

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 2159 - L2 Version 3
Chandra X-Ray Center

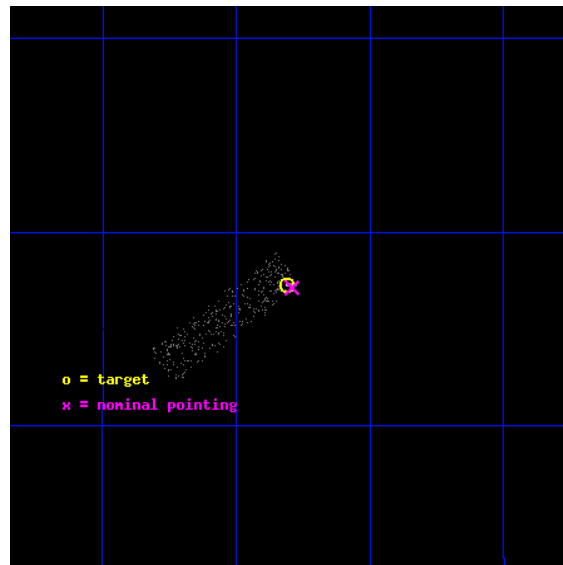
L2 Processing Date : Sep 16 2012

Contents

| | | |
|----------|-------------------------------|-----------|
| 1 | Front | 2 |
| 2 | OBI | 3 |
| 2.1 | OBI | 3 |
| 2.1.1 | Images | 3 |
| 2.1.2 | Bias | 3 |
| 2.1.3 | Parameters | 4 |
| 2.1.4 | Events | 4 |
| 2.2 | Compared Parameters | 5 |
| 2.3 | Aspect | 6 |
| 2.4 | Star Slots | 9 |
| 2.4.1 | Slot 3 | 9 |
| 2.4.2 | Slot 4 | 10 |
| 2.4.3 | Slot 5 | 11 |
| 2.4.4 | Slot 6 | 12 |
| 2.4.5 | Slot 7 | 13 |
| 2.5 | FID Slots | 14 |
| 2.5.1 | Slot 0 | 14 |
| 2.5.2 | Slot 1 | 15 |
| 2.5.3 | Slot 2 | 16 |
| A | Summary | 17 |
| A.1 | Status | 17 |
| A.2 | Comments | 17 |

1 Front

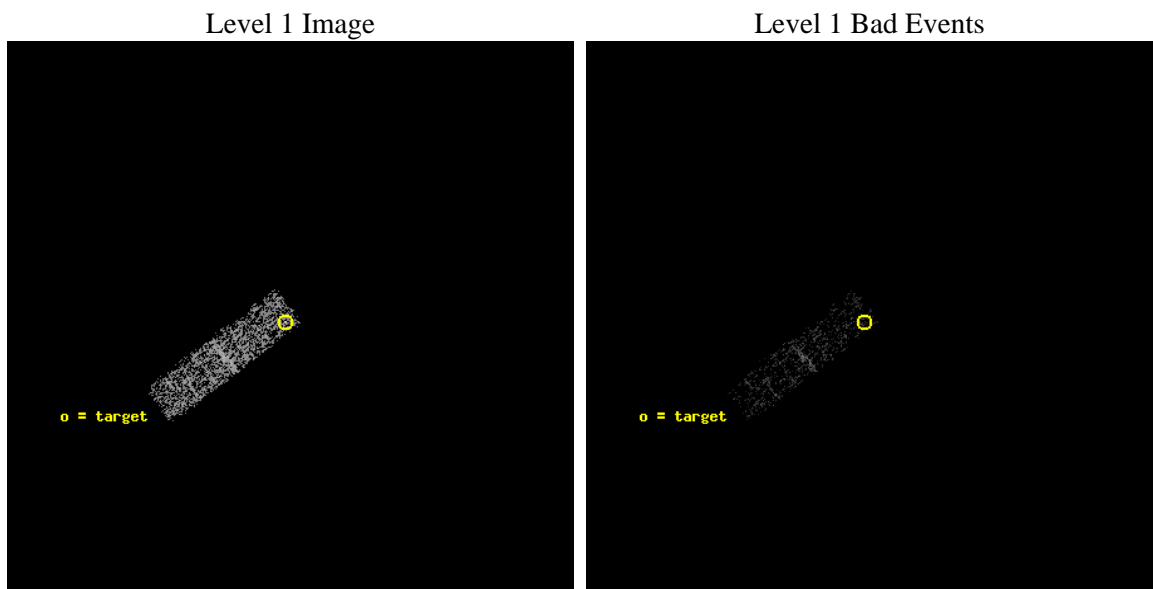
| | | |
|----------|--------------------------------------|---|
| seq_num | 700349 | Sequence number |
| obs_id | 2159 | Observation id |
| title | RED QUASARS AND THE X-RAY BACKGROUND | Proposal title |
| observer | Dr. Belinda Wilkes | Principal investigator |
| object | 2MASSJ091848+2117 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 139.7025 | Observer's specified target RA [deg] |
| dec_targ | 21.288083 | Observer's specified target Dec [deg] |
| ra_nom | 139.69798785417 | Nominal RA [deg] |
| dec_nom | 21.285628797341 | Nominal Dec [deg] |
| roll_nom | 232.71039342496 | Nominal Roll [deg] |
| revision | 3 | Processing version of data |
| ontime | 2163.1589818597 | Sum of GTIs [s] |
| livetime | 2057.6039017024 | Livetime [s] |
| ontime3 | 2163.1589818597 | Sum of GTIs [s] |
| l2events | 530 | Number of level 2 events |



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 3



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 2000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 2163.1589818597 | Sum of GTIs [s] |
| caldsver | 4.5.1.1 | | ontime3 | 2163.1589818597 | Sum of GTIs [s] |
| date | 2012-09-16T05:06:01 | Date and time of file creation | l1events | 7180 | Number of level 1 events |
| revision | 3 | Processing version of data | | | |

2.1.4 Events

| | |
|-----------------|--------------|
| | ccd 3 |
| level 1 events | 7180 |
| rejected events | 6571 |
| rejected % | 91% |

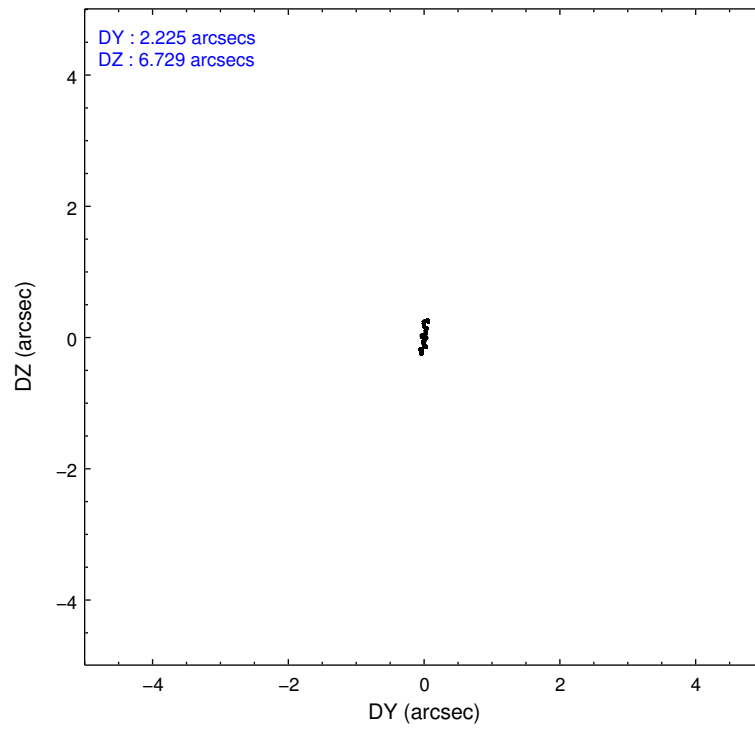
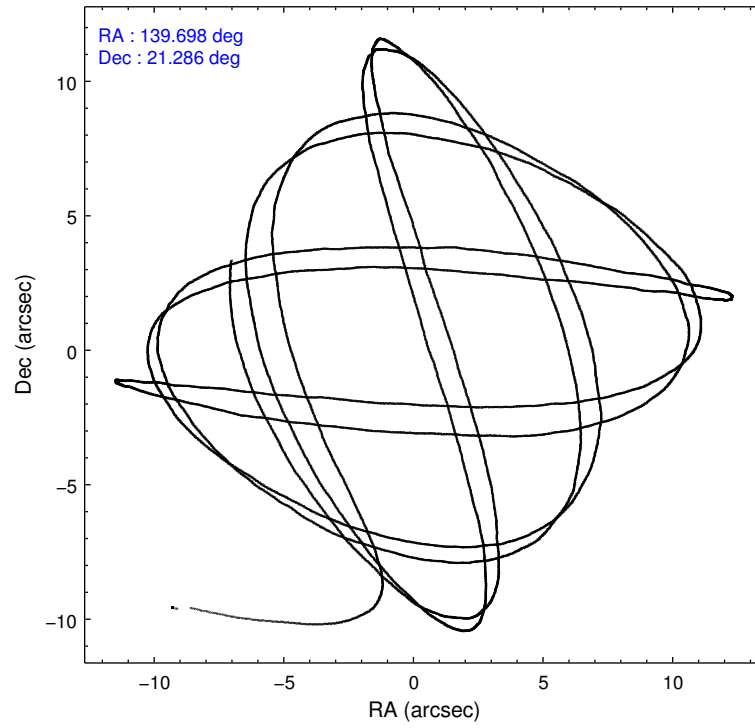
| | |
|----------------|--------------|
| | ccd 3 |
| grade 0 events | 414 |
| | 5% |
| grade 1 events | 1 |
| | 0% |
| grade 2 events | 118 |
| | 1% |
| grade 3 events | 119 |
| | 1% |
| grade 4 events | 102 |
| | 1% |
| grade 5 events | 220 |
| | 3% |
| grade 6 events | 111 |
| | 1% |
| grade 7 events | 6095 |
| | 84% |

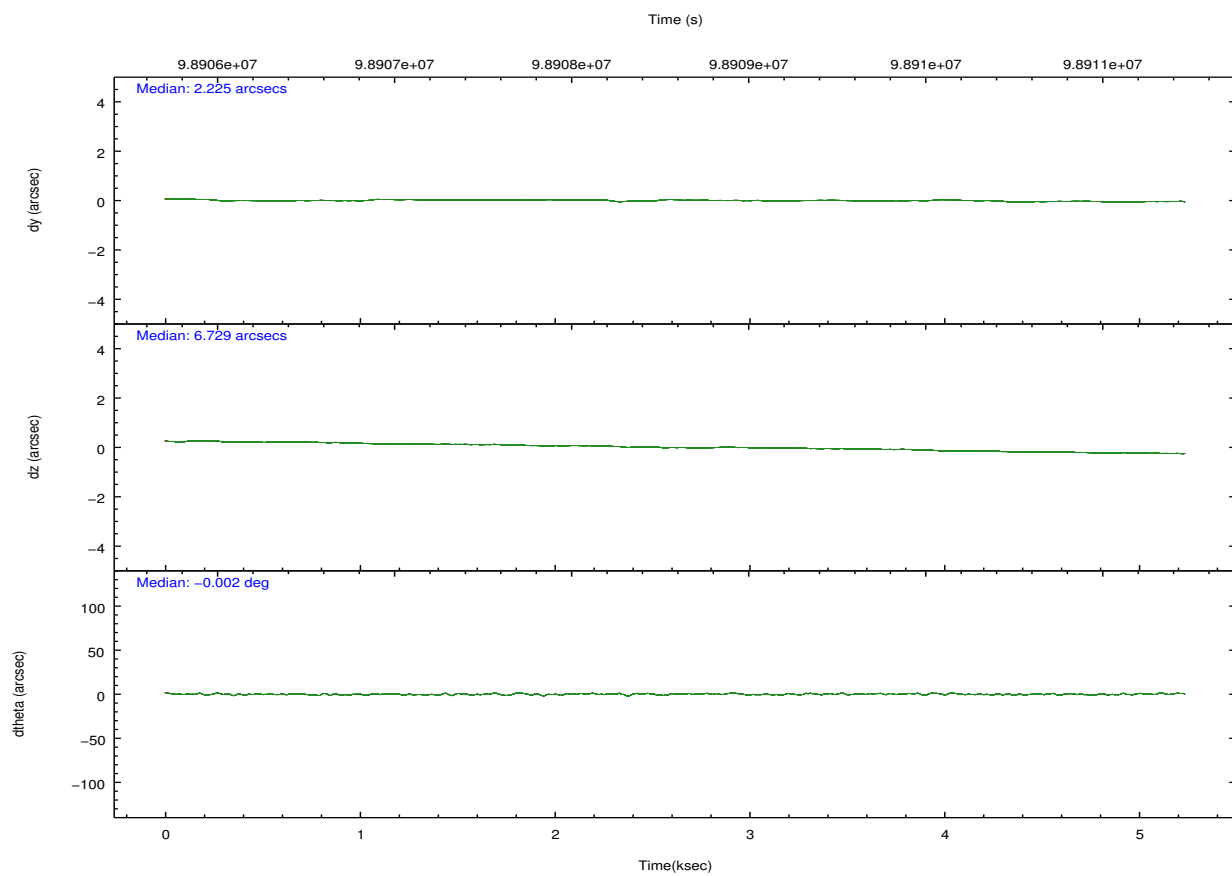
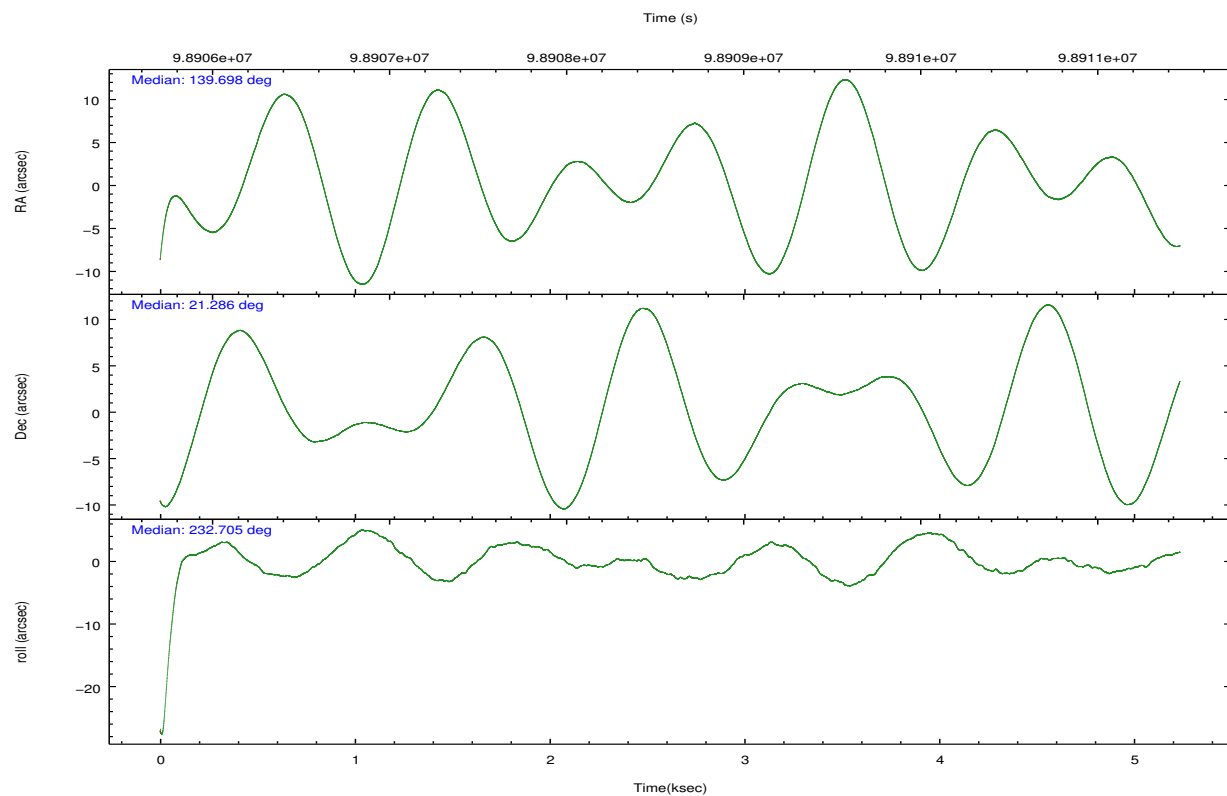
2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|
| Instrument | ACIS | ACIS |
| Detector | ACIS-3 | ACIS-3 |
| Grating | NONE | NONE |
| Data mode | VFAINT | VFAINT |
| Observation mode | POINTING | POINTING |
| [deg] Pointing RA | 139.701793 | 139.6979878541739 |
| [deg] Pointing Dec | 21.312959 | 21.28562879734139 |
| [deg] Pointing Roll | 232.500392 | 232.7103934249551 |
| [mm] SIM focus pos | -0.782348 | -0.7809083437167272 |
| [mm] SIM defocus | 0 | 0.001439871863259334 |
| [mm] SIM translation stage pos | -233.592463 | -233.5874344608287 |
| [mm] SIM translation stage offset | 0 | -0.005018542100998502 |
| [s] Observation start time (MET) | 98906130.184000 | 98904864.11318401 |
| Observation start date | 2001-02-18T17:54:26 | 2001-02-18T17:34:24 |
| [s] Observation end time (MET) | 98908130.184000 | 98911516.36344001 |
| Observation end date | 2001-02-18T18:27:46 | 2001-02-18T19:25:16 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---------------------------------------|-----------|---------|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |
| Number of optional ACIS chips dropped | 0 | 0 |
| On-chip summing requested | N | N |
| Subarray requested | CUSTOM | 1/4 |
| Subarray start row | 769 | 769 |
| Subarray row count | 256 | 256 |
| Alternating exposures requested | N | N |
| [s] Primary exposure time | 0.000000 | 0.8 |

2.3 Aspect



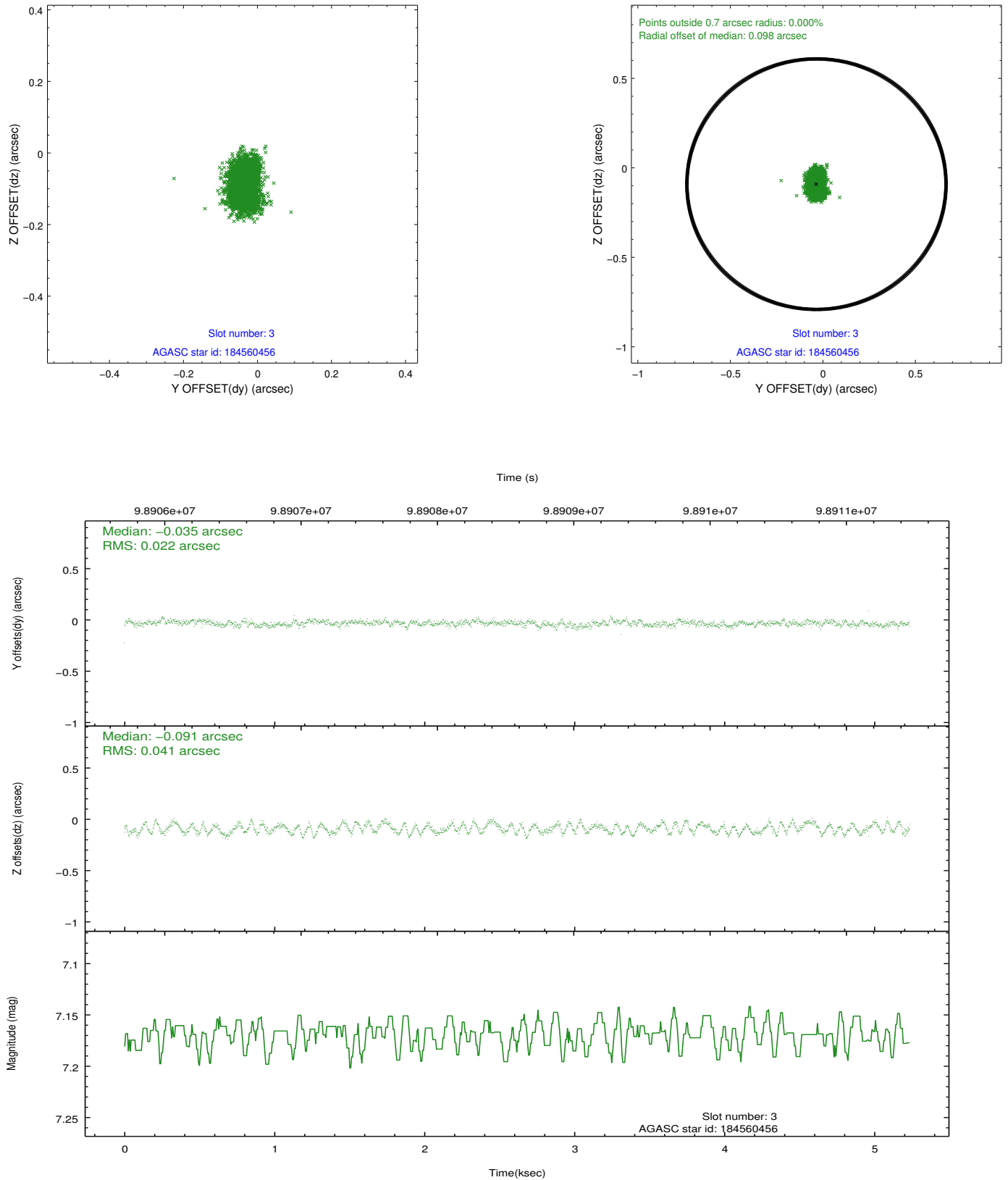


Slot Statistics

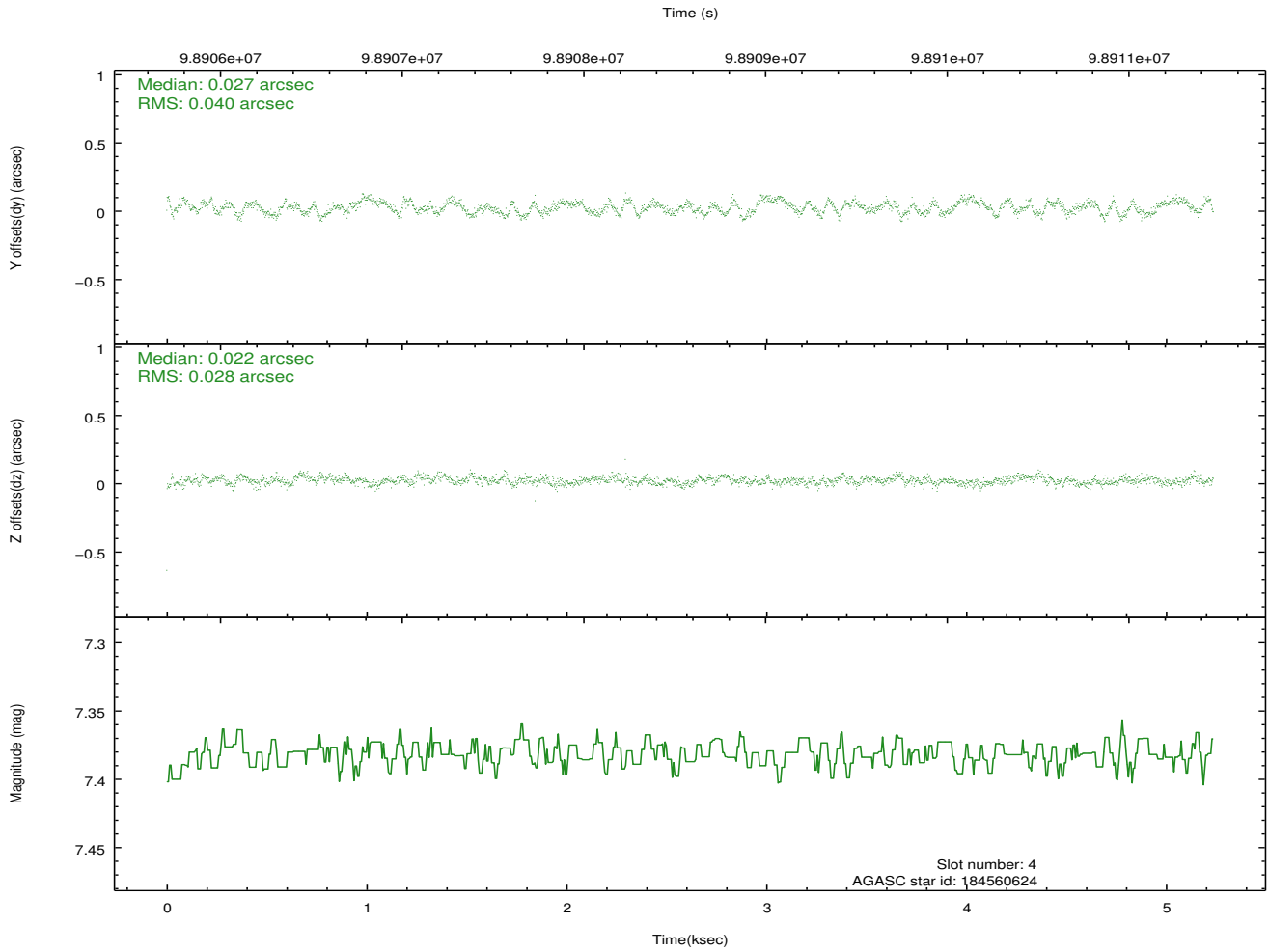
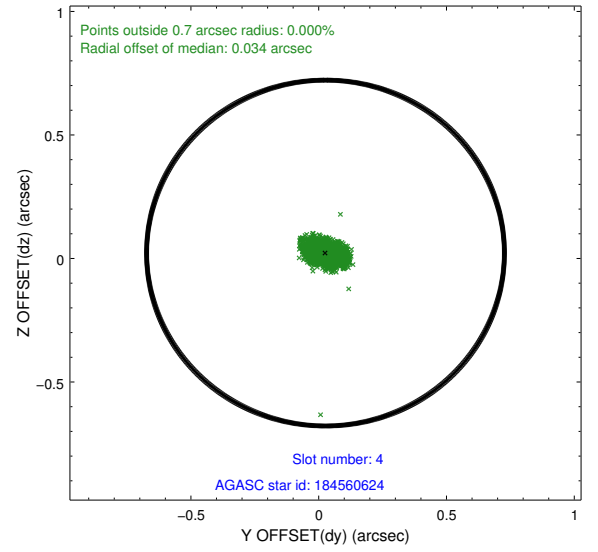
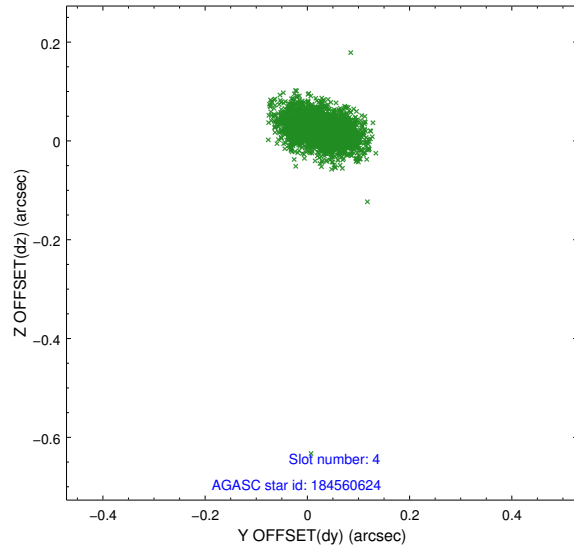
| slot | status | id | mag | n_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mean_z |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0 | FID | ACIS-I-2 | 7.16 | 1278 | -0.046 | -0.073 | 0.009 | 0.015 | 0.000000 | 0.000000 | -756.63 | -836.56 |
| 1 | FID | ACIS-I-4 | 7.18 | 1278 | -0.010 | 0.053 | 0.006 | 0.011 | 0.000000 | 0.000000 | 2156.94 | 1069.17 |
| 2 | FID | ACIS-I-5 | 7.23 | 1278 | -0.045 | 0.089 | 0.009 | 0.014 | 0.000000 | 0.000000 | -1808.97 | 1068.35 |
| 3 | GUIDE | 184560456 | 7.17 | 2555 | -0.035 | -0.091 | 0.050 | 0.078 | 139.914483 | 20.546508 | 1753.06 | 2248.45 |
| 4 | GUIDE | 184560624 | 7.38 | 2555 | 0.027 | 0.022 | 0.051 | 0.081 | 140.497177 | 21.498563 | -2155.73 | 1703.60 |
| 5 | GUIDE | 184560232 | 8.10 | 2554 | -0.054 | 0.068 | 0.046 | 0.074 | 138.997083 | 21.280288 | 1528.57 | -1806.18 |
| 6 | GUIDE | 184562968 | 8.27 | 2555 | 0.013 | -0.072 | 0.070 | 0.110 | 139.457478 | 21.781583 | -839.92 | -1676.18 |
| 7 | GUIDE | 184561360 | 9.33 | 2552 | 0.052 | 0.078 | 0.076 | 0.121 | 139.708822 | 20.583386 | 2069.95 | 1617.41 |

2.4 Star Slots

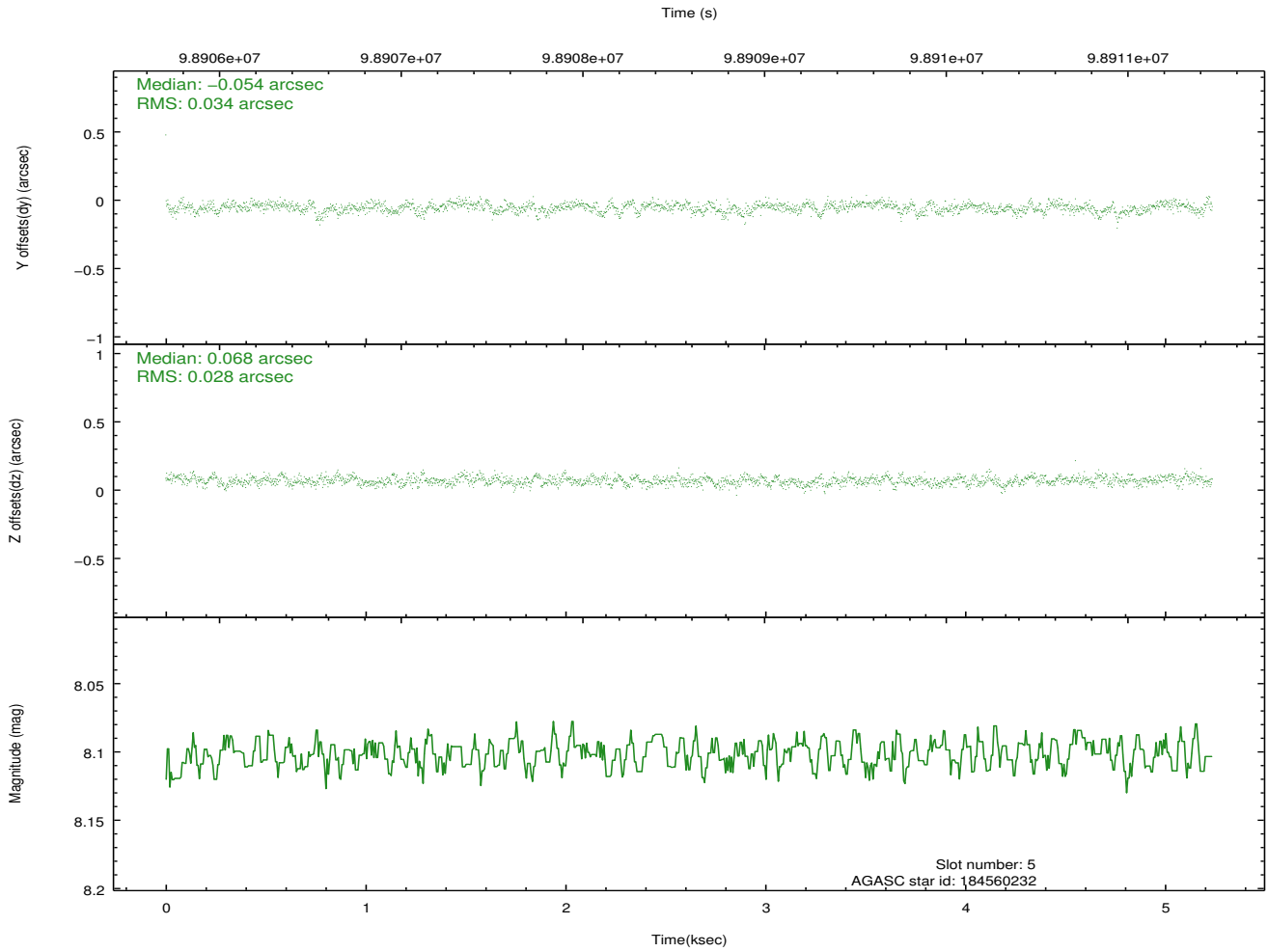
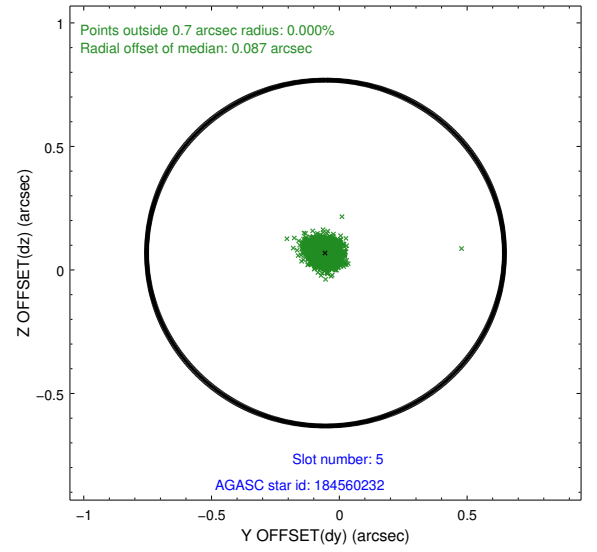
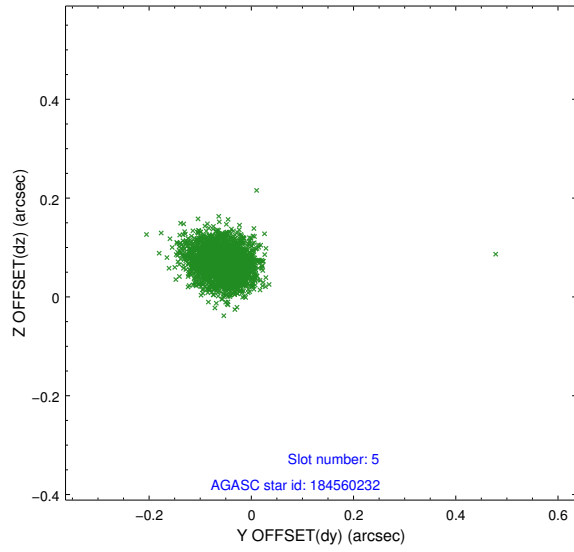
2.4.1 Slot 3



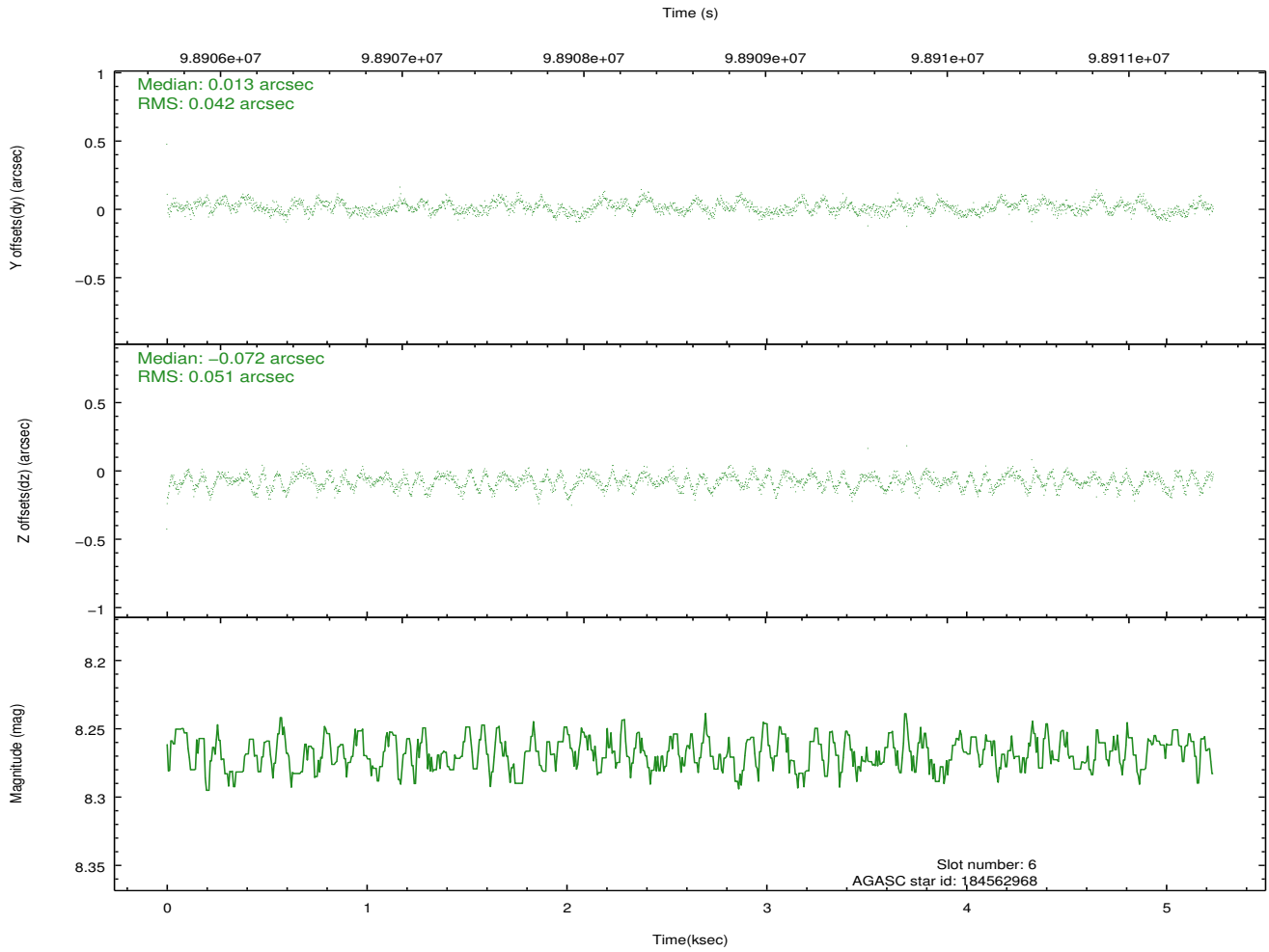
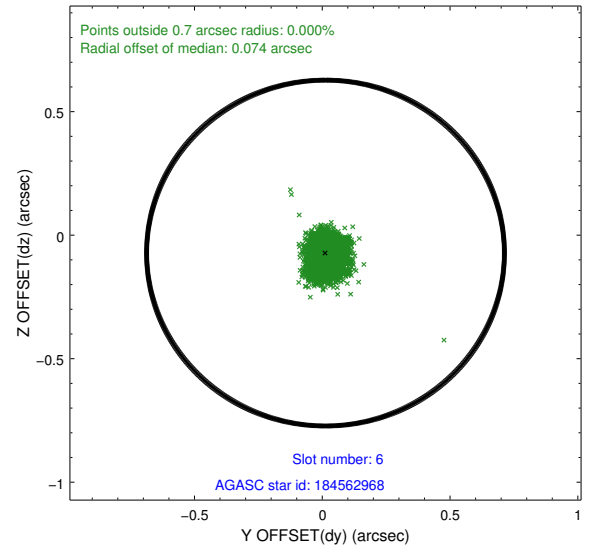
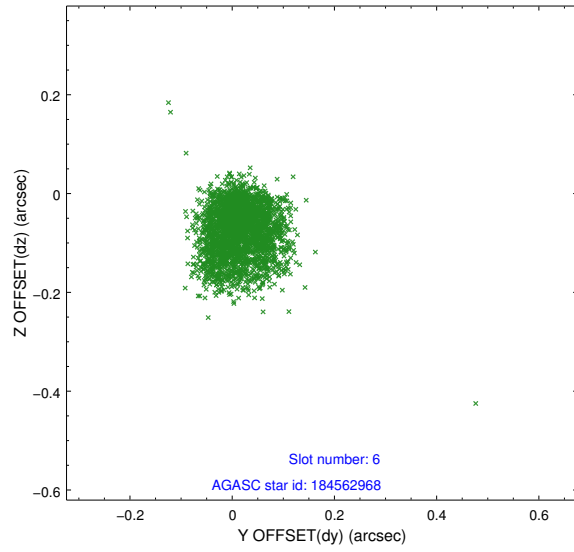
2.4.2 Slot 4



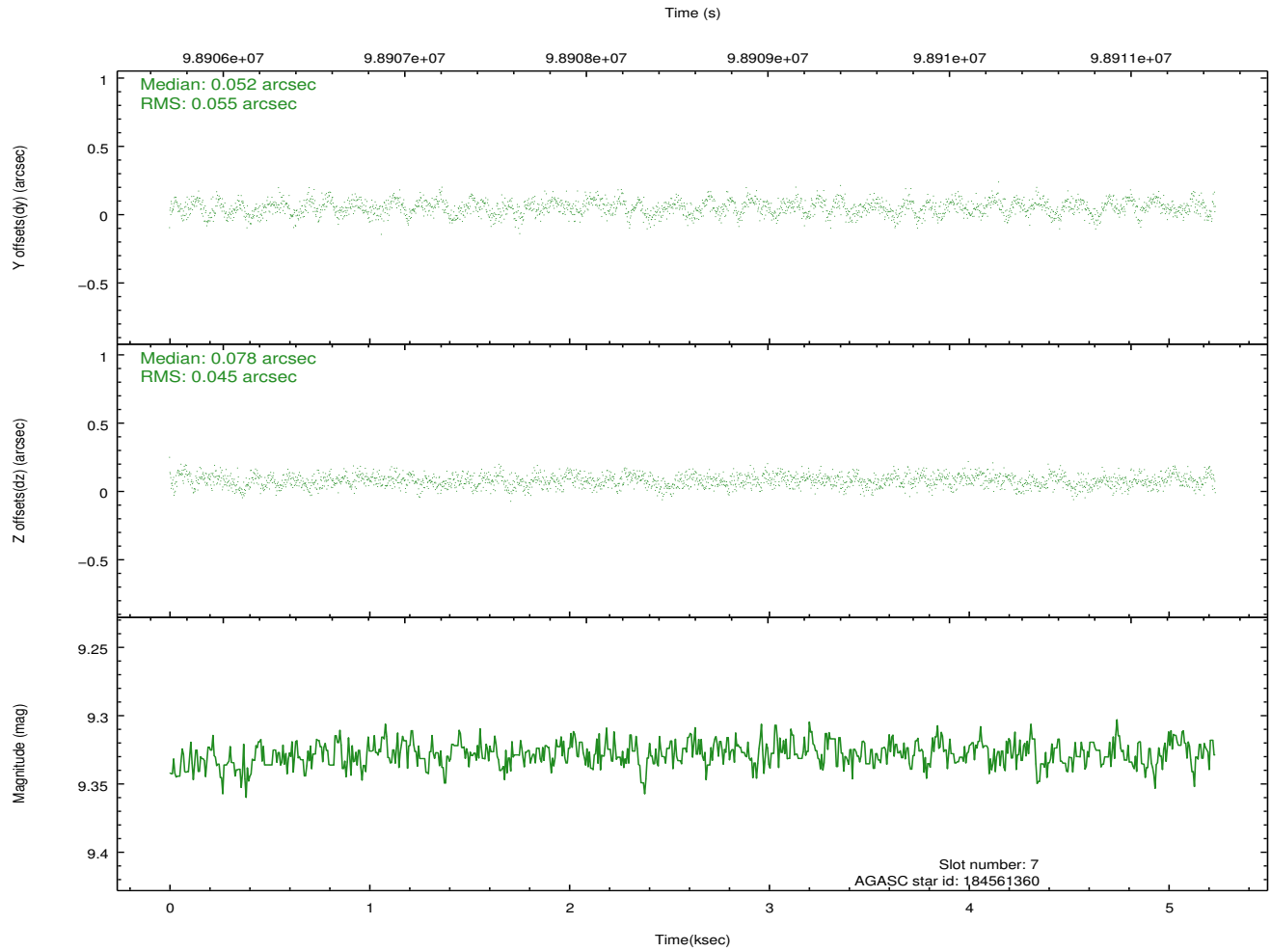
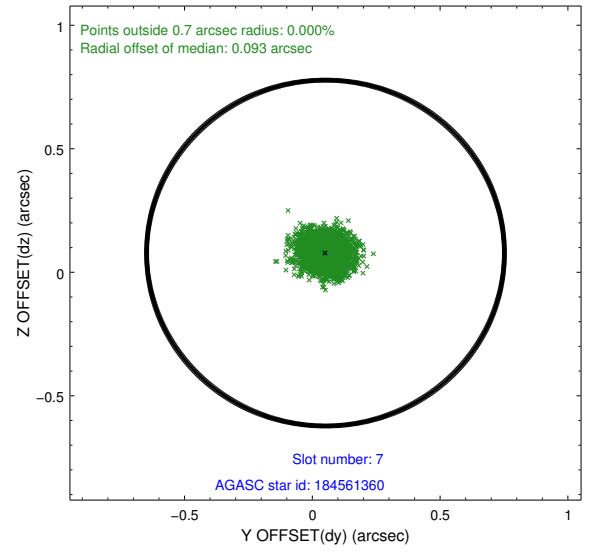
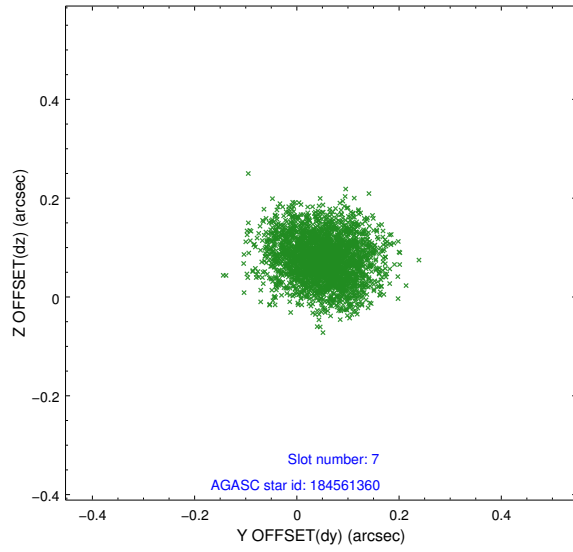
2.4.3 Slot 5



2.4.4 Slot 6

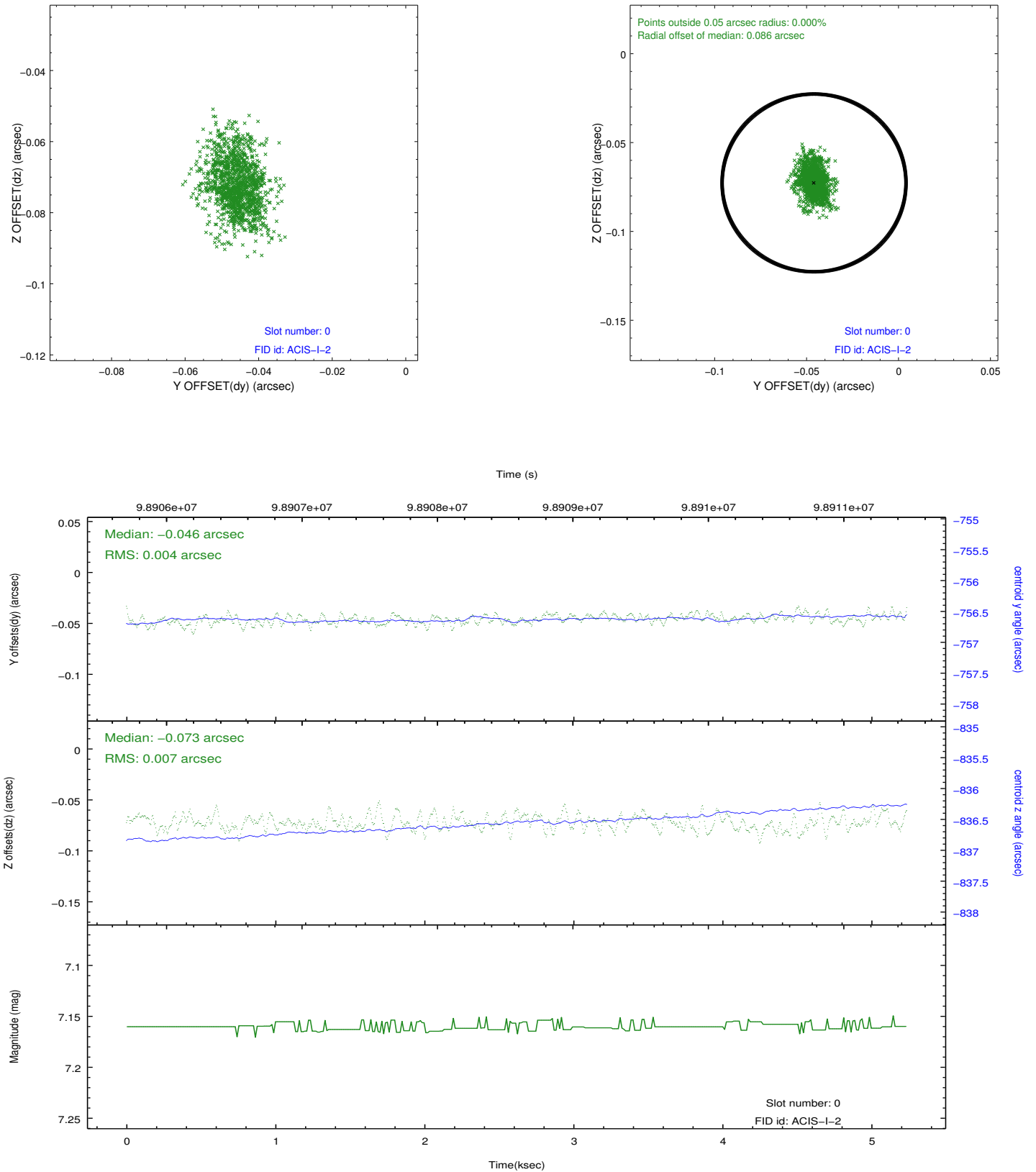


2.4.5 Slot 7

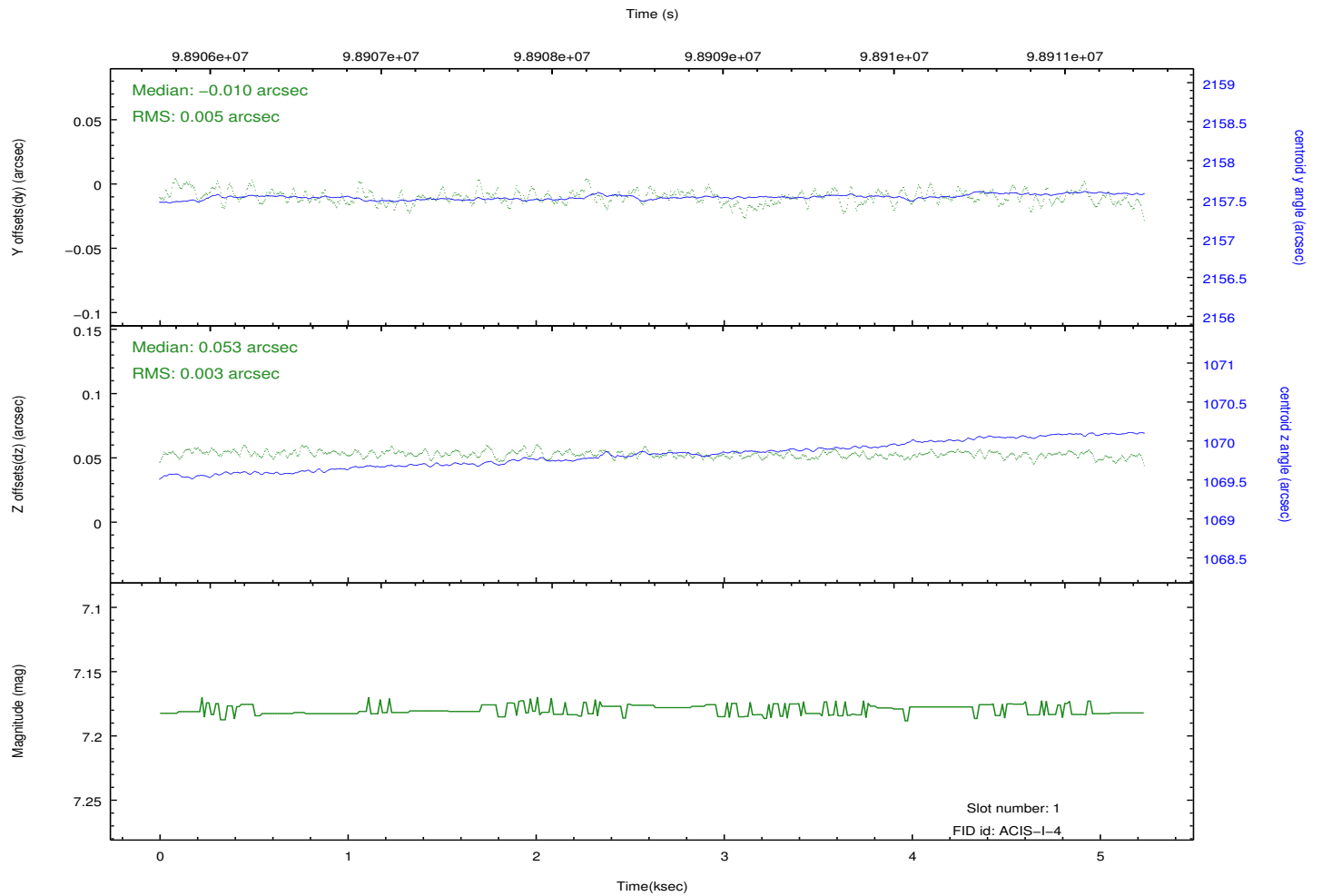
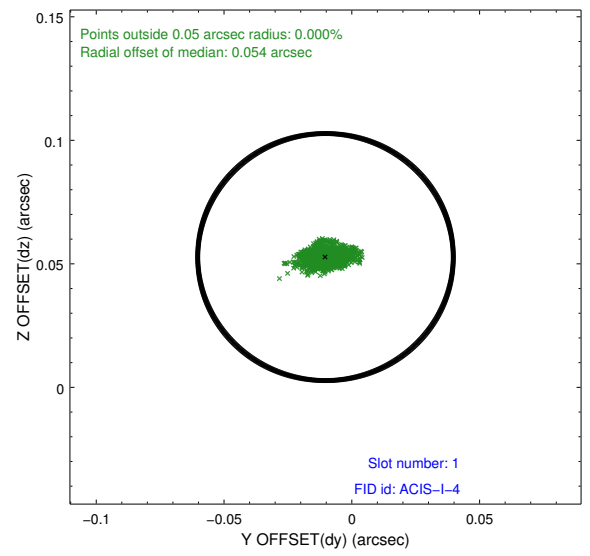
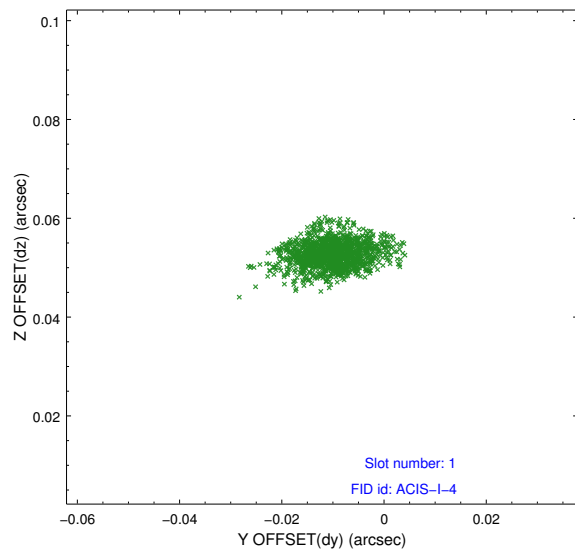


2.5 FID Slots

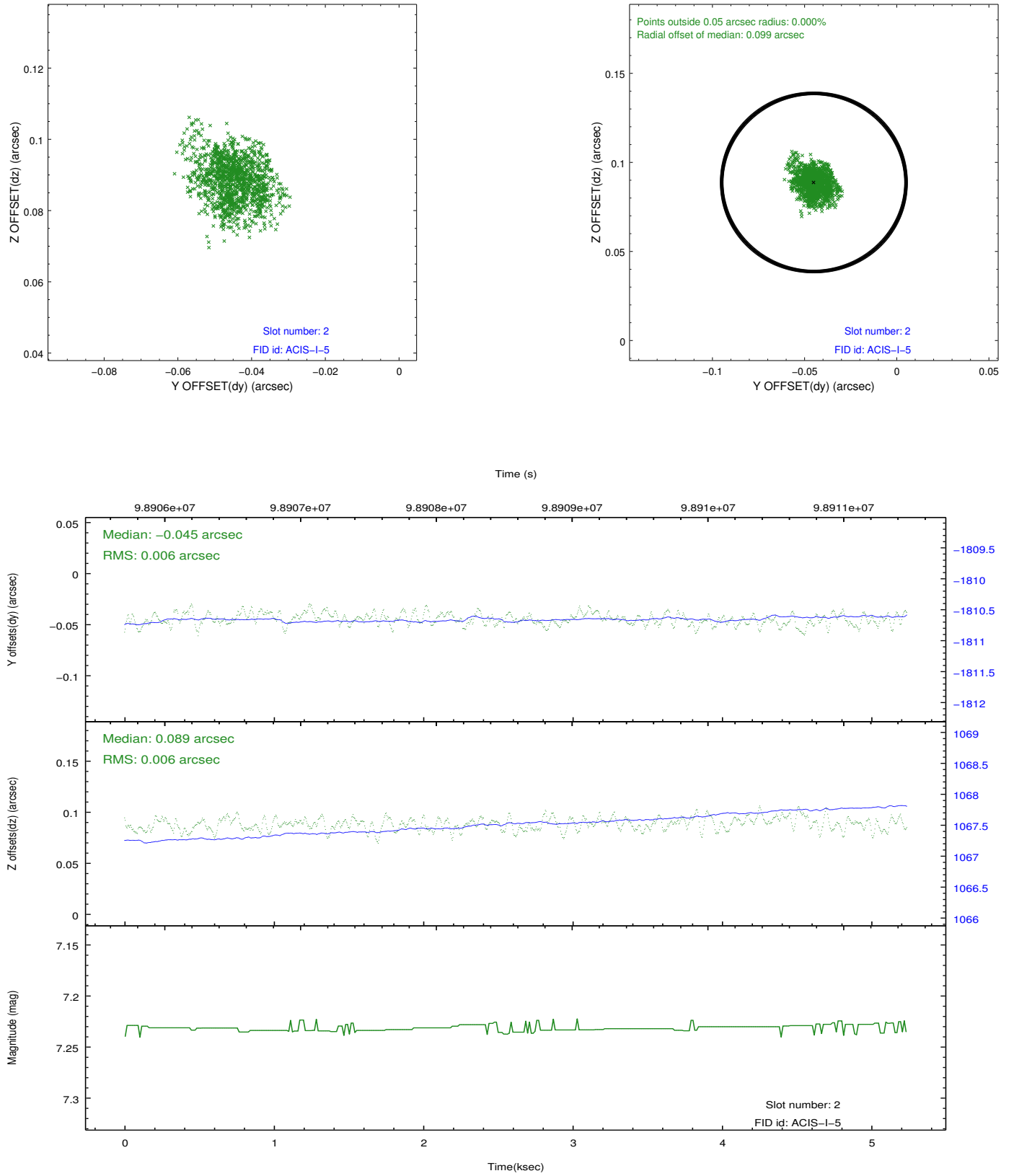
2.5.1 Slot 0



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) | 2012.09.19 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 2.16 |

A.2 Comments