

V&V Reference Report

L2 ASCDS Version : 10.8

Observation 21598 - L2 Version 1
Chandra X-Ray Center

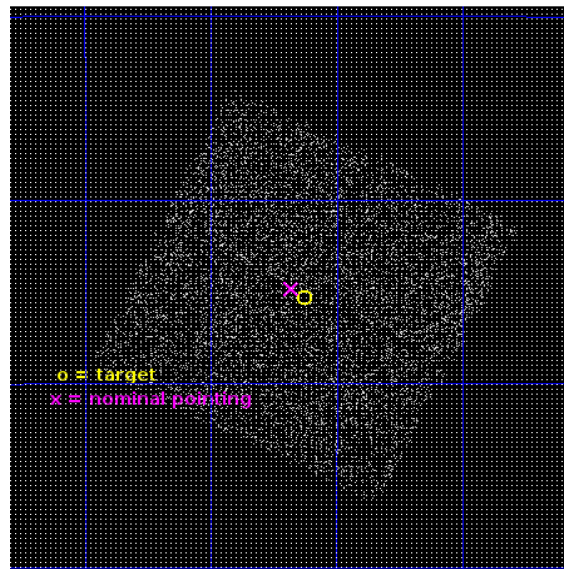
L2 Processing Date : Jul 3 2019

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

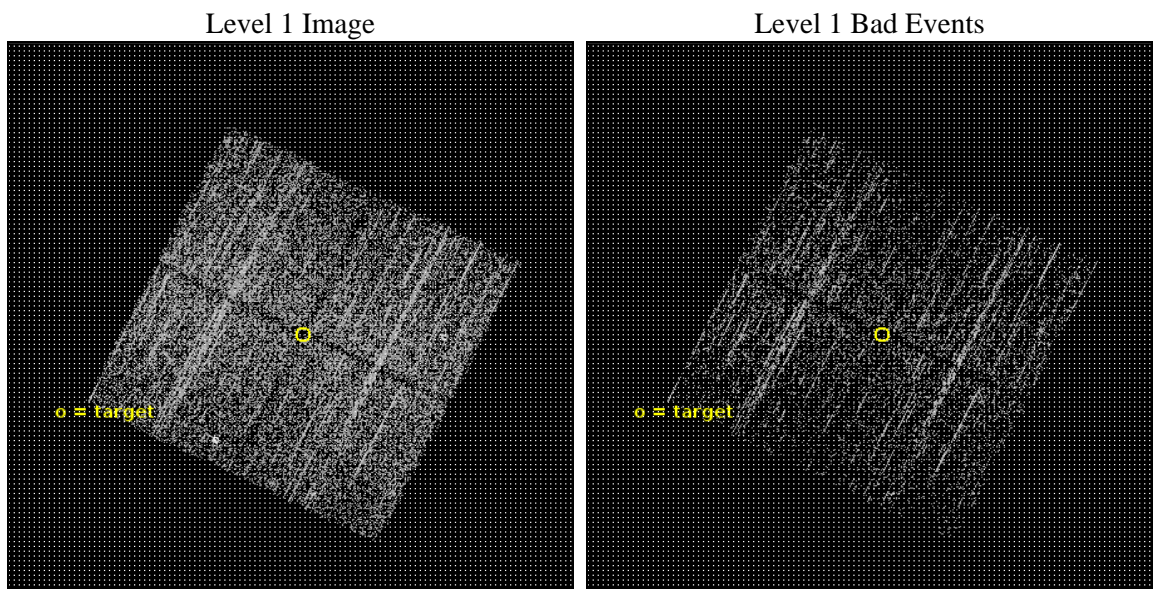
| | | |
|----------|--|---|
| seq_num | 300430 | Sequence number |
| obs_id | 21598 | Observation id |
| title | Chandra Mapping of the Galactic Central Region | Proposal title |
| observer | Daniel Wang | Principal investigator |
| object | GCR Gap 2 | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 267.53182 | Observer's specified target RA [deg] |
| dec_targ | -28.588883 | Observer's specified target Dec [deg] |
| ra_nom | 267.54486693665 | Nominal RA [deg] |
| dec_nom | -28.580630979104 | Nominal Dec [deg] |
| roll_nom | 296.21492885877 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 1908.0871913433 | Sum of GTIs [s] |
| livetime | 1883.1566274751 | Livetime [s] |
| ontime0 | 1908.0461513996 | Sum of GTIs [s] |
| ontime1 | 1908.0871913433 | Sum of GTIs [s] |
| ontime2 | 1908.1282314062 | Sum of GTIs [s] |
| ontime3 | 1908.1692713499 | Sum of GTIs [s] |
| l2events | 6263 | Number of level 2 events |



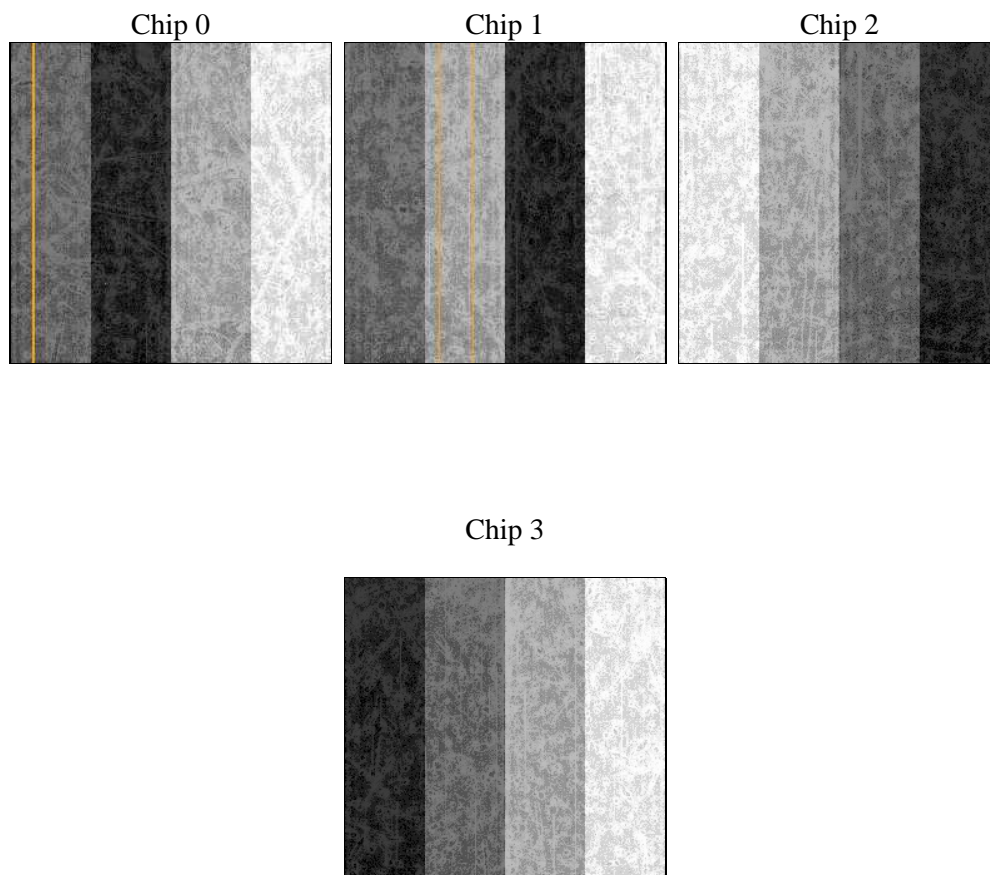
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 2000.000000 | [s] Scheduled observation exposure time |
| ascdsver | 10.8 | Processing system revision | ontime | 1908.0871913433 | Sum of GTIs [s] |
| caldsver | 4.8.3.1 | | ontime0 | 1908.0461513996 | Sum of GTIs [s] |
| date | 2019-07-03T20:57:01 | Date and time of file creation | ontime1 | 1908.0871913433 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime2 | 1908.1282314062 | Sum of GTIs [s] |
| | | | ontime3 | 1908.1692713499 | Sum of GTIs [s] |
| | | | l1events | 56175 | Number of level 1 events |

2.1.4 Events

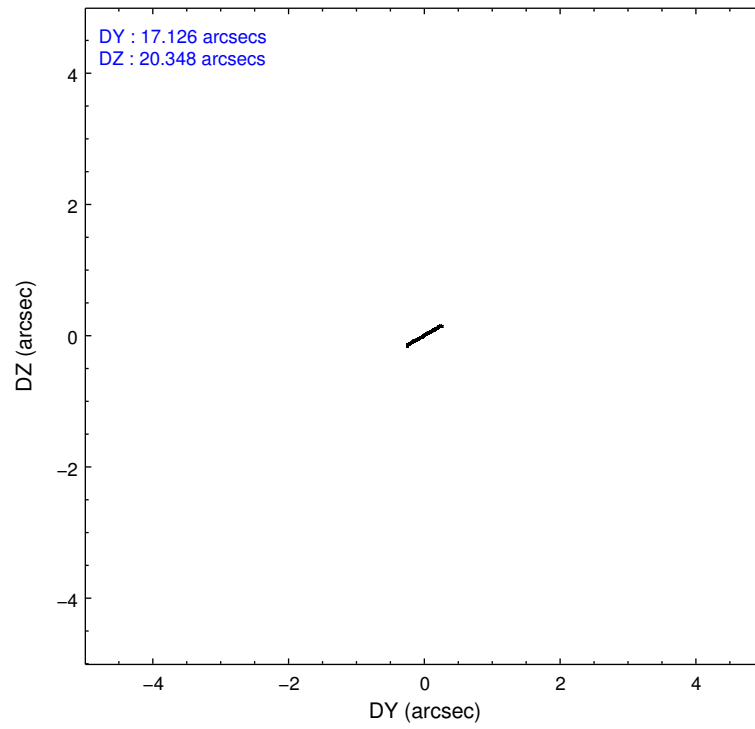
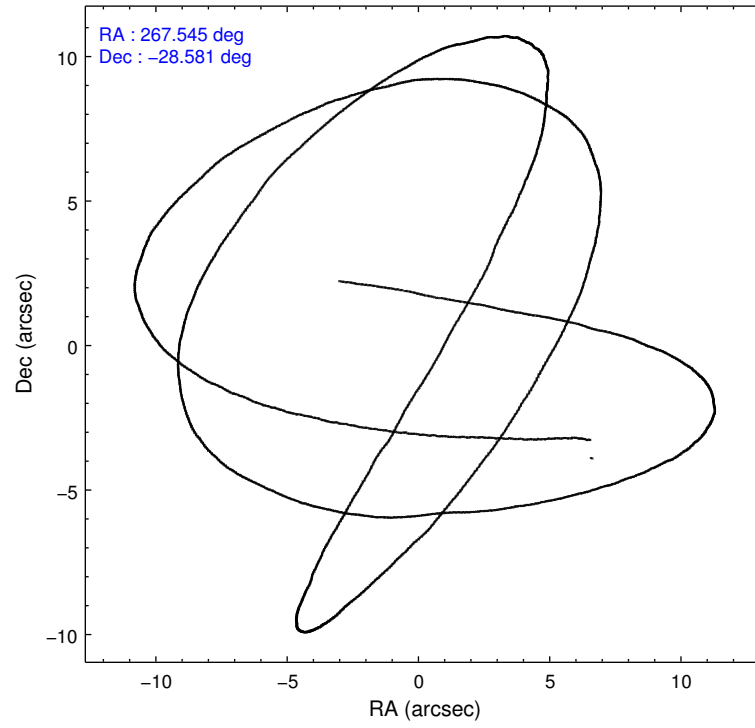
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|-----------------|-------|-------|-------|-------|
| level 1 events | 12663 | 14822 | 14944 | 13746 |
| rejected events | 10882 | 12601 | 12681 | 11972 |
| rejected % | 85% | 85% | 84% | 87% |

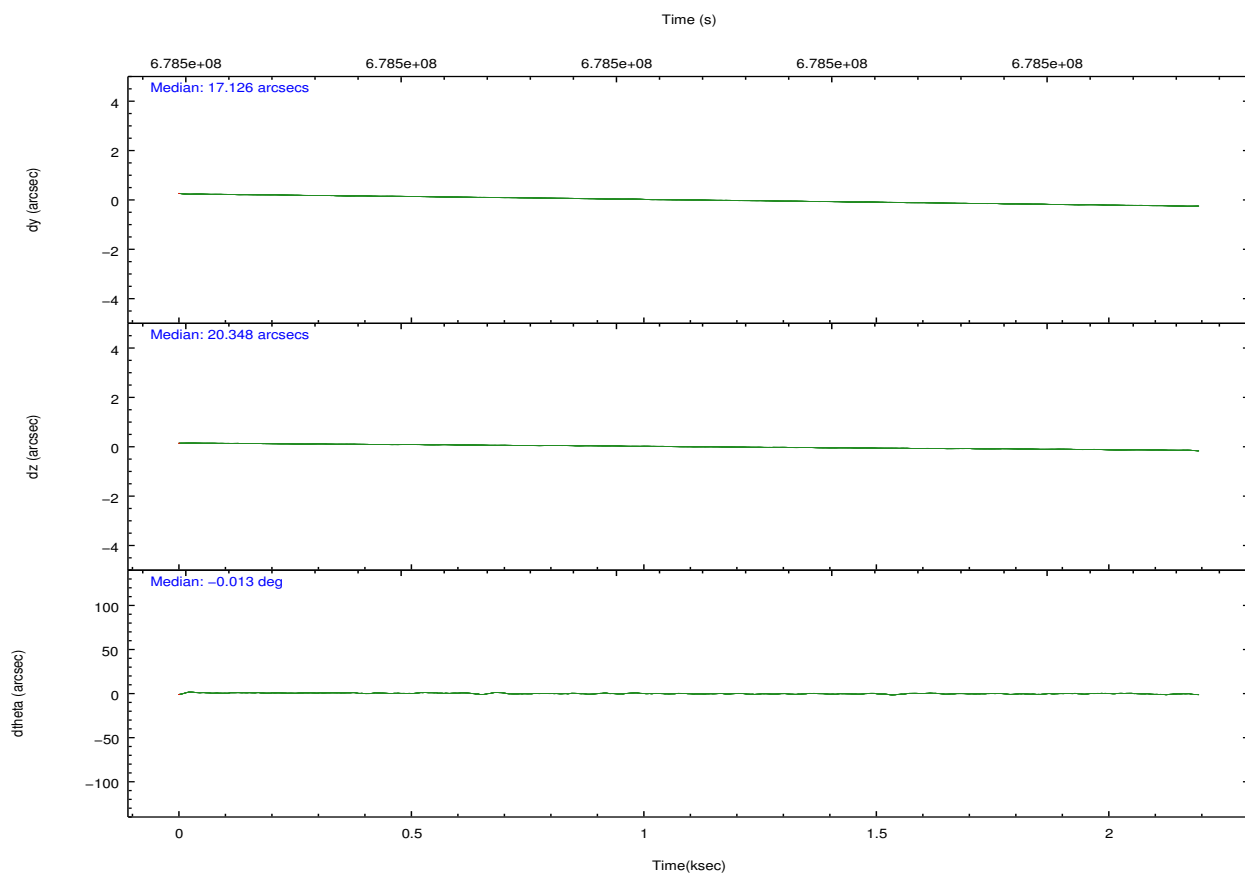
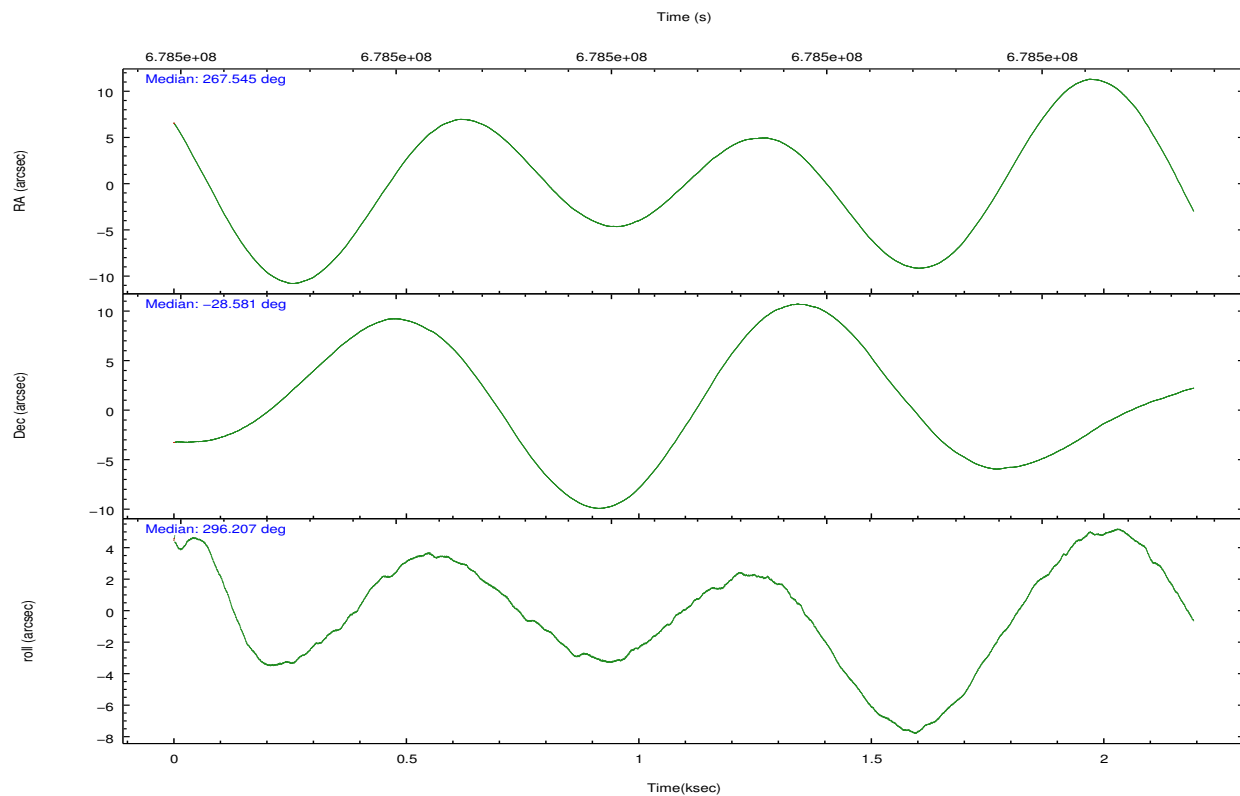
| | ccd 0 | ccd 1 | ccd 2 | ccd 3 |
|----------------|-------|-------|-------|-------|
| grade 0 events | 696 | 936 | 1218 | 717 |
| | 5% | 6% | 8% | 5% |
| grade 1 events | 11 | 7 | 14 | 9 |
| | 0% | 0% | 0% | 0% |
| grade 2 events | 409 | 499 | 396 | 366 |
| | 3% | 3% | 2% | 2% |
| grade 3 events | 163 | 194 | 178 | 168 |
| | 1% | 1% | 1% | 1% |
| grade 4 events | 165 | 180 | 157 | 168 |
| | 1% | 1% | 1% | 1% |
| grade 5 events | 611 | 666 | 594 | 709 |
| | 4% | 4% | 3% | 5% |
| grade 6 events | 355 | 418 | 321 | 362 |
| | 2% | 2% | 2% | 2% |
| grade 7 events | 10253 | 11922 | 12066 | 11247 |
| | 80% | 80% | 80% | 81% |

2.2 Compared Parameters

| Parameter | Planned | Actual | Parameter | Planned | Actual |
|-----------------------------------|---------------------|-----------------------|---------------------------------------|-----------|---------|
| Instrument | ACIS | ACIS | Obspar format version number | 7 | 7 |
| Detector | ACIS-0123 | ACIS-0123 | Obspar file type | PREDICTED | ACTUAL |
| Grating | NONE | NONE | Obspar update status | NONE | UPDATED |
| Data mode | VFAINT | VFAINT | Number of optional ACIS chips dropped | 0 | 0 |
| Observation mode | POINTING | POINTING | On-chip summing requested | N | N |
| [deg] Pointing RA | 267.518617 | 267.5448669366526 | Subarray requested | NONE | NONE |
| [deg] Pointing Dec | -28.565335 | -28.58063097910368 | Alternating exposures requested | N | N |
| [deg] Pointing Roll | 295.993689 | 296.2149288587678 | [s] Primary exposure time | 0.000000 | 3.1 |
| [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) | 678498260.184000 | 678497884.32083 | | | |
| Observation start date | 2019-07-02T23:43:11 | 2019-07-02T23:38:04 | | | |
| [s] Observation end time (MET) | 678500260.184000 | 678500394.54598 | | | |
| Observation end date | 2019-07-03T00:16:31 | 2019-07-03T00:19:54 | | | |
| Read mode | TIMED | TIMED | | | |

2.3 Aspect



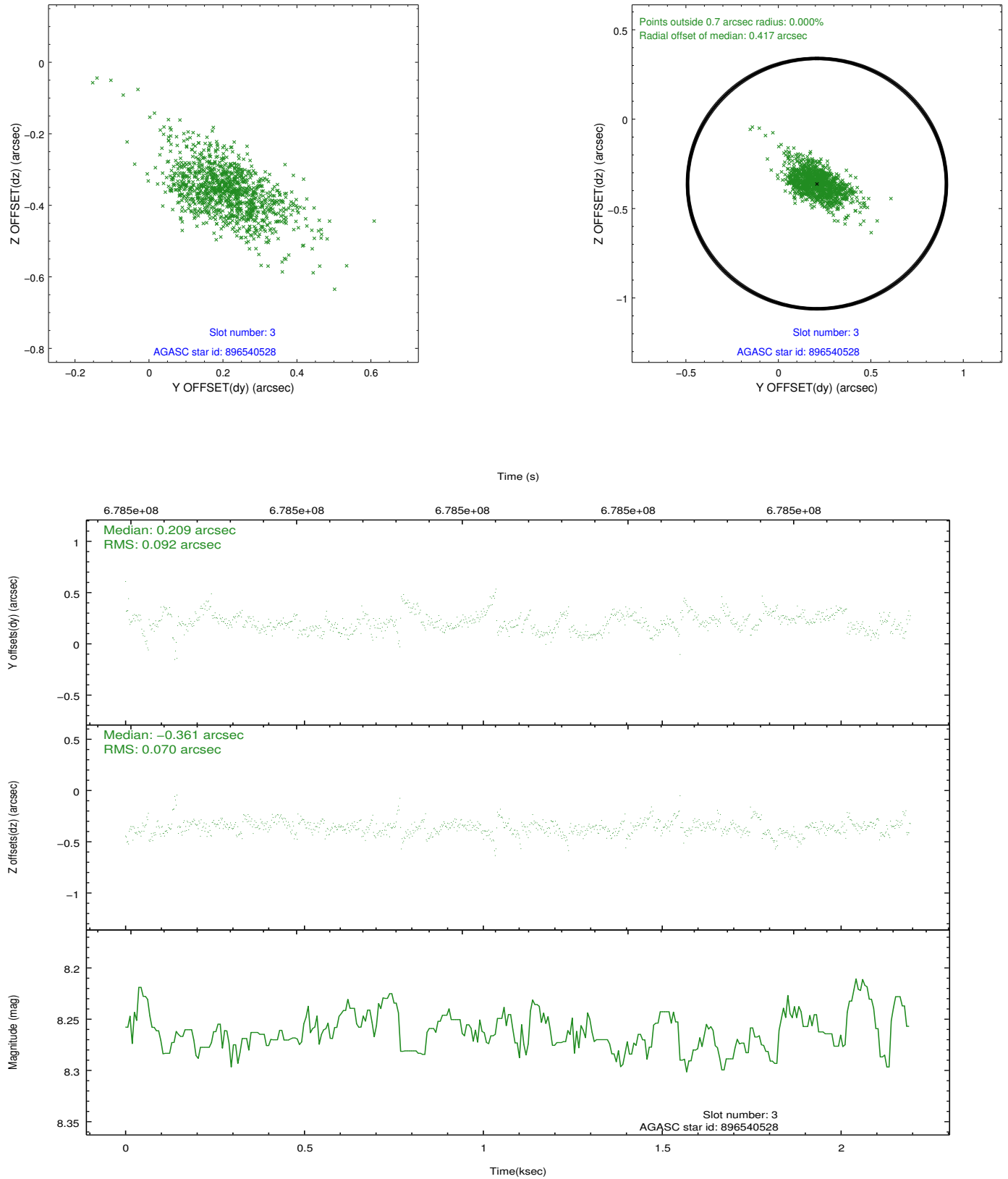


Slot Statistics

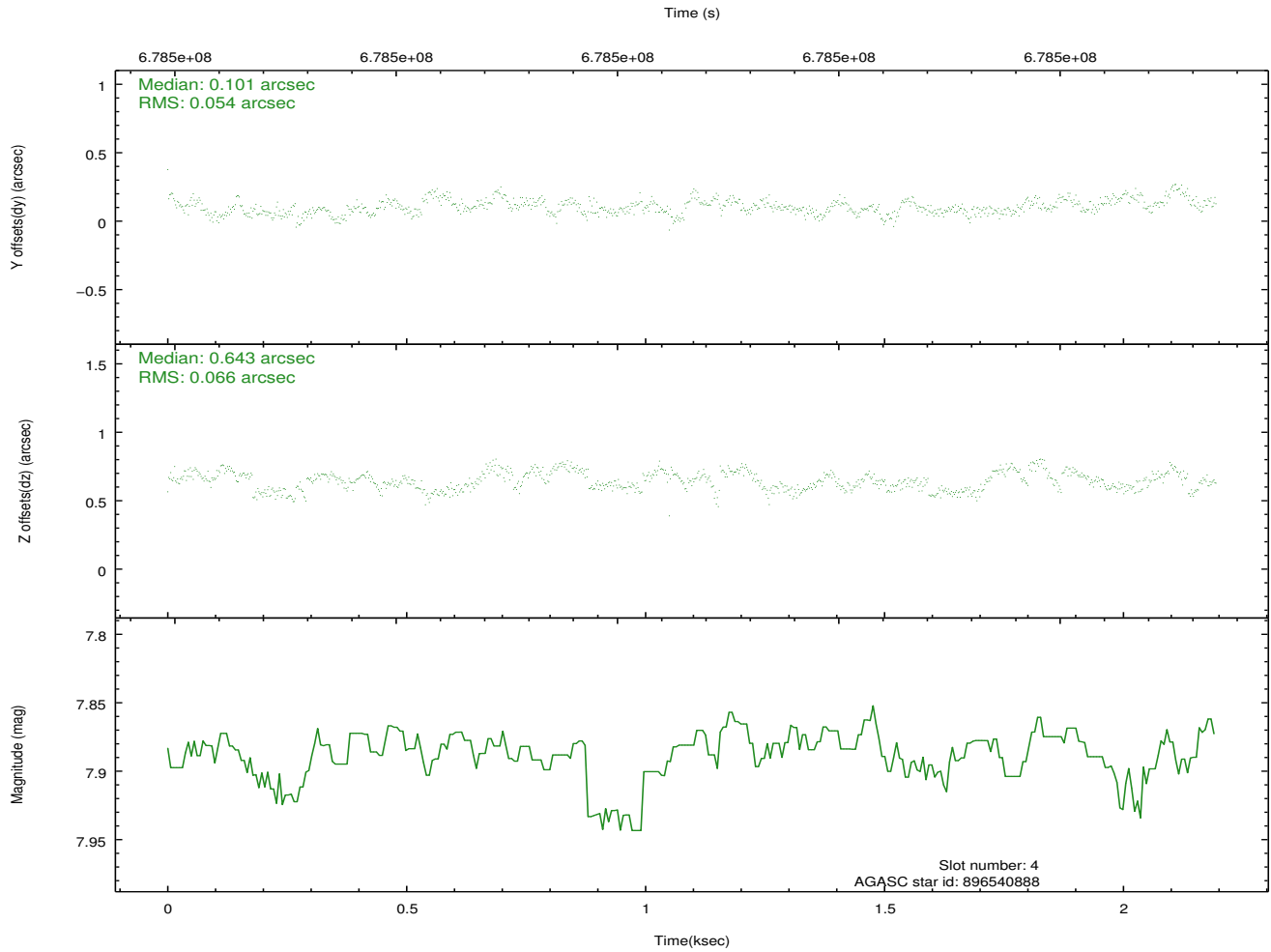
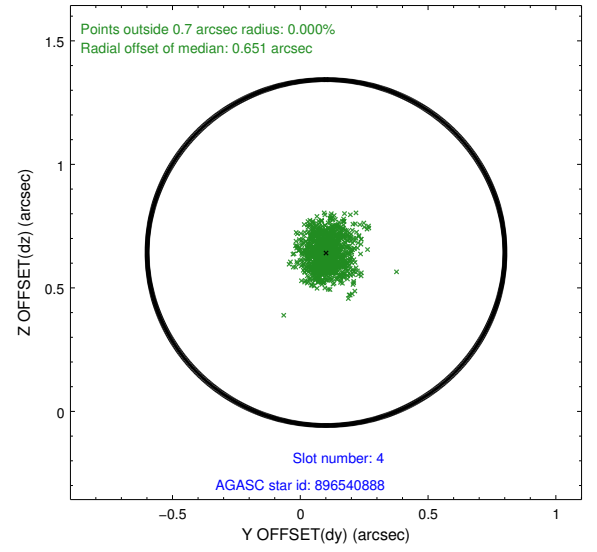
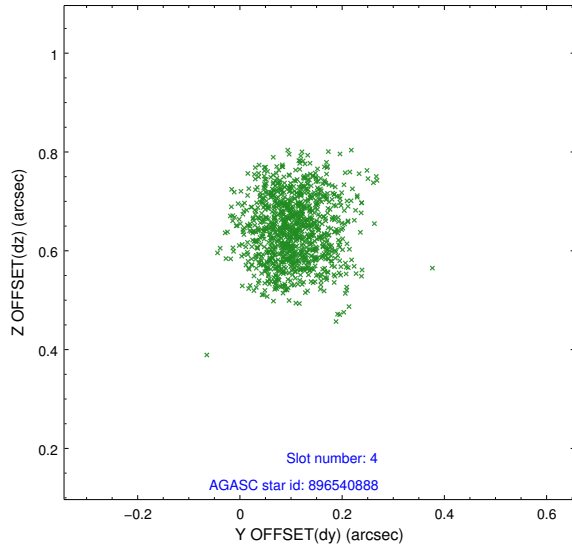
| pt | status | used | id | mag | n_pts | frac_pts | med_dy | med_dz | dr1 | dr2 | ra | dec | mean_y | mea |
|----|--------|------|-----------|------|-------|----------|--------|--------|-------|-------|------------|------------|----------|-------|
| 0 | FID | | ACIS-I-1 | 7.20 | 536 | 1.000 | 0.275 | -0.267 | 0.007 | 0.012 | 0.000000 | 0.000000 | 922.72 | -844 |
| 1 | FID | | ACIS-I-3 | 7.45 | 536 | 1.000 | -0.099 | 0.217 | 0.009 | 0.014 | 0.000000 | 0.000000 | 41.50 | -978 |
| 2 | FID | | ACIS-I-5 | 7.16 | 536 | 1.000 | -0.266 | 0.121 | 0.008 | 0.015 | 0.000000 | 0.000000 | -1826.31 | 1051 |
| 3 | GUIDE | used | 896540528 | 8.26 | 1071 | 1.000 | 0.209 | -0.361 | 0.115 | 0.210 | 267.368305 | -29.314773 | 2219.79 | -1605 |
| 4 | GUIDE | used | 896540888 | 7.89 | 1071 | 1.000 | 0.101 | 0.643 | 0.091 | 0.143 | 267.212234 | -28.246138 | -1455.23 | -371 |
| 5 | GUIDE | used | 896541576 | 8.18 | 1071 | 1.000 | 0.286 | 0.412 | 0.096 | 0.162 | 267.051055 | -28.762912 | -5.46 | -1639 |
| 6 | GUIDE | used | 896543712 | 8.22 | 1068 | 1.000 | -0.342 | -0.353 | 0.086 | 0.136 | 267.764551 | -28.659720 | 647.30 | 546 |
| 7 | GUIDE | used | 897712584 | 6.73 | 1070 | 1.000 | -0.263 | -0.321 | 0.091 | 0.154 | 268.003029 | -28.022394 | -1079.26 | 2239 |

2.4 Star Slots

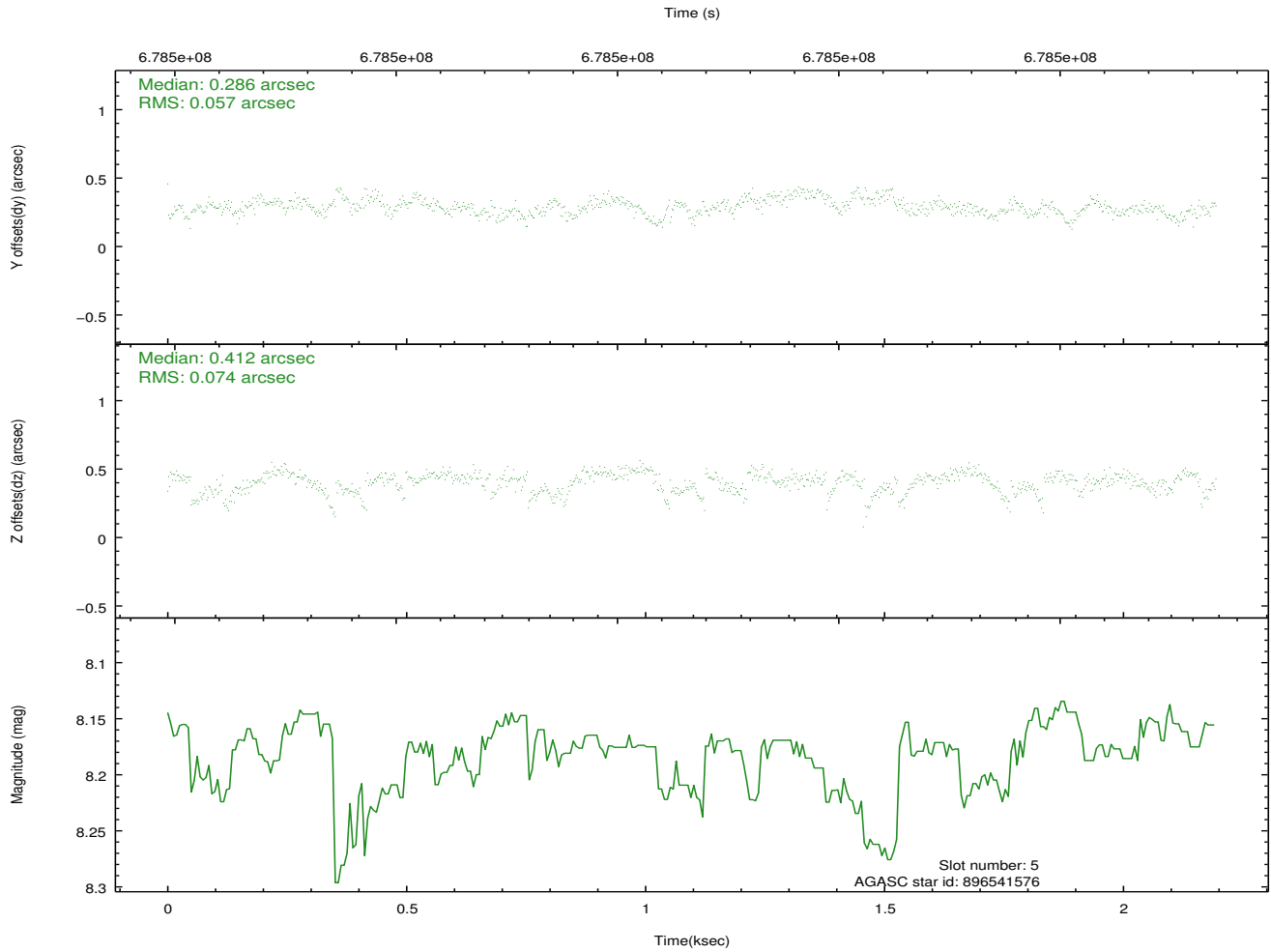
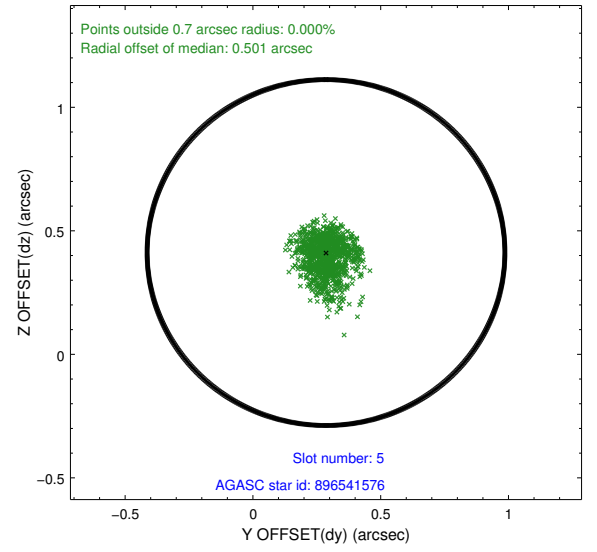
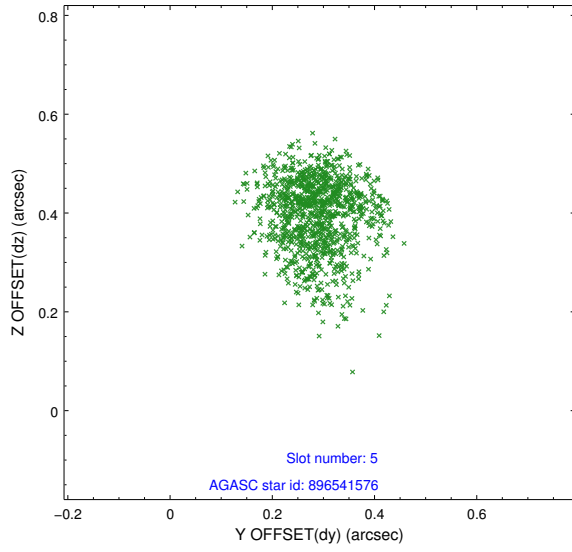
2.4.1 Slot 3



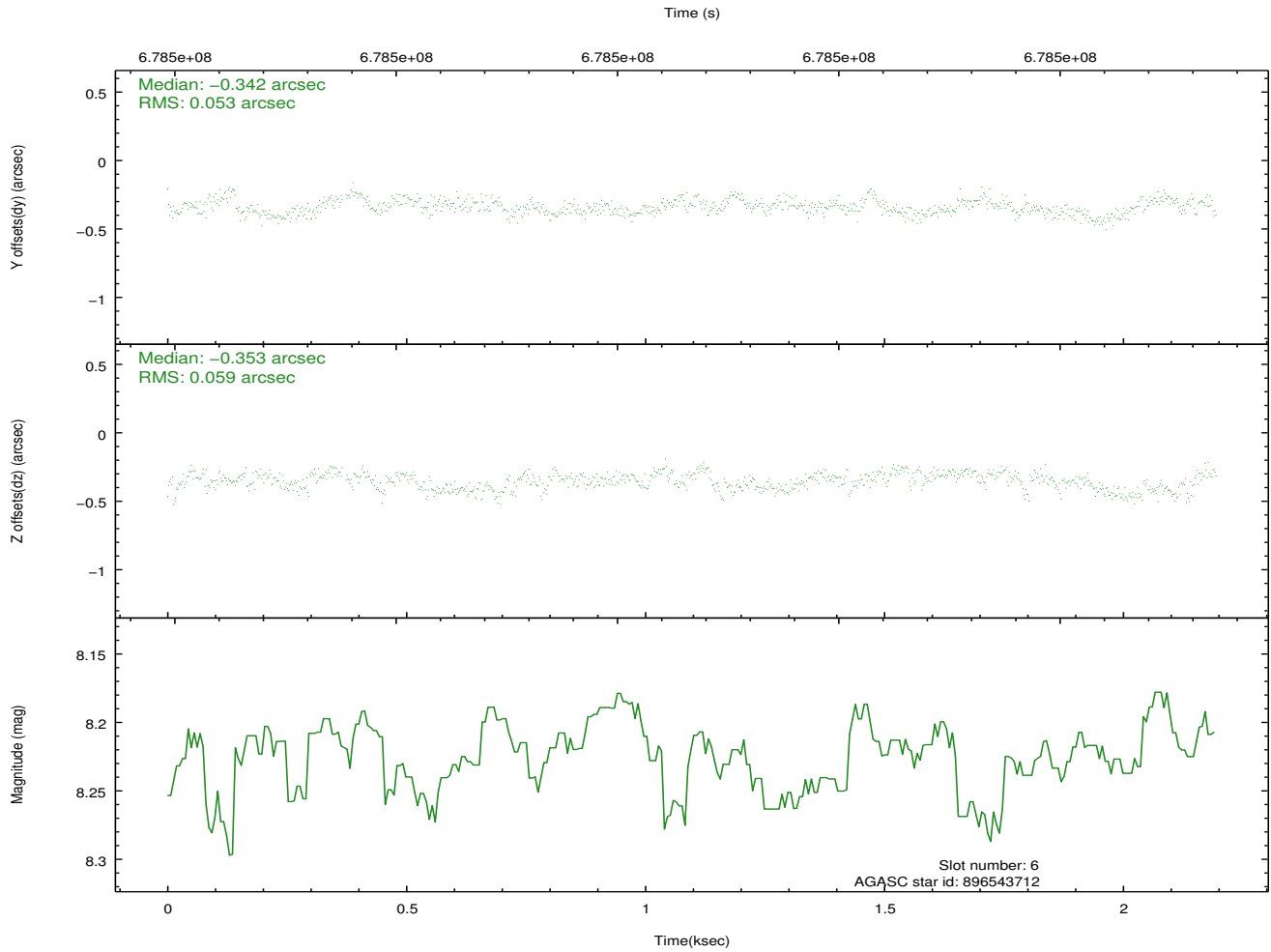
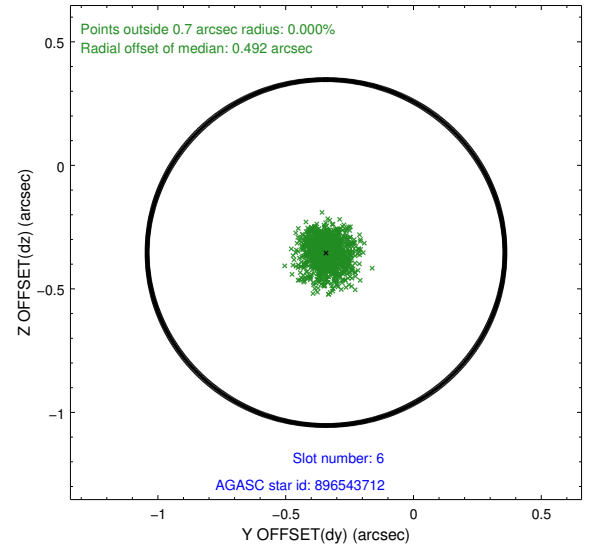
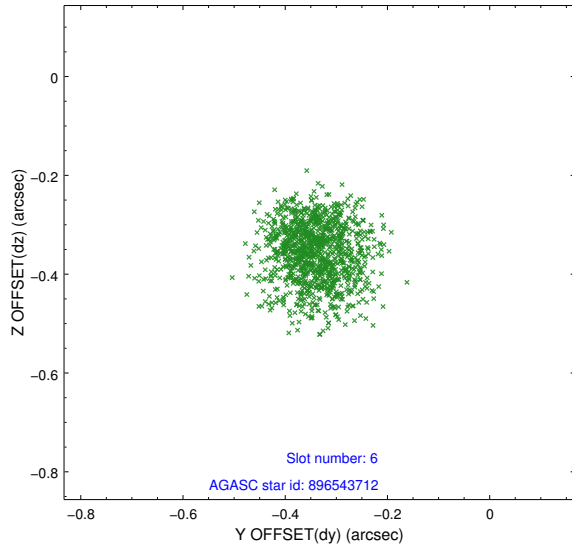
2.4.2 Slot 4



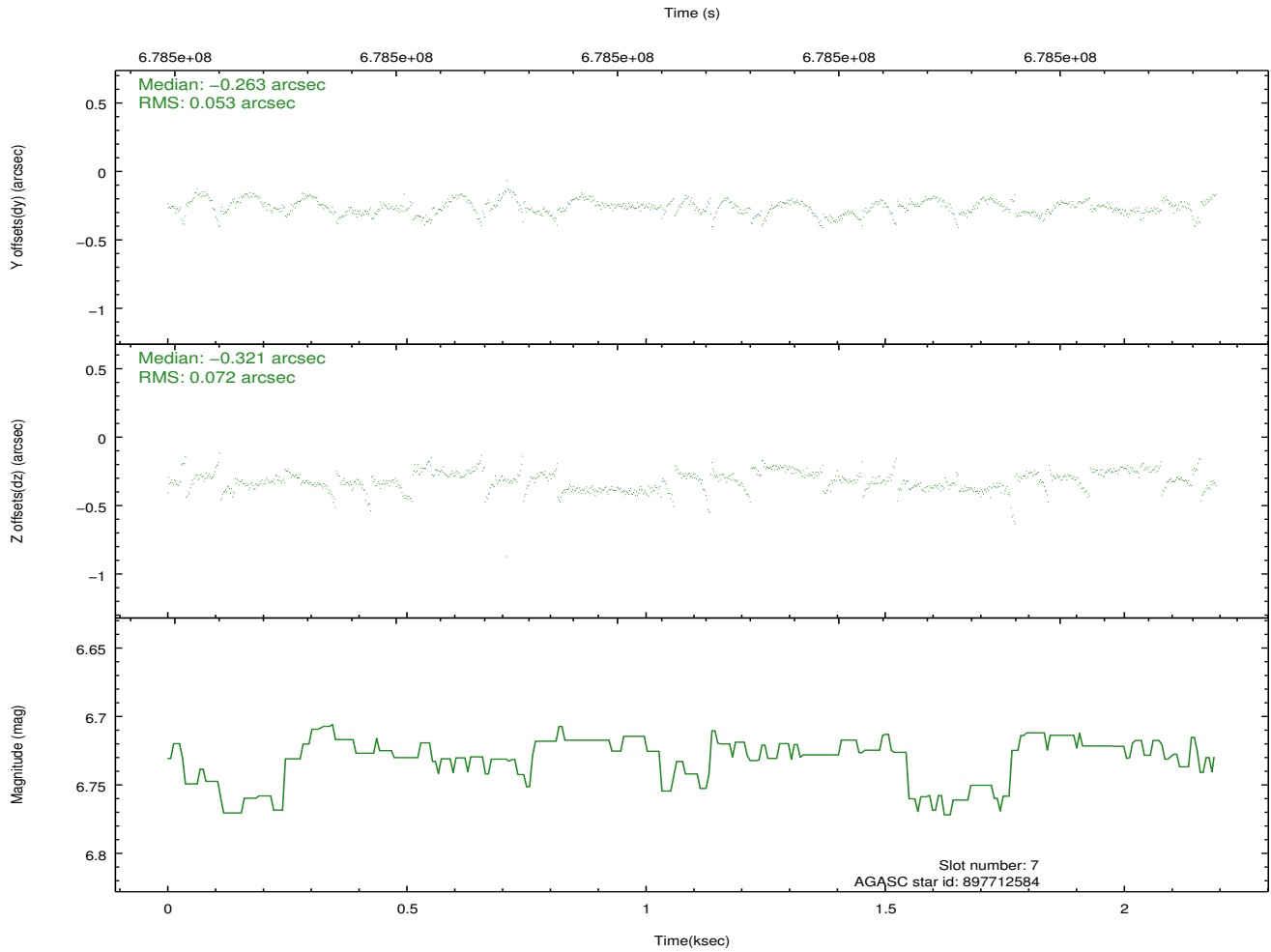
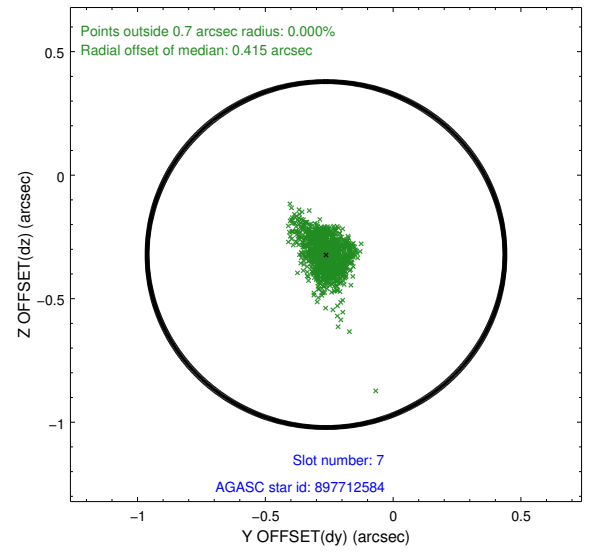
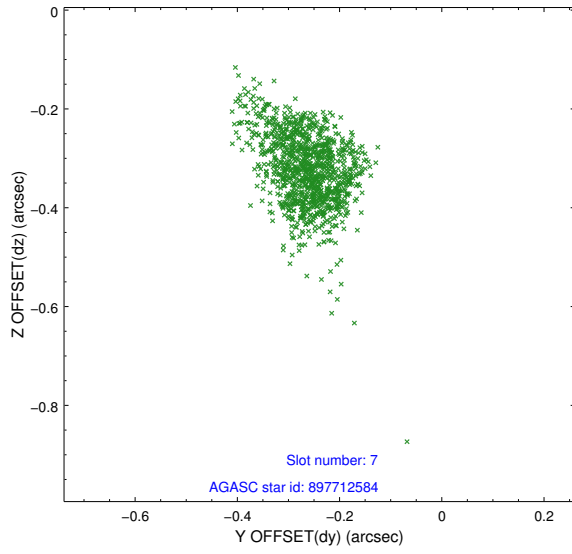
2.4.3 Slot 5



2.4.4 Slot 6

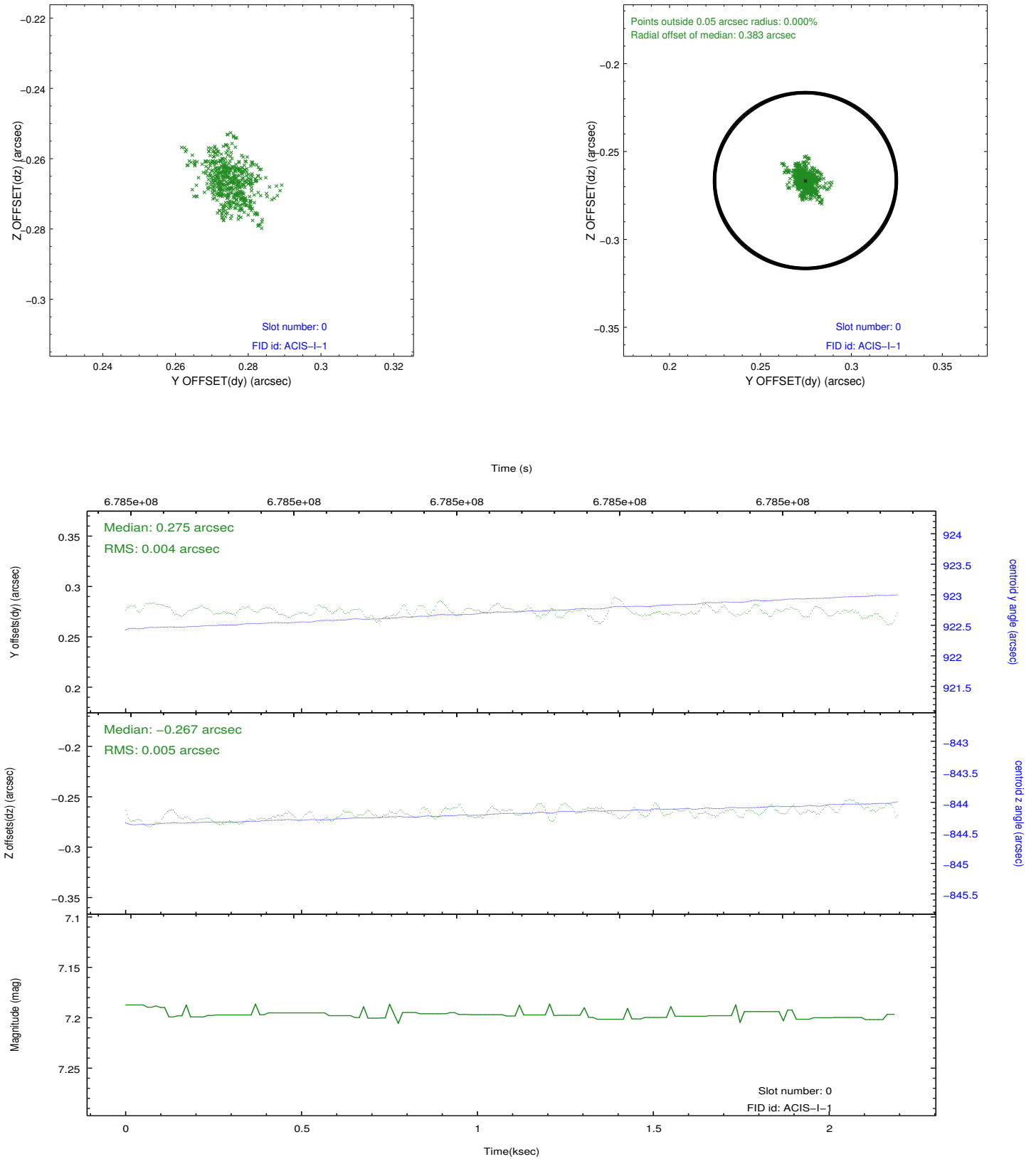


2.4.5 Slot 7

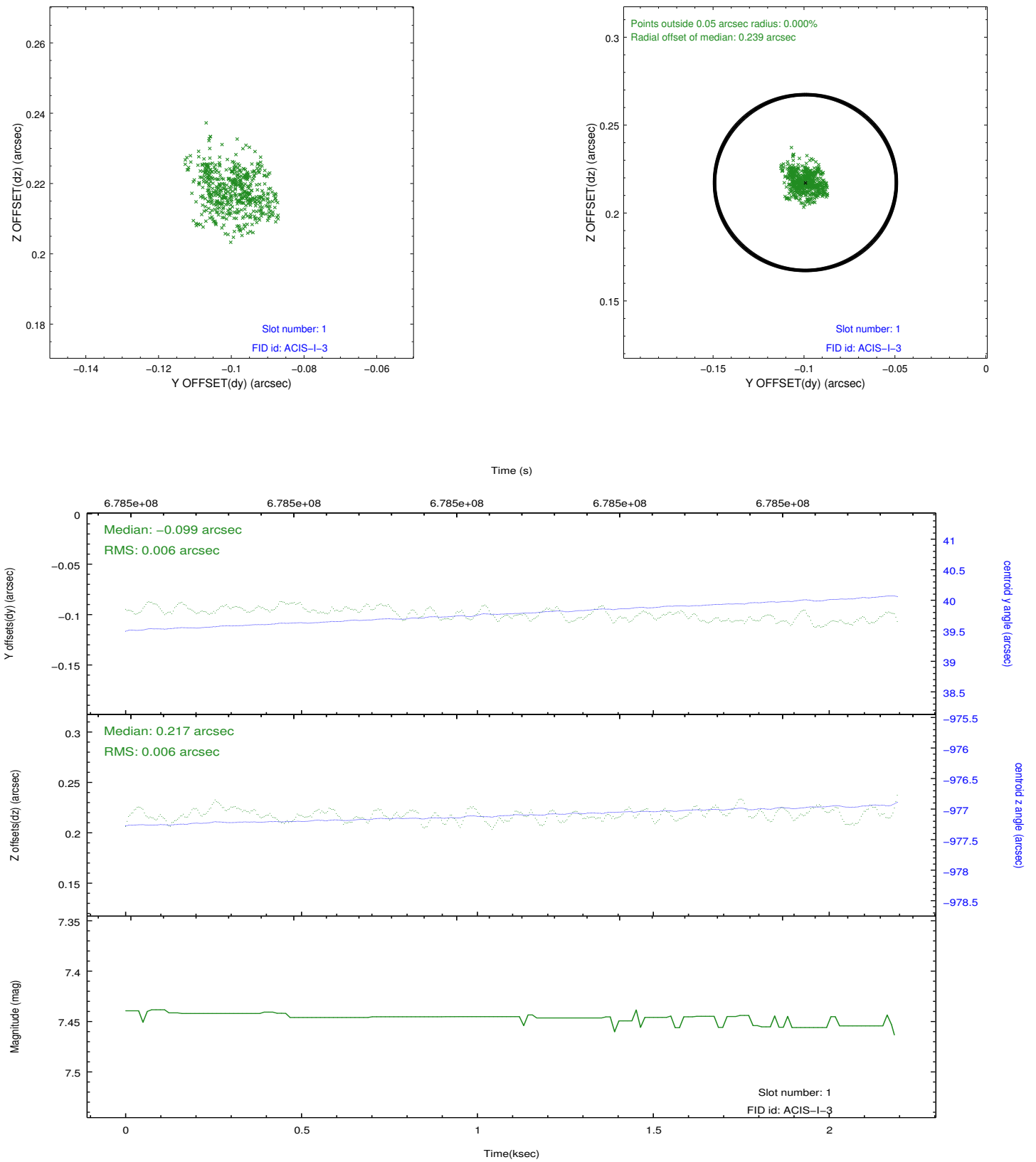


2.5 FID Slots

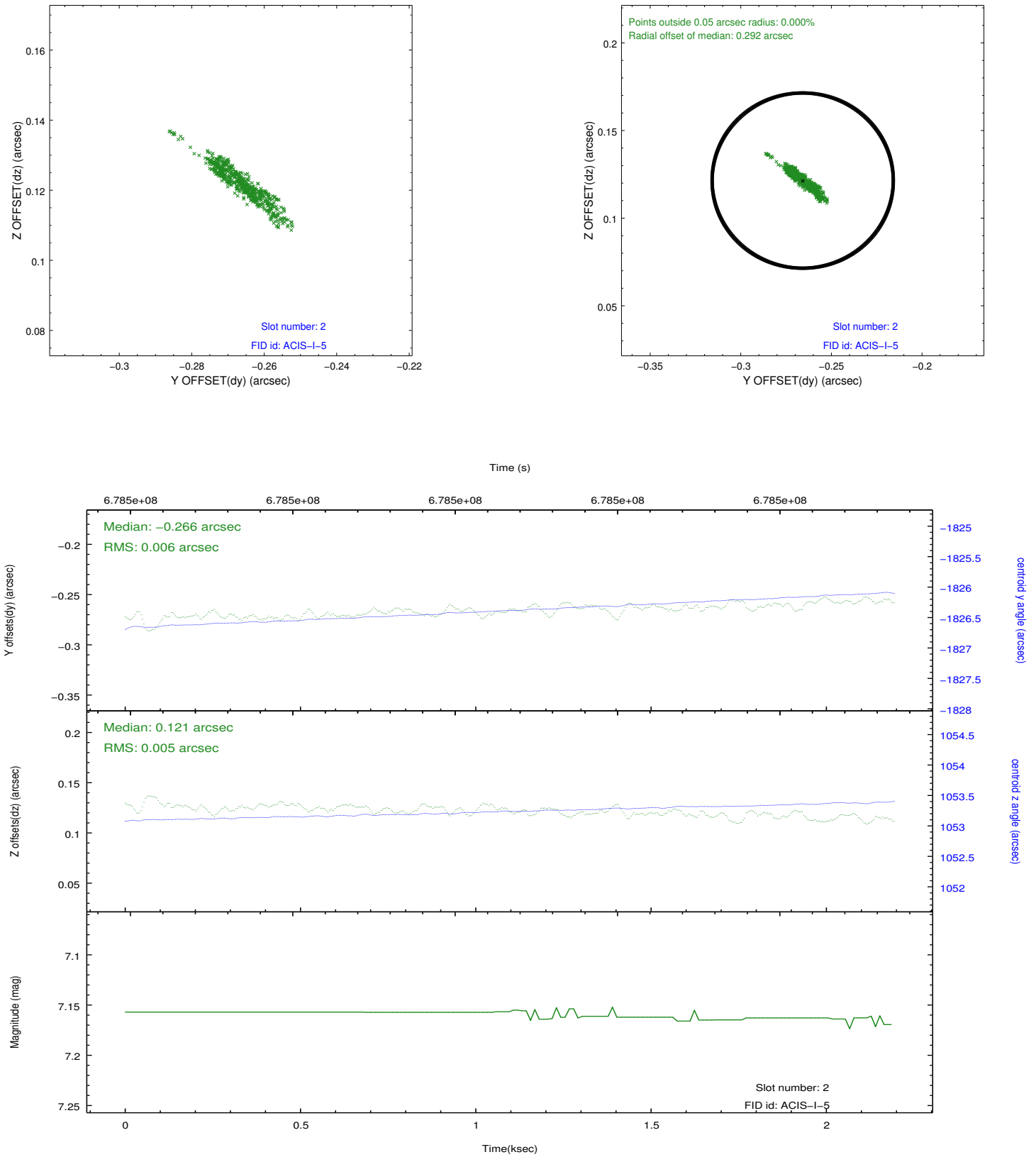
2.5.1 Slot 0



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) | 2019.07.04 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 1.9080871913433 |

A.2 Comments