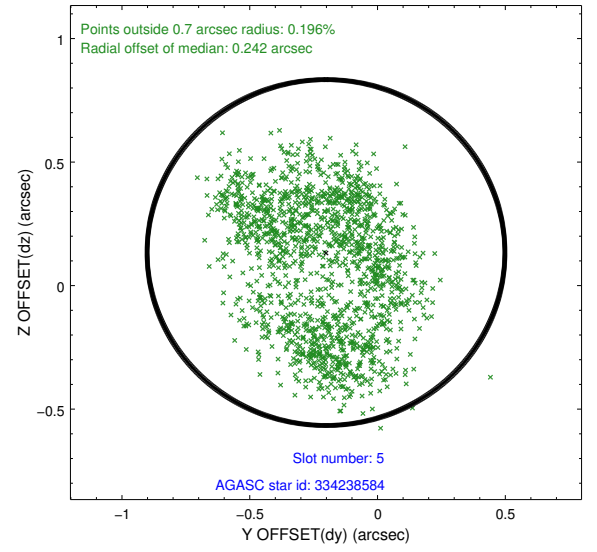
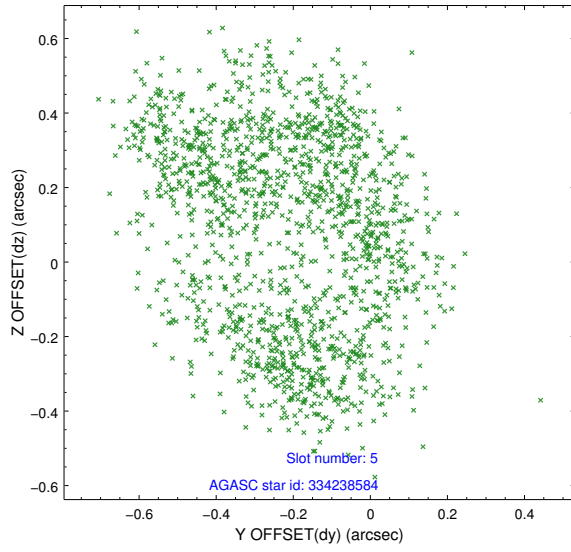
2.4.1 Slot 3



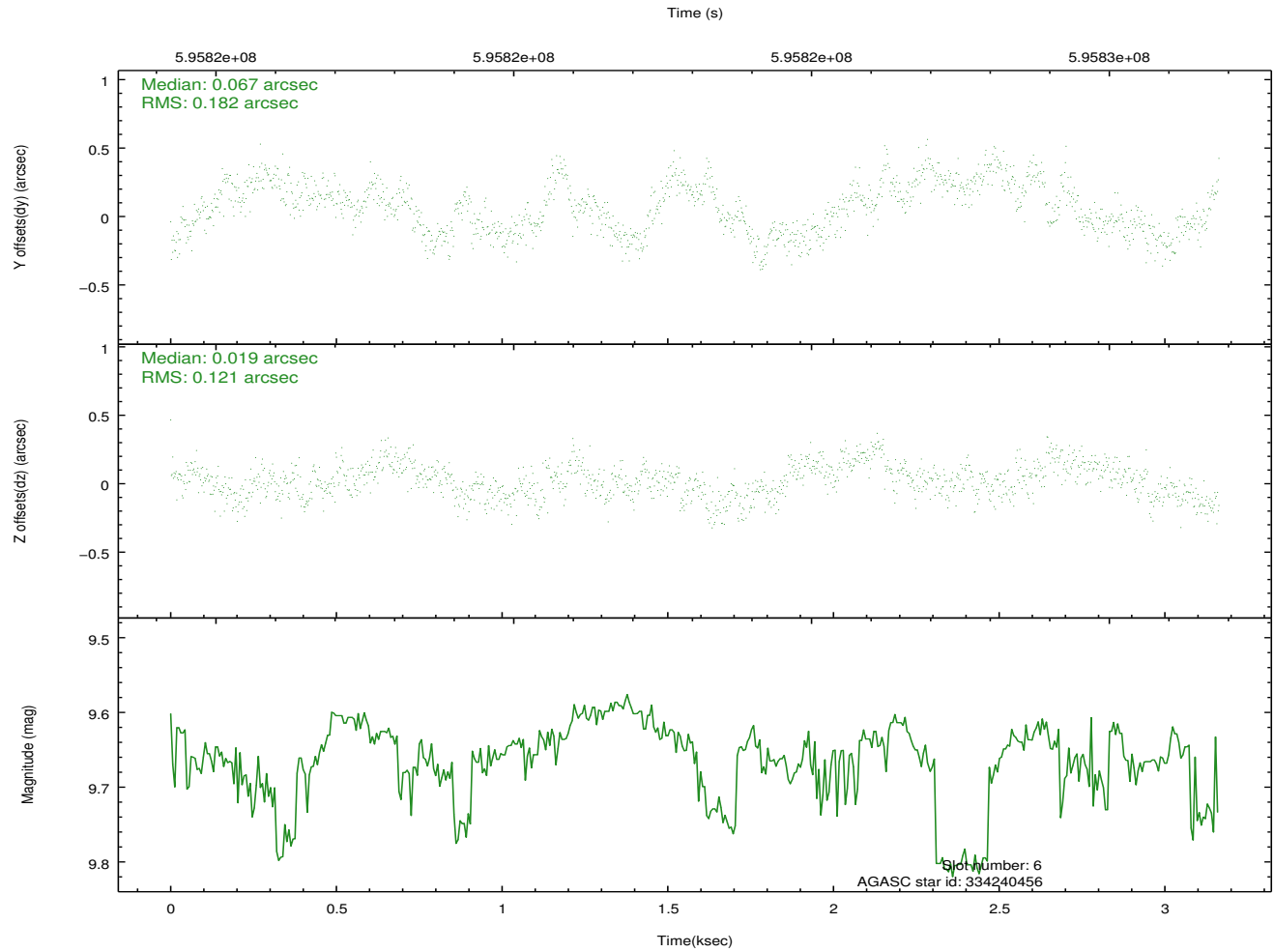
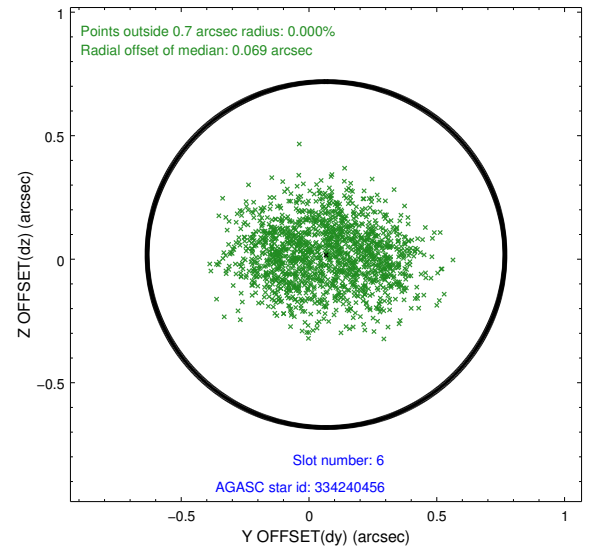
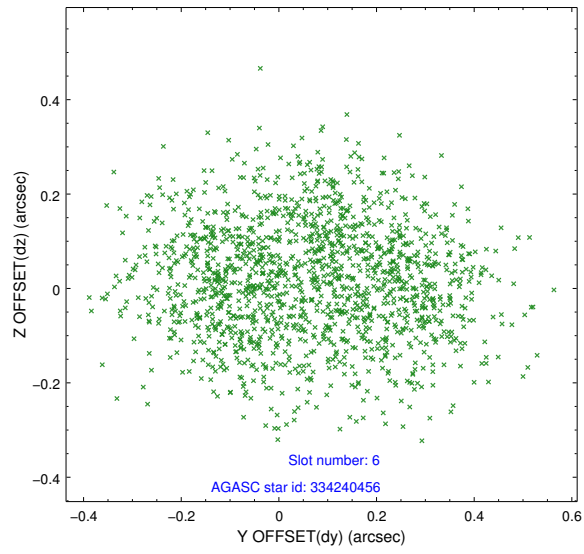
2.4.2 Slot 4



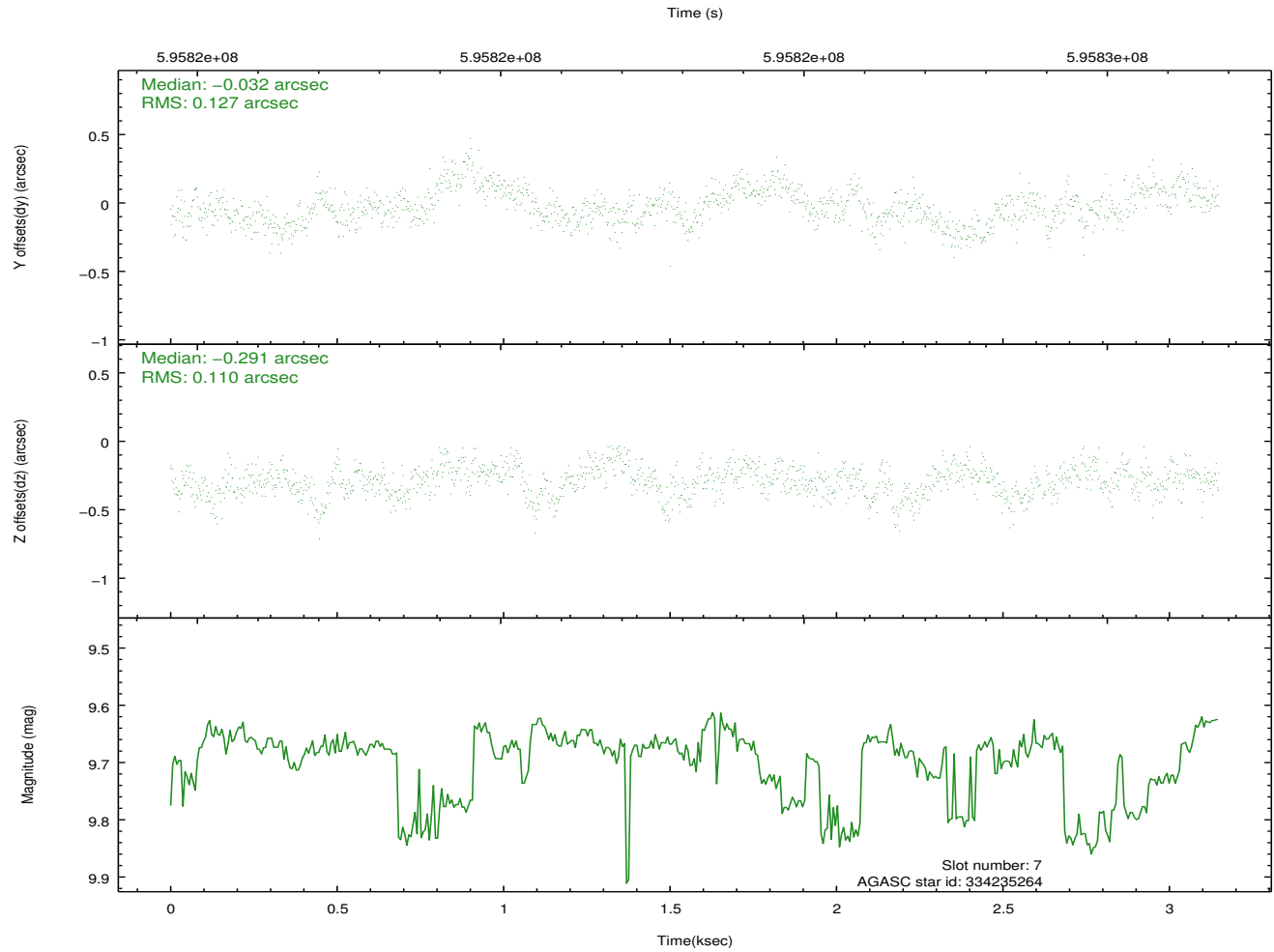
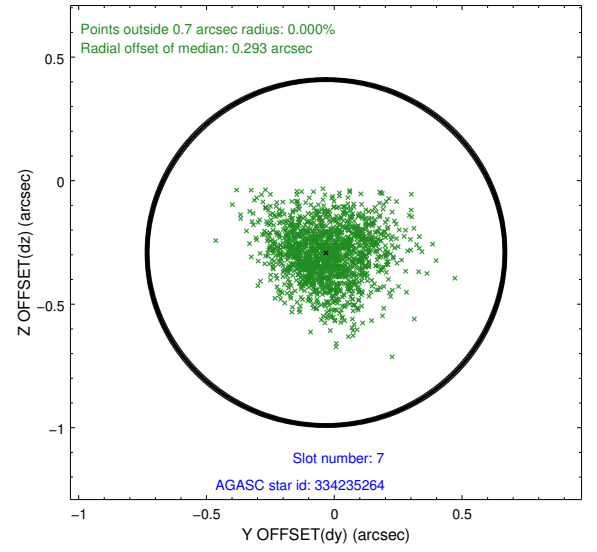
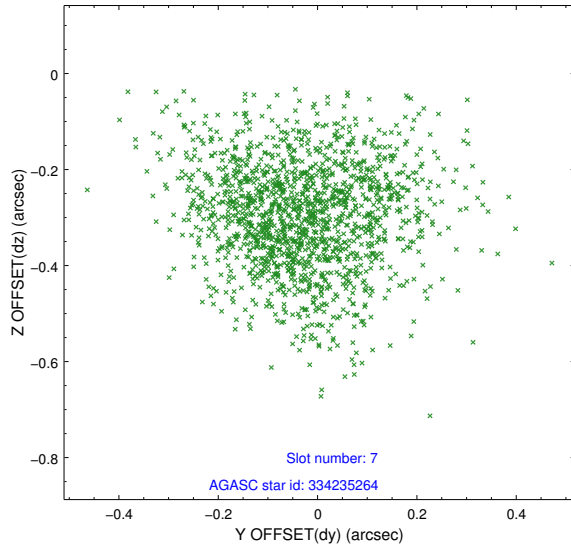
2.4.3 Slot 5



2.4.4 Slot 6

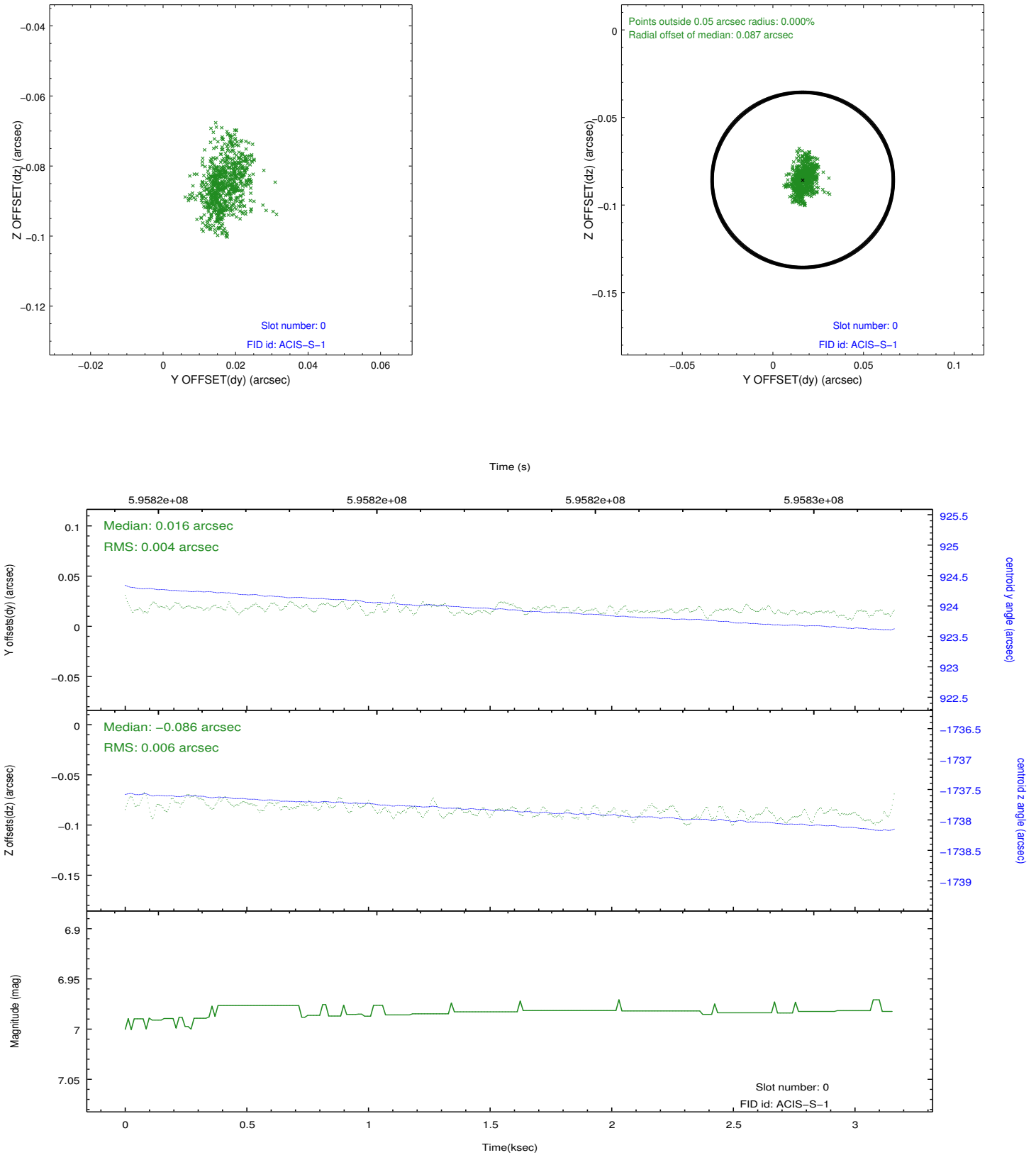


2.4.5 Slot 7

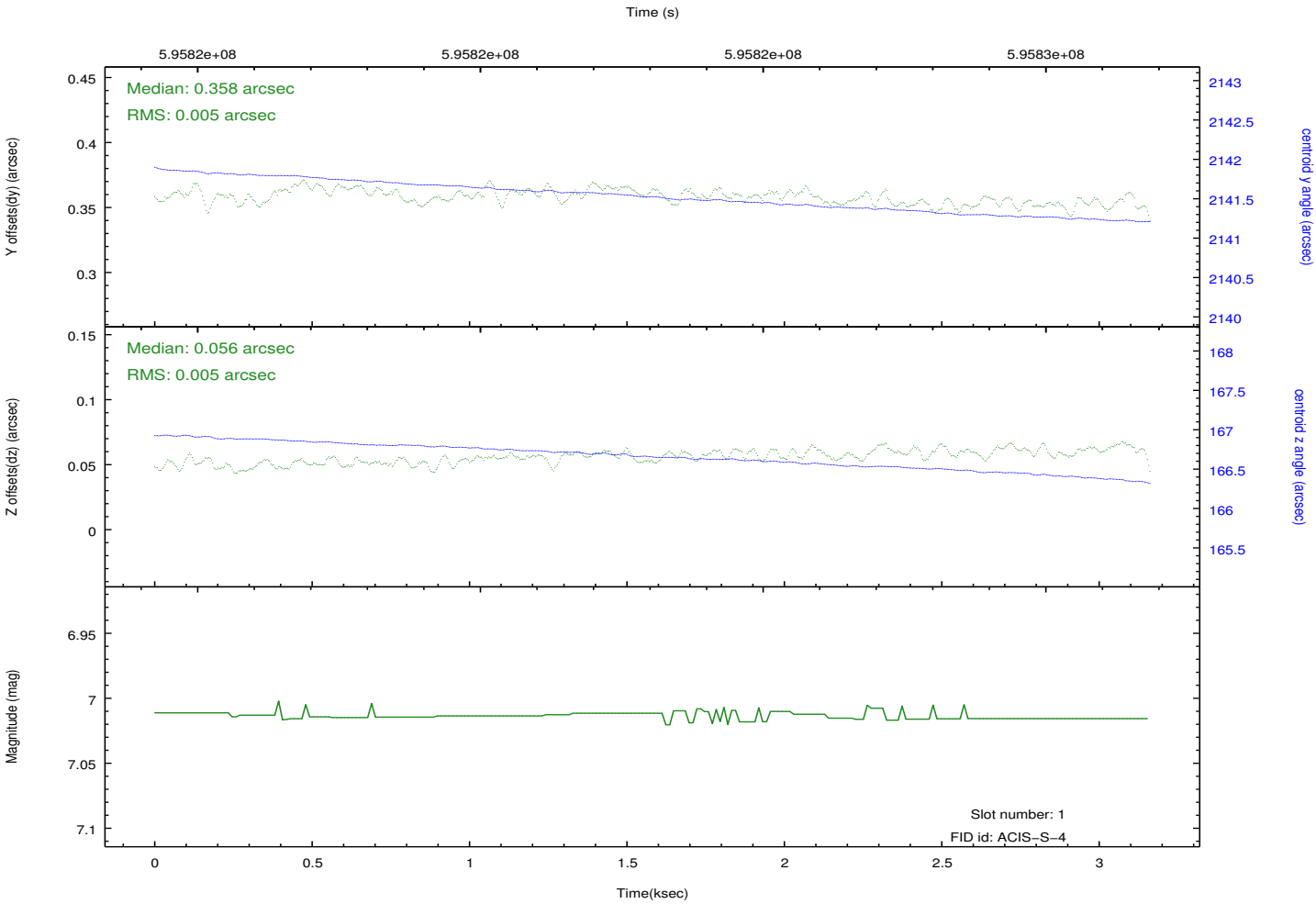
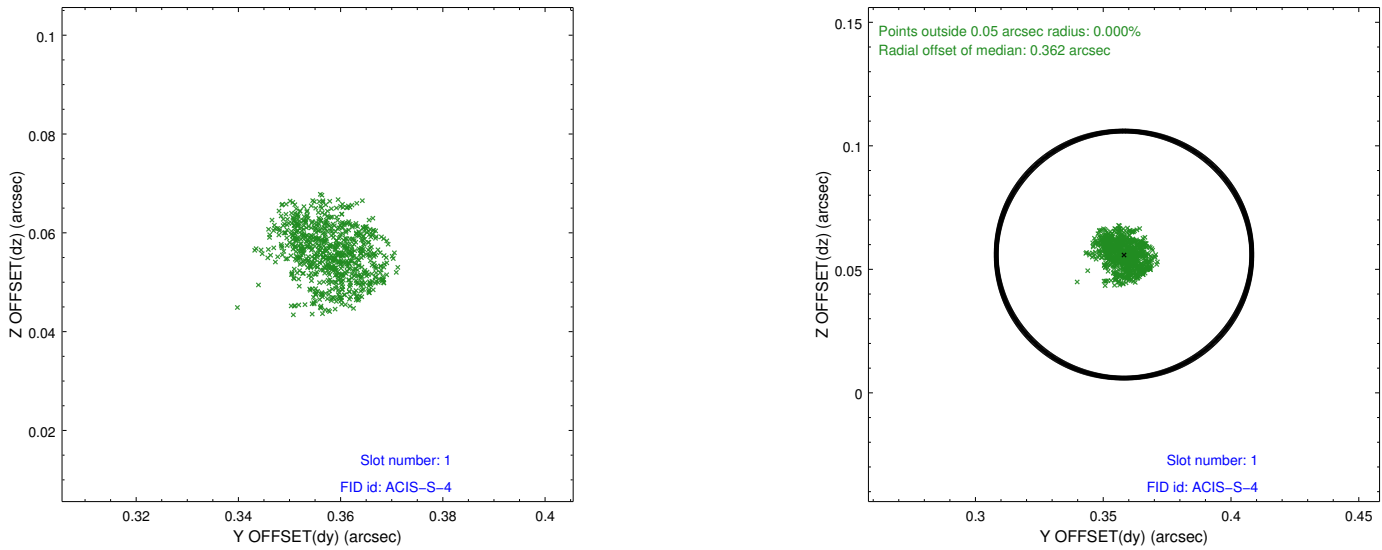


2.5 FID Slots

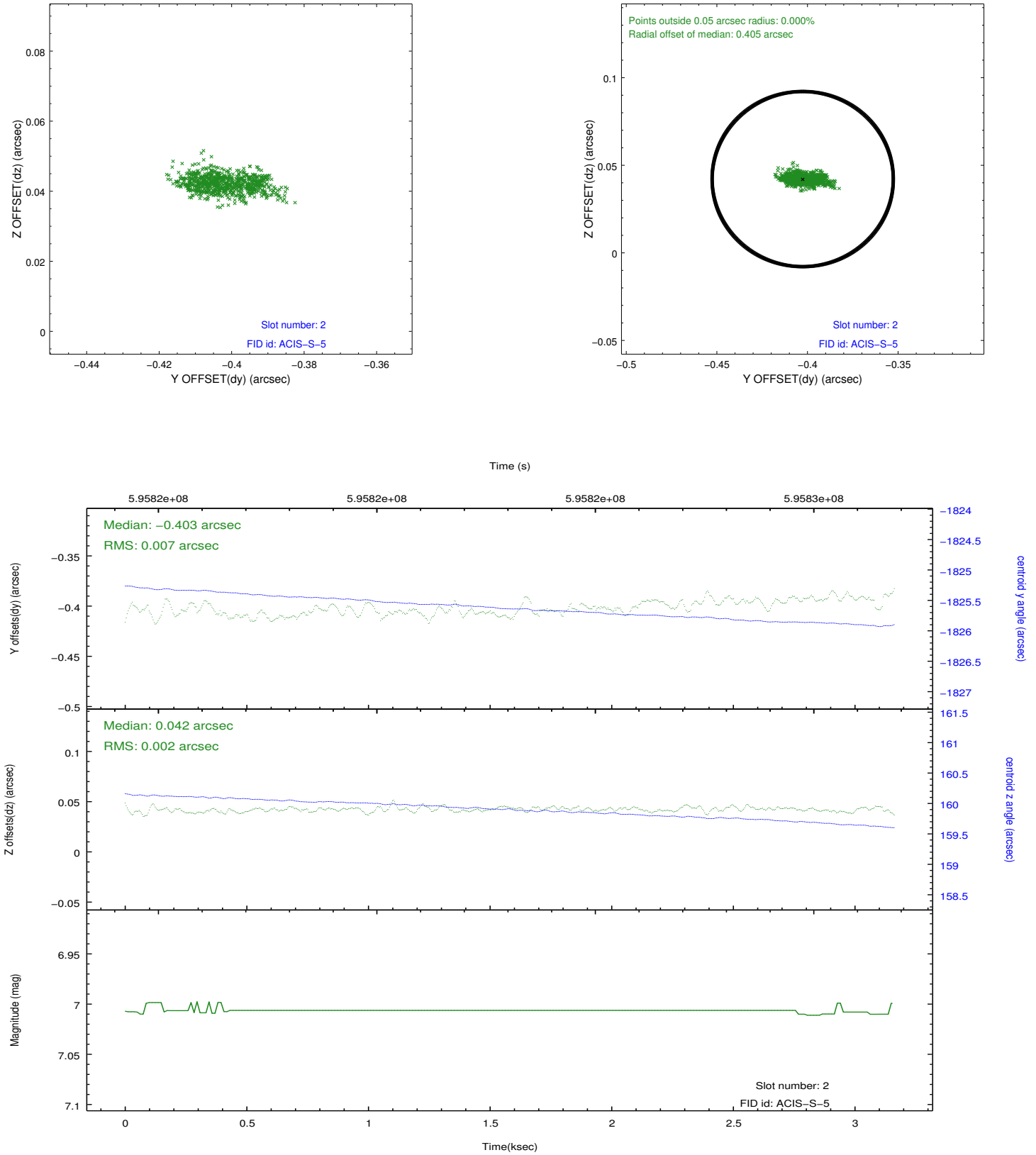
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Beth Sundheim |
| V&V Date (YYYY-MM-DD) | 2016.11.18 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 2.9567453329563 |

A.2 Comments